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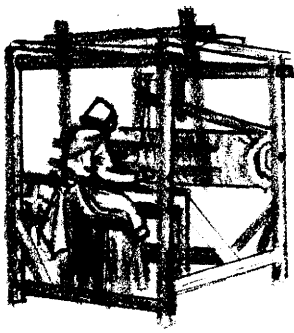
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Introduction to Weaving

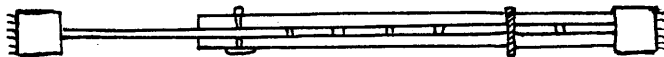
by LILLIAN HOLM

PART TWO



When weaving fine linen or suit material it is necessary to use a stretcher. see Fig. 20.

Fig. 20



This is to keep the material the right width during the weaving. The stretcher may be made of iron or wood.

Between the yarnbeam and harness are placed two lease sticks (see Fig. 4 in the first article, Weaver, Jan. 1936), which keep the warpthreads in order and help to find the broken ones. After the warpthreads have gone through the heddles and reed, tie the warp on to the ropystick. This stick can be connected to ropes or burlap direct to the clothbeam.

In finer weaving with many warpthreads it is quite necessary to wind the threads on to what we call "Bobinor", see Fig. 21.

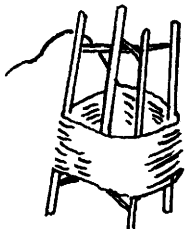


Fig 21

The number of bobiners needed depends on how many warpthreads are used in the making of the warp. In handweaving, we never use less than two, from the bobins the threads are wound on to the warp-reel, see Fig. 22.

Tie the two warpthreads together in a weaver's knot and start from the upper peg on the warpreel, hold the threads tightly and gradually go around the number of times the warplength requires, when reaching the two pegs below go over the first peg under the second and the reverse coming back, the crossing being called a "shed", see Fig. 23.

Going back to the upper peg one must not go on top of the other warpthreads but should stay below close to the former. In going down stay above the former, in

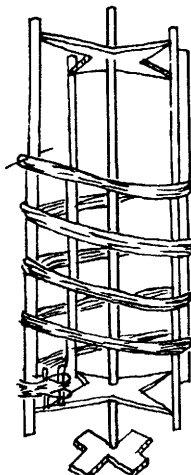


Fig. 22

doing this the warp will be very even. To simplify the counting divide the warpthreads into langs, one lang may consist of any number of threads all according to the number used in the making. If two threads are used, starting from the upper peg of the warpreel going around down to the crossing and back again the lang will have eight threads and so forth.

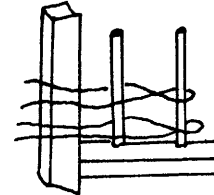


Fig. 23

EXAMPLE

Tablerunner "width" 18 x 24 "length".

Reed No. 12 = 12 dents to 1 inch.

$18 \times 12 = 216$ threads.

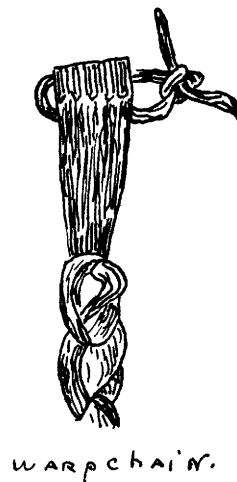
$216 : 4 = 54$ langs.

Then divide the langs into bunches of 10 langs.

$54 : 10 = 5$ bunches of 10 langs and 1 bunch of 4 langs. Count the langs at the crossing and keep them apart until the tenth lang is made, then push them together and tie a heavy string around, when the next ten are made bring the string forward and cross them in front of the next bunch, continue this until the warp is made.

It is very important to get the tying correct before the warp is taken off the reel. Tie a bowknot on both sides of the crossings upper and lower level, tie a good solid bowknot between every other warparm, then separate the warp on the upper peg and tie both levels. In order to release the warp from the warpreel the upper peg will have to be pulled out, but hold on to the reel at the same time, or the warp will be on the floor, now put your hand through the loop and grab the warp, pull enough warp through for another loop and repeat until the first tying is reached then tie chain together. See illustration "warpchain".

After the warp is made you are ready to dress the loom. Place two heavy sticks in the vertical direction across the loom "Support Sticks." Find leasesticks and place them on supportsticks in back of the loom, put warptail in front of the loom and put leasesticks through the shed, the leasesticks should always be provided with holes on both ends. Tie leasesticks together $\frac{1}{2}$ inch apart, untie the shed and release one bunch of langs at a time and start threading the reed.



WARPCHAIN.

Any reed can be used for the first threading, the idea is to divide the warp evenly into the width that is needed. If coarse reed is desired for the weaving, i.e. 1 6-8-10-12 or 15 the same can be used for the first threading, the warp should then be threaded in every fourth dent.

If a fine reed is desired for the weaving, i.e. 20-25- or 30 then a coarser reed is necessary for the first threading.

FOR SKEDS EXAMPLE FOR THREADING EXAMPLE

Thread number 350.

Reed No. 25.

Weavewidth 14 inches.

Reedwidth $15 \times 1 = 15$ inches.

First divide the thread number with 1 lang which is 4 threads and you will get the lang number.

$$350:4 = 87 \text{ langs} + 2 \text{ threads.}$$

In practical weaving we will make the same = 88 langs. The reed chosen times the weave width gives you the dent number. Reed No. $16 \times 15 = 90$ dents

88

2=how many dents

in the reed you have to skip.

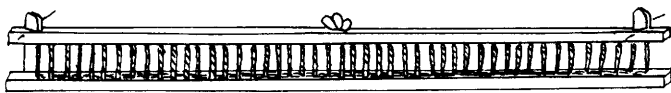


Fig. 24

Thread 1 lang in every dent except 2 places where you skip one dent.

In the early days of weaving another type of reed was used called "redkam" or Orderreed.

See Fig. 24.

This reed was of a standard type which measured about 3 inches between every dent.

The ordinary reed has proved practically very successful and is used in all modern studios today.

After the warp has gone through the reed the same must be attached to the warpbeam, in order to get the warp on the ropestick the reed must be turned over and laid on top of the leasesticks.

Count the number of ropes and divide them evenly into the warp, if uneven number of ropes there will be a rope in the center of the warp, if even number of ropes there will be warp in the center of the ropestick, the measurement between the ropes is according to the distance between the holes on the yardbeam where the ropes go through, the same measurement starting from the center should be in the warp, pull one section of warp straight up and the warp will divide, slip the same on to the rope stick, slip a rope on and continue.

After the warp is attached to the ropestick the warp will have to be straightened out from the front of the loom, therefore hold on to the chains first tying, never comb the warp, pull pat and shade it evenly.

Change leasesticks, in doing this another person will have to hold the warp from the front of the loom evenly and tightly. Raise the reed and pull out the leasestick nearest the reed, push second leasestick close to the reed and raise the same.

A shed will be formed on the other side of the reed, put the first leasestick through and pull out the second one and place the same in with the ropestick, tie leasesticks together and place reed in the beater. Measure from the end of the beater to the beginning of the warp, both sides should measure alike. Untie the first tying and go down to the second, hold on to the knot and pat warp evenly, straighten the warp on the ropestick and begin to turn the yarnbeam while the other person is holding the warp evenly and tightly.

When the ropestick has reached the beam the warp must be protected from the ropes which is done by putting thin sticks two inches wide between ropes and warp, continue this with one inch between every stick until the ropestick is reached where another stick will be put on top of ropestick, keep on turning until the warp has come to the end, if it is a long warp paper should be placed between every third level.

When the warp has come to the end it will catch on to the reed, push leasestick over to the stretchingbeam and tie them on the same, cut warp in small bunches close to the reed and tie each bunch in a slip knot.

Take the reed out of the beater and place supportsticks across the loom, place harnesses in front of the stretchingbeam and begin to thread the heddles.

If a two harness weave is used alternate first harness, second harness and so forth, double the first and two last ones if it is a fine warp, the first and last one if it is a coarse warp.

THREAD THE REED

Where the warp is double in the heddle it will be double in the reed. Find the middle of your reed and measure half the width of your warp and start threading from the right side; your right side is always from wherever you stand in the loom and every thing should be started from the right.

Place reed in the beater and measure. Tie warp evenly on to ropestick first in large bunches, straighten the warp and then tie in smaller bunches, starting from the middle alternating from one side to the other.

After the first tying, connect harnesses to heddle horses, after second, weave a double string in the warp by picking up the bunches that go over and under the ropestick and continue to the end, tie ends to ropestick evenly and tight on both sides without disturbing the warp, the warp should be in a straight line from the reed. Connect harnesses to lams and pedals (see illustration, Fig. 11b and c in the first article), wind spools and begin to weave, start with a heavy cotton string and weave 1 inch before the actual weaving begins.

KONTRA MARCH

Weaving that requires a number of harnesses. See Fig. 25.

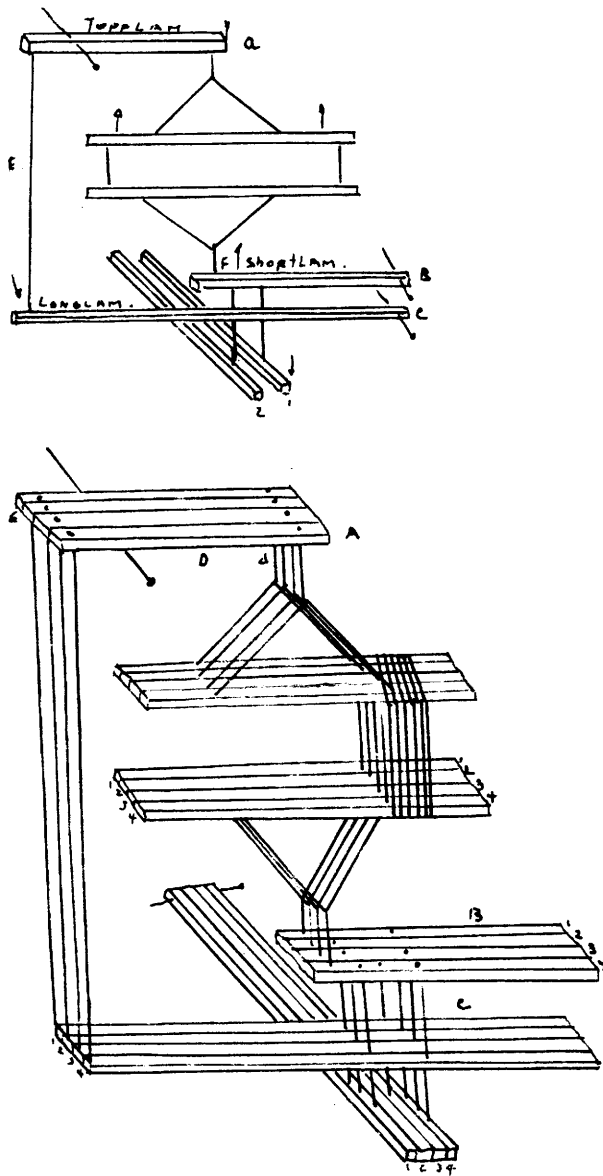
This type of loom consists of three different types of lams.

Toplams, A. Shortlams, B. longlams, C.

Every harness is connected to the toplam's inner end. See 25 A. The longlams are connected to the toplam's outer end with long strings. See Fig. 25 E.

Every short lam is connected to the lower harness stick. See Fig. 25F.

Fig. 25



The long lams and short lams are connected to the pedals. The number of harnesses = the number of lams, for every harness one lam of each kind is needed.

When tying from a tabby every colored tabby square represents the tying of the short lams to the pedals and every white tabby square represents the tying of the long lams to the pedals.

If the warp is in the middle of the heddle eye or closer to the heddle eyes lower knot then the harnesses are tied in the right height.

After the warp has been tied to ropestick then connect the harnesses to the short lams.

The strings from the short lams go between the long lams and straight to the pedals, every lam is to be tied in the same position.

HARNESKRUSTNING

When weaving opphämta or damask the harneskrustning is used. See Fig. 27-28-29 — and consists of patternharnesses which are connected to a side frame and upon which the upper harness sticks are to rest. The harnesses are connected to a narrow board fastened to the top of the loom and provided with lines of small wheels the board is connected to a square frame in front of the loom, the upper part of the frame is provided with holes. See Fig. 27B. The under part of the frame is cut out dents wide enough for a string to go between and deep enough for a handle to catch. See Fig. 27D.

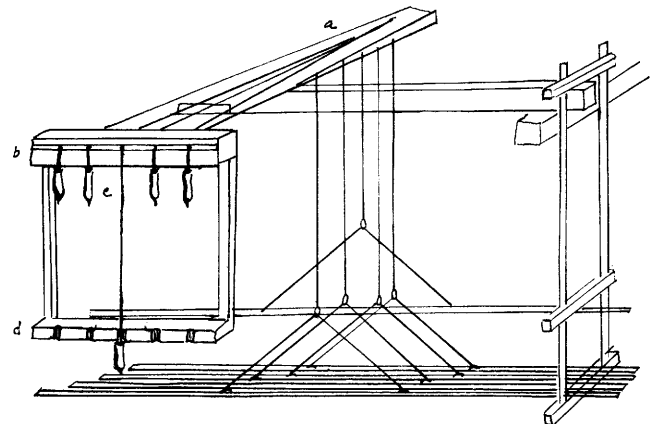


Fig. 27

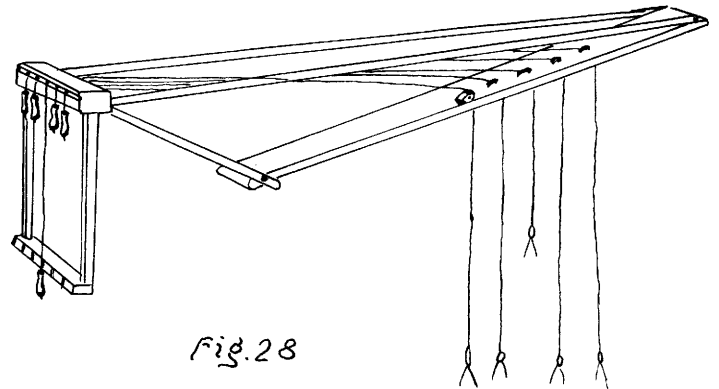


Fig. 28

Every patternharness is connected to a string coming through the board and around the wheel. See Fig. 27A.

