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THE WEAVER

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QUESTIONS AND ANSWERS

by MARY M. ATWATER

Address all questions to Mary M. Atwater, Director of the Shuttle Craft Guild, Basin, Montana

Question: Please explain the "Bronson" weave — what is "straight Bronson weave?" What is "lace Bronson?" How does this differ from the Swedish lace-weave?

Answer: The correct name for what we call "Bronson Weave" is "Spot" weave. I came upon some drafts in this weave while I was preparing the material for my Shuttle-Craft Book. They were contained in an ancient weaving book by one "Bronson". I recognized the weave as a common one for linens in the old day, and in order to have a handle for it I called it by the name of the author of the book. Later I discovered in another ancient book that the correct name is "Spot Weave" and that it is a weave of English origin. The name "Bronson Weave" had become well established by that time, however, and most people know it by this title.

The "straight" Bronson weave consists in threading half the warp on the front harness, no matter how many harnesses are used, and threading the pattern threads on the rest of the harnesses. This way: 1,2,1,2,1,3,1,3,1,4,1,4, and so on. Typical drafts are Numbers 264-5-6-7-8 and 270, page 260

in the Shuttle-Craft Book. The warp is set somewhat closer than for plain tabby weaving.

Sometimes the weave is threaded as in drafts 256-7-8-260 and 261, page 256 of the Shuttle-Craft Book, and draft 269, page 260. In these drafts a small three-thread block occurs between the larger pattern blocks, all these small blocks being on the same shed. These drafts may be woven in the ordinary way as "straight" Bronson weave for linens, but when warped much further apart than for tabby and woven with fewer weft shots to the inch, the small intervening block omitted in treadling and a tabby shot used instead, an effect like the Swedish lace weave appears when the fabric is washed. This lace effect differs a little from the Swedish lace-weave. In the Swedish weave two alternating figures are used, in one of which the skips are in the warp while in the other they are in the weft. In the Bronson lace effect all the skips are in weft on one side of the fabric and in warp on the other side.

The Bronson lace-weave lends itself to more elaborate effects than the Swedish weave as it is possible to weave several blocks together to make large openwork figures. This is not possible in the Swedish weave.

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Paul Bernat, Editor

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SPEEDING UP THE PROCESS OF LOOM WARPING

by FLORENCE B. FOWLE

My experiences with advanced weaving pupils, with procedures in studios I have visited and with various text books on weaving have convinced me that few weavers are acquainted with quick and efficient methods of warping a loom. It is in the hope that the use of such methods will result in a saving of time and nervous energy to many weavers that this exposition is undertaken.

For power looms, all warp beams are filled away from the loom. A single thread cross is secured in the warp. The worker stands in the loom, in the space between the heddle frames and the warp beam. To the ends of the old warp as they come from the heddles, he twists, in the correct sequence, the ends of the new warp. The new warp is then pulled through the heddles and reed, tied onto the cloth beam bar and the loom is ready for weaving.

Amateur weavers and small studios are not equipped to fill warp beams in this manner. Some weavers wind the warp from front to back of the loom by means of a raddle, or warp spreader, which is placed in the loom after removing the harnesses. This necessitates a great deal of extra work. Also, the warp lies in bunches on the warp beam instead of smoothly in the correct order of the warp ends.

Some prefer to draw the warp ends through the reed from front to back, thread the heddles with the chosen threading, tie the ends onto the warp beam bar, and then wind the warp onto the warp beam. This is a far better method, as it

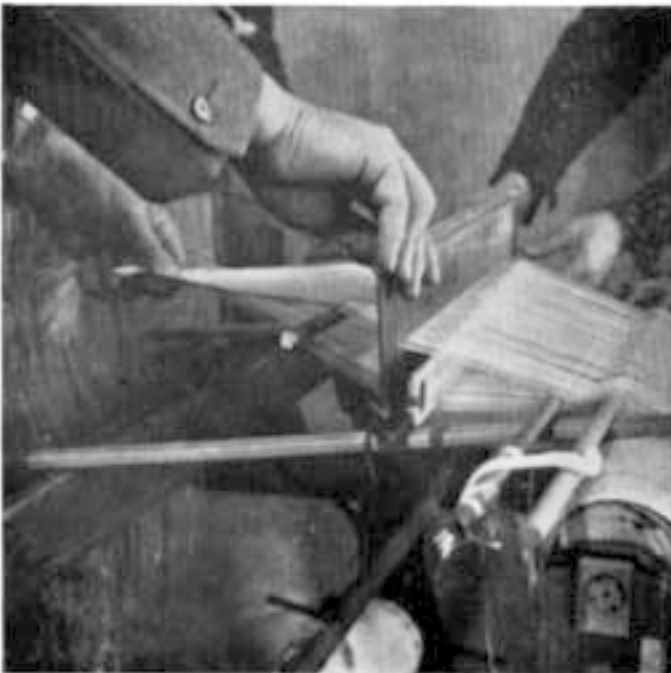


Illustration No. 1



Illustration No. 2

ensures the warp ends' lying smoothly on the warp beam, in the correct order. It is a rather awkward process, however, to select the ends in proper sequence, especially if the warp is sleyed, or drawn through the reed, two warp ends to a dent. It then becomes necessary to transfer the single thread cross through the reed in order to thread the warp ends in their proper order. To do this is a little tedious, but not difficult.

If the top of your beater is removable, it will be found convenient to take the reed from its vertical position and lay it horizontally across sticks placed at the sides of the loom, from breast beam to warp beam, to support it. See Illustration No. 2. After the reed is sleyed, run a broad shuttle or similar stick through the warp in the same position as the shed stick nearest the reed. Push this stick close to the reed and turn on edge, holding a tension on the warp. The separation of alternate warp ends will be visible behind the reed. (Illustration No. 1.) Place a dowel through the opening thus revealed. You can then remove the shuttle and the stick from the shed you have thus transferred from the front to the back of the reed. Now run the broad stick through the warp to duplicate the second shed stick which will have marked the crosses in the warp. When the broad stick is turned on edge close to the reed, and the dowel behind the reed moved a few inches away, the second cross will be visible. A second dowel can be placed behind the reed through this opening. The single thread cross will have been trans-

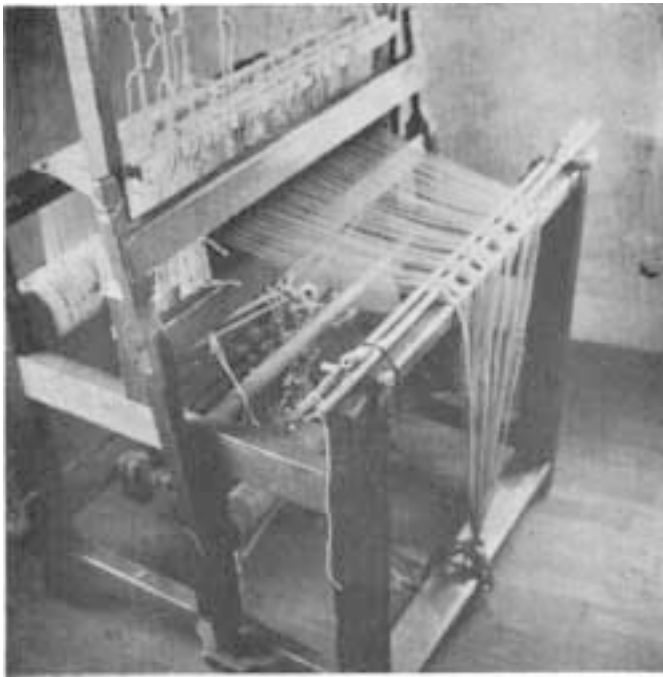


Illustration No. 3

ferred through the reed and the new warp can now be threaded in the correct order, tied to the warp beam bar, and wound on the beam. See Illustration No. 2.

In this process, however, a time-wasting difficulty presents itself. A well made warp is measured off on the warping frame with all the warp ends the same length and tension, and lying next each other in perfect order and perfect alignment. During the threading and tying-on process this alignment is disturbed, as it is impossible to keep all the warp threads absolutely together when tying the groups of threaded ends onto the warp beam bar. While winding on the new warp it will be necessary to comb and smooth and pull and otherwise struggle to restore the even tension lost in the process of threading and securing to the warp beam.

A very simple device will overcome this difficulty. Before disturbing in any way the new warp, while it is still the smooth group of strands removed from the warping frame, determine at what point, measuring from the end at which the single thread cross is secured, the warp is to lie across the breast beam in order to allow sufficient length for threading and tying on. Have an assistant hold the warp against the breast beam at this point while you secure the alignment of the strands by means of a tassel head. To make this tassel head, measure off about a yard of some strong worsted yarn, double Germantown or knitting worsted or its equivalent in finer yarn. This is to be tied around the rope of warp at a point as near the floor as possible. If you are equipping a foot loom, the tassel head will be formed close to the foot-beam which connects the frame of the loom close to the floor. If you have a table loom, use your ingenuity to supply a substitute for this foot-beam. A straight

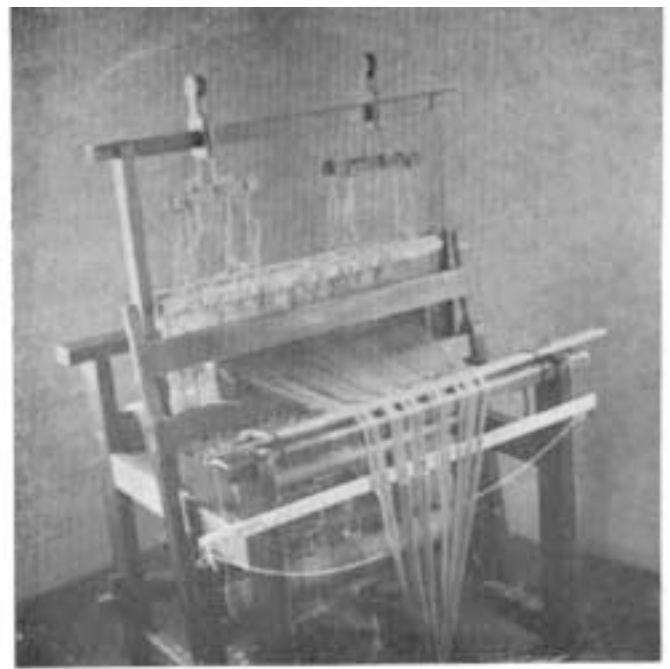


Illustration No. 4

chair laid on its back under the table and weighted down if necessary, may answer. Having determined the correct spot, a few inches above the foot beam, tie the yarn tightly around the rope of warp in a hard knot, leaving equal ends. Double the warp rope back on itself at the point where the yarn is tied, to form the ball part of a tassel head. Holding the doubled rope in one hand, wind one of the lengths of yarn firmly several times about the doubled warp to form a collar below the ball of the tassel, making this ball quite small. Hold securely while the other length is wound about in the other direction. See that the collar is very tight, and tie in a hard knot. This collar will hold the alignment of the warp ends beyond the possibility of slipping. The long ends of yarn may now be passed around the foot bar, at the exact center of the loom, and tied securely. See illustration No. 3. Thus an even tension on all warp ends is assured.

The object of securing the tassel head at the floor is to avoid, as far as possible, differences in the length of the warp ends. There will of course be a slight difference in the length of the warp ends from the tassel head to the heddles in the center of the loom and those on the edges. In wool warps this difference is quite negligible. In linen or cotton warps the difference is taken up in beaming by holding the warp chain in process of being beamed as far from the loom as the dimensions of the room will permit.

When the warp is tied onto the warp beam bar and is ready for beaming, the next step is to put the beaming-stick in position. A yard-stick with a small hole bored in each end is satisfactory. Before the tension at the foot-beam is released by cutting the yarn with which the warp is held down, run the yard-stick through the warp to duplicate the

further forward of the two dowels which mark the single thread cross. Through the hole in one end thread a length of strong twine a foot longer than the stick. Pass this twine behind the entire warp and tie the other end through the hole in the opposite end of the stick. See illustration No. 4. This stick will divide the warp into two planes, with alternate warp ends above and below. The twine is to hold the position of the stick if it should slip out of the warp during the beaming process. By following the twine to one end of the stick, it can be restored to its proper position.

The shed sticks which have marked the crosses can now be taken out, as their function was to indicate the order of warp ends for reeding and threading. As this has been done, and one of the shed sticks has been replaced by the beaming stick secured with the twine, they are no longer needed.

The warp is now ready for winding on the warp beam. Its smoothness and order is ensured by its even distribution through the reed and heddles, which will keep it in its proper order during the winding process. If available, four persons is the ideal number for a beaming team. Of these, three may be unskilled labor. However, two may accomplish the task in only a little more time.

After you are assured that the beaming stick is secured in place, the yarn forming the tassel head is carefully removed. The warp is unchained and the person who is to hold it moves back with it as far as the dimensions of the room will permit. If the warp has been well made and tied with the same tension to the warp beam bar, the warp ends should all be the same length and the warp wind smoothly through reed and heddles and onto the warp beam.

Before beginning to wind, the yard-stick secured by twine, which we have called the beaming stick, now comes into use. With your assistant holding the warp under tension, carefully centered so that the two selvages are equally tight, stand close to the loom, facing it. Hold the beaming stick in one hand, the hand farthest from the warp, and turn it on edge to separate the two layers of warp. Press down the lower layer with the stick, at the same time grasping a group of the upper layer of threads and pulling these upwards, thus separating the two layers widely. See illustration No. 5. Repeat the process across the width of the warp until the two layers are completely separated. Then move backwards a yard or so and repeat, continuing until you work back to the assistant. As the warp moves forward in winding, this separating process is repeated.

Pull the beater forward and let it rest against the breast beam. Should any warp ends twist about each other due to slight differences in tension, the beater will tend to be pushed backward by this twist and warn you before a break can occur. If a helper is available to stand in front of the reed, watching for such twists and plucking at the warp threads to separate them should such twists occur, so much the

better. If another helper is available to turn the warp beam, that too will save time.

As soon as the warp is separated and you are ready to wind, stand behind the loom. By pressing lightly on the warp at the edges and toward the center, you will be able to detect any differences in tension. If the warp is not held correctly centered, one selvage will be looser than the other. As you wind the warp on, repeat this testing process often.

When beams are filled by machinery, the tension is controlled mechanically and is constant. The tension should be as strong as possible without making the winding too difficult or causing the loom to move forward, and as constant as human muscles can hold it. With a heavy warp, such as rug warp, it is well to have an improvised snubber, a heavy chair inverted so that the warp may pass over and under the rungs and add resistance without the exertion of so much pull on the part of the holder, will be a great assistance. If the warp is a lighter one, the holder may stand with arms extended fully forward. Let the weight of the body, leaning slightly backward, keep the tension, rather than arm muscles.

As the warp is wound on, do not allow the rope of warp to slide through the hands. The friction on the outer threads of the warp will disturb the alignment of the warp ends. Instead, release the grip of the forward hand and take a new grip behind the other hand — rather like climbing a rope backwards.

As hand beamed warp can not be wound so tightly as machine beamed warp, it is necessary to wind papers between the layers of warp on the warp beam to prevent the top layers from cutting into the layers below and spoiling the tension. Double layers of newspapers answer this purpose perfectly. As one paper is wound under, another is introduced. In introducing a paper, hold the edge taut between the two hands so that it will wind smoothly under without wrinkles. Papers wound in with the warp have the further function of preventing the selvages from slipping down over the lower layers and so spoiling the edge tension. Some weavers use thin sticks laid across the beam every few inches. Sticks used in the bottoms of window shades are sometimes so used. These make a bulky warp beam, however, and on a short warp are no more efficient than paper. Building paper, cut in lengths the width of the warp beam, is convenient for looms wider than newspapers.