When pulling one handle and fastening the same in the dent of the frame one harness is lifted, when releasing the handle the harness will fall back to the original position both ends of the harness stick should be provided with weight.

Every pattern harness requires one wheel in the board and a hole and dent in the frame, the wheel board should be fastened in a rectangular line in order to give more freedom to the strings that are pulled. See Fig. 28. In a loom like this two groups of harnesses are used, one group for the pattern and called harneskrustnings harness which weaves the pattern, the ordinary group used for plain weaving is called ground harnesses.

The loom used for harnesskrustning should be twice the length of any ordinary loom, the space between the two groups of harnesses requires 35 cm. the heddles used for the pattern harnesses should be quite long with a tiny eye where the upper loop measures 35 cm. the underloop 33 cm. and the heddle eye 1½ cm.

The position of the pattern harnesses is quite low, the heddle eyes upper knot should rest on the warp. The ground harness heddles upper and lower loop measure 13 cm. and the heddle eye 9 cm.

This heddle eye is longer in order to form a shed when the pattern harness are pulled.

The pattern or harnessshed must stay open while stepping on the ground harness pedal.

When weaving opphämata from a draft where the weft is to form a pattern every white pattern unit square represents one harness, and if the pattern is to be formed through colored threads that are added in the warp every colored square in the unit represents one harness. The same is true when weaving damask.

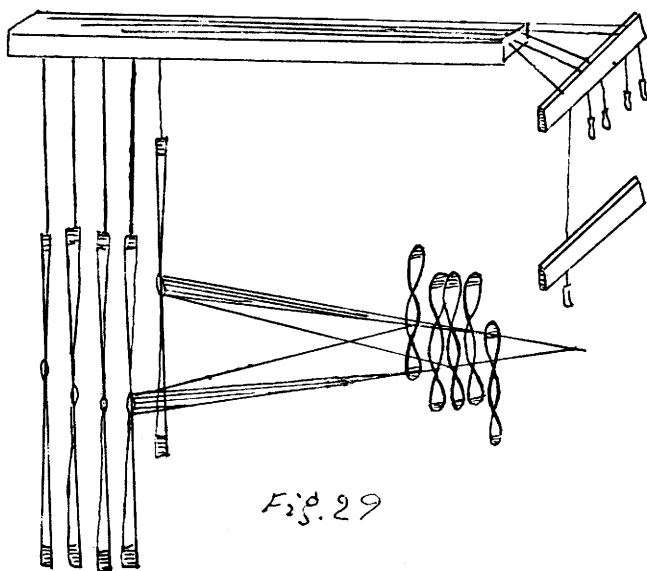
For the ground harness tying "Kontramarch" is also used for the same technique, one long lam and one short lam are tied to the same pedal.

The threads of the ground harnesses that are not tied will not move but will stay in the harness over or under level all according to the pulling of the harnessk. See Fig. 29.

BINDING CONSTRUCTION

The pattern that indicates how the warpthreads are to be lifted or lowered for the weft is called "Binding construction."

When making a bindingpattern or draft graphpaper is used. Every vertical square line represents a warpthread and every horizontal square line represents a weft thread, the square that signifies the weaves lower warpthreads should be colored.



Any binding or draft can be made in one color but to simplify the more complicated patterns like dubbelbinding several colors are used. EXAMPLE:

White, Yellow and Green represents the lifting of warpthreads.

Red, Black and Blue the lowering of warpthreads.

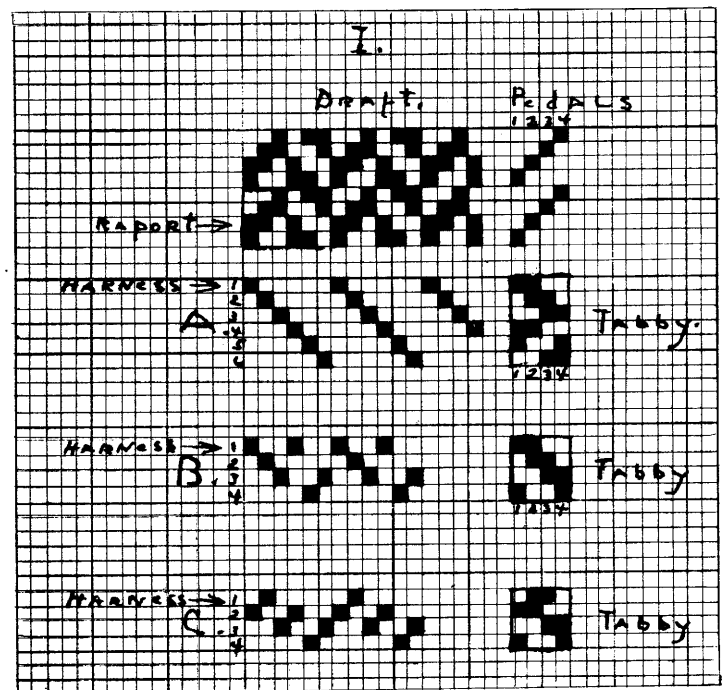
The pattern in height and width until the same is repeated is called "Raport" = one unit.

In representing a weave a larger or smaller number of harness are needed on which the two warpthread systems are arranged.

All warpthreads that go on the same harness will always follow each other when moving and will always weave the same. The binding requires as many harnesses as the different weaving warpthreads.

The arrangement of the threads on the harnesses is called "Inredning" = disposition or solving = threading.

In the inredningspattern every horizontal square line represents one harness and every square one heddle and one warpthread.

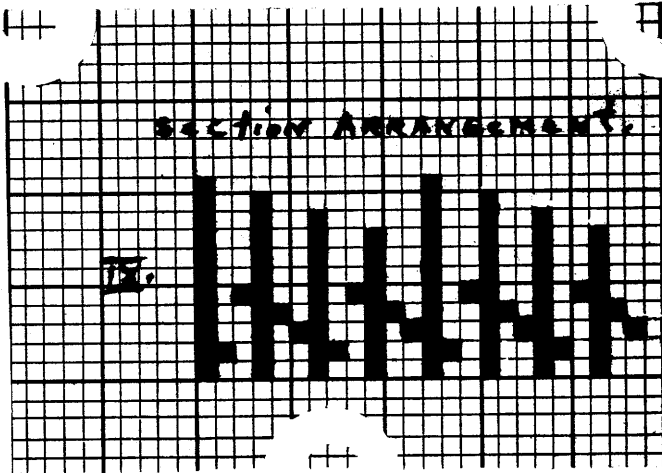
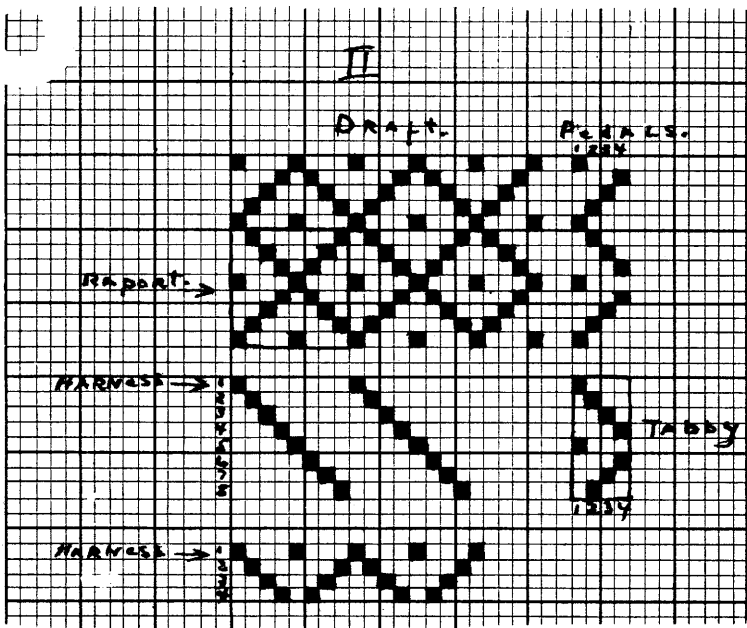


The order in which the warpthreads are arranged on the harnesses should be very simple so that mistakes during the weaving and broken warpthreads can be avoided, in pattern 1-2 are two different types of inredning.

Pattern I has three different inrednings, A is simple but takes six harness. B. and C. takes only four harness and therefore preferred in handweaving.

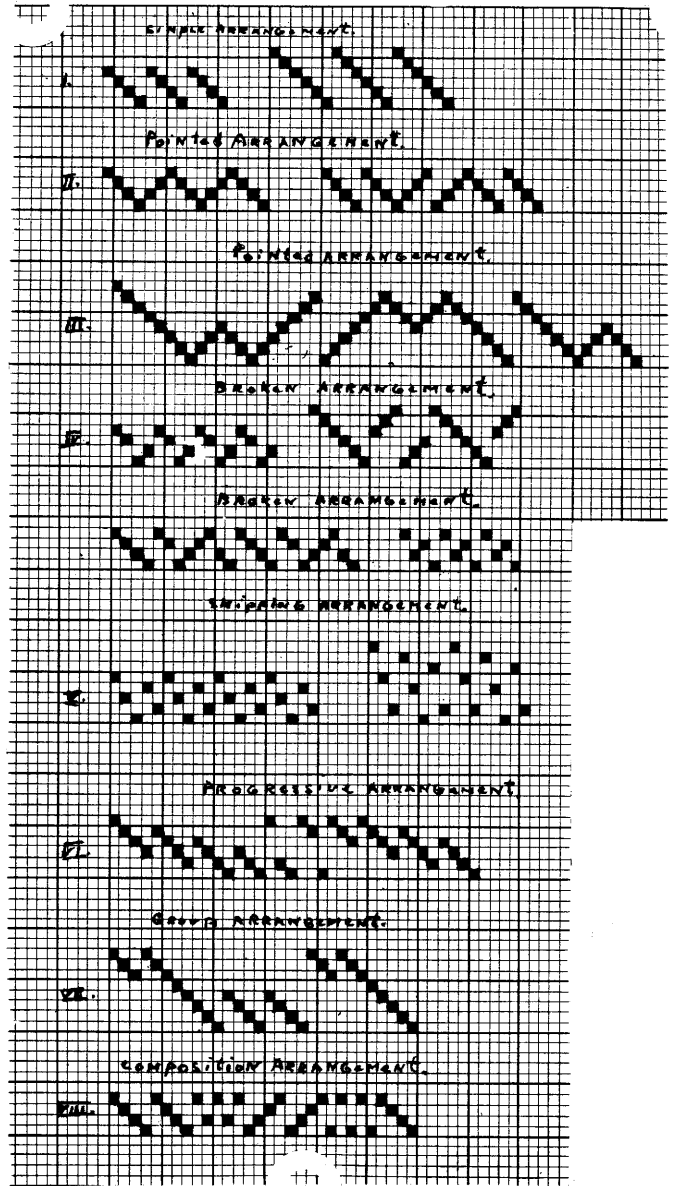
After the inredningspattern is painted the Uppsnöringspattern = tabbypattern has to be taken care of. The principle of the tabby is to indicate which warpthreads are to be lowered for the first or second weftthread therefore a few vertical square lines are chosen on the right side of the harnesses which are to represent the pedals.

The first pedal is to be marked with color to indicate the harnesses that are to be lowered for the first weftthread, the second pedal is marked with color to indicate the harnesses that are to be lowered for the second weftthread and so forth.



Very often the number of pedals equals the number of weftthreads within the report but if two weftthreads weave alike the same pedal is used.

The number of pedals used equals the different weaving warpthreads within the report. To know what pedals to use when weaving, a pedal arrangement two squares above the tabby on the right side of draft is marked with color. Step on the first left black square for the first weftthread, the second for the second weftthread and so forth.



When weaving different bindings several different ineddings are used. See 1-2 and so forth.

To be continued in an early issue of the Weaver.

Chenille Rugs In Double Weave

by ELMER WALLACE HICKMAN

“Handsome” is the word to describe these splendid double weave rugs woven with cotton chenille yarns.

I wish that I were the originator of the idea, but I am not. I first saw mention of these eight-harness double weave chenille rugs in a “shuttle-Craft Bulletin” for November, 1934. The note read:

“Mr. E. S. Shepherd describes some unusual rugs he has been making in eight-harness double weave on carpet warp set 24 to the inch in a threading of six inch squares, with cotton chenille in two contrasting colors for weft.”

Just recently, I, after three years, carried out my urge to weave some of these rugs. The results have been so satisfying that the idea deserves the attention of our weavers. Woven with cotton chenille the surface of these thick, serviceable rugs resembles cut velvet. Rugs woven in lighter colors will serve admirably for bath mats, while those woven in darker colors would be appropriate for almost any room in the house.

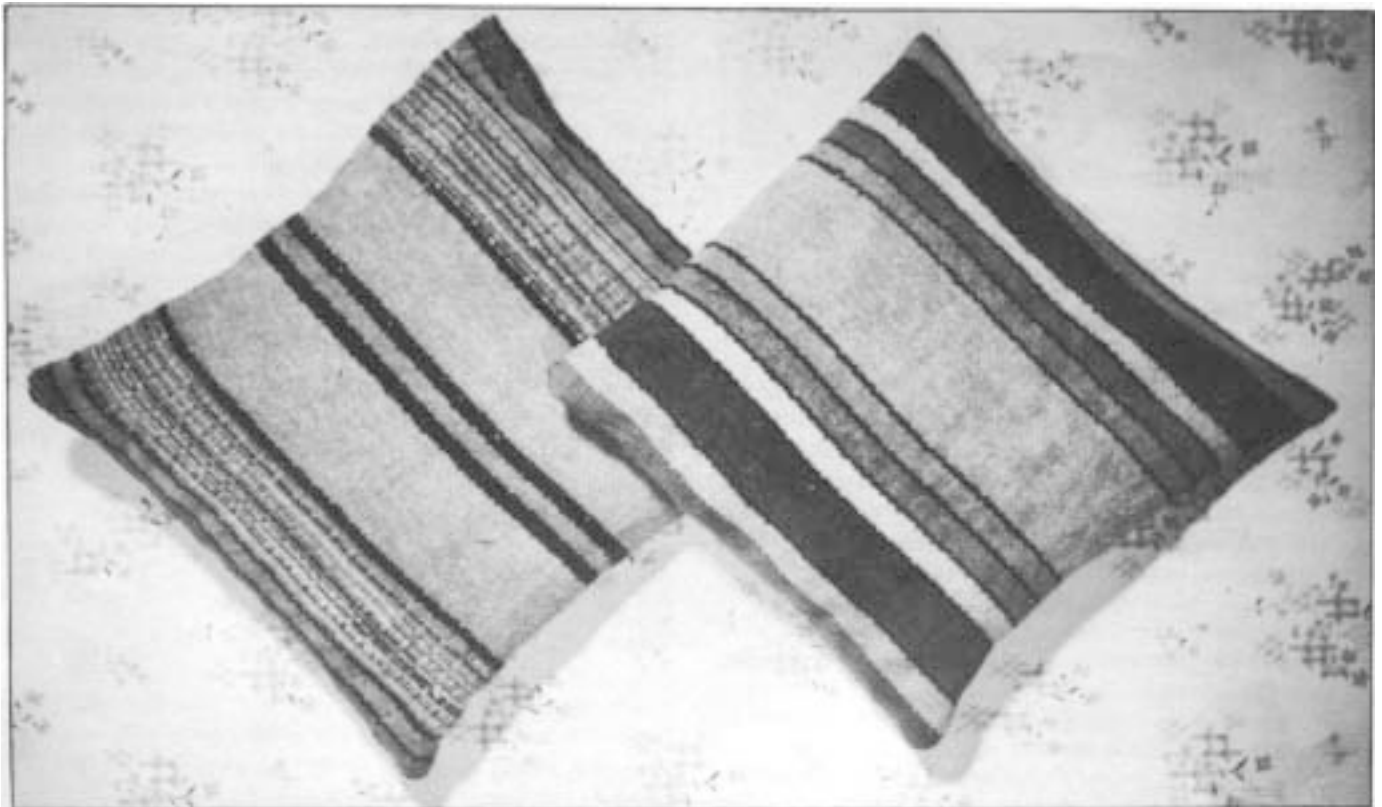
Double weaving is a fascinating aspect, as well as an astonishing one, of our weaving techniques. Too many weavers who possess an eight-harness loom overlook the possibilities of the double weave. True, one needs a great many more than eight harnesses to weave an intricate design, but even with eight harnesses one can get most gratifying results.

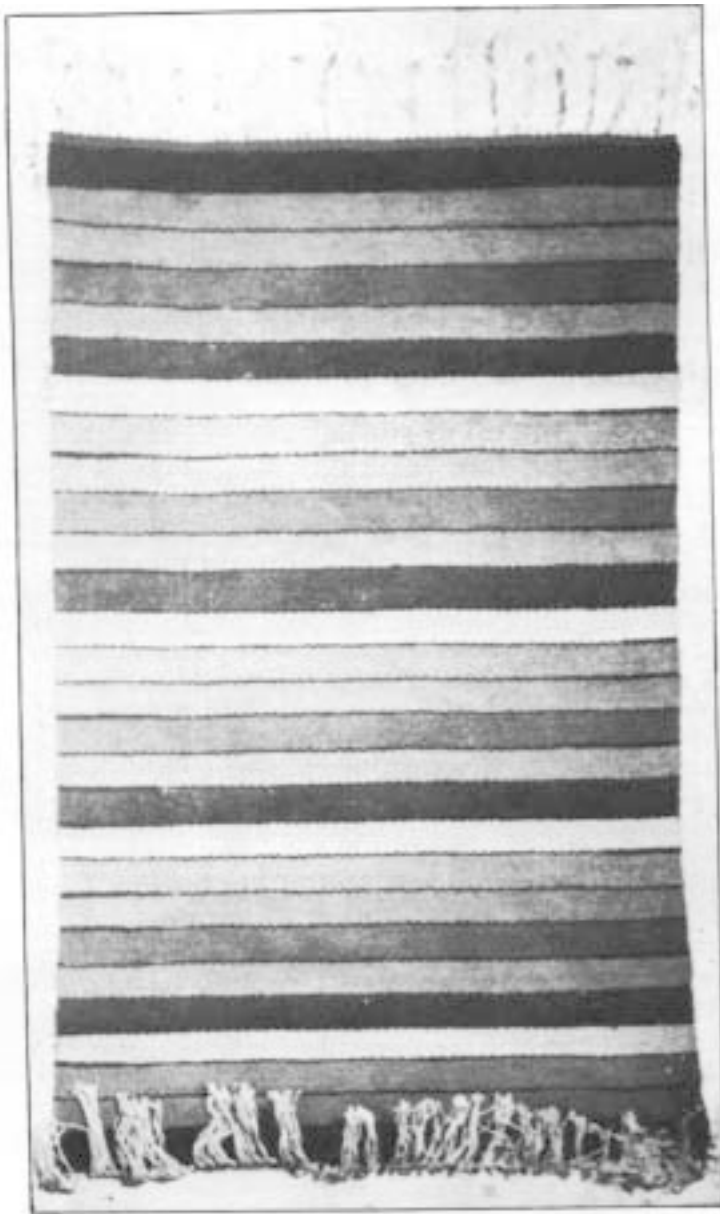
What is double weave? Lack of space forbids a complete discussion of the subject, but I shall try to give—for the sake of the uninformed—a brief resume of material found in sources such as Edward Worst’s “Foot-Power

Loom Weaving” and Luther Hooper’s “Hand-Loom Weaving.”

Plain double cloth of two colors—one color for the top fabric and the other color for the bottom fabric can be woven on a four-harness loom. When one weaves a tubular form on a four-harness loom, one really weaves a double fabric held together at the edges. The treadling for this tubular form is the treadling usually given for double weave fabrics. Figure No. 2 shows the threading and the treadling for four-harness double weave, as well as for tubular weave.

In order to weave two colors, the warp must be of two colors, alternately reeled when making the warp. If the top fabric is to be black and the bottom fabric white, then black threads and white threads must be reeled alternately into the warp chain. Arrange two spools of black threads and two spools of white threads on the spool rack so that the warp threads, a black thread and a white thread, alternate in the warp chain. The warp is then put on the loom and the heddles threaded (Figures Nos. 2, and 4) — a black warp thread through the first heddle on Harness 4; a white warp thread through the first heddle on Harness 3, etc. The result, on a four-harness loom, will be that the fourth harness carries all black threads; the third harness all white threads; the second harness all black threads, and the first harness all white threads. On an eight-harness loom, harnesses eight, six, four and two will have all black threads; harnesses seven, five, three and one will have all white threads. (Figure No. 4).





Illustracion No. 2

Two shuttles—one of white weft and the other of black—are required to weave this fabric of two separate colors.

The first shed is made by drawing down all the white threads and half of the black threads, Figure No. 2, Treadle 4, which brings down Harnesses 3 (white), 2 (black), 1 (white). You now have one-half of the black threads on top of the shed and this half corresponds to the half that might be on the top of any plain weave shed. The other half of the black threads is on the under part of the shed. All the white threads are on the bottom of the shed; but these, at this point, are not really working except at the selvages. The white threads will do their duty when the next shed is made. A black weft is put through this shed from the *right* side of the loom. This forms the black cloth on top of the weaving. Figure No. 1, a shows this step in the weaving.

The next shed is made by bringing down Harness 3. This leaves all the black threads and half of the white on top of the shed. The white threads that are on top of this shed are now really forming the "white" shed with the other half of the white threads which is on the bottom.

A white weft is passed through this shed and that weft begins to form the under fabric, or the white part of the cloth. Figure No. 1, b indicates this formation.

On the next or third shed the other half of the black threads must be used—as in plain weaving—therefore, the second half of the black threads is pulled down by Treadle 2, plus all the white threads. (This is fundamentally getting the white threads out of the way so that the cross in the warp can be made of the black threads). A black weft yarn is now put in the shed, and, of course, beaten down by the batten. Figure No. 1, c now shows two black weft yarns and one white weft put in the sheds.

On the fourth shed, Treadle 1 is pressed down. This treadle brings down the other half of the white threads (those that were not used before) and the cross in the warp is made as in plain weave. A white weft is put through the shed. Figure No. 1, d shows the two black weft shots and the two white shots.

The treadling in Figure No. 1 joins the two fabrics at the selvages only. If warp of only one color (white) were used, the resulting fabric would be a decided "salt and pepper" effect on the black surface and a plain white on the white weft surface. One must be careful of the selvages while weaving.

Besides the plain fabric on a four-harness loom, stripes can be woven—with different colors of weft—on a warp of one color. If the warp is made of more than one color, and different colors of weft are used, a plaid effect can be had. Illustration No. 1 is a striped rug made of different colors of cotton chenille weft; the warp being of one color. If one desires to have the two fabrics connected at certain points, black weft can be woven on the single plain tabby weave. This will only be plain, single weave, of course, in the fabric; but this process will hold the two fabrics more securely together. This is advisable for rugs in the four-harness double weave. The pillow tops in Illustration No. 2 are in tubular form on four-harness double weave. They are extremely serviceable, for the inside of the tubular form is equally usable as the outside, when the pillow top gets soiled.

If one understands the principle involved on the four-harness loom; that is, two different fabrics woven as they each had been woven on a two-harness loom and joined together at the selvages, then it would not be difficult to understand that double weave cloth on an eight-harness loom conforms with two pieces of cloth woven on two four-harness looms—either patterned or twill—and joined together. The joining, however, will occur only where the pattern units change to other pattern units. The large squares in Illustrations No. 3 and 4 are actually separate fabrics joined only on their four sides. The same thing exists with all the figures in the design. This does not necessarily weaken the structural qualities, but it would be well to use design units that are not too large; nor should the units be so small that, with the heavy chenille weft, the design will be indistinct.

To have a pattern—and a simple one, at that—eight harnesses must be used on the loom. The fabrics, in this case, are joined together where the pattern unit changes, or when the Group I treadling changes to Group II treadling.

On a 12-harness loom, eight harnesses are used for the pattern, and the heddles on these harnesses have the ordinary eyes; the other four harnesses are threaded for the tabby (plain twill), using long eyed (about 4 inch eyes) heddles. On such a set-up a pattern draft can be woven that would otherwise require 16 harnesses threaded after the manner of the eight-harness set-up. That is, each set of four harnesses would be threaded twill fashion, according to the draft procedure. A pattern thread—in the 12-harness set-up—as well as a tabby thread would have to be threaded through the long eyes of the heddles.

A regular 16-harness draft can be woven on a loom of 12 harnesses if the above set-up is followed. On the 16-harness loom, four sets of harnesses of 4 harnesses each, four harnesses are threaded for each pattern change. On a 12-harness loom, each set of 4 harnesses can be reduced to 2 harnesses for each pattern change (8 harnesses in all), while the remaining 4 front harnesses are used for the tabby (threaded for plain twill). The eight pattern harnesses are threaded with the pattern draft, singly through the regular eyed heddles; the four tabby harnesses are threaded for the plain weave and also one warp thread of the pattern harnesses is threaded through the long eyes of these tabby harnesses, this pattern thread being brought through the long eye with the tabby warp thread. The tabby threading is done in the same way as the threading for a plain double weave (four-harness) fabric. The long eyes of the tabby harnesses permit the pattern threads to move up and down without restraint.

If only the eight pattern harnesses were used, the design would be woven but would be joined only where the black warp threads met the white warp threads, and vice versa.

Designs similar to Damask patterns can be woven with eight harnesses—but only the simplest of these designs. However, these drafts are adequately suited to the rug weaving about which this article is concerned.

A condensed form of a draft for double weave is shown at Figure No. 3; the expanded draft is at Figure No. 5. The tie-up and treading draft at Figure No. 4 shows the eight harnesses divided into two sets or groups. Group I is used to weave one block of the design; Group II weaves the reversal of that block. This, for instance, occurs on the upper side of the double woven fabric. Furthermore, the underside of the double woven fabric will have these designs of the upperside fabric also reversed.

Through experimenting with the different colors, possible threadings, treadlings, etc., I made the following notes that may prove helpful:

In starting the first weft shot, put the end back in the same shed which the first weft shot was put in—wrapping the end around the selvage threads of the upper group of warp. The upper set is weaving the upper surface of the rug. In starting the second weft, put the end in the same shed; but wrap it around the selvage of the lower set of warp threads. This under surface and upper surface are really two different or separate rugs which are joined together in the process of weaving.

Write out the threading on a card, using two colors of pencils to designate alternate rows, as “8-4-3-1” in black, and “8-7-6-3” in red. Associate your two colors of weft

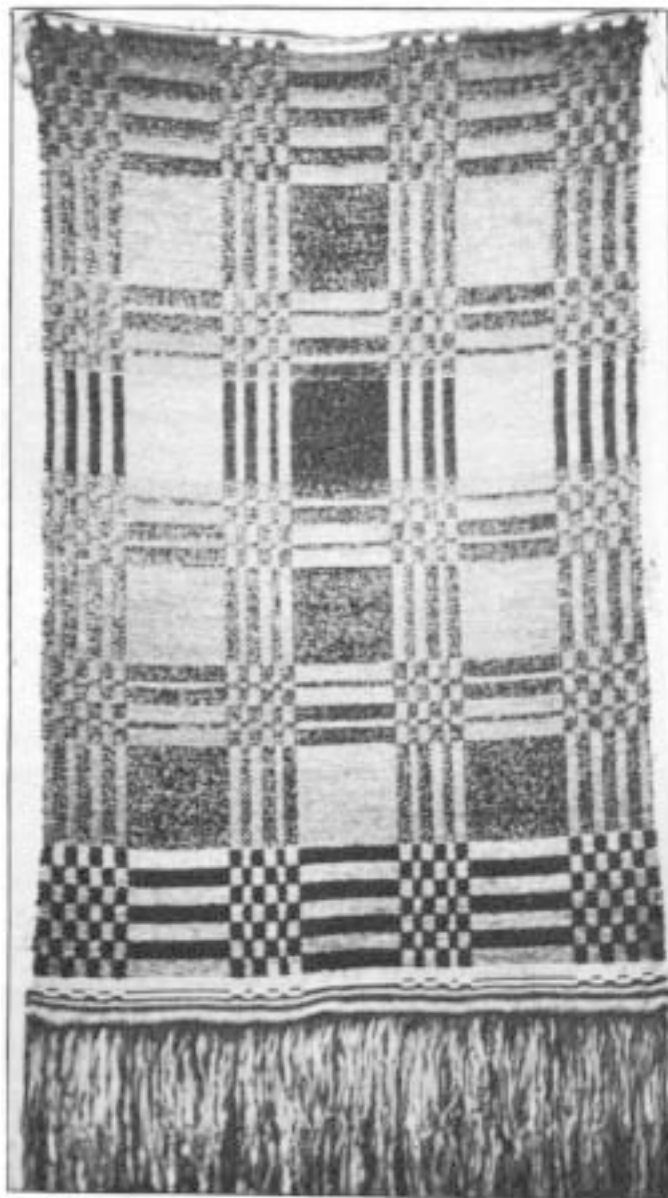


Illustration No. 3

with these two colors and this will save a great deal of annoyance with the shuttles.