A wool warp up to twenty yards long should wind on in fifteen minutes or less, without manipulation, as the elasticity of the yarn takes care of slight inequalities in tension. Linen and cotton, as they have no elasticity, may take a little longer, as any differences in tension which occurred when the warp was made will appear as slack threads in the winding. In case of such slack ends, avoid a combing action through the warp. Place a hand about the offending section, fingers flat below, thumb pressed flat above and smooth downward, until the slack of the loose

ends is caught under the hand gripping the warp. If too many of these loose ends have been smoothed down, it may be necessary to move forward with the warp until the smoothed section is beamed. Then retire to the original position and repeat. These inequalities are not caused by beaming. They were caused on the warping frame.

This proceeding covers the beaming of an empty loom. It often happens that a loom equipped with a much-used threading needs a new warp. To empty and re-thread is a slow process. Much quicker to tie on a new warp of the correct number of ends. The problem involved here is to tie new warp to old warp so that the tension on all threads shall be the same. By fastening the new warp by means of a tassel head to the foot-bar, as described above, in order not to disturb the alignment, this tying on can be done in far less time than required for re-threading. Arrange the new warp so that the shed sticks marking the crosses lie on the breast beam and the ends reach about to the beater. Tie these sticks down to the ends of the breast beam a trifle loosely with strong worsted yarn, and insert a pencil or other small object between the beam and the sticks at each end so that the warp threads will not be pressed against the breast beam and unable to move freely. Insert another wedge between the shed sticks at each end, so that the crosses between them will be clearly visible when selecting the threads in their correct order for tying on to the old warp. See Illustration No. 3.

Before cutting off the last piece of work from the old warp, open one tabby shed and insert a shed stick, preferably a small round dowel, in the shed. Pull this dowel forward, open the other tabby shed and insert a second dowel. Push both dowels back close to the reed. When cutting off the work, grasp the warp ends in bunches, cut close to the cloth, and tie the groups of ends close to the reed with slip knots. These shed sticks are essential when two warp ends are sleyed through a dent, as otherwise it is impossible to tell which end comes first.

The knot used to tie the old and new warp ends together is a square or reef knot. It has the advantage of being distributed around the warp yarn and hence goes through the dents easily. The method of tying this knot so that the tension shall be alike on all joined ends is illustrated in Figures 1 to 8 of Illustration No. 6. For purposes of explanation call the old warp black and the new warp white. When practicing this knot to acquire facility before typing on a warp it is advisable to use yarn of two different colors.

Fig. 1. Select the first thread of the old warp (black) and hold in the left hand, between thumb and index finger, the hand to be held in a vertical position. Select the first thread of the new warp (white) and hold in the same manner, except that the end will of course point away from you. The right hand should be about four inches in advance of the left. For practice, a group of threads to represent the old



Illustration No. 5

warp may be tied to any stationary object, and a group of threads of a different color to represent the new warp tied to your belt.

Fig. 2. Separate thumb and index finger of right hand from the other three fingers. Allowing the three lower fingers to pass below the black warp thread, cross the white thread over

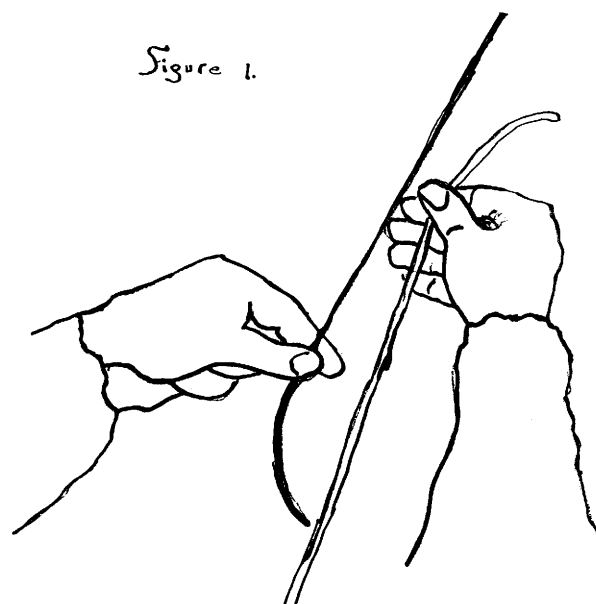


Figure 1.

the black thread, producing the triangular space X.

Fig. 3. Insert middle finger of right hand in this space.

Fig. 4. Transfer grip on white thread to middle and fourth fingers.

Fig. 5. Pull white thread to the right and hold again between index finger and thumb, this time with its end

hanging down over the palm and pointing towards you.

Fig. 6. With the white thread behind all four fingers, press little finger of right hand on the crossing of the two threads. Maintain this pressure until tying of the knot is completed.

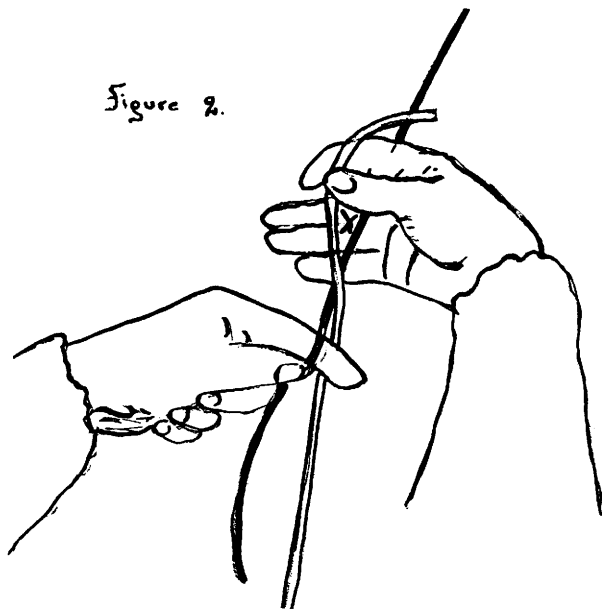
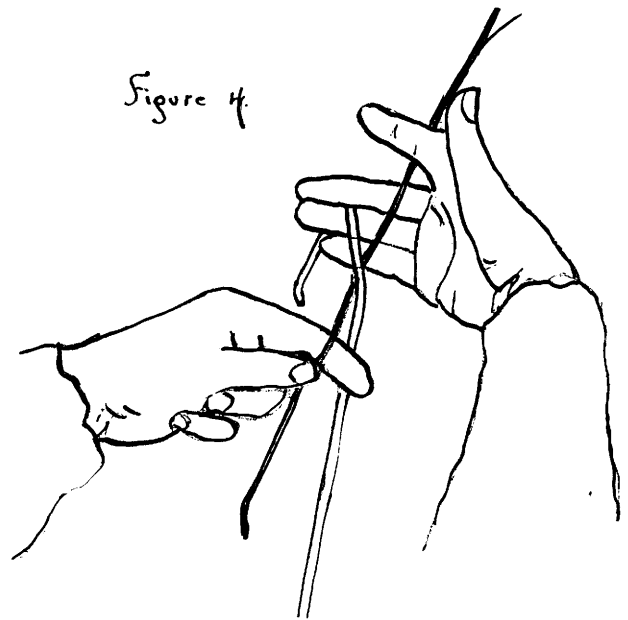


Figure 4.



parallel with its own color, with right hand pull white thread toward you, parallel with its own color, both pulls to be of the same strength. As the pull begins, withdraw the little finger from the point where it has been pressing against

Fig. 7. With left index finger lift black thread so that it lies beside the white thread across the right index finger. With the right thumb roll the white thread over the black,

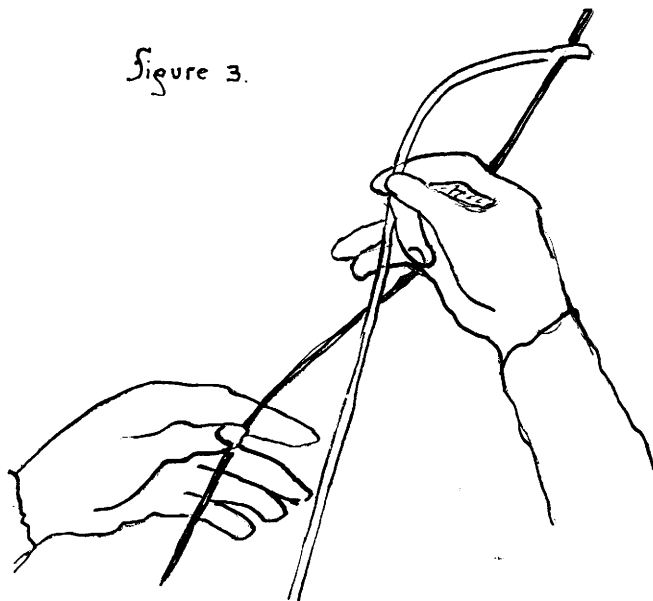
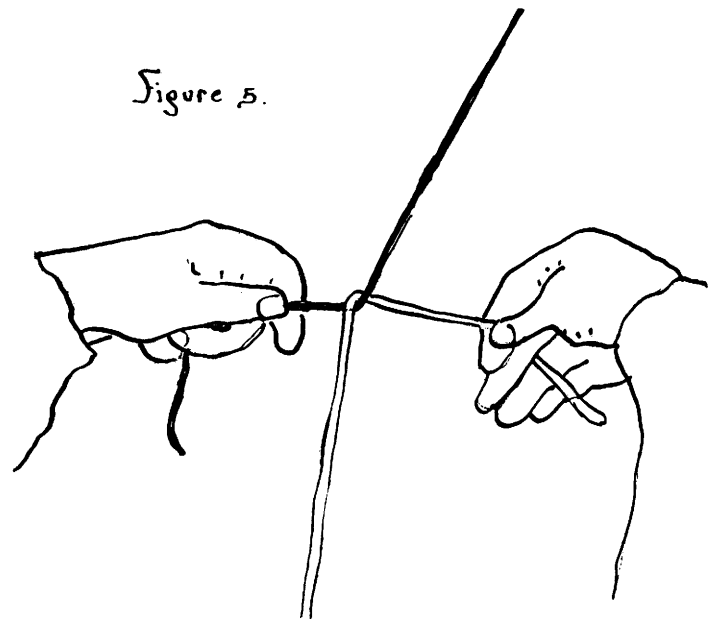


Figure 5.



the crossing of the two threads. Are you ready? Gently, not jerking, pull!

catch again with right thumb and finger and hold while you consider the next move.

Fig. 8. Be prepared to make three simultaneous motions. With left index finger pull black thread away from you,

If the pull is stronger with one hand than with the other the knot will slip. This ability to break the knot is a great advantage if by mistake you have tied the wrong ends together. To break the knot, straighten out either the black or the white thread, and the other can be pulled off it.

Figure 6.

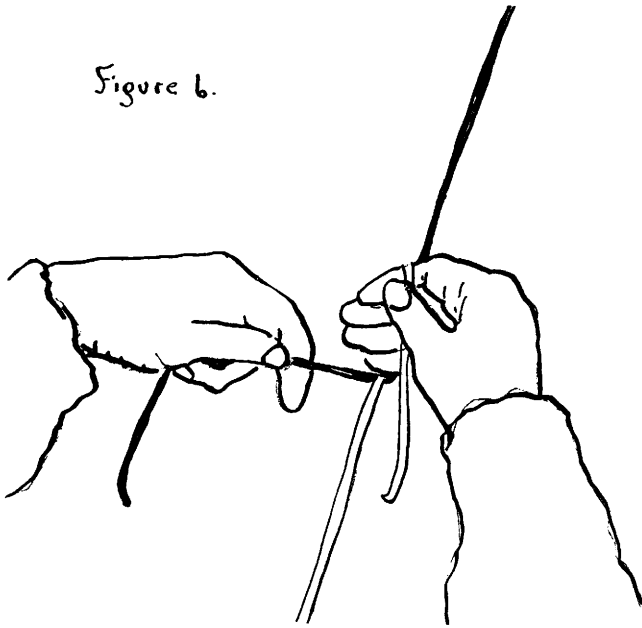
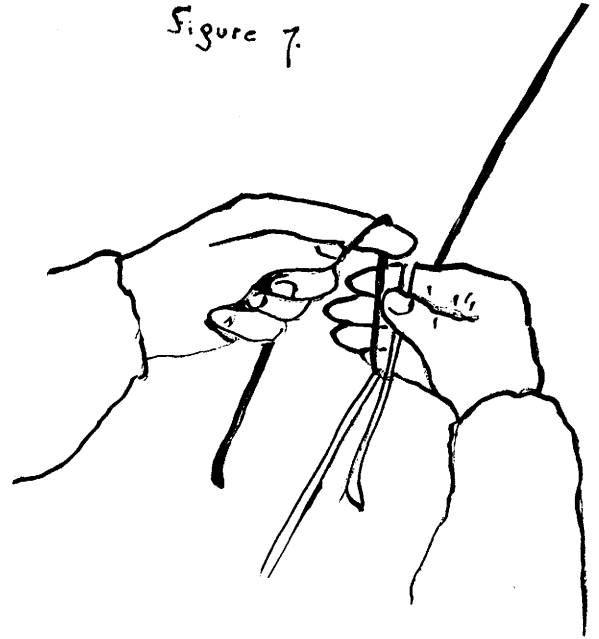


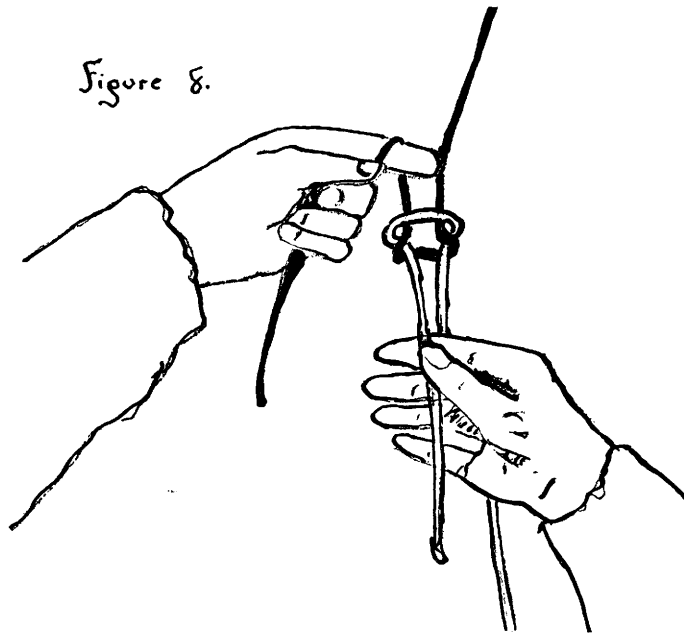
Figure 7.



At first, to test your knot, tug lightly at each knot when tied to see if it is secured. It will take a little practice to get the same tension on all the ties. Two people can rarely match each other's tension. It makes no difference whether you tie with a tight or an easy tension, provided all are alike. In case of appreciable differences in the tension, enough to cause slack ends in beaming the warp, it may be advisable to untie the old warp ends from the warp beam bar, pull the tension even and retie before releasing the tassel head from the foot bar.

While description of the method of tying this knot sounds complicated, dexterity comes very quickly. Wool is quicker to tie than cotton or linen. A six hundred end linen warp of twenty yards length can be tied in two hours or less, and beamed in less than half an hour, if the warp, when measured on the warping frame, has been made with all the strands the same tension and the same length.

Figure 8.



DID YOUR WIFE REALLY WEAVE IT?

by NANA E. DURRELL

My husband likes his hand-woven suit. It is not itchy. It is cool and porous. It can be worn many times without pressing. The collar sets lightly on his weary neck. There would be many more contented husbands if the wives only knew how little time it takes to weave woolen cloth, and how inexpensive a suit from such cloth really is.