The weft yarns at the selvages must be twisted around each other so that the edges will be closed. Automatically, this is accomplished in this way: Shuttle No. 1 is put in from the right side of the loom and let lie nearest the reed (Group I is being treadled); Shuttle No. 2 is put in from the left side of the loom and let lie in back of the other shuttle, nearest the weaver. When Group II is treadled, reverse the order of placing the shuttles while they are at rest.

The rug from which Illustration No. 3 was taken was woven on a ten-harness Structo loom. I found that inadvisable—the heavy work about wrecked the loom. If a table loom is used the treading need not be transposed as is the usual custom. Your pattern changes will simply be reversed, that is all.

Winding the chenille into balls from the skein and placed in a container, such as a metal waste basket, will make the winding onto the shuttles easier.

If the colors chosen for the weft are red and white (those were the colors used in the rug of Illustration No. 4) a warp of alternating red threads and white threads would be appropriate. The red threads will be but slightly noticeable in the red weft design units and the white warp in the white weft units of the design. The effect of this is such that the surface resembles solid blocks of cut velvet. Only one color of warp need be used, if desired; but the color of the warp—unless carefully chosen—may blemish the weft yarn colors, causing a good looking weft yarn to become hideous.

Warp: Since the rug is really two rugs, twice as many warp threads are necessary as for a single rug. Instead of the usual 12 carpet warp threads to the inch, 24 threads to the inch must be reeled into the warp chain.

Weft: A good quality of cotton chenille (such as Bernat's chenille) should be used for the weft material. The tufts of some cotton chenille are so skimpy that the yarn looks moth eaten—therefore, choose a good yarn. Chenille about $\frac{1}{8}$ of an inch in thickness is the right size.

Reed: A 12 dent reed sleyed double—one white and one red, if two colors of warp are employed. The warp is threaded singly through the heddles.

Explanations of the illustrations: Illustration No. 1—the pillow tops were woven in tubular form with stripes of different colors of the cotton chenille for weft. The warp was $\frac{24}{3}$ cotton, sleyed 30 to the inch in a No. 15 reed. These were woven on a 20 inch table loom of four-harness. Illustration No. 2 has been mentioned above. Illustration No. 3 was woven with the carpet warp set-up as given. Draft No. 1 was the threading and treading. In weaving this rug I warped red carpet warp and white carpet warp—24 threads to the inch—12 threads of each color. I made the warp originally for bath mats to be woven in red chenille and white chenille. I experimented with other color combinations first—result, the rug in Illustration No. 3. I found that on any weft color, except white weft, the white warp cheapened the color of the weft. Therefore, I would advise using any other color in the warp rather than white—unless white weft is used in the weaving. Since the chenille only partly covers the warp, it would be well if only one color of warp is used, to employ the color of warp nearest your main weft color scheme. That is, if your color scheme is composed of two values of green (a tint and a shade, or a light and a dark) use a green warp; if two values of blue, use blue warp.

The combinations of colors carried out in the rug in Illustration No. 3 were: two values of green; two values of blue; garnet and old rose, and black and vermilion. Black and vermilion made too garish a combination. Any

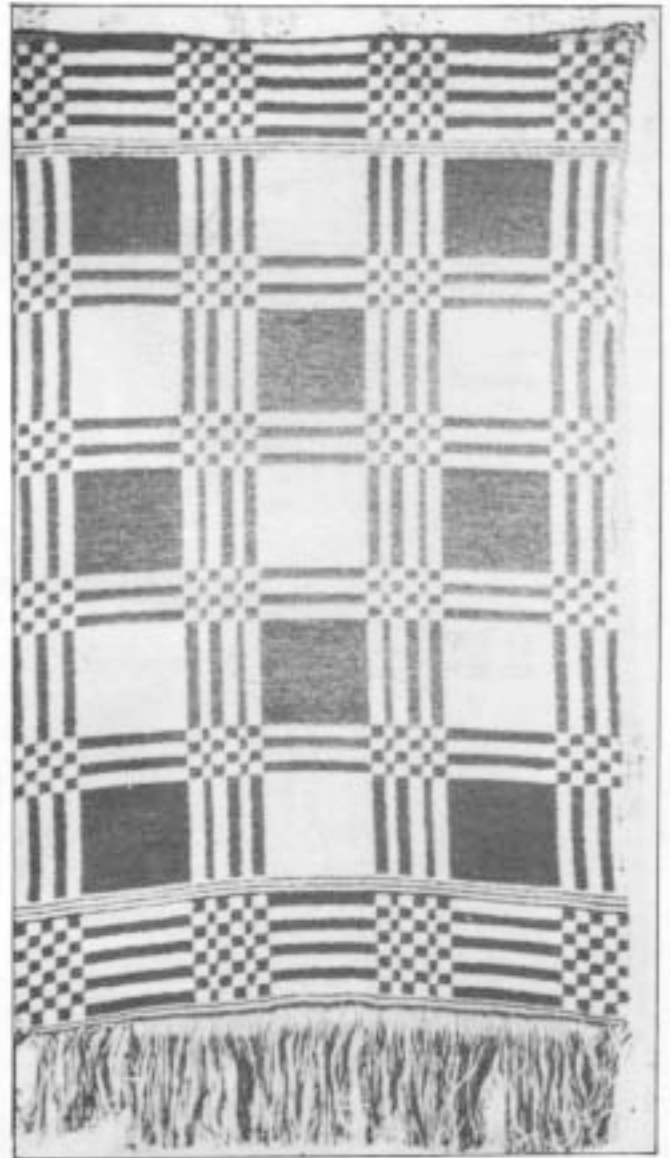


Illustration No. 4

of the other combinations proved extremely satisfying. When warp is similar in color to the weft combinations, the warp shows less and, consequently, enriches the fabric. Illustration No. 4 is a combination of red warp and weft and white warp and weft, using Draft No. 1 for the threading with the two units omitted from each side border.

Several drafts are given which should serve as excellent threadings for these rugs.

A Weaving Institute In A Weaving Center

by OSMA COUCH GALLINGER

Literature abounds in stories of finding at last just outside one's door things long sought far afield. The distant and the unfamiliar have for most of us a lure so much so that few of us are content to rest where we are and dig for "diamonds in our own back yard." That crafts in general and weaving in particular can be the means of the up-building of a small community in greater individual and social security is known to several lovers of crafts who have made the well being of the small town of Hartland, Michigan, their life work.

This little community, called the Hartland Area, a town center of 250 inhabitants nestles in among the lakes and hills of southern Michigan.

Following the guidance of their slogan, "Wholehearted Effort for Community Service", every citizen is interested in some united activity, whether it be choral singing in the beautiful interior of the colonial music hall with its snow white tapering tower, the improvement of agricultural methods as sponsored at the offices of the remodeled mill, or the practical uses of weaving as taught at the Cromaine Crafts community center and museum, a graceful, low white building with green trim along the main street, which

the people still affectionately speak of as the remodeled old town tavern."

Indeed passing through Hartland one realizes that craft work is the industry of the town. Four buildings labeled Cromaine Crafts — are each of unique interest to the visitor. One by one unoccupied stores and garages have been dressed up with a coat of white paint, their windows rejuvenated with a display of "things useful and beautiful," —products of a happy combination of good looms for weaving, excellent thread, devoted labor and enthusiasm. In and out of the building go workers intent on better production of better hand wovens and the giving of better service in the furnishing of weaving equipment and directions for weaving to other communities.

It is the aim of Cromaine Crafts of Hartland to promote the teaching of weaving in delving deep into its principles, thorough knowledge of the raw materials employed, even to the making of thread in spinning and the utilization of home-grown wool and flax. To meet the need which we have felt existing at present for better weaving instruction throughout the country, we have this year organized a National Summer Weaving Institute, inviting Mary Meigs



In the Cromaine Crafts Gift Shop, the hostess employs a few spare moments to finish an edge by hand. Gift shop methods will be discussed at the coming Weaving Institute.

Atwater to supervise the course. Mrs. Atwater needs no introduction, nor are many unaware of her genius and love for the craft, and her ability to inspire confidence and growth in those working with her. The first session will last from June 5 to 19; the second from June 24 to July 2. Every facility will be placed at the disposal of the students to enable them to cover the essentials and to learn the principles of spinning, warping, weaving and draft writing. Each pupil will have a loom for his or her own use and all necessary equipment will be available from the Loom Shop. From the thread storeroom, bountifully stocked with every kind of Bernat's weaving threads, one may plan a charming variety of texture to be worked out in any of the following weaving techniques:

- Overshot weaves
- Summer and Winter
- Bronson or lace weaves
- Double-faced twills
- "Huck" patterns
- M's and O's
- Finnweave
- Navajo Rug Weaving
- Three-harness Weaves
- Laid-in weaving
- Leno weave
- Mock-Leon weave
- Crackle weave
- Spanish Lace weaves
- Dress fabrics
- Swedish Floss rugs.

The entire community of home weavers who own and operate their own looms, young girls who form a weaving club and commercial workers, will all cooperate in helping the students from distant states to learn all they can in a short time. Twelve trained leaders in the field of weaving will be invited for the fireside chats which will occur each evening. Cromaine Hall, at Waldenwoods, center of the institute's activities, is a spacious building in the heart of a woods on Lake Walden. Here are both lecture rooms and plenty of room for comfortable work. Two dormitories, called Friendship and Sunshine Halls on the crown of the hill nearby, with comfortable spring beds and tile bathrooms, porches and living rooms with fire places, will provide a chance to rest in between the programs. Mornings will be spent in draft-writing, afternoons in practical weaving and evenings in recreation and discussion. The walls of the main hall at Waldenwoods will be hung with representative weaving from outstanding weaving schools of the middle west. Doubtless the beautiful coloring of these textiles will glow in the reflected light of the embers from the fireplaces and their reflection will be printed indelibly in the minds of those lovers of weaving who will devote two weeks to sincere research and rigorous training of both mind and hand.

Anyone sincerely interested may come, for he who has but caught a glimpse of the possibilities of our loved craft may, through the contacts formed, experience an awakening which may prove fruitful throughout a lifetime of effort.



At the weaving room at Cromaine all-year round School of Weaving, Howell, Michigan, the weavers wear handwoven summer coats.

Pick-up or Brocade Weaving on a Simple Heddle Loom

by NELLIE SARGENT JOHNSON
(Special Instructor in Weaving, Wayne University, Detroit, Mich.)

Weaving on the simple heddle loom deserves to be much better known and more generally used than it now is. For it is entirely practical and useful for teaching weaving in public school work for children as well as for adult groups. And the equipment is small, simple, and very inexpensive when compared with the cost of a large loom.

This type of weaving, in a very primitive way, is still used quite extensively by the Zuni and Pueblo Indians of the Southwest, as well as by the people of Mexico and Guatemala. The sketch of the Indian woman as shown at Figure No. 1 illustrates how the heddle is tied to the belt of the weaver. She is squatted on the ground, her warp tied up somewhere to a stake in the ground, and both of her hands are free to use for her work. Her heddle is made of wood or possibly of reeds, which have holes punched in them, probably by a hot wire. And these are lashed to a strip of wood at the top and bottom to form a frame, with tightly twisted wool cord. On this loom she weaves many different types of fabrics. Especially handsome and very elaborate are the belts she weaves for the ceremonial dancers of her tribe. But this loom is found in similar form in many other parts of the world as well as among our own Southwest Indians. Last summer while in Wisconsin, I saw some very old Norwegian heddles which were beautifully carved and painted in bright colors. The Swedish people use them also. And a year or so ago I saw some interesting belts being woven on this same type of loom by a Latvian woman. This loom has been used by the people of many different nationalities and in many parts of the world.

The runner at Figure No. 2, was woven by one of the mountain tribes in the Philippines. It is made of very fine blue cotton. The warp threads on the edges are of yellow cotton and the borders with the little figures are also of yellow which has been pick-up or brocaded in as will be described later in this article. This illustration is clear enough so these little figures may be copied if desired. They could be used attractively for the weaving of children's place mats or possibly for bibs, with the modern adaptation of the heddle loom which will now be described for you.

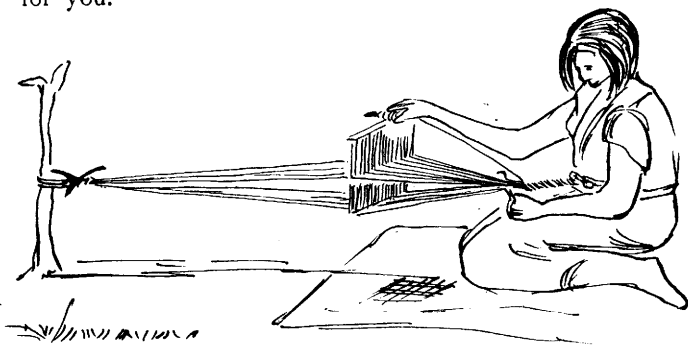


Figure No. 1—Indiana Woman weaving on a heddle loom.

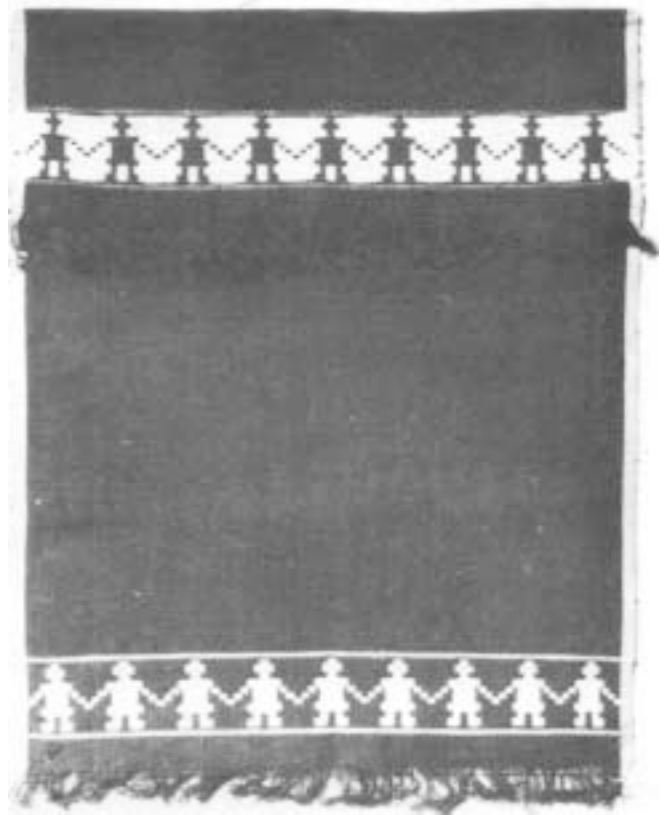


Figure No. 2—Blue Cotton Runner woven in the Philippine Islands.

At Figure No. 3 is a photograph of the heddle threaded and tied into a picture frame already for weaving. The heddles are easier to handle, and to use if tied to a frame of some sort. But they can be tied up to the belt or chair of the weaver, and the same results obtained. The heddles come in two sizes, 10" and 20". The 20" size is somewhat easier to use if attached to a frame with rollers at the back and front, and gives an inexpensive two harness loom to the person who is handy with carpenter tools. It is easy, simple and quick to thread, and even a very long warp can be used if desired. The small heddle is about 10 dents to the inch, and the large one about eight to the inch.

The detail of the setting up and threading of this loom will not be described here for lack of space, but I will refer you to my leaflet *Handweaving News* for August 1936 where this was given in exact detail. The weaving shown on the loom at Figure No. 3 is woven on a mercerized cotton warp No. 5, with dark blue fine chenille for the pick-up pattern, and silver and blue thread for the plain weave or tabby back of the pattern. The photograph at Figure No. 4 shows an old Russian runner, and if you look at this closely you will see the same border on this piece as on the loom at Figure No. 3. But carried out in



Figure No. 3—Photograph of simple heddle loom ready for weaving.

entirely different yarns and in an entirely different weaving technique. This piece is to be for a bag. The detail of its pattern shown at Figure No. 5. The other six designs for borders on this runner were given in November 1936 *Handweaving News*, and will not be repeated here.

The bag shown at Figure No. 6 is a bag of white silk bouclé for the plain weave, with silver tinsel for the pattern. It is mounted on a small especially designed bag frame, also in white, $4\frac{1}{2}$ " long. These frames can also be obtained in crystal, blue, wood, or black, and make a very attractive small bag for evening or afternoon dressy wear, and they are quite inexpensive.

This same technique can be used with almost any type of yarn, and yarn can be used for the warp also if it is smooth and does not rough up too much in the weaving. The warp used in this case was also mercerized cotton No. 5. As the depth of this bag is only $4\frac{1}{4}$ ", only one width of the material was necessary, the fold coming on the bottom of the bag.

Weave as follows:—Two inches of plain tabby weave with the white silk bouclé. Then with the warp flat, with a black pick-up stick or shuttle, go over three threads and under three threads all across the width of the warp. Then throw a shot of plain weave. Then with the silver, go over and under the same warp threads as before, all across the width of the warp. Then put in the opposite shot of plain weave with the silk bouclé. Now 4 shots of silver in plain tabby weave.



Figure No. 4—An old Russian Runner.

Do alternate plain weave between each row of the picked up pattern as you would for over-shot weaving. Repeat over 3 and under 3, as at the beginning. Then 2 shots white plain weave.

(Continued weaving of Bag at Figure No. 6.)

Now with the silver go over 1 thread and under 7, the next row over 2, and under 5, the next row over 5 and under 3. Be sure and put alternate shots of plain weave between each row of the pick-up. The last two rows are the same, over 7 and under 1. Then for the center do about 2" of plain weave with the silver. Repeat the same border of pattern on the other side of this as you put in for the first, and also repeat then the 2" of plain weave and your bag material is finished, ready to be taken off the loom and made up.

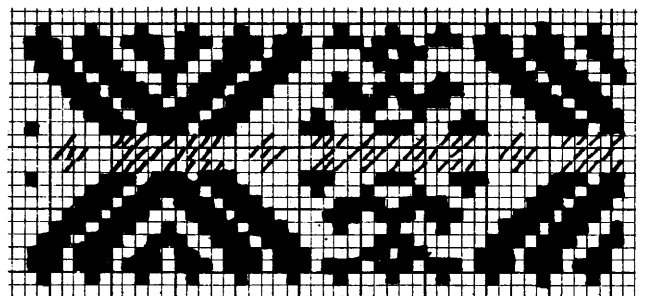


Figure No. 5—Detail drawing of border from Russian Runner.



Figure No. 6—4" White Silk Evening Bag woven on heddle loom.

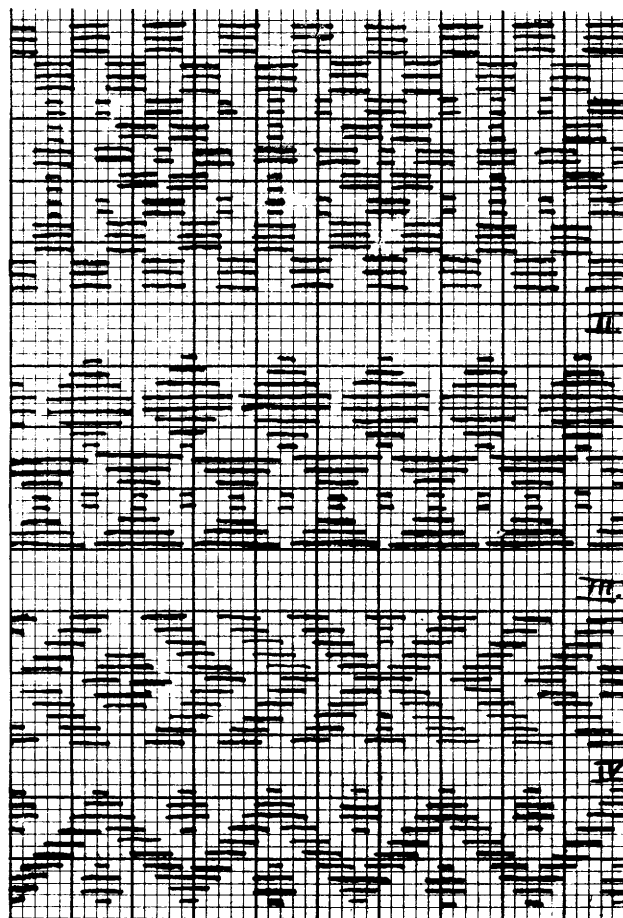


Figure No. 7—Detail of patterns for Pick-up or Brocade Weaving.



Figure No. 8—8" blue bag woven on simple heddle loom.

At figure No. 7 is shown other patterns which are easy for the beginner in this technique to use. And woven with fairly coarse yarns they do not take very long to weave. The bag shown at Figure No. 8 shows how some of these borders are carried out in the weaving. It was woven of blue bouclé, light blue, with a heavy dark blue cotton for the picked up pattern, on a white cotton warp. This bag was mounted on an 8" special bag frame. The depth of the bag took the full width of the 10" heddle so it was necessary to weave two pieces just alike for this bag which has a seam at the bottom.

Many other possibilities lie in the use of this very simple equipment, but I think enough direction has been given for this simple pick-up brocade type of weaving so that it can be easily followed, and you can experiment with cross section paper patterns yourself and develop other designs that are of interest and unusual. Care should be taken not to have the skips on the back of the weaving too long, if the back of the material will show much. But they can be as long as desired for bag material as the back is not visible when made up. Also the designs need not be bi-symmetrical unless you wish to have them so. If you do very much of this type of weaving, you will find a black shuttle of much help in picking up light warp threads.

Any questions concerning the weaving described in this article will be gladly answered by the author if you wish to write her.

Borders

by MARY M. ATWATER

The effect of a piece of weaving often depends largely on the design and arrangement of the border, and weavers often find the choice of a border for a particular piece a somewhat difficult little problem. No rules can be formulated, as each such problem is a special problem, but there are a few generalities that may be stated, and that will prove helpful.

In the first place, what things require borders? and what is the value of a border?

In a general way, all such things as coverlets, table pieces, blankets, rugs, and so on—that stand as units, not as yardage,—need borders. The border gives a finished effect, like the frame about a picture. Without a border such pieces give the effect of lengths of yardage chopped off to suit convenience and do not give the effect as a well-planned whole.

A coverlet, in particular, should always have a border, as I think everyone will agree—but whether this border should be wide or narrow, plain or elaborate, heavy or coarse in detail, depends not only on the main pattern used for the weaving but also on the size and shape of the bed on which the proposed coverlet will be used, and on other considerations.

In a general way, if the pattern used for the coverlet is a large and elaborate one, the border should be plain and comparatively narrow; but if the main pattern is a small and compact figure, giving a rather plain all-over effect, the border should be wide and elaborate. Contrast between border and main pattern is the essence of the thing, though of course the border and the main pattern should harmonize in general style. For instance it would be very unpleasant to see a border in Finnweave around a coverlet in overshot weaving.

It is true that theoretically any pattern in overshot weaving may be used as a border with any other pattern in this weave, but from a practical point of view this is far from being a safe rule. The figure used for a border should not even approximate the main pattern in size and effect or the result will appear more like a mistake in threading than like a border.

All this may make the thing seem unduly complicated. As a matter of fact there are several easy solutions. Most coverlets are made with a fairly large pattern as the top of the bed is the surface to be decorated, and a small figure is monotonous over so large an expanse. The simplest possible border—I am dealing now with coverlets done in the overshot weave—is to thread the border in plain twill: 1, 2, 3, 4, and repeat,—4, 3, 2, 1, and repeat,—for the desired width. This produces a very plain, almost solid effect of wavy lines, good for a narrow border with a rather compact pattern, though too monotonous for a wide border, and not altogether satisfactory for top and bottom borders—especially if the main pattern includes some long skips—as single long floats of weft are impractical. This threading, therefore, is not often used. However it makes a good border for such a pattern as

the small single Chariot-Wheel, especially when used in the following manner: three inches plain twill, one complete figure of the pattern, three inches of twill, and then the main threading.

A modification of the twill border is to thread as at (b), Diagram No. 1. This is a twill arrangement of four-thread pattern blocks. Six-thread blocks may be used if the smallest blocks of the main figure are six-thread blocks. This border arrangement is often used,—probably because it is so easy—but it must be admitted that it is usually far from handsome. The only class of patterns with which it is decorative is the “radiating” class—patterns like “Sunrise” and “Double Bow-Knot.” It should never be used for a wide border as it is too monotonous, and altogether lacking in distinction.

The threading oftenest used for coverlet borders in overshot weaving is the “Diamond,” in one or another of its many forms. Most coverlet patterns of the Colonial style include a small cross or diamond figure, and when this is the case this part of the main threading, repeated as required, may be depended on to make a satisfactory threading for the border. There are many forms of the diamond figure, but the two main forms are the four-block diamond, which has its two returns on different blocks, and the five-block form which returns each time on the same block. The first makes an open diamond and the second makes a diamond with a dot in the center.

Of course these figures may be written to return on any of the four pattern blocks, and in using the diamond threading for a border it is essential to use the one that makes its returns on the same block or blocks as the returns of the main figure. For convenience, I have shown on the diagram at (c 1), (c 2), (c 3) and (c 4) the four possible forms of the simple four-block diamond. These threadings, when woven as drawn in produce exactly the same figure, of course. The one to select for a border threading for a coverlet is the one that corresponds to the main figure in the matter of the blocks on which the pattern returns. In the same manner I have shown on Diagram No. 1 the four possible forms of the five-block diamond or “Russian Diaper” pattern at (d 1), (d 2), (d 3) and (d 4).

The diamond pattern, of course, takes many other forms. There are sometimes six-block diamonds, and sometimes diamonds in which the return blocks are larger than the others. For lack of space these cannot be shown here. Reference is made to draft No. 19, page 161. of mv “Shuttle-Craft Book,”—“The White Mountain Coverlet.” For this pattern the 26 threads from thread 111 to and including thread 136 may be used with excellent effect as a border threading, repeated as required.

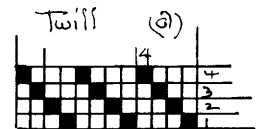
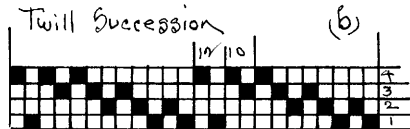
The threadings mentioned above are all suggested for patterns written in the regular manner—to “twill.” But we have many patterns in which all or part of the figure is written “on opposites.” For these we should use a corresponding form of the twill succession or the diamond, of

Border Threadings.

Diagram No.1.

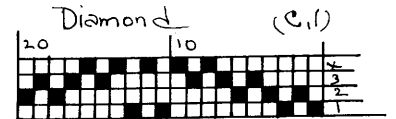
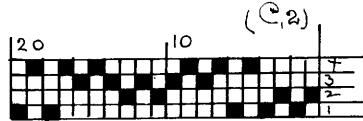
(a) Plain twill, —

(b) twill succession of blocks



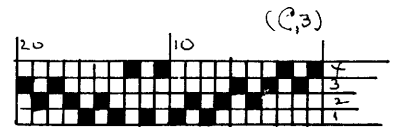
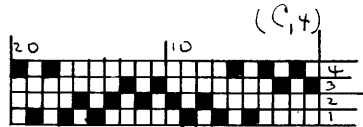
(c) Diamond.