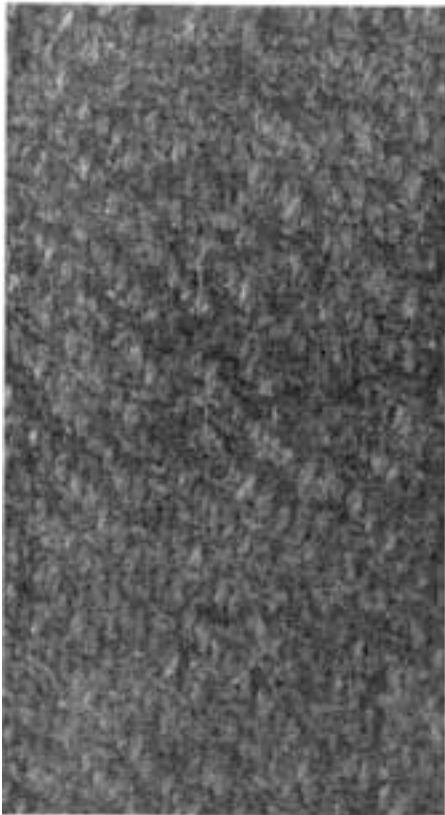
Three and one half pounds of Bernat's Imported Tweed was used. The warp is a gray mixture, almost a steel gray, and a little dull by itself. But the weft is a lighter gray with flecks of tan and blue and rose. The two combined make a delightful piece of cloth, especially for a person with light hair. The yarn runs 2500 yards to the pound, and the cloth was woven with sixteen threads each way, a simple twill being used.

I wash all my cloth by hand in mild suds and cool water. It may be wrung back and forth with the wringer, but never rubbed or twisted. The dry cleaner will take the damp cloth and finish it, charging only fifty cents for a long, heavy piece that is very hard to manage at home. It always loses a little in both width and length by this process, but experience has shown that its shrinking days are over.

Scribbled down in an old note book are the answers to all the many questions that are asked about my husband's suit. The warp was seven and three fourths yards long, measured on a warping board and drawn through a piece of comb directly over the back beam and onto the sectional beam. The cloth was woven thirty-five inches wide, and when cut out of the loom it measured seven yards and four inches long. It lost four inches in length and one in width through washing and pressing. The right side was drawn across the dining table and all flaws mended with a needle.

Here is the time it took to make the cloth. Time to measure and chain and draw in the thread; twelve and a half hours. Time to weave; thirty hours. All together; forty-two and a half hours.

Three and a half pounds of Bernat's Imported Tweed were used for the fabric. The local tailor was afraid to cut into our handsome cloth, so he sent it to Chicago. For a two piece suit with medium grade lining the cost was twenty-one dollars. My husband surely likes his hand-woven suit, but I am afraid we will all be tired of it before it wears out.



NEW CURTAINS FOR SPRING

by MARY M. ATWATER

New curtains for spring! What an exciting and interesting problem! And not too easy, either. For nothing makes as great a difference in the effect of a room as the draperies. With drapery we can give charm to a bare room, give an accent of interest to a rather dull and commonplace room, harmonize a room full of warring colors and decorative details — we can even change the apparent proportions of a room by making it seem wider than it is, or higher than it is. But we can't do these things without careful planning. And this is all the more important because much time and material goes into the making of a set of draperies, and once made and put in place they will be there — a pleasure or an annoyance — for a long time to come.

Draperies should always be planned for the place they are to occupy, for what might be beautiful in one setting might easily be atrocious in another. So the problem is always a special and particular problem and cannot be solved in general terms.

Here are the things we must consider in making a plan: the size and shape of the room and the amount of drapery to be used. It is obvious that if the room is large with many curtains it would be unwise to use too large and insistent a pattern as the effect would be tiresome. A monotony of violent pattern is far more distressing than a monotony of blankness, though neither is desirable.

Next we must consider the character and use of the room — whether a formal reception room, a bright sun-room, a young girl's bedroom, or the "old man's" den, for instance.

Next, the style of the room — whether classic Colonial, Spanish, modern, etc. As a rule we have the problem of planning draperies for a room already in use and definitely established in general style and color-scheme, and unless we are able to change all the details of the room we must keep to the already existing style or we shall create a bad dis-harmony.

We may also need to consider what about the room needs improvement and how to accomplish it with the drapery — whether, for instance, we need an accent of bright color and design or whether we need to tone down a "fussy" effect.

Having taken all these things into account we can proceed to choose the weave and pattern, the colors and material for the proposed draperies.

From the point of view of design we might separate drapery effects into three general classes: those in which there is a definite pattern or decorative figure; those woven to produce effects of perpendicular or crosswise stripes; and small all-over effects sometimes called "texture" weaves.

Pattern, when correctly used, gives the most decorative effects, of course. People sometimes hesitate to use a large pattern for fear that it will be "wrong" in some way, as they would hesitate in choosing a large and imposing pattern figure for a dress-fabric. And it is true that a pattern poorly chosen for its surroundings may be extremely painful. How-

ever, when well used, pattern is one of the pleasures of life. To hang just strips of "fabric" in a rather bare and uninteresting room would add little to the comfort of those who use the room, no matter how beautiful the fabric might be in itself. We do not look at draperies from close at hand, as a rule. They are seen at a distance, as part of the general surroundings, and should be planned with that fact always in mind.

Drapery fabrics woven to give striped effects are often very effective; and the stripes may be used, as suggested above, in giving a room greater apparent width or height. Horizontal striping is particularly popular — perhaps because it is so easy to weave crosswise bands, and also perhaps for a psychological reason we may not realize. A bold stripe of color across a doorway has the sometimes agreeable effect of a barrier, giving a feeling of "withinness" to a room, a feeling of protection against the outside world. Lengthwise striping adds to the effect of drapery as drapery — as something hung up — which is very desirable, but if stressed too much may have the unpleasant connotation of bars, and should therefore be used with caution.

The "texture" weaves may of course be used in producing the striped effects. Otherwise they are valuable chiefly in toning down a decorative effect. They add richness to a fabric and when beautiful in color and material may lend just the restful note desired, but they may also look merely timid and uninteresting when viewed from a distance. That would be an unhappy result for hours and hours at the loom.

But no matter whether we choose a pattern, stripes or a "texture," from the point of view of design the most important thing is to have the drapery look like drapery, and like nothing else. For a Colonial room, for instance, it is not enough to select a beautiful old pattern and weave it long enough and wide enough for the door-way or window opening. When hung in place such a drapery might have the unpleasant effect of grandmother's bed-spread doing emergency duty to keep out the wind.

There can be no rule as to the choice of color as this depends so entirely on the color-scheme of the room in which the drapery is to hang. For strictly Colonial effects in an "early American" room, only the traditional Colonial colors are suitable, of course. For Spanish hangings rich, warm and rather violent color-combinations are required, with a great deal of red and black. The modern style lends itself to sophisticated color-combinations and to extremely bland effects done in tans, taupe shades and off-white shades. Very beautiful to my way of thinking.

The choice of material, again, depends on the general character of the room. A formal room may demand silk or fine wool, while a bedroom seems happier dressed in cotton or linen. The choice of material should also be made in combination with the choice of weave, as some weaves are suited only to certain materials.

To take a concrete problem: suppose we want to weave draperies for an informal room, more or less modern in general effect, but not violently "modernistic." The room, we will suppose, has plain — not patterned — walls, and bare floors with a few rugs, and pieces of furniture with plain lines and flat surfaces. It seems obvious that we need a pattern in the drapery to lend liveliness to the general effect.

The specially designed pattern used to illustrate this article, which I am calling "Rain on the River" to give it a handle, seems to me attractive for the purpose. It lends itself easily to a number of variations, as I shall explain, it is easy to weave, has an interesting texture, and a modern though not "ultra" movement.

This matter of movement is important in modern design. Most of the Colonial patterns are definitely static, composed symmetrically between two centers and revolving about those. Modern patterns have a balance, too, but a much more subtle one, and usually give an effect of going all one way. They are plainer in effect than the sometimes rather "fussy" old-style patterns, being made up for the most part of large simple masses, contrasted with fine lines. The present pattern, it will be noted, is built on the lines of a double twill — the large blocks stepping up in one direction and the fine lines twilling the opposite way.

As the overshot weave is unsuited to patterns of the modern type I have used crackle weave for this pattern. It might also be woven in summer and winter weave — on six harnesses.

This type of pattern may be woven in several different methods, which produce a variety of textures. Several of these are illustrated by the woven samples. For all these samples I used an Egyptian cotton 24/3 for warp, at a setting of 22 ends to the inch. Settings of 20 to the inch and 24 to the inch might also be used if more convenient, without greatly changing the effect.

The simplest manner of weaving is illustrated by sample No. 1, in which white tufting cotton was used for the pattern shots and a rough natural colored linen for tabby. The pattern blocks were woven in regular twill succession with the same number of shots over each: treadle 1, 13 shots; treadle 2, 13 shots; treadle 3, 13 shots; treadle 4, 13 shots and repeat.

(On a loom equipped with only four treadles: weave treadles 1 and 2; treadles 2 and 3; treadles 3 and 4; treadles 4 and 1. On a table loom with the hand-lift, weave: levers 3 and 4; levers 1 and 4; levers 1 and 2; levers 2 and 3.)

A shaded effect in colored tabby is very attractive with the pattern done in white or cream. I wove a piece this way: two blocks with tabby in deep wine-color; two blocks with the tabby alternately wine and henna; two blocks with tabby in henna; two blocks with tabby alternately henna and burnt orange; two blocks, tabby burnt orange; two blocks, tabby burnt orange and orange; two blocks, tabby orange; two blocks, tabby orange and gold; two blocks, tabby gold; two blocks, tabby gold and a greenish yellow; two blocks, tabby greenish yellow; two blocks, tabby greenish yellow and light yellowish green; two blocks, tabby yellowish green; two blocks, tabby light green and medium green; two blocks, tabby medium green; two blocks, tabby medium green and blue-green; two blocks tabby blue-green; two

blocks tabby blue-green and dark green; two blocks tabby dark green; two blocks tabby dark green and dark greenish blue, and so into the blues and through the purples back to the reds. This really gives a charming effect. Use "Perugian" cotton or "Perleen" for tabby.

Sample No. 2 was woven in tufting cotton in two shades of brown, with a tabby like the warp, and was treadled as for summer and winter weave. This way:

First block: 1, 2, 1, 2, 1, dark brown; two tabby shots between pattern shots.

Second block: 2, 3, 2, 3, 2, dark brown; tabby as above.

Third block: 3, 4, 3, 4, 3, dark brown; tabby as above.

Fourth block: 4, 1, 4, 1, 4, dark brown; tabby as above.

The large blocks were woven in the same manner, with more shots over each block and with alternate shots of dark and medium brown. The upper row of small blocks was woven like the first four, but all shots in medium brown. This method of weaving is effective when woven with a very coarse pattern weft as described but would not be interesting if woven in fine material.

Sample No. 3 was woven in the Italian manner, without a tabby. This seems to me a particularly attractive method of treadling for a drapery fabric, as it produces an interesting and unusual texture and permits a fine play of color. The technique has been explained before, but the treadling is repeated here for convenience. Two colors may be used — a pattern color and a background color — but a more exciting effect results from using three colors — a pattern color and two background colors. Four color-shades result due to the manner of overlapping of the colors.

First block:

treadle 1, pattern color
treadle 2, background color (a) — the darker of the shades
treadle 1, pattern
treadle 4, background (b)
Repeat as required for size of block

end:

treadle 1, pattern

Second block:

treadle 2, pattern
treadle 3, background (a)
treadle 2, pattern
treadle 1, background (b)
Repeat

end:

treadle 2, pattern

Third block:

treadle 3, pattern
treadle 4, background (a)
treadle 3, pattern
treadle 2, background (b)
Repeat

end:

treadle 3, pattern

Fourth Block:

treadle 4, pattern
treadle 1, background (a)
treadle 4, pattern
treadle 3, background (b)
Repeat

end:

treadle 4, pattern

This technique may be used with any pattern in crackle weave and also with overshot patterns, provided there are no very long skips. The material used for the background shots may be the same material as that used for the pattern shots, and should not be much finer in any case.

It will be noted that this sample is shaded from darker at the bottom to lighter at the top, the shading being in the background. For a long curtain, very dark colors should be used for the bottom part. This was not done on the sample as it would not show well enough in a photograph.

You might weave the bottom flight of four blocks with black for pattern, background (a) in dark plum-color and background (b) in dark brown; the second flight with (a) still in plum-color and (b) alternately dark brown and medium brown; the third flight with background (a) in alternate shots of plum and henna; background (b) in medium brown, and proceed in this manner shading (a) through burnt orange, orange, peach, old rose to rose-taupe; and (b) through the brown, tan, taupe and ecru shades.

Of course any other set of colors might be used in the same manner — shades of blue and green, for instance, instead of the warm colors suggested.

This method of shading produces a very subtle effect, with the feeling of weight at the bottom and a sense of light at the top, with more contrast in the pattern at the top than at the bottom. Perhaps this can be sufficiently seen in the photograph.

In all three samples the blocks were woven in regular order, but of course they may be woven in any order desired.

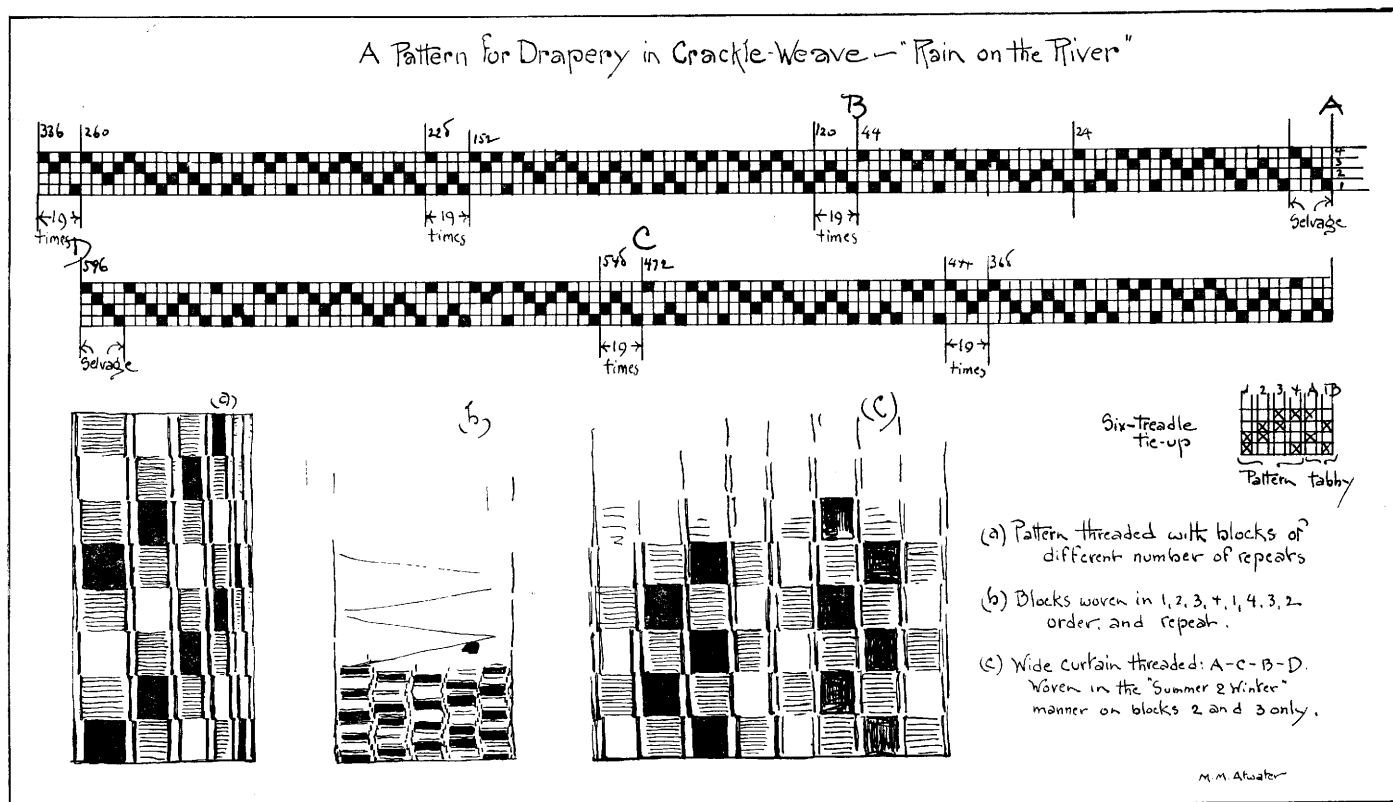
For instance: first block, second, third, fourth, first, fourth; third; second, and repeat. This gives a zig-zag effect as sketched at (b) on the diagram.