- 1, returns on 1-2 and 1-4
- 2, " " 1-2 " 2-3
- 3, " " 3-4 " 1-4
- 4, " " 3-4 " 2-3



(d) Russian Diaper

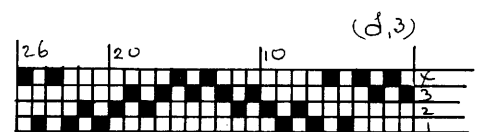
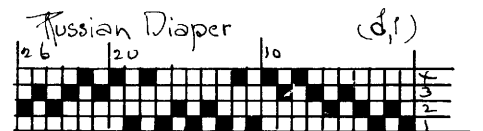
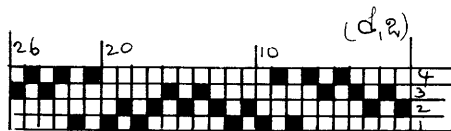
- 1, returns on 1-2
- 2, " " 2-3
- 3, " " 3-4
- 4, " " 1-4



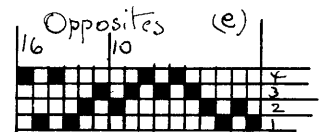
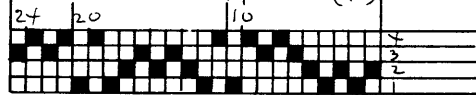
(e) twill succession on opposites

(f) Diamond on opposites

- 1, returns on 1-2 and 2-3
- 2, returns on 1-2 and 1-4
- 3, returns on 2-3 and 3-4
- 4, returns on 1-2 and 1-4

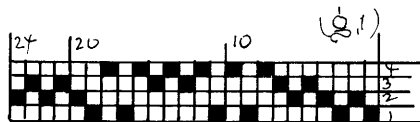
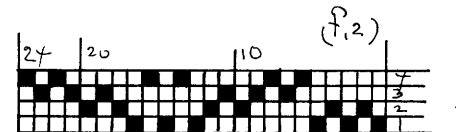
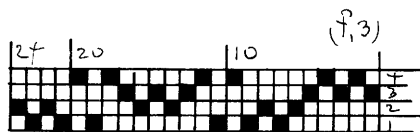


Diamond on Opposites (f, 1)



(g) Diamond, partly on opposites

- 1, returns on 1-2 and 3-4
- 2, returns on 1-2 and 3-4
- 3, returns on 1-4 and 2-3
- 4, returns on 1-4 and 2-3



Select the threading that returns on the same blocks as the main pattern

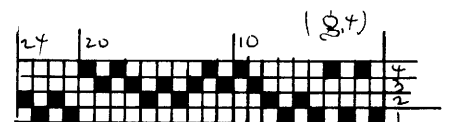
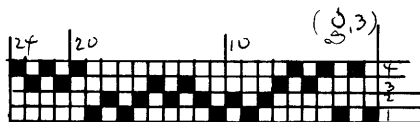
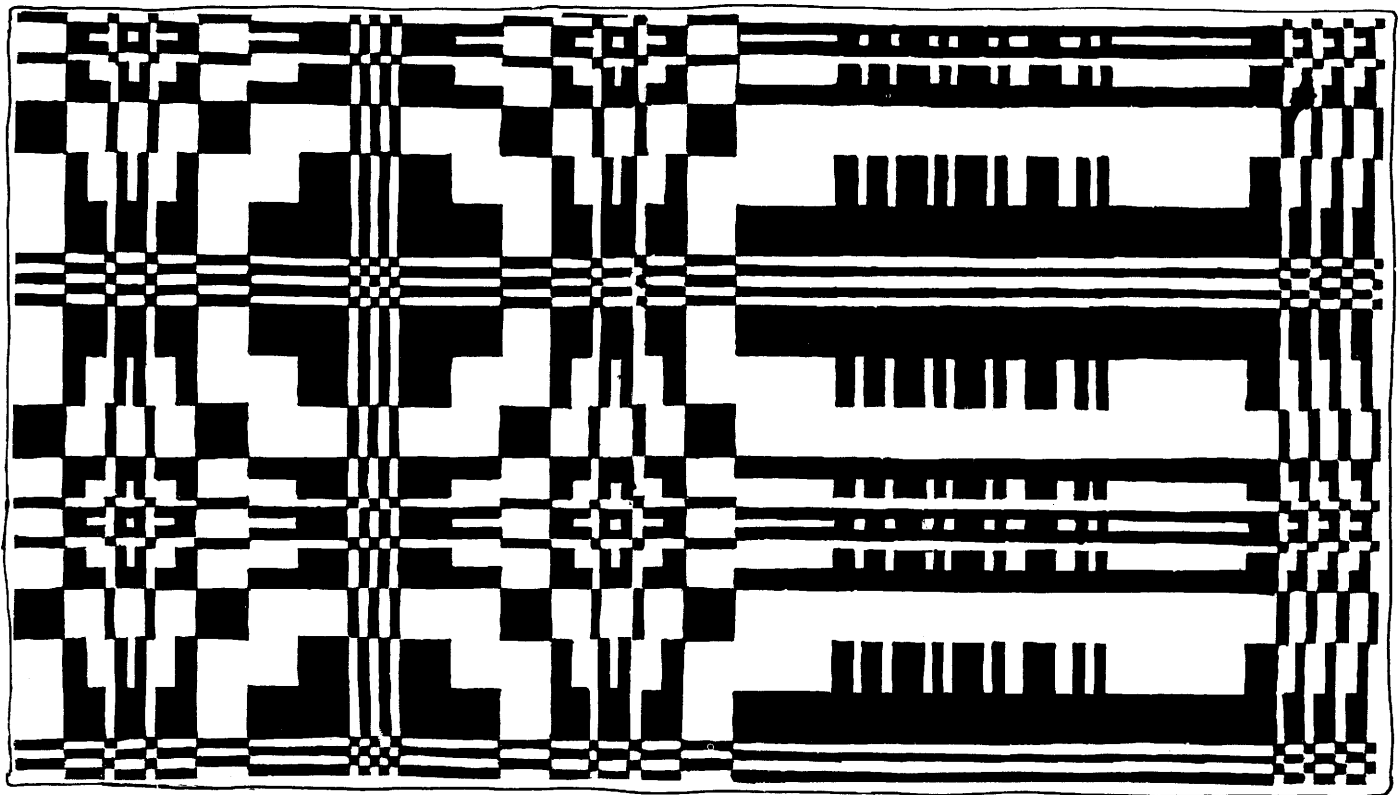
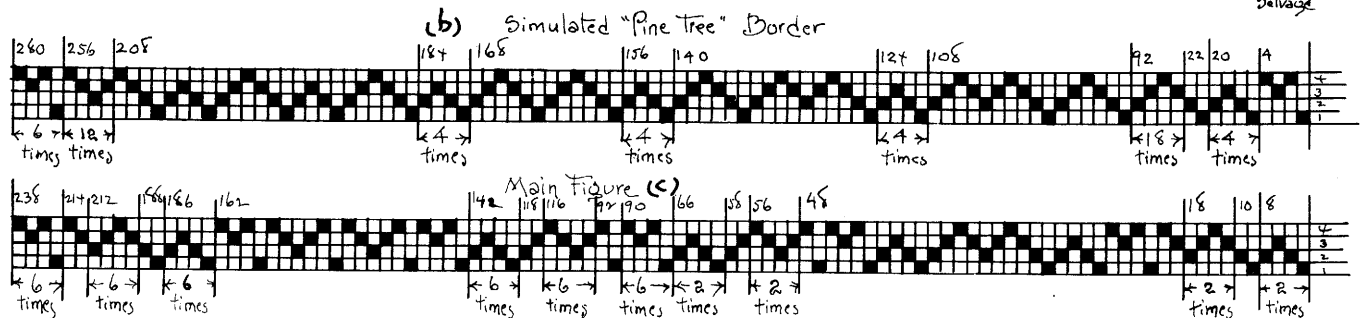
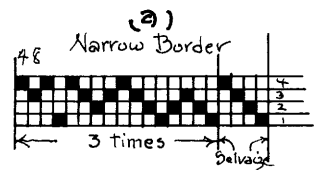
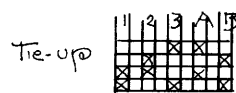


Diagram No. 2.
Crackle-Weave Pattern with a
Simulated "Pine-tree" border.



M.M.A. 1938

course. At (e) Diagram No. 1 is given the threading for the twill arrangement of blocks for use with such a pattern; and at (f 1), (f 2), (f 3), and (f 4) the four forms of a diamond on opposites. In this diamond arrangement the two blocks that make the cross are in opposition. The drafts at (g 1), (g 2), (g 3) and (g 4) give the four forms of a diamond in which the two blocks making the cross are overlapping blocks, with a jump to opposites between the crosses. This is a good form of diamond for use with certain patterns partly on opposites. The threading to choose, of course, is the one that corresponds to the main pattern.

In weaving any of these border threadings, treadle as drawn in. Weaving the border threading produces across the main threading the same border that is produced along the sides when weaving the main figure across the border threading.

One point of importance is to arrange the joining of the border and main pattern correctly. It is astonishing to note how many coverlets—old ones as well as modern ones—are faulty at this point, the main figure being cut off in the center or left otherwise incomplete to run into the border. Unless the pattern can be clearly visualized from the draft it is a good idea to test this matter on paper before threading the loom.

Borders may vary greatly in width. The border should be wide enough to make a proper frame around the main figure but not wide enough to be monotonous. The shape of the bed also makes a difference. For a high, narrow bed the overhang of the coverlet may be as much in evidence as the top of the bed. For such a case a wide and elaborate border is desirable. If, however, the bed is not high and the overhang is not deep the border should be plain and narrow. It is unpleasant to have the border extend up over the curve of the edge. At least to most tastes this is so. I do not know why. It is better to allow the main figure to extend down over the edge a little.

Probably the most celebrated of all coverlet borders is the famous "Pine Tree." It is not possible to make a Pine-Tree border in overshot weaving, for obvious reasons, but a simulated Pine-Tree can be produced with some patterns in four-harness crackle weave. Such a pattern is given on Diagram No. 2. This is a three-block figure arranged from an ancient Colonial pattern in the summer and winter weave. It will be noted that the 3-4 shed is not used. The little 48-thread border at (a) may be used by itself as a border for the pattern if desired, or the first 70 threads of the main pattern—draft (c)—may be repeated for a border if preferred. However the Pine-Tree arrangement makes a handsome effect. The threading, of course, pro-

duces the side borders. For the bottom border treadle: 3, 5 shots (note that treadle 3 corresponds to treadle 4 on the standard tie-up, treadle 3 being omitted); treadle 2, 5 shots; treadle 1, 5 shots. Repeat this three times. Then: treadle 3, 5 shots; treadle 2, 13 or 15 shots (for the foot of the tree); treadle 1 as may be required for the trunk of the tree; treadle 2 for the branches; treadle 1 for the top of the tree.

The border as written will be about 12" wide, and is suitable for a coverlet with a deep overhang. The border can be made narrower by omitting part of the trunk and top of the tree and some of the branches, and by omitting one or two repeats of the narrow border.

The Pine-Tree border is at its best for coverlets in the summer and winter weave. It can be used with any pattern that includes a three-block figure with overlapping blocks—a figure of the "snow-ball" family. The border may be designed in many ways and a great variety of pine-tree figures will be found among the ancient pieces. The simple form of tree shown on Diagram No. 3 is usually satisfactory. Of course it develops a different "tree" with each pattern. On the diagram are shown three patterns, the same border threading used for each. With pattern (a) we have a single tree; with pattern (b) a double tree; with pattern (c) a group of three small trees.

The threading, of course, produces the side borders when the main figure is woven. To weave the top and bottom borders follow the design of the side borders as shown on the diagram. These borders are not woven as drawn in. The corner will show a design of cross-bars—disregard the corner in weaving and let it take care of itself.

The borders suggested may, of course, be used for other things as well as for coverlets. For rugs and runners, however, the side borders should be very narrow and the main borders be in the weaving, at the ends. In using the crackle-weave pattern for a rug, for instance, thread the side borders to the narrow border at (a) and use the tree figure only in the end borders,—produced in the treadling. The patterns on Diagram No. 3 if used for rugs should be arranged in a similar manner. This arrangement of borders is also desirable for table runners and similar pieces. Hangings are very handsome when threaded in this manner and woven with successive tree-figures, the figure proper not being woven at all, or only for the upper part of the piece.

The subject of borders will be continued in a later article, which will treat of borders for linens, borders in pattern all around a plain center, and so on.

Mary M. Atwater.

A Norwegian Ski Scarf in Warp-Face Weave

by ROSE BALDWIN

A friend brought home a scarf from Norway last year that fascinated me so I couldn't sleep until I had analysed it. Then I nearly lost my mind waiting to get the yarn to reproduce it. The result was delightful and I made some very successful Christmas presents. Some of my weaver friends have asked for the draft and have said that they have nothing like it. Perhaps readers of "The Weaver" might like to try it.

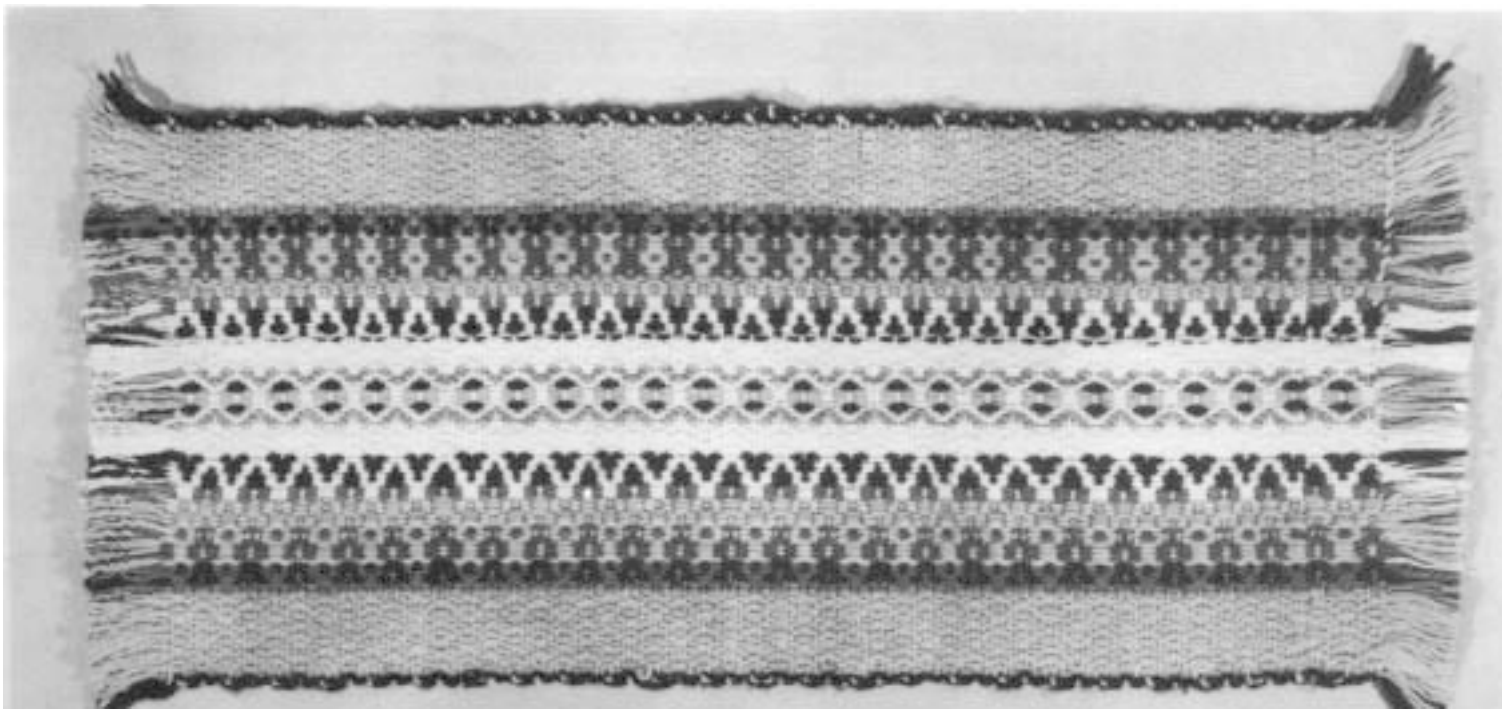
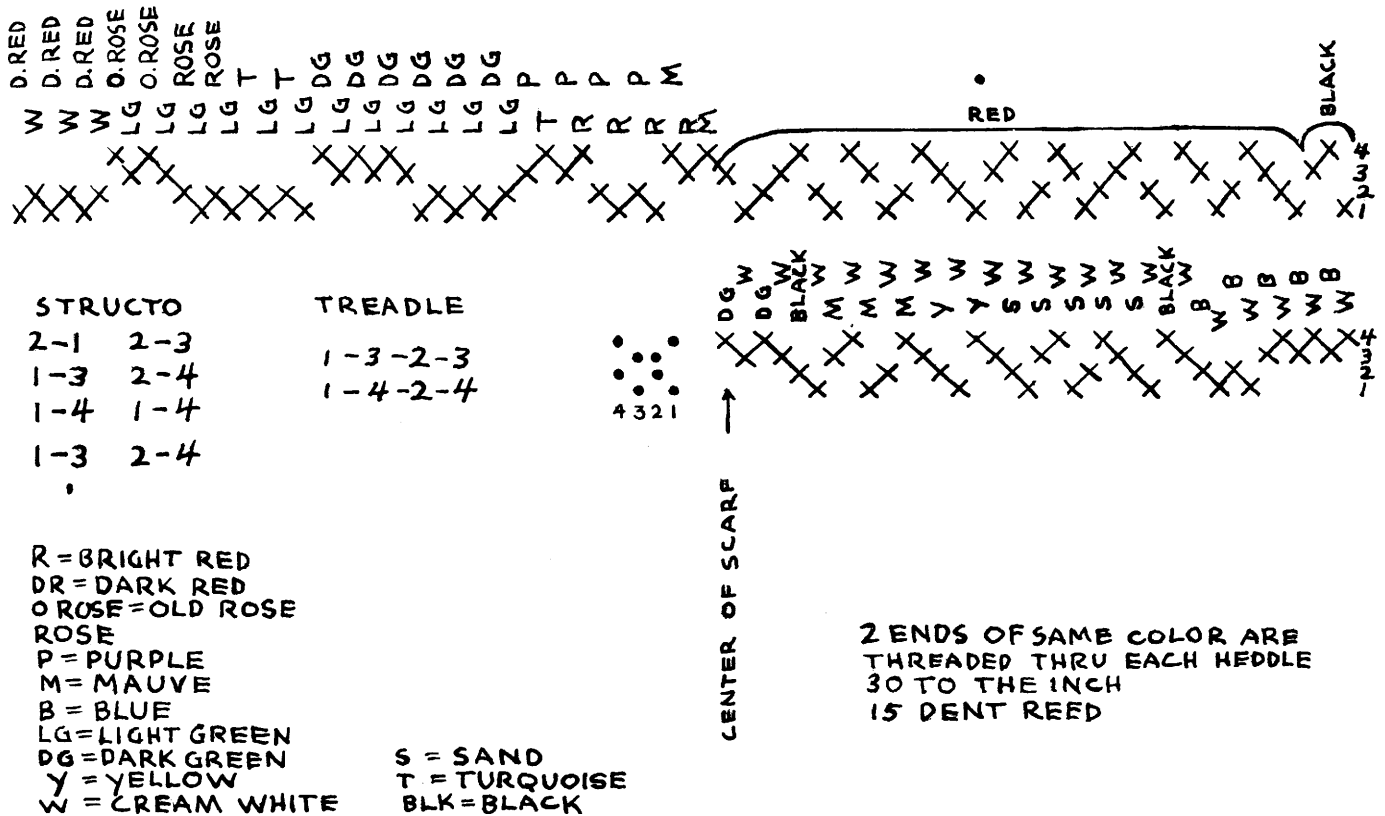
I made my scarfs on an eight inch Structo loom but I have seen them made very successfully on larger foot power looms.

The nearest material to the Norwegian I could find was Weaving Special. The colors and numbers used are as

follows: Black, Bright Red W 823, Dark Red W 566, Old Rose W 564, Rose W 884, Purple W 775, Mauve W 773, Blue W 596, Light Green W 753, Dark Green W 757, Yellow W 704, Cream White W 702, Sand W 625, Turquoise W 818.

Two ends of each color are used for every heddle indicated on the draft, and four of these are threaded through each dent in the reed. A 15 dent reed is used.

The scarf was woven 34 inches long and finished with a short fringe about 1½ inches. The Cream White yarn was used for filler and it is not beaten very hard, from ten to twelve shots to the inch bring out the pattern nicely.



Questions and Answers

Question: What is meant by "patterns on opposites?" by "weaving on opposites?" Do they mean the same thing?

Answer: These phrases mean different things. Patterns are said to be "written on opposites" when one or more of the figures are written on two "opposite" sheds, so that they do not overlap by one thread as in the ordinary form of draft for overshot weaving. The "Monk's Belt" pattern is an example of a two-block pattern entirely "on opposites." The pattern weft makes floats either above or below the tabby foundation and there is no "half-tone." To produce this effect in patterns of more than two blocks it is necessary to use more than four harnesses. In weaving patterns of this order it is the usual practice not to treadle the small two-thread blocks that intervene between any two pattern blocks written on opposite sheds. Otherwise these patterns are woven in the same manner as other overshot patterns.

Four-block patterns on opposites are properly done on eight-harnesses, but may be written on four harnesses by a make-shift method in quite common use among the old-time weavers. The method results in certain inconsistencies and "accidentals" which are unavoidable, but these patterns have a sparkle and a special charm, nevertheless. Frequently among the old patterns one finds one in which a few blocks only are set on opposites. The well-known "Pine Bloom" pattern, for instance, owes its special charm to the use of this trick. The square "table" in this pattern is written on opposite sheds, and the blocks at the center of the star-figures are also on opposites. It is the accidentals that produce the pine-cone effect in this pattern.

"Weaving on opposites" is a different matter. Any overshot threading may be woven on opposites. Or any summer and winter weave pattern, for that matter. This method of weaving consists in throwing a weft shot in back-ground color, on the opposite shed, after each pattern shot. An occasional shot of tabby may or may not be used in this technique. The fabric produced is much heavier than an ordinary tabby and overshot fabric, and if the warp is set a little further apart than for ordinary weaving it will be entirely covered by the weft.

To illustrate: If the first pattern block of the pattern to be woven is on the 1-2 shed weave: 1-2, pattern color; 3-4 background color. Repeat till the block is square. If the block is a 2-3 pattern block weave 1-4 in background color. For a 3-4 pattern block weave 1-2 for background; and for a 1-4 pattern block weave the background shots on 2-3. If the pattern used contains any large blocks it is advisable to use a tabby shot also, after say every four shots of "opposites." This tabby is not visible in the result—or should not be—but it holds the warp-threads in correct position. Otherwise they are apt to bunch together and the fabric will be apt to wear badly.

In weaving on opposites it may be necessary to use a template to keep the fabric out to the width of the warp in the reed. Unless the weft is permitted to lie very loosely indeed the edges draw in badly.

Mary M. Atwater

Afghans in Dukagang Effect

by RUTH KETTERER HARRIS

Instr. Related Art, University of Wisconsin

Some weavers will take the time to do a pattern in dukagang technique. It gives a nice effect, somewhat like a piece of embroidery. The design comes on the same pattern combinations and this gives it the appearance of long vertical lines. It takes a long time to do as the pattern is all put in by hand. There is a mechanical way of achieving this texture. The type of pattern that can be woven is geometric in style and contrasts with the free type of naturalistic design typical of Swedish dukagang.

"Dukagang" is done on an "on opposite" threading which has one overshoot unit being much wider than the other. The small overshoot block of two threads acting as a tie down for the free designs typical of dukagang, as in illustration 1. Of course in dukagang any design that can be worked out on squared paper is usable for the dukagang weave.

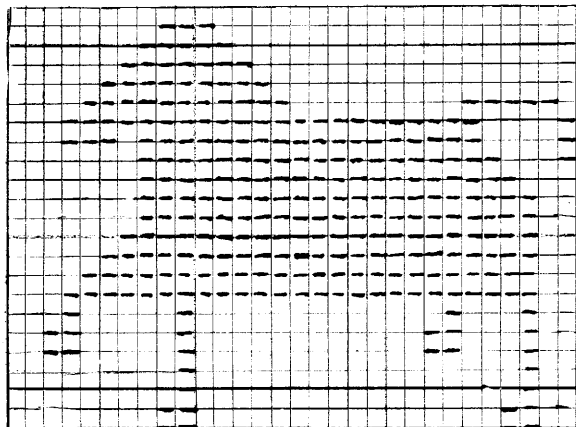


Illustration 1.

"Design typical of dukagang and its effect."

Mechanically this same texture can be achieved but the designs are of a different type. You have only the possibility of a four block design on a four harness loom. The pattern is threaded into the loom similarly to the colonial overshoot threadings. It gives the effect of recurring overshoots with the small block in between not being woven.

The same threading principles are used here as in overshoot threadings, but are so arranged that three treadles are used in the weaving, thus giving a greater number of units possible. According to the number of threads per inch will determine how many threads you will have in an overshoot unit. The pattern shown here has ten threads to the inch so in one overshoot unit one combination is repeated for five threads and the sixth thread acts as a tie down and is therefore on a different harness, keeping in mind that one cannot go from the first harness to the third or from the second to the fourth. You must keep the threading so that it will give plain weave. It is necessary to keep in mind the same principles in this threading as in writing a pattern for colonial overshoot. No matter how many threads you have to the inch you must establish

how wide you want your overshoot unit and keep it the same throughout the whole pattern. Taking one area or block of your pattern that is eight inches wide, and with ten threads to the inch would be thirteen overshoot units in that area.

Illustration 2 shows the various pattern combinations, each repeated for five threads plus their tie down thread. Depending on which harness you start with, determines which harness the tie down thread is on.

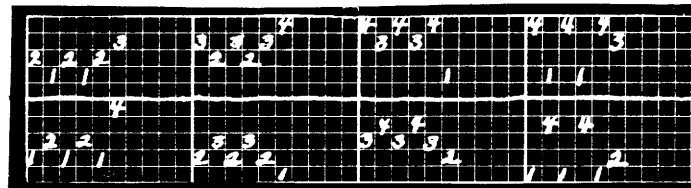


Illustration 2.

To go from one block or area of your pattern to the next block you pass through on your tie down thread which may give a twill or part of a twill threading. You must be careful that your area in between your pattern blocks is not any more than the one tie down thread, as in

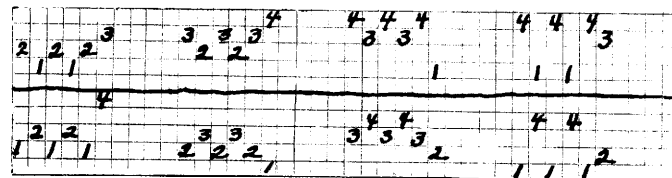


Illustration 3.

illustration 3. There is some overlapping of pattern unit threads with the tie down threads. Writing a threading for a three block pattern does not involve any overlapping of pattern unit threads with the tie down threads.

The texture and appearance that this type of weave gives is shown in illustration 4. From this photograph of the afghan, you can tell how similar in appearance it is to dukagang weave. The long vertical lines within the design that is typical of dukagang weave is also typical of this weave.