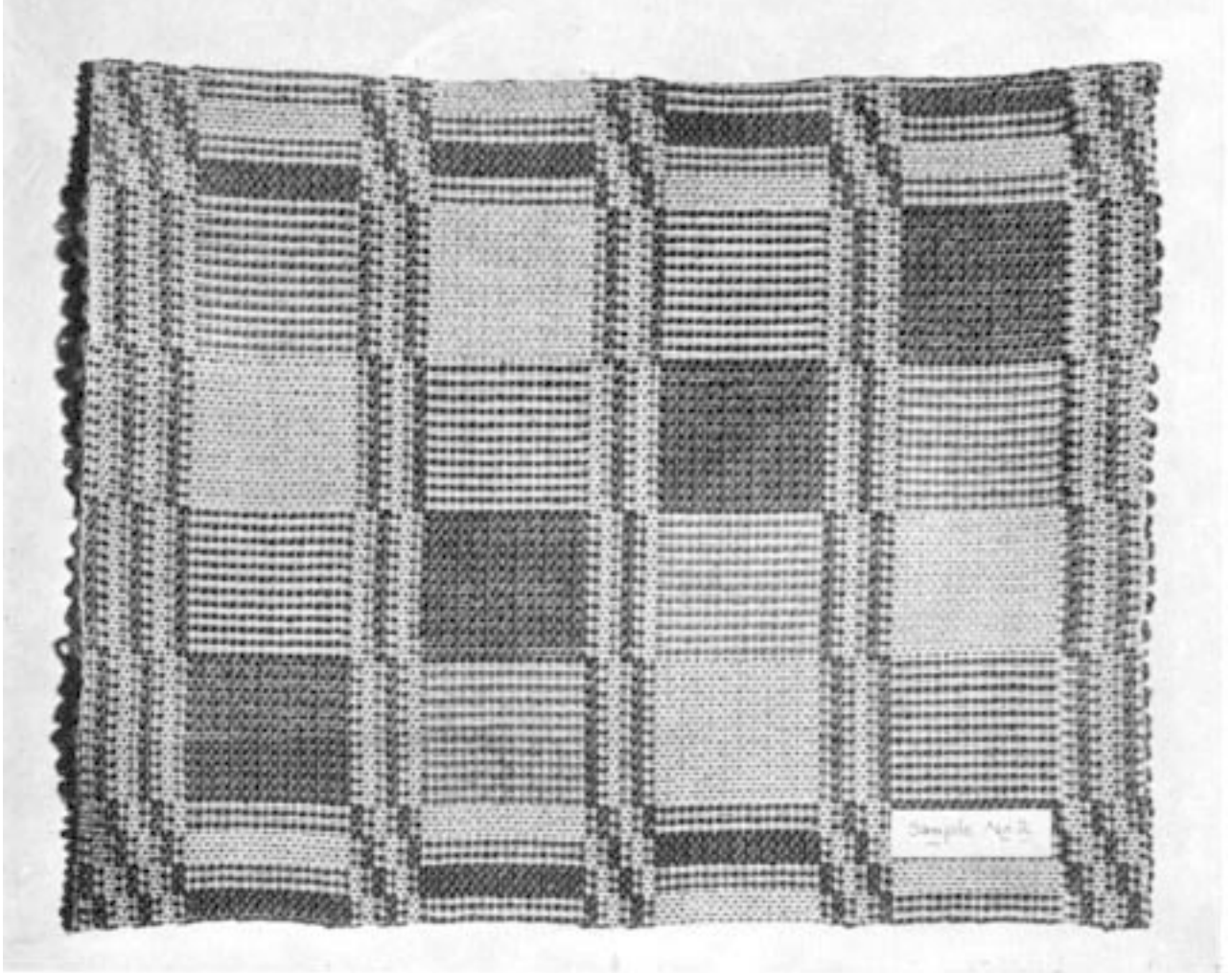
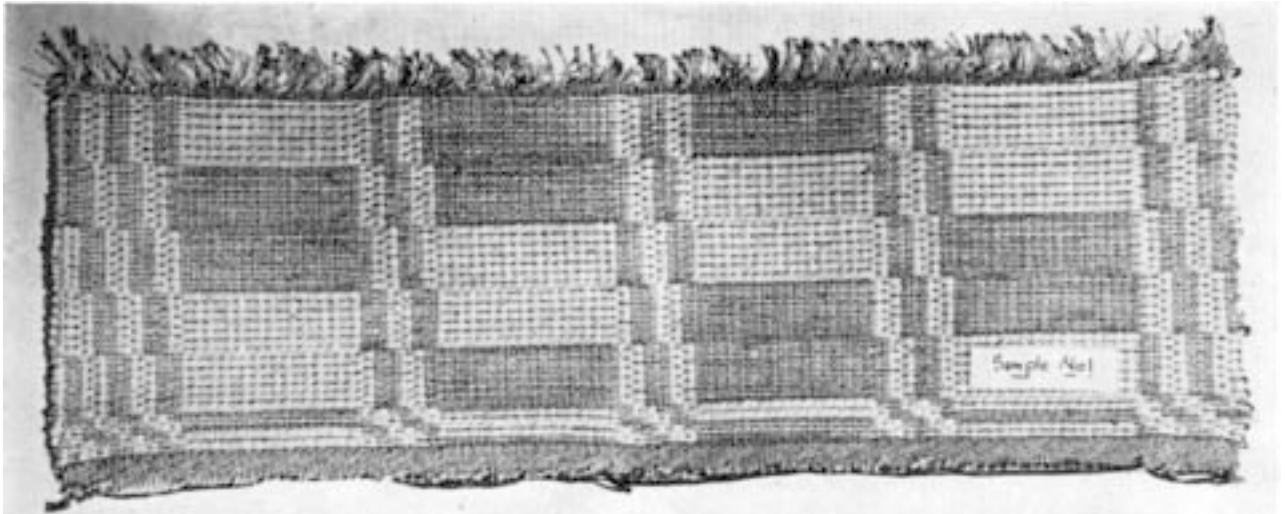
The draft may also be varied in a number of ways. As designed it consists of five large blocks with the intervening twills, and borders on each side, covering 596 warp-ends. At a setting of 22 to the inch this gives a width of 27" which is wide enough for most window-drapery. For a wider piece, increase the number of repeats under each of the five large blocks or use two repeats of the figure by threading: A to C, B to D. The sketch at (c) on the diagram shows a wide piece threaded in this manner and woven entirely on blocks 2 and 3, the weaving being done in the technique of sample No. 2.

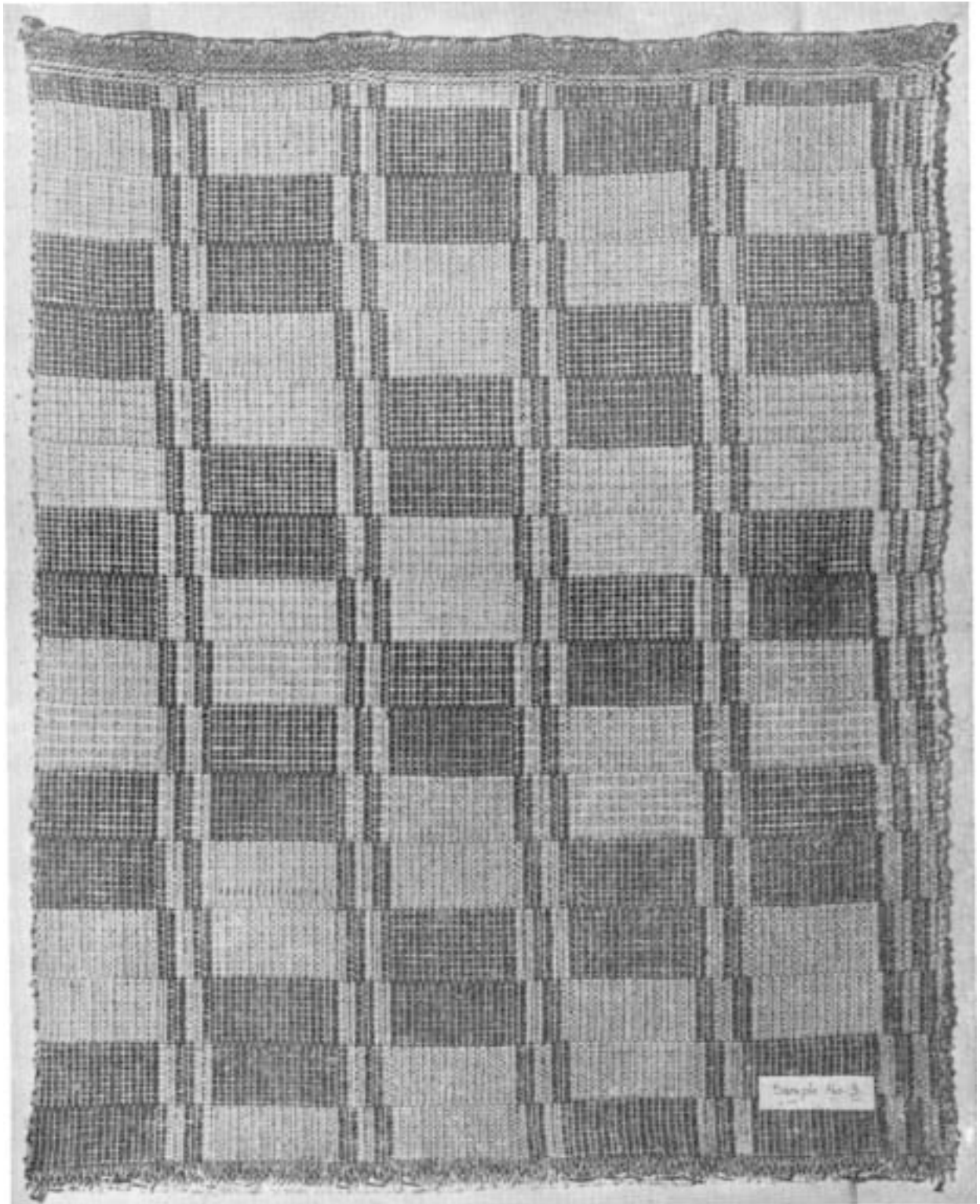
Another interesting effect is to make the five blocks different in size by graduating the number of repeats for each. When woven with the same number of weft-shots, the blocks being woven in regular order, one produces an interesting sweeping movement of pattern illustrated at (a) on the diagram.

Materials suitable for use with this pattern include coarse unmercerized cottons, strand cottons, coarse perle cotton, etc. Coarse silk is excellent also, and rayon might be used. One might, of course, weave it in wool, though it was designed for weaving in cotton and does not suggest wool to me.

Consideration of other types of drapery fabric will have to go over to another time.







Small Wall Hangings Adapted from Guatemalan Textiles

by NELLIE SARGENT JOHNSON

Instructor of Weaving, Wayne University, Detroit, Michigan

The textiles described in this article were brought back from Guatemala last summer, by Miss Rosenfeldt and Miss Wyiatt, two Detroit teachers. Because these fabrics have been of much inspiration to my own students, and because there is much opportunity to use some of these ideas, I am presenting them to the friends of the "WEAVER" also.

At Figure No. 1 is a tie dyed cotton skirt. The Guate-

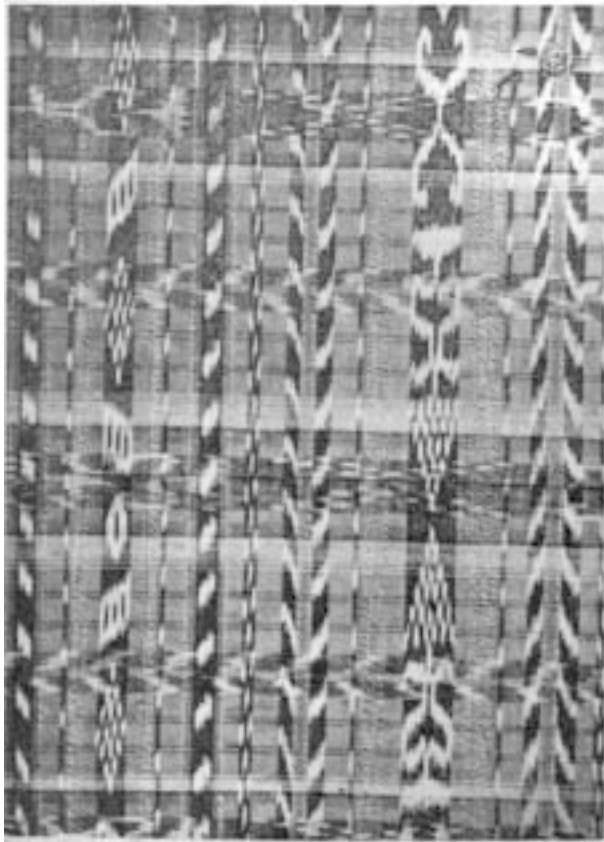


Figure No. 1 Tied and dyed skirt fabric

malan women wear skirts of cotton cloth woven about 36" wide, which are characterized by having the warp and the weft tied and dyed. The warp for the cloth is tied off in small sections by being wrapped with cord around the different groups of warp threads as it is stretched. First all of the parts of the warp which are to remain white, are tied off, then the rest of the warp is dyed yellow. Then it is stretched out again and all of the parts which are to remain yellow are tied off. Then it is dyed another color, let us say blue. Different localities have their own color schemes which to one who knows them, makes it easy to identify the Indians from different parts of the country by their costumes. Usually three colors are used with black to form a plaid, and when the weft is tie dyed also the result is as at Figure No. 1.

Figure No. 2 shows a head cloth. These occur in many different designs and types. The stripes of brocading in this

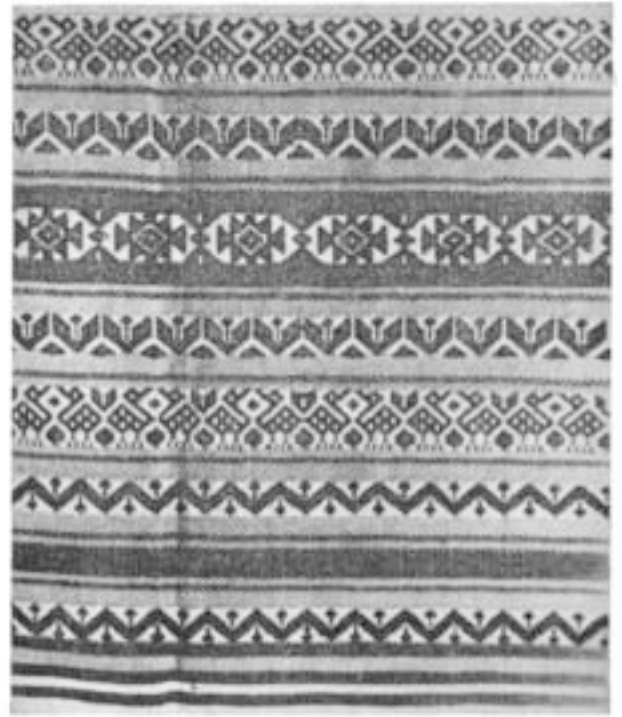


Figure No. 2 Brocaded Head Cloth

one are carried out in red, yellow and some orange. Any of these borders are easily woven on the simple heddle loom or any two harness shed, and are very effective for bags, belts, scarves or simple wall hangings. Figures at No. 4, 5, and 6 give in detail the size of the skips of the brocading. One square equals one warp thread of the design. Sometimes if the skip between the warp threads is a long one, these figures are woven with a separate weft thread, often of a different color as well. And sometimes right in the middle of a figure, the color is changed. There is no set rule about it, the figures are a free sort of design. Just one half of this piece is shown at Figure No. 2. The little border shown at Figure No. 7 was used for the very center border, and then the whole repeated back to the beginning in reverse order.

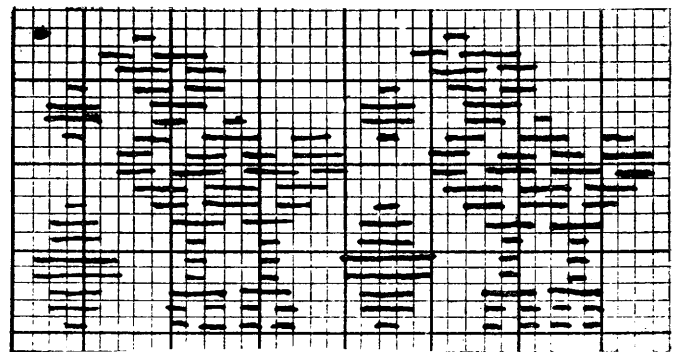


Figure No. 3

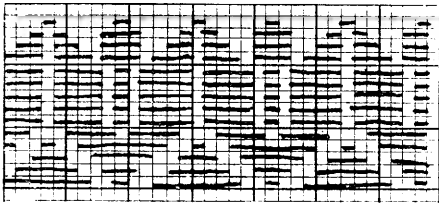


Figure No. 4

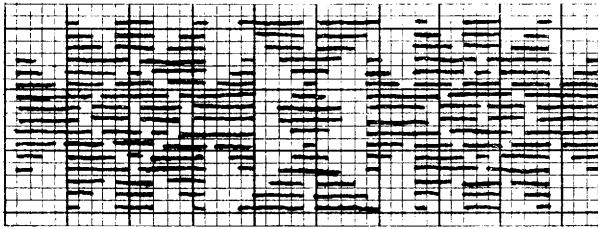


Figure No. 5

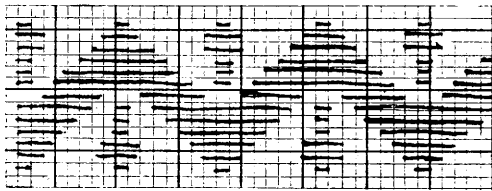


Figure No. 6

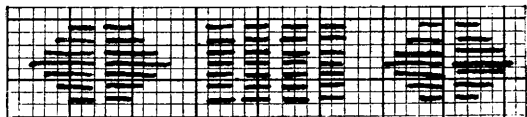


Figure No. 7



Figure No. 8
Blouse cloth with brocaded women's figures

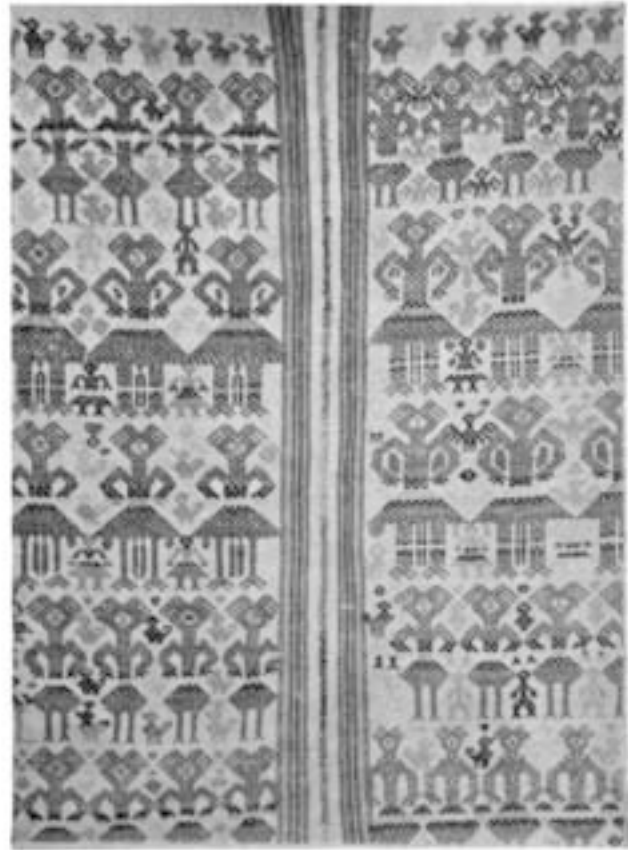


Figure No. 9 Another blouse cloth

Figure No. 8 and 9 show two different pieces which are used for Blouses by the women. Notice how these little women's figures are arranged, and the great variety in them. Sometimes a little boy or perhaps a chicken or a bird, and Figure No. 9 even shows a bird with its wings spread, and a number of different ways of treating the hair. Some of the women are fat and some thin. Different colors were used in the weaving of the figures as well, but they were mostly red, a little yellow and orange, and occasionally some blue. Note the two rows of wavy effect at the top of Figure No. 8, possibly this may mean clouds. Also note the interesting feet some of these people have. There is no attempt to make even these symmetrical, and in many cases they are far to one side of the figure itself. Both Figure No. 8 and No. 9 were woven in two pieces 20" wide and sewed together in the middle as the dark warp stripes which were on the edges show.

At Figure No. 10 is an adaptation of some of these simple brocaded figures woven by one of my students, Nell Byster Keyser. This wall hanging was woven on a simple 2 harness 20" heddle loom of dull, light rose colored shetland yarn for warp. The weft was all Bernat's Tapestry yarn. The background light beige, with borders in dull soft green, gold and rose. The first border is of green with occasionally a shot of darker green and rose put in. Above this is the first row of little chicken figures taken from the detail of Figure No. 3. These are also of green.

The second plain weave border above the chickens is of rose, and some darker rose shots, and a bit of gold also. Above this is a row of little figures taken from Figure No. 11. Figure No. 11 is the little small figure at the feet of one of the women in Figure No. 9. With these figures are small

lengths of laid-in with blue, gold and dark rose, and also a fine thread of Bernat's Boucle in gold is shot through to give an unusual texture effect. These shots break up the plain surface of the background and make it very effective. Above the little figures is another plain weave stripe of dark gold tapestry yarn for about an inch, then comes a row of small animals, possibly goats or sheep, the detail of which is given at Figure No. 12. These are woven with blue



Figure No. 10 Moula Wall Hanging with brocaded figures from the Guatemalan figures

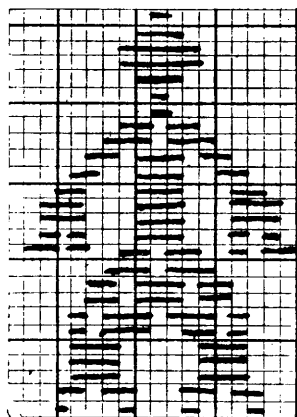


Figure No. 11

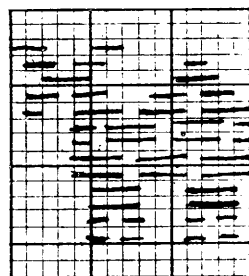


Figure No. 12

tapestry yarn with very dark rose and some yellow shots in the background. Above these goats is a strip of plain weave in a lighter gold color than the previous plain weave strip below. And above this are two cows taken from the Guatemalan fabric as shown at Figure No. 13, as were also the goats. The detail of this cow was given in the May 1939 copy of Handweaving News, as were also more of these figures from the textiles as shown.

The textile shown at Figure No. 14 is another piece woven on the same warp as the one described above, and three of the little women's figures taken from those as shown in Figure No. 8. The background of this piece is Bernat's rose shet-



Figure No. 13 Guatemalan Animals

land floss, while the figures are brocaded in with dark red violet, for the center one, and dull blue for the two side figures. Occasional shots of gold and darker rose are also inserted which break up the plain effect of the background.

These small wall hangings are particularly adapted for children's rooms, they adore them. And this, it seems to me, is one way in which we as modern weavers can turn some of the ideas of other foreign weavers into fabrics for our own use today. These weavings are not blind copies of the Guatemalan pieces, for first of all the colors and the yarns with which they are woven are entirely different and secondly, the arrangement of the figures is also changed. In such ways as these, it is possible to use our own imaginations for interesting and unusual textiles for present day use.

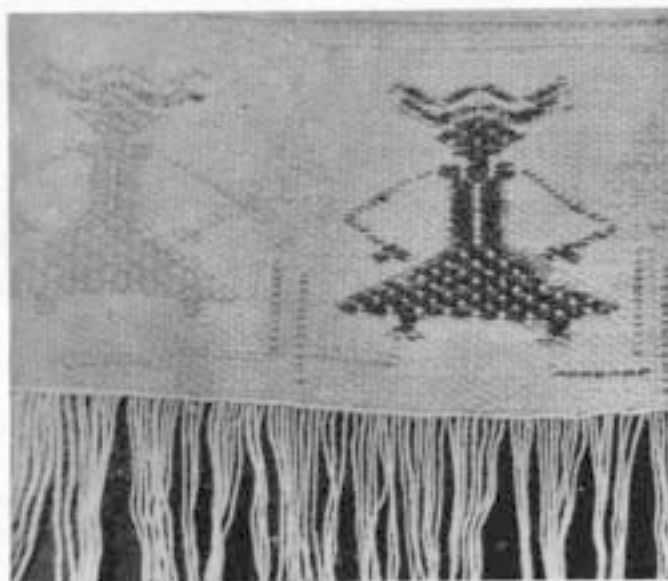


Figure No. 14 Small modern Wall Hangings of Guatemalan Women by Nell B. Keyser

WHAT SHALL I WEAVE

by ELLIS PRENTICE COLE

When my pupils ask what they shall weave to sell, they are told: "Make things for women to wear."

Weave the cloth, then make the garment, if you are skilled, if not, have a tailor or garment-maker do the work. If your customer is a good seamstress (and there are only a few of them these days) have her make the garment. I used to offer the cloth for handbags, but found the women either could not or would not make them up. Finished articles are what they want.

Sell direct to the customer; agents eat up the profit.

Your sales talk should be all about "hand work". Do not attempt to compete with the machines either in price or quality. If the beauty, quality, originality and exclusiveness of your hand-woven material makes no appeal to your customer, argument is useless.

As we can not compete with the factories in mass production we must make the things it would not pay the factories to make.

I submit three projects for your consideration:

No. 1 is a parka or hood which has found favor. Many varieties of material and weaves may be used, limited only by the ingenuity and taste of the weaver. Bernat Peasant wool set 15 threads to the inch or homespun at 18 threads are very satisfactory and there are many others on the cards. For warp I used a dark brown and for the tabby a rich red, the stripes in pattern of contrasting colors set to weave 24 inches when off the loom. Only 17 inches of cloth, including the stripes for the ties, will be needed.

First a two-inch stripe was woven, which, with the fringe is to be folded back for the front; then eight inches of tabby for the body. Now two pieces each three and one half inches wide with the stripe in the center, for the neckpiece and ties, and the cloth is done. Between the pieces I put in a shot of light color and stitch on either side to prevent raveling, before cutting the cloth. The making is simple: Sew the two pieces for the neckpiece and strings together at the back, turn in the edges a quarter of an inch and stitch close to the edge as the tailor does.

The diagram will show the darts necessary to fitting the back. Fold back the fringe and the two-inch stripe and stitch along the front. Now attach the neckpiece so that the neck is covered, press, and there you are, ready for the coldest weather. For a child an edging of fur may be added around the face and a tassel at the tip.

Project No. 2. A Sports Jacket

"Now you *have* done something," exclaimed the visitor on seeing the jackets woven in the Navajo method. This material is easily woven on any loom. The warp is set far enough apart so that it entirely disappears in the weaving. Several weights of cloth may be made according to the thickness of the yarn. This method makes a much thicker cloth than the same weight of yarn would if the warp was set close together as in regular weaving. The better Navajo blankets have a tightly twisted warp of wool. If cotton warp is used it should be double sleyed for strength and wearing quality.

This method of weaving is fully treated in *The Weaver*, Vol. II, No. 4.

In making up this cloth, the pattern should be laid on the goods and outlined in chalk, and each piece stitched on a sewing-machine before cutting the goods, to prevent raveling. If you are not fully skilled in garment making it is better to have the work done by a good tailor. The garment should be lined throughout. This cloth is also used for hunting jackets and ski suits.

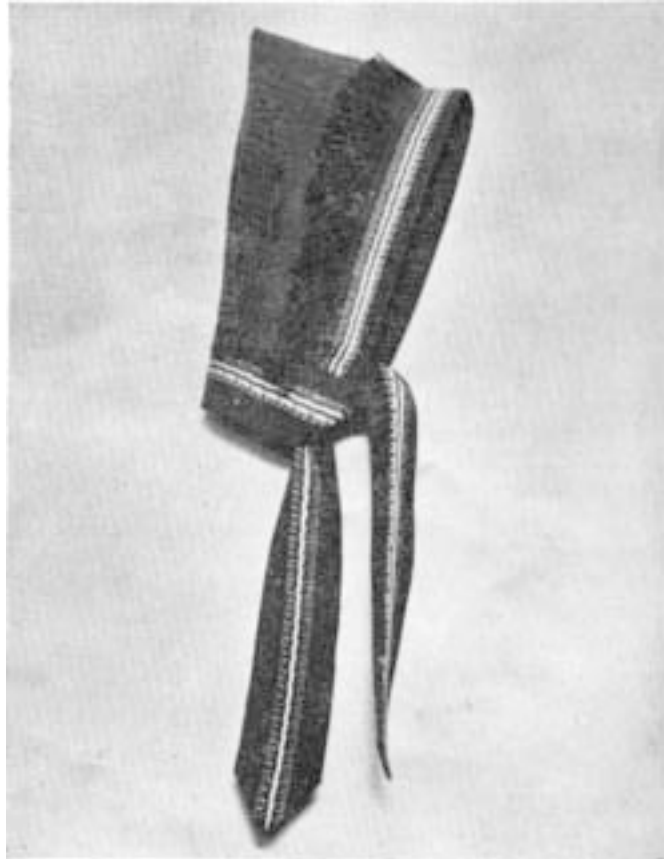
The patterns in Navajo cloth cannot be woven on a mechanical loom and must be put in by hand, so here is one cloth that belongs entirely to the hand weaver. If stripes are wanted the long way of the cloth, they are obtained by alternate shots of contrasting colors using a shuttle for each color.

The colors used by the Navajo women are a mixed gray for body, natural white, red and black for the designs.