The design of this afghan was planned to be informal in balance. To do this successfully you need to work it out completely before you start to do any weaving. Illustration 5 shows you the complete plan to scale. One small square is equivalent to one inch. It is forty inches wide by seventy-two inches in length. The colors used in this afghan were tan wool warp with brown, rust, and

TREADING

Treading		
1-4	1-4	
1-2-4	1-2-4	1-4
2-3	1-4	1-2-4
1-2-4	1-2-4	1-4
1-4	1-4	1-2-4
1-2-4	1-2-4	1-4

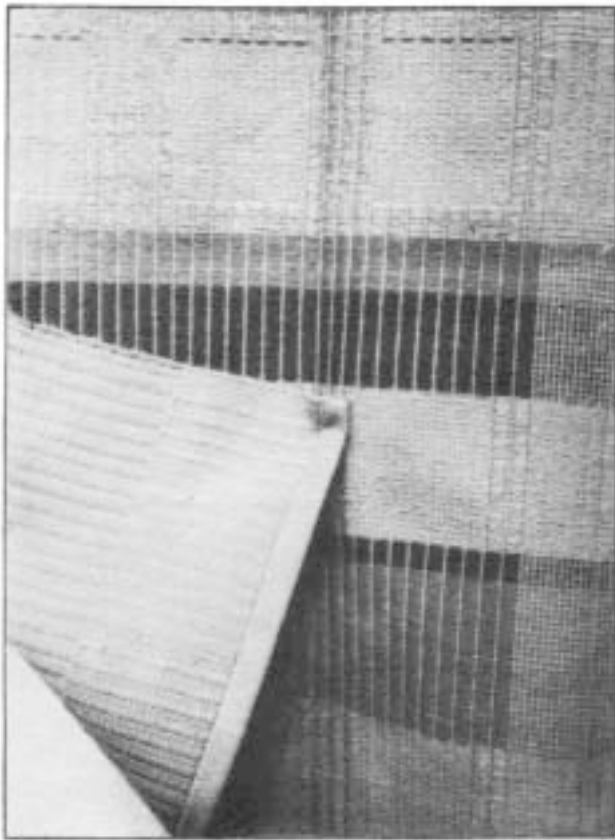


Illustration 4.

the brown pattern threads, the diagonal lines the green pattern threads, and the dots the rust pattern threads. The plain areas indicate the spaces made up of the warp and tabby threads of the tan wool. If you would like to vary from this pattern of weaving your afghan, you might start at the top border and weave the center blocks as they are shown in illustration 5, and then repeat the same border on the other end. To have your afghan symmetrical, thread your loom to the center of the threading draft, illustration 6; threading from either end of the draft to the center and then reverse, so that the two sides will be similar. Then of course in order to have the two ends of the afghan alike with a center unit will depend on how you choose to weave in your weft threads. Illustration 7 gives you a diagram of how this may be done. The scale used is one small square equals an inch.

Illustration 7.

The tabby system is the same as in colonial overshot. Treadles 1-3 and treadles 2-4 will give you plain weave. The advantage of this threading is the possibility of using three treadles at once. This gives you the horizontal or weft bands of overshot units across the afghan. This also gives you the possibility of having a hollow square block design, or the contrast of a large block with a small block within it. As you work with this weave you will find that it has many treading possibilities. Those given in illustration 5 are only those for that particular variation of weaving the threading for the afghan shown in illustration 4.

To finish off your afghan, it may be fringed or hemmed, which ever you desire. If you prefer to have it hemmed be sure and weave about three inches of plain weave before you begin your pattern.

Illustration 5.

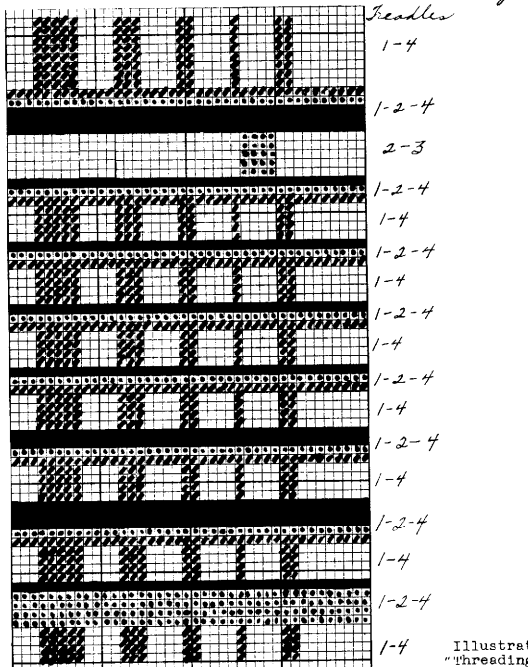
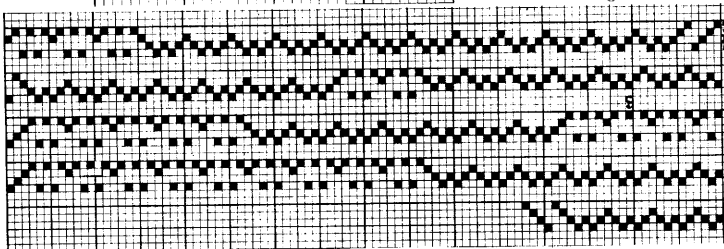
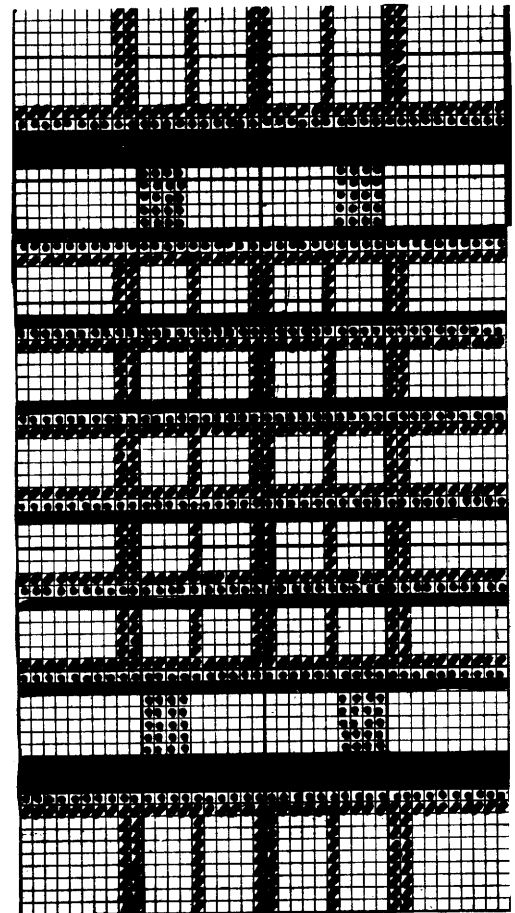


Illustration 6.
"Threading draft"



"Threading draft"



green weft threads. The tan wool was also used as the tabby thread. In illustration 5, the solid black lines represent

Penland's Weaving Institute

by BONNIE WILLIS FORD

It is a far road back to 1929 when the first few students came to Penland to spend a week under the tutelage of one of America's great masters of hand weaving—Edward F. Worst. Little did anyone dream then that it was the beginning of a road which was to lead far into the years and branch in all directions over the map of the United States and Alaska. It has been a beautiful road—that one we have travelled from 1929 to 1938—full of rich and unexpected experiences all along the way. If sometimes a thorny by path has taken us over a devious and circuitous route and we have wandered almost lost for a time, we have finally emerged onto the highway again and, heartened by the sign of hope held up by someone just beyond the bend, have hastened forward to see larger vistas than we ever dreamed of open up before our eyes.

To drop the figure of speech and talk in terms of actual happenings, we have witnessed changes in these nine years which have embraced an increase of students from seven in 1929 to one hundred and eighteen in 1937, an increase of equipment from seven looms and a few other tools in 1929 to fifty-seven looms and a goodly supply of other handicraft equipment in 1937, and an enlargement of the territory served from three or four states in 1929 to twenty-two states, the District of Columbia and Alaska in 1937. This growth has occurred with such lightning-like rapidity that it has been a bit overwhelming, and many times we have suffered real anxiety when we have realized we would not have room for one single other person should an application come. Perhaps the most amazing and breath-taking change of all has been the one brought about by the erection of the Edward F. Worst Crafts House—a beautiful log and stone building 50 x 80 feet which was started by the students of 1934 and named in honor of Mr. Worst. Since that time the building has grown bit by bit, largely by gifts, until now it is all enclosed, the sleeping quarters on the second and third floors finished, the plumbing and electricity installed, the daylight basement finished sufficiently to permit the use of it for classes in basketry and chair seating, and the spacious first floor and porch, while far from finished, can be used in comfort for the classes in weaving.

The courses this year will be of six weeks' duration, beginning on July 11 and closing on August 20th. The first three weeks will be devoted to elementary instruction, and this part of the course will be conducted by Mr. Rupert Peters, Director of Visual Education in the Public Schools of Kansas City, Missouri, who for the past three years has worked with Mr. Worst at Penland. This preliminary session is planned in order that beginners may have the fundamentals of hand weaving before Mr. Worst comes to give the advanced work. During these three weeks, the student will learn how to make a warp, put it on the loom, thread it, sley it, tie up the loom, and weave four harness patterns. She will be taught, further, how to write drafts from samples of cloth and how to draw the pattern of the cloth to be woven when only the draft is given. At the end of the three weeks, the student should be well prepared for the advanced course under Mr.

Worst, or if she is an occupational therapist or teacher of weaving where her work may be confined to the usual four-harness Colonial weaves, she should be able to leave the course and go back to her work ably equipped to set up her own loom and carry on without help. During the pre-



Mr. Worst, Mr. Miller, Mr. Peters, Mrs. Worst, L.M.

liminary session attention will be given mostly to looms requiring four harnesses or fewer. Any weave requiring more than four harnesses is classified as advanced work and will be taken up by Mr. Worst in the second half of the course. It is hoped that we may be able to have Mrs. Gertrude Roberts Smith, formerly Art instructor in Sophie Newcomb College, to teach color harmony and design and to bring added interest and inspiration to the elementary course.

For the past seven years, there has been offered instruction in a variety of allied crafts in order to round out the program and serve as a supplement to the instruction of those who do not wish to spend all of their time weaving. These crafts have included carding, spinning of wool and flax, vegetable dyeing, pottery, basketry, chair seating, and metal work and jewelry making. Many of these crafts are taught to Institute students by our own mountain neighbors in the way they have been done here for generations. Under the able supervision of Mr. Clyde P. Miller, expert gold and silversmith of Milton, New York, the courses in metal work and jewelry-making have risen to major importance in the last three or four years. Mr. Miller's pupils have turned out some unbelievably beautiful pieces, and his classes have grown increasingly popular. Mr. Miller will be at Penland for the entire six weeks' course and his classes as well as those in the minor crafts will be open to all students of both the preliminary and advanced weaving courses.

In addition to the usual Colonial weaves offered, other interesting weaves will be stressed this year, such as Spanish weave, weaving in the Italian manner, and Indian blanket weave. The changing of the usual four-harness weaves into Summer and Winter, Double, Honey Comb, Crackle, and Damask weaves, will also be given attention. A great variety of simple crafts will be executed in the evenings around the open fire places. These will include knots and braids, card weaving, the use of belt and bead looms and practice with tongue-depressor looms. Articles fashioned from pine needles, corn shucks, and other native materials will also figure in these informal fireside classes.

Some provision for recreation has been made in the past. Last year on one evening the students enjoyed a talk on handicrafts in other countries by a friend of the Institute who had recently returned from abroad; on another evening a play, depicting the history and development of the work at Penland was presented by local talent, and opportunity was given everyone to visit Doc Hoppes in Hoot Owl Holler and hear him sing the traditional ballads of the hills to the accompaniment of his banjo. The usual experience has been, however, a difficulty in luring students away from their work long enough to take nourishment and to enjoy some of the beauties of the surrounding region. A number of excursions are being planned this year which it is hoped many of the students will want to take. All day trips will include (1) Blowing Rock, Grandfather Mountain, and Linville, (2) Chimney Rock and Lake Lure, (3) Asheville and points of interest there, and (4) Mt. Mitchell. Little Switzerland, Roby Buchanan's mill and stone-cutting shop on Cane Creek, Minpro Feldspar mill, Linville Falls, or Wiseman's View may be visited in an afternoon, while delightful after supper trips may include a ride to Bakersville to view Roan Mountain or a visit with Doc Hoppes. Often students come who wish to combine a real vacation and sight-seeing trip with their work at the Institute and for them, week-end trips may be planned to the Great Smoky Mountains National Park, the Cherokee Indian Reservation, and other points of interest. Those in charge at Penland are anxious for students to learn all and see and enjoy all that it is possible to crowd into six weeks, and they are eager to cooperate in every way possible toward making the Penland Institute a rich experience for all who come.

May we digress from the title of this article long enough to tell you something of our plans for next year? Nineteen-thirty-nine marks the tenth anniversary of our Weaving Institute, and it is our hope and plan to recognize it with a fitting celebration. Our former students and "alumni" will be especially invited to return for a "homecoming" and reunion. A resumé of the ten years' work will be presented in some fitting way, and exhibits of handicrafts from various parts of the world, including especially samples of folk arts and crafts from the Southern mountains, will be on display. To Mr. Worst, whose devotion to the cause of handicrafts dates back to the time when, with the help and guidance of Julia Lathrop and Ella Flag



"Aunt Harriet"—teacher of spinning.

Young, he was the first person to introduce weaving into the public institutions in the State of Illinois, will be given honor for the outstanding contribution he has made in his field, and especially for the years of service he has given to Penland. Along with Mr. Worst will be honored Mr. Miller, Mr. Peters, members of our own community and others whose interest and talent has made the Penland School of Handicrafts what it is today.

It is not often that two important dates are commemorated in the same year but it is true that in October 1939, the tenth anniversary of the founding of the Southern Highland Handicraft Guild will be celebrated at Penland. It was at Penland that the Southern Highland Handicraft Guild had its inception and held its pre-organization meeting. It is fitting, therefore, that this group should come to the place of its birth to observe its tenth birthday. It is with a great deal of pleasure and profound gratification that Penland looks forward to being host on these two significant occasions in 1939.

Further information regarding the courses or the anniversary celebrations will be furnished by Miss Lucy Morgan, Director of the Penland School of Handicrafts and the Penland Weavers and Potters, Penland, North Carolina.

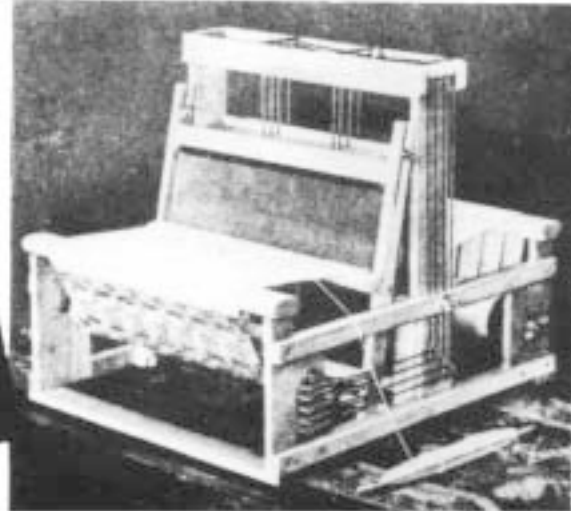
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