Project No. 3. A Sofa Set.

The sofa looked all right in the store but when we got it home it was too bright a blue, so I wove this set to protect it from wear and to tone it down a bit. This can be done in wool, or if a wash piece is wanted, in roving, candle wicking or colored warps, using the same material for both warp and weft.

As I wished the stripes to go the long way of the goods, the warp was set in a plaid design, using a dark blue, a light blue and a narrow gold stripe. To tone it all down a rich brown was used for filler with a shot of red about every ten inches for accent.



No. 1. *The Parka or Hood*

The photograph will show the four pieces in use. The piece for the seat is four feet long, for the back it is three feet and for the arms 18 inches each. The width was 22 inches when taken from the loom. The pieces are not fas-

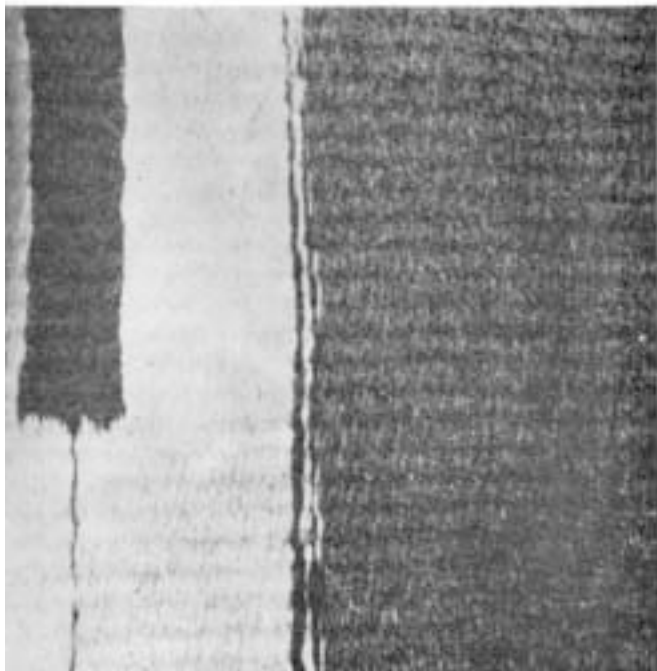
tened and are easily removed for cleaning. They not only protect the upholstery but add interest to the piece. The piece on the floor is a plaid on the same threading and is used as a chair back. As my Indian friend says, "You like um?"



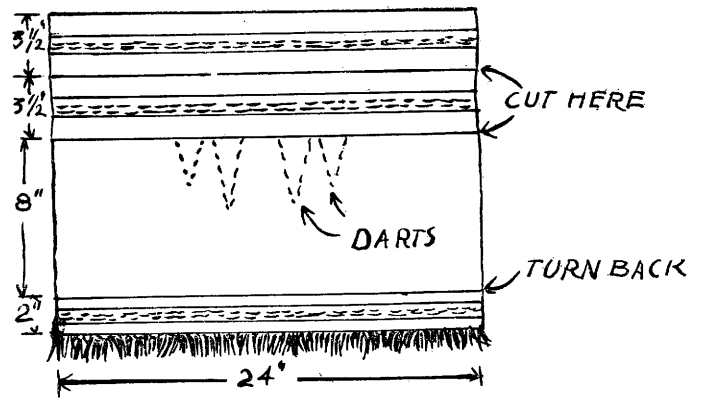
Project No. 2. Sport Jacket in Navajo Method



No. 3. The Sofa Set



Closeup of Navajo Weave



DIRECTIONS FOR PARKA

Direction for Weaving and Making up the Parka

TABLE MATS FOR BUSY HOUSEWIVES

by JOSEPHINE MARIE RYAN
(formerly Special Instructor in Weaving
Teacher's College, Columbia University)

The three tablemats illustrated in this article, although very effective, can be woven so quickly that I hope they will prove as useful models to busy housewives, business or club women who are weaving enthusiasts as they have to me.

How fortunate we weavers are to have our faithful old friends — bags, scarves and table-mats to fall back upon when we require some piece of weaving at short notice!

Table-mats always have a sales value. As wedding gifts, the donor, will be blessed by the bride-to-be for years to come and no matter how long a friend has been married, a new set of table-mats, especially woven to suit her taste, is always welcomed. Even bachelor girls must eat and dainty table linen has not lost any of its feminine allure. Moreover they are easy to raffle or sell at bazaars. Perhaps best of all, however, they are a never failing source of pleasure and satisfaction to the average weaver herself.

Linen thread should be used to weave table-mats whenever possible because of its long wearing quality. The cost is small — much less than one pays for mats at the stores. Handwoven mats will stand up to endless washing without damage if fast colours are used. I have found the Bernat linen threads most reliable in this respect as I have been able to use the same table-mats for several years without any loss of colour or running. After one once becomes accustomed to handwoven linen on the table, it is surprising how uninteresting and cheap machine woven fabrics seem.

What a joy it is to be able to match the colour scheme of one's dining room or to enhance it by the careful use of contrast! My only difficulty is that, as I am a busy woman, I sometimes find it hard to find time to make enough of them. The very simple but colorful models described in this article are very practical to make when time presses.

All three models can be woven either on a two harness loom or without harnesses if a rigid heddle is used. This saves time as the threading is simple. Moreover Model 1 and 3 have the same threading so that if desired two sets, entirely different in appearance, can be woven on the same warp. Unquestionably rigid heddles allow the weaving of Tabby fabrics faster than harnesses; unfortunately they are rather expensive to buy, hard to make and not as readily obtainable as the ordinary reed.

Table Mat 1. Finished Measurement, 10 inches wide, 16 inches long. The texture of this mat is obtained through the threading. Once this is completed, the mat is very quickly woven.

Warp. For one mat. (No allowance is made for warp wastage as this varies with every loom. It is advisable from the point of economy to make a warp long enough for at least 6 and preferably 12 table-mats at once.)

Cut 80 threads of Bernat's Linen Floss, each 20 inches long. Colour L245 Rose.

Cut 32 threads of Bernat's Linen Special or Linen Weaver, each 20 inches. Colour 223 Blue.

Cut 144 threads of Bernat's Linen Special or Linen Weaver, each 20 inches long. Colour 245 Rose.

The Threading. Use 14 dents to inch reed.

(a) Thread 16 Linen Floss threads through reed, one through each dent;

(b) Take 4 Linen Special threads Colour 245 and thread all four through next dent.

(c) Then thread 1 thread of Linen Special, Colour 223, through next dent. Alternate (b) and (c) until 9 sets of pink — Colour 245 — and 8 threads of blue — Colour 223 — are threaded through the reed. This completes this section of warp.

Continue alternating Sections (a) and (bc) until all warp threads have been threaded through reed.

Note. The 20 inch length has an allowance of 4 inches for a 2 inch fringe at each end. If a hem is preferred, be sure to allow for this.

Weft. Linen Floss, No. L245, is also used as weft for two sections of border and main section of mat; Linen Special or Weaver, colour blue, 4 strands wound together on a shuttle, is used for other sections of border.

To Weave. (There is no allowance in any of the directions given in this article for loss of width in material, due to pulling in at sides in weaving. Each weaver must know how much to allow for her individual narrowing, when working.)

Weave 1 inch, using Linen Floss as weft. Then 1 inch of Linen Special; 1 inch of Linen Floss; 1 inch Linen Special. This completes one border. Weave 8 inches with Linen Floss. Repeat border.

There should be 14 weft rows to the inch.

If a shorter table-mat is preferred, cut out the first inch of Linen Floss weaving at either end.

Table-Mat 2. Finished width 11 inches, length 17 inches.

This model, woven in delicate shades, calls to mind tulips and daffodils and is especially designed to act as a background for these spring flowers.

Warp. Use either No. 50-2 or 40-2 white linen warp and thread singly through each dent of a 25 or 26 to inch reed.

Weft. Green Linen Special or Weaver, No. 217, 2 strands wound together on a shuttle, for main section of mat. Yellow Linen Special 220, 2 strands, is wound on another shuttle for one of border stripes and Orange Linen Special No. 239, 2 strands, is used for other stripes.

To Weave. Beat weft down so that there will be 23 rows of weft to the inch.

Weave 2½ inches with orange weft; then 1 inch with yellow thread. This completes border. An even more interesting effect can be obtained if an inch of either lavender or blue is woven as well before beginning main section of mat. Without this, however, weave 13 inches with green weft next. Repeat yellow and orange for other border.

Remove material from loom, turn in ½ inch at end and make a 1 inch hem being careful to sew so that the sewing will not show. Wash and press.



Table-Mat 1

Table-Mat 2

Table-Mat 3

Table-Mat 3. This model looks like open work as can be seen in illustration. Therefore the colors must be chosen with this fact in mind. A very pretty effect is obtained if different colored linings are used under it.

The warp and threading for this model are the same as for Model 1.

Weft. Either 4 strands of Linen Special or Weaver wound together on a shuttle or Linen Floss single thread can be used for this mat. In the model, Linen Special, Blue, No. 223 was used.

To Weave. Although there are the same number of warp threads used as in Model 1, the different method of weaving will result in a narrower fabric. This mat, when finished, measured $9\frac{1}{2}$ inches in width and 14 inches, including a 2 inch fringe at either end, in length.

(The technique used in weaving this mat is very similar to that described in my article on Weaving Leno Without Harnesses in the Oct.-Nov. number of *The Weaver*, 1939, but for the convenience of weavers who do not wish to pick up the twisted threads by hand each time, a simple method of avoiding this by the use of long heddles is explained towards the end of this article.)

(a) Weave 4 rows Tabby weaving and beat down into place.

(b) Pick up 3rd and 4th warp threads with one finger of left hand and bend back over 1st and 2nd warp threads. Pass a flat pointed stick through the loop formed by this twist and leave there. Repeat (b) until all warp threads have been twisted in like manner and a shed has been formed by passing stick through these loops. Turn stick on end and slip weft thread through the opening or shed. Remove stick and beat into place with reed as usual, as far as twisted warp threads permit.

Note. Be sure to avoid too much slack in the weft, left in this row, as loose weft in leno does not wear or look well. Next repeat (a).

(d) Then take up flat pointed stick again and slip it through loops formed as before in (b) but with this difference. Instead of crossing the 3rd and 4th warp threads over 1st and 2nd threads, reverse the order, and cross the 1st and 2nd warp threads over the 3rd and 4th threads. Repeat until end of warp, make shed with stick as in (b) and pass weft through as before.

Weave alternating rows as follows (a), (b), (a), (d), (a), etc., until mat is 10 inches long. Remove from loom; stitch along edges to prevent pulling while knotting fringes; knot and cut fringes.

This is a table-mat which looks like lace and can easily be used for a luncheon party or if made in white for a small informal dinner party. No one would believe that it is so quickly made; of course it will not stand the hard wear which the other two mats will. The leno twist can be made without picking up the twist every time in a very simple manner. Some weavers find the method described above too slow or too trying to their eyes.

If a string is passed around each thread or set of threads, which are to be crossed over the others, and each in turn, fastened to a stick, so as to form loops, it will easily be seen that if this stick is moved towards the right far enough so as to cross the threads which are not caught by the loops, these latter threads can be readily picked up with a pointed stick, to form a leno shed. The stick on which the loops are fastened must be in front of the reed and the loops must be long enough — a little longer than half the width of reed seems enough usually — so that when not in use they will not interfere with the making of the Tabby sheds.

This particular leno weave would require two separate sticks with alternate sets of warp threads on each, because the pick up is not the same each time. If preferred, only one stick can be used and the (b) row used instead of the (d) throughout the model.

STRIPES: THE SURVIVAL OF THE FITTEST

by NATALIE T. CORBETT

A walk through any museum where textiles are exhibited reveals a galaxy of stripes. Those early and prized examples of primitive weaving safeguarded for the ages behind glass are invariably striped fabrics. Because early looms were narrow, strips in the warp were necessarily narrow; when that narrowness palled and restricted even primitive imaginations, strips were sewn together to make an interesting series of longitudinal stripes of varied width and color. We moderns, with our wider looms get the same effect by making the stripes with the weft. We need not resort to sewn widths, except in the case of coverlets.

When figures or geometric designs were used by primitive weavers, the figures were often arranged, not in an all-over pattern, but in an orderly regimentation of stripes. Many times these strips of laid-in figures and bands of solid color were sewn together to make a wide robe or throw. We, likewise, can obtain a similar effect if the harnesses have been threaded with a pattern. Then, we can make our stripes of either tabby weaving or pattern weaving, or a combination of both. Stripes, also, may be symmetrical or asymmetrical in arrangement. If the arrangement of stripes within any unit is asymmetrical, the repeats of the larger unit should conform to a symmetrical balance. A plan of some sort should always exist.

Moreover, the fascination and interest of stripes depend not only upon a pre-determined plan, but also upon variety. Our possibilities for variation, even with one threading, are limitless in that we can vary the stripes by using different colors, widths, treadlings, and kinds of yarns. The plan and taste of the designer, as well as the proposed environment of the fabric, determine which of these factors to vary, and which to keep constant in any one piece of weaving. Thus it might be said that every handwoven textile is influenced both by heredity — its weaver — and environment — its eventual setting. To achieve a restful, orderly effect, this variety must be regimental; to attain interest, the regimentation must be varied. If both regimentation and variety are maintained, striped textiles will have simplicity and style — and will survive. They will become treasured heirlooms, if not in a museum, at least in the homes of our children and our children's children.

Why have the stories and pictures of "The Three Bears" and "The Three Little Pigs" enthralled children from generation to generation? It is because of the ordered variety in the size of the three bears and their possessions; the Big, the Middle-sized, and the Little Bears, their chairs, their porridge bowls, and their beds! The Three Little Pigs, so far as we know, were of the same size; some versions, however, make them of three different colors, brown, black, and white. And you remember their houses? The crux of the whole story lies in the fact that the three houses built by Brownie, Blackie, and Whitey were not exactly the same, but were varied by being made of three different

kinds of material — straw, wood, and brick. The child does not reason why those two stories are his favorites, but his unerring, unguided feeling pronounces them perfect. Any story-telling grandmother, mother, or aunt will tell you that! Three bears of the same size, three pigs of the same color, three houses of the same material would have been in the discard after a few story hours. Unimaginative similarity cannot stand repetition — whether in story-telling or in handweaving.

Thus folk lore and folk art contain truths of simplicity and variety that please forever, and that can be carried over into the field of handwoven textiles. Furthermore, stripes belong to no one generation or setting. They may be kept primitively simple; or elaborated exotically to suit the most sophisticated modern.

Yet, remember, that just as the child unquestioningly delights in the two stories of triple interest, so the adult, without stopping to reason, accepts as pleasing a series of stripes of different widths, colors, treadlings, shades of color, weaves, or kinds of yarns varied according to some plan. This variety, regulated by a scheme known to the "designing" weaver, will be felt, consciously or unconsciously, by the observer. When no plan guides the weaving, the effect may be dizzy, or at least, unpleasant. The dizzy effect of a complete lack of symmetry of any kind can be used successfully only for small areas, and is permissible, at times, only when a bizarre, unusual effect is deliberately aimed for by the weaver.

To illustrate how stripes may be used and varied with the harnesses threaded with the same pattern, examples are given in the following schedules of weaving. In each instance, the threading is the familiar and comparatively simple Rose Path pattern. Most of the units are narrow, because these particular fabrics have been used for small costume bags, foot-stool covers, and end-table runners. The same arrangement of stripes may be used in other color combinations, of course, to suit other settings. These examples may also be varied, when larger bags, runners or chair covers are desired, by changing the width of each stripe, but keeping the same relative proportion of the stripes. They may be further varied by repeating any unit or units before weaving the center stripe. Keeping a pleasing proportion is largely a matter of mathematics. If the different units are multiples of each other, a satisfying effect will result. For interest, however, vary the number and order of the multiple. All this figuring can be done with pencil and ruler, cross section paper, or folded paper before ever a shuttle is thrown.

Do we know our stripes? Their simplicity and style have brought them down to us through the centuries — old, yet ever new. They have survived, and always will so long as we use our ingenuity in adapting them to modern color and settings. They are not "spinach", say the stylists.

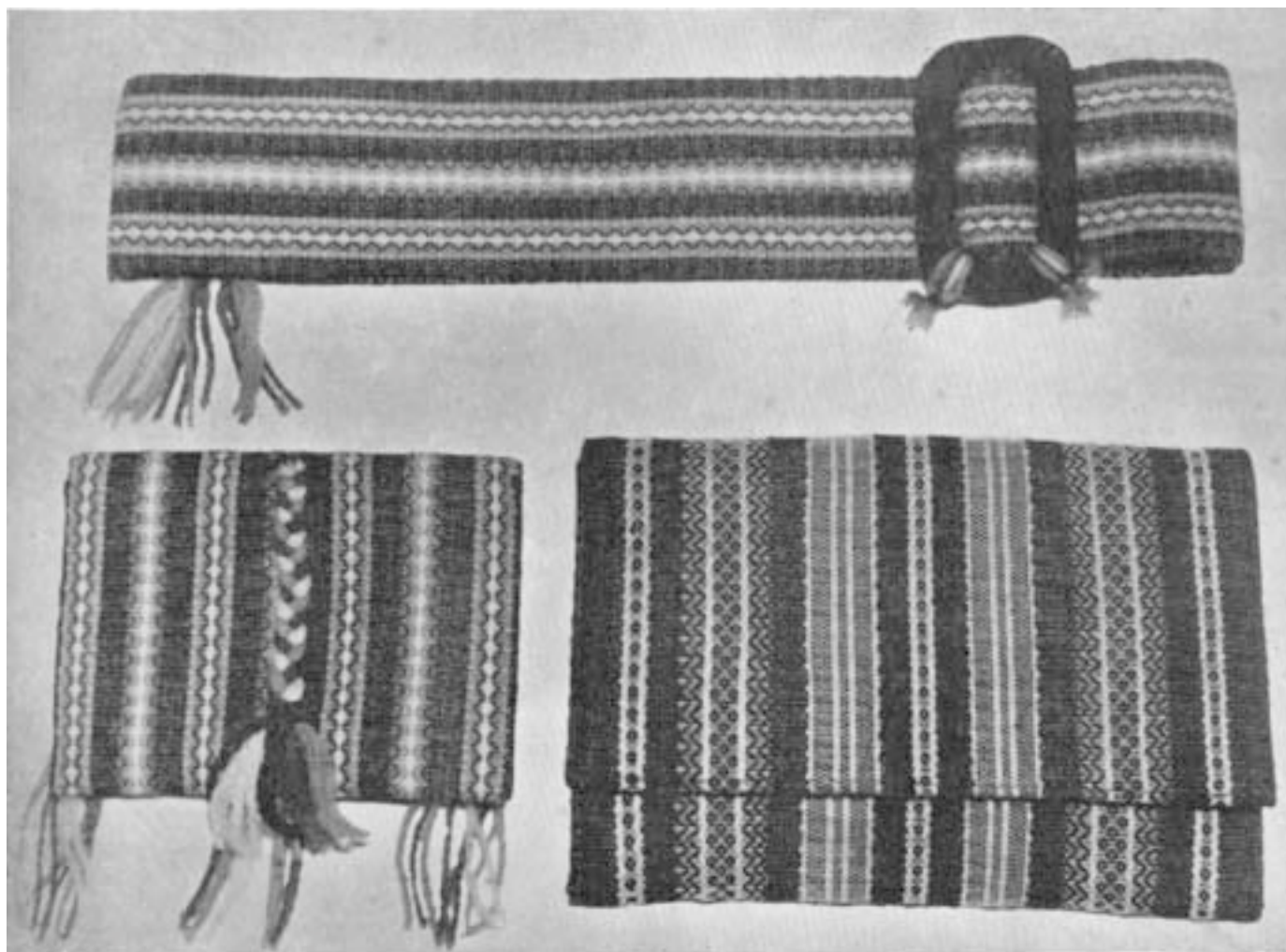


ILLUSTRATION I.

"Peasant Festival"—Skiing Belt and Bag

Bernat's Shetland Floss: Red 1152; blue 1160; yellow 1150; black.

TREADLING SCHEDULE

- (1) Red, 3-4; 1-4; 1-2; 2-3, once
 Blue, 3-4; 1-4; 1-2; 2-3, once
 Yellow, 3-4; 1-4; 3-4, once
 Blue, 2-3; 1-2; 1-4; 3-4, once
 Red, 2-3; 1-2; 1-4; 3-4, once
- (2) Black, 14 picks
- (3) Blue, 3-4; 1-4; 1-2; 2-3, once
 Red, 3-4; 1-4; 1-2; 2-3, once
 Yellow, 3-4; 1-4; 3-4, once
 Red, 2-3; 1-2; 1-4; 3-4, once
 Blue, 2-3; 1-2; 1-4; 3-4, once
- (4) Black, 14 picks
 Repeat this schedule until the desired width is woven.

"The Matinee"—Costume Envelope Purse

Bernat's Weaving Special: Black 807
 Raytone: Black A231
 Silver Tinsel

TREADLING SCHEDULE

- (1) Black wool, 1-4; 2-3, 20 picks

- (2) Silver tinsel, 3-4; 1-4; 1-2; 2-3, once
 Black Raytone, 3-4; 1-4; 3-4, once
 Silver tinsel, 2-3; 1-2; 1-4; 3-4, once
- (3) Black wool, 1-4; 2-3, 16 picks
- (4) Black Raytone, 3-4; 1-4; 1-2; 2-3, twice
 Silver tinsel, 3-4; 1-4; 1-2; 2-3, once
 Black Raytone, 3-4; 1-4; 3-4, once
 2-3; 1-2; 2-3, once
 3-4; 1-4; 3-4, once
 Silver tinsel, 2-3; 1-2; 1-4; 3-4, once
 Black Raytone, 2-3; 1-2; 1-4; 3-4, twice
- (5) Black wool, 1-4; 2-3, 16 picks
- (6) Silver tinsel, 1-3; 2-4, once
 Black Raytone, 1-3; 2-4, twice
 Silver tinsel, 1-3; 2-4, once
 Black Raytone, 1-3; 2-4, once
 Silver tinsel, 1-3; 2-4, once
 Black Raytone, 1-3; 2-4, twice
 Silver tinsel, 1-3; 2-4, once
- (7) Black wool, 1-4; 2-3, 16 picks
- (8) *CENTER STRIPE*
 Silver tinsel, 3-4; 1-4; 1-2; 2-3, once
 Black Raytone, 3-4; 1-4; 3-4, once
 Silver tinsel, 2-3; 1-2; 1-4; 3-4, once
- (9) Reverse schedules 1-7

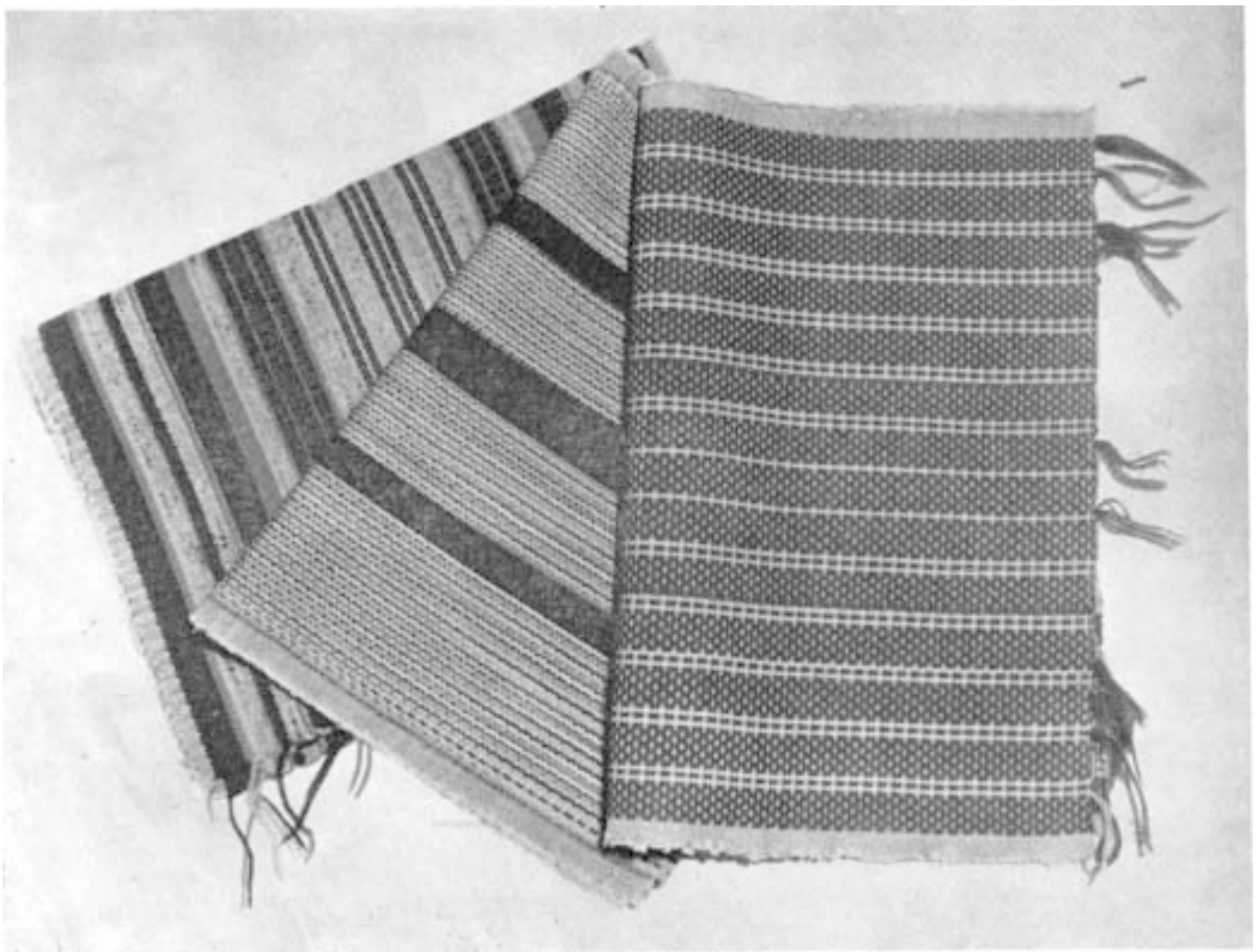


ILLUSTRATION II.

Three materials

No. 1 "The Bedouin"—for bags, chair seats, or foot-stool covers

Bernat's Weaving Special:

- Tartan Blue
- Green 616
- Taupe 622 (or one of the homespun knitting yarns flecked with blue and green has been used effectively here)
- Old Gold 111

TREADLING SCHEDULE: 1-4; 2-3, throughout

- | | |
|-----------------------|---------------------|
| (1) Blue, 24 picks | |
| (2) Green, 6 picks | (8) Green, 16 picks |
| Old gold, 4 picks | Old gold, 4 picks |
| (3) Taupe, 12 picks | (9) Taupe, 12 picks |
| (4) Green, 2 picks | (10) Green, 4 picks |
| Blue, 8 picks | Blue, 8 picks |
| (5) Taupe, 12 picks | Green, 2 picks |
| (6) Old gold, 2 picks | Blue, 12 picks |
| Green, 4 picks | Green, 2 picks |
| Old gold, 2 picks | Blue, 8 picks |
| (7) Blue, 24 picks | Green, 4 picks |

- | | |
|-------------------------|------------------------|
| (11) Taupe, 24 picks | Blue, 2 picks |
| (12) Old Gold, 4 picks | Green, 1 pick |
| Blue, 2 picks | Blue, 2 picks |
| Green, 1 pick | Old gold, 4 picks |
| Blue, 2 picks | Blue, 2 picks |
| Old gold, 4 picks | Green, 1 pick |
| (13) Blue, 2 picks | Blue, 2 picks |
| Green, 1 pick | Old Gold, 4 picks |
| Blue, 2 picks | Blue, 2 picks |
| (14) Old gold, 4 picks | Green, 1 pick |
| (15) Taupe, 12 picks | Blue, 2 picks |
| (16) <i>CENTER UNIT</i> | Old gold, 4 picks |
| Old gold, 4 picks | Reverse schedule 1-15. |

Notice that the apparent chaotic medley of colors is brought into unity and stabilized, as it were, by the wider stripes of solid color woven in multiples of 12, or 3 x 4. The stripes of mixed colors have proportion within the unit by being multiples of 4 or 2.

No. 2 "Jazz Blues"—for sport bag

Bernat's Weaving Special: Blue 797 and a blue ombre knitting yarn were used. As the weights are different, instead of the number of picks in each stripe, the number of inches is indicated.

TREADLING SCHEDULE: 1-4; 2-3, throughout

- (1) Ombre, $2\frac{3}{4}$ "
- (2) Blue, $\frac{3}{4}$ "
- (3) Ombre, 2"
- (4) *CENTER STRIPE*
Blue, 1"

Reverse schedule 1-3

No. 3 "Sun in the Forest"—for bag, chair seat, or footstool cover

Bernat's Weaving Special; greens 616 and 612

TREADLING SCHEDULE

- (1) Dark green, 2-3; 1-2; 2-3 alternating with 3-4; 1-4; 3-4 until 7 units have been completed
 - (2) Light green, 3-4; 1-4; 3-4, once
Dark green, 2-3; 1-2; 2-3, once
Light green, 3-4; 1-4; 3-4
- Six sets of 1 and 2 are on either side of the center unit.
- (3) *CENTER UNIT*
Dark Green, 3 sets, each treadled 2-3; 1-2; 2-3 alternating with 3-4; 1-4; 3-4 until 7 units have been completed
Light green, 3-4; 1-4; 3-4, once, separating each set of dark green

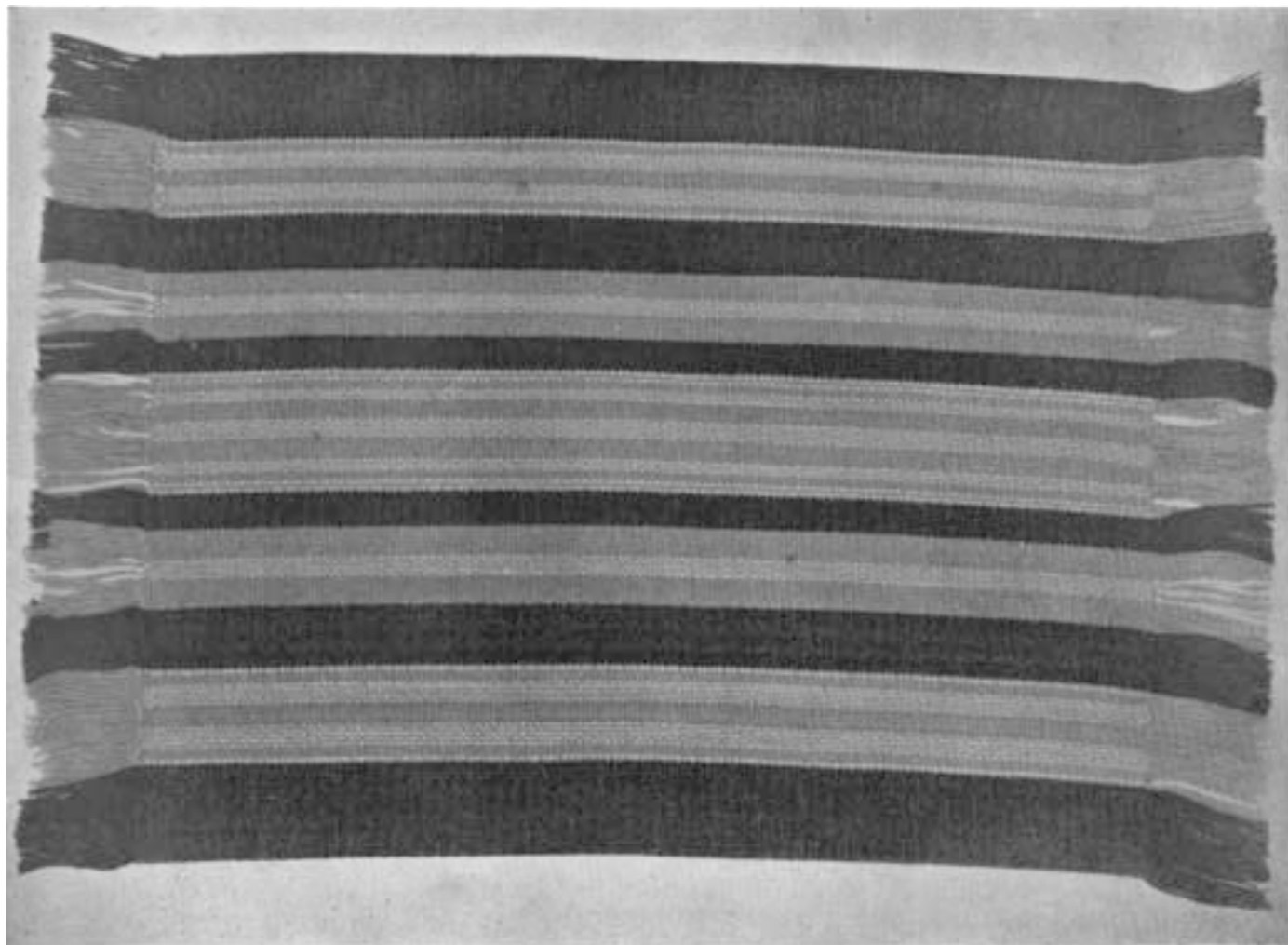


ILLUSTRATION III.

"Cleopatra"—End-table Oblong

Bernat's Shetland Floss: Black 1196

Yellow 1177

Rose 1185

Green 1171

TREADLING SCHEDULE: 1-4; 2-3 alternating throughout

Alternate two picks of green (1-2; 3-4) with one pick of rose or yellow to make the required width of the stripe. The gray tone in the illustration is composed of the green and the rose; the white and gray are yellow and green. Since this is a long schedule to write out and follow, the treadling is given, as a suggestion, only for the first colored stripe.

- (1) Black, $1\frac{1}{2}$ "
- (2) Green, yellow, and rose, $1\frac{7}{8}$ "
- (3) Black, 1"
- (4) Green, yellow, and rose, $1\frac{1}{4}$ "
- (5) Black, $\frac{1}{2}$ "
- (6) Green, yellow, and rose, 2"—*CENTER UNIT*
- (7) Repeat in reverse, 1-5

TREADLING FOR (2):

- (a) Green, 1-2; 3-4, once
Yellow, 1-2
Green, 3-4; 1-2, once
Rose, 3-4
Green, 1-2; 3-4

- (b) Yellow, 1-2
Green, 3-4; 1-2
Yellow, 3-4
Green, 1-2; 3-4
Yellow, 1-2
Green, 3-4; 1-2
Yellow, 3-4
Green, 1-2; 3-4
Yellow, 3-4
Green, 1-2; 3-4
Yellow, 3-4
(c) Green, 1-2; 3-4
- Rose, 3-4
Green, 1-2; 3-4
Rose, 1-2
Green, 3-4; 1-2
Rose, 3-4
Green, 1-2; 3-4
Rose, 1-2
Green, 3-4; 1-2
- (d) Repeat b
(e) Repeat a

STILL IT'S STRIPES (not illustrated)

"SPRING TIME"

Bernat's Weaving Special: Blue 818*
Tartan Yellow

Treadling Schedule

- (1) Blue, 1-4; 2-3, for 1"
- (2) Blue, 1-4; yellow, 2-3; alternate, 8 picks each
Yellow, 1-4; 2-3, twice
Blue, 1-4; yellow, 2-3; alternate, 5 picks each
- (3) Blue, 1-4; 2-3, 6 picks
Yellow, 1-4; 2-3, 6 picks
Blue, 1-4; 2-3, 6 picks
Yellow, 1-4; 2-3, 6 picks
Blue, 1-4; 2-3, 6 picks
- (4) Blue, 1-4; yellow, 2-3; alternate, 10 picks each
- (5) *CENTER UNIT*
Yellow, 1-4; 2-3, 4 picks
Blue, 1-4; 2-3, 2 picks
Yellow, 1-4; 2-3, 4 picks
- (6) Repeat in reverse, 1-4

"AUTUMN DAYS"

Bernat's Weaving Special; Brown *527
Blue 818*

Treadling Schedule

- (1) Brown, 1-4; 2-3, 80 picks
 - (2) Blue, 1-4; 2-3, 8 picks
Brown, 1-4; 2-3, 8 picks
Blue, 1-4; 2-3, 8 picks
 - (3) Brown, 1-4; 2-3, 16 picks
Blue, 3-4; 1-4; 3-4, once
Brown, 1-4; 2-3, 16 picks
 - (4) Blue, 1-4; 2-3, 6 picks
- (5) *CENTER UNIT*
Brown, 3-4; 1-4; 3-4, once
Blue, 2-3; 1-2; 2-3, once
Brown, 3-4; 1-4; 3-4, once
Blue, 2-3; 1-2; 2-3, once
3-4; 1-4; 3-4, once
2-3; 1-4; 2-3, once
Brown, 3-4; 1-4; 3-4, once
Blue, 2-3; 1-2; 2-3, once
Brown, 3-4; 1-4; 3-4, once
(6) Repeat in reverse, 1-4

"SPRING GRAY AND CHERRY RED"

Bernat's Weaving Special: Gray, 724
Red, 766

Treadling Schedule: Treadle as for "Autumn", or as "Spring Time"

"EYES OF BLUE"

Bernat's Weaving Special: Blues, *799 and *795

Treadling Schedule

- (1) Dark blue, 1-4; 2-3, for 1¼"
- (2) Light blue (1-4) and dark blue (2-3), alternating for ½"
Light blue, 1-4; 2-3, for ¼"
- (4) Light blue (1-4) and dark blue (2-3), alternating for ½"
- (5) *CENTER STRIPE*
Light blue, 1-4; 2-3, for ½"
- (6) Repeat in reverse, 1-4

"LILAC TIME"

Bernat's Weaving Special: Lavenders 717 and 713*
Tartan Yellow

Treadling Schedule

- (1) Dark lavender, 1-4; 2-3, 30 picks
- (2) Light lavender, 2-3; dark lavender, 1-4
Alternating, 9 picks each
- (3) Dark lavender, 1-4; 2-3, 12 picks
- (4) Light lavender, 2-3; dark lavender, 1-4
Alternating 6 picks each
- (5) Dark lavender, 1-4; 2-3, 12 picks
- (6) Yellow, 3-4, 1-4; 3-4, once
Dark lavender, 2-3; 1-4, once
Light lavender, 2-3; 1-4, once
Dark lavender, 1-4; 2-3, once
- (7) *CENTER STRIPE*
Yellow, 3-4; 1-4; 3-4, once
- (8) Repeat in reverse, 1-6

"SUMMER SHADE"

Bernat's Linen Weaver:
Green L256
White L235

Treadling Schedule

Alternate green and white, tabby weave, in stripes of equal width.

"BLUE SURF"

Bernat's Linen Weaver:
Blue L206
White L235

Treadling Schedule: the same as for "Summer Shade"

Coolness and restfulness, suitable for summer bags, are obtained by the simplicity of the tabby weave, and the regularity of the stripes of identical width.

"OLD MEXICO"

Bernat's Weaving Special:
White 801*
Black 807
Rust 15*
Green 616
Blue 795*

Treadling Schedule: 1-4; 2-3, throughout

- | | |
|---------------------|----------------------|
| (1) White, 14 picks | (7) Black, 2 picks |
| (2) Black, 4 picks | (8) Rust, 10 picks |
| Rust, 4 picks | (9) Black, 2 picks |
| Green, 4 picks | Blue, 6 picks |
| Black, 4 picks | Black, 2 picks |
| (3) Blue, 4 picks | (10) Green, 8 picks |
| Rust, 6 picks | (11) Black, 2 picks |
| Blue, 4 picks | Rust, 6 picks |
| (4) Green, 4 picks | Blue, 4 picks |
| Rust, 4 picks | Rust, 2 picks |
| (5) Black, 2 picks | (12) Blue, 4 picks |
| White, 6 picks | (13) Black, 2 picks |
| Black, 4 picks | Green, 4 picks |
| White, 10 picks | Black, 2 picks |
| (6) Black, 2 picks | (14) White, 14 picks |
| Green, 4 picks | |

This asymmetrical array of stripes has been very popular for small bags; for larger ones, this design can be made symmetrical by increasing the width of the last white stripe, (13), making it the center stripe, and then repeating the schedule, 1-12, in reverse.

CURTAINS

by DORIS McMULLEN

Curtain (a) was striped in design with Bernat's linen floss using black for the larger and red for the smaller stripes, both set off with a border of three shots of red and black. This made a simple but striking curtain for a white bathroom whose linoleum floor covering furnished the color scheme.

Yellow Umbrian warp No. 20 was used as a filler for (c) with Vibbora strand in Turquoise, Brown and White for design. This curtain adds just the right amount of color to an otherwise dull hall. The strand is soft enough to handle easily and heavy enough to be effective. Incidentally, the photographer has the wrong side of this curtain showing so that the design is not clear.

When I started these curtains last year people tried to discourage me because of the effect of the salt air on color. Although our home is directly on the beach the colors are as fresh and unfaded as the day they were woven.

Heavy linen floss warped $7\frac{1}{2}$ or 8 to the inch and woven in lace weave makes gorgeous curtains. These are not only very handsome but are very servicable as well. Mercerized cotton in Bronson is also very good.

There are endless possibilities. If time and expense have to be considered, every weaver can have hand woven curtains thruout her home. Nothing will bring greater returns in pleasure.



THE WEAVER'S GUILD OF SAINT LOUIS

by MRS. R. I. BRUMBAUGH

The Weavers' Guild of Saint Louis was organized in 1926 by a group of eight or ten enthusiastic weavers. Stimulated by the influence of the late Lillian Glaser under whom they had studied, they felt the need for an organization which would hold regular monthly meetings where weavers might compare notes and discuss common problems. From this small group the Guild has grown until there are about fifty active and associate members at present, all living in or near Saint Louis. In order to be an active member a weaver must submit an article each year to a jury composed of five members. Every two years the Guild holds an exhibit of its work and everything displayed must pass the jury.

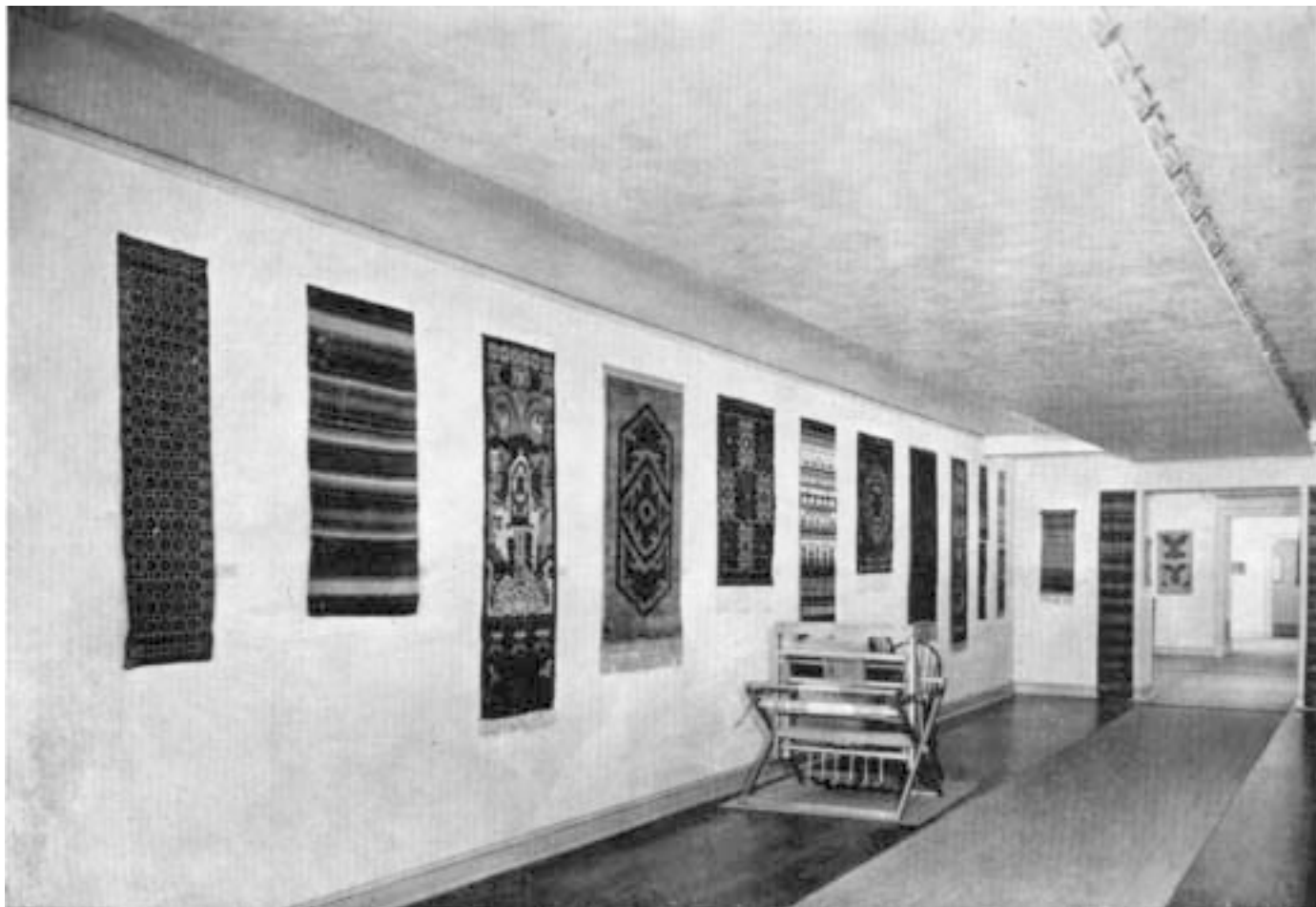
In addition to stimulating interest in handweaving, the Guild has as its constant aim the raising of the standard of handwoven materials. At the monthly meetings programs are presented which are intended to acquaint the weaver with handweaving of all countries and periods as well as the adaptation of the craft to modern life.

During the month of November (1939) the Guild was privileged to hold its biennial exhibit in the galleries of the City Art Museum. The eighty pieces displayed included a wide variety of articles in thirty-nine different techniques. The exhibit was divided into two galleries, the larger one

contained chiefly rugs and wall hangings while in the smaller one coverlets and linens were displayed. Demonstrations of weaving were given for the public on Saturday and Sunday afternoons.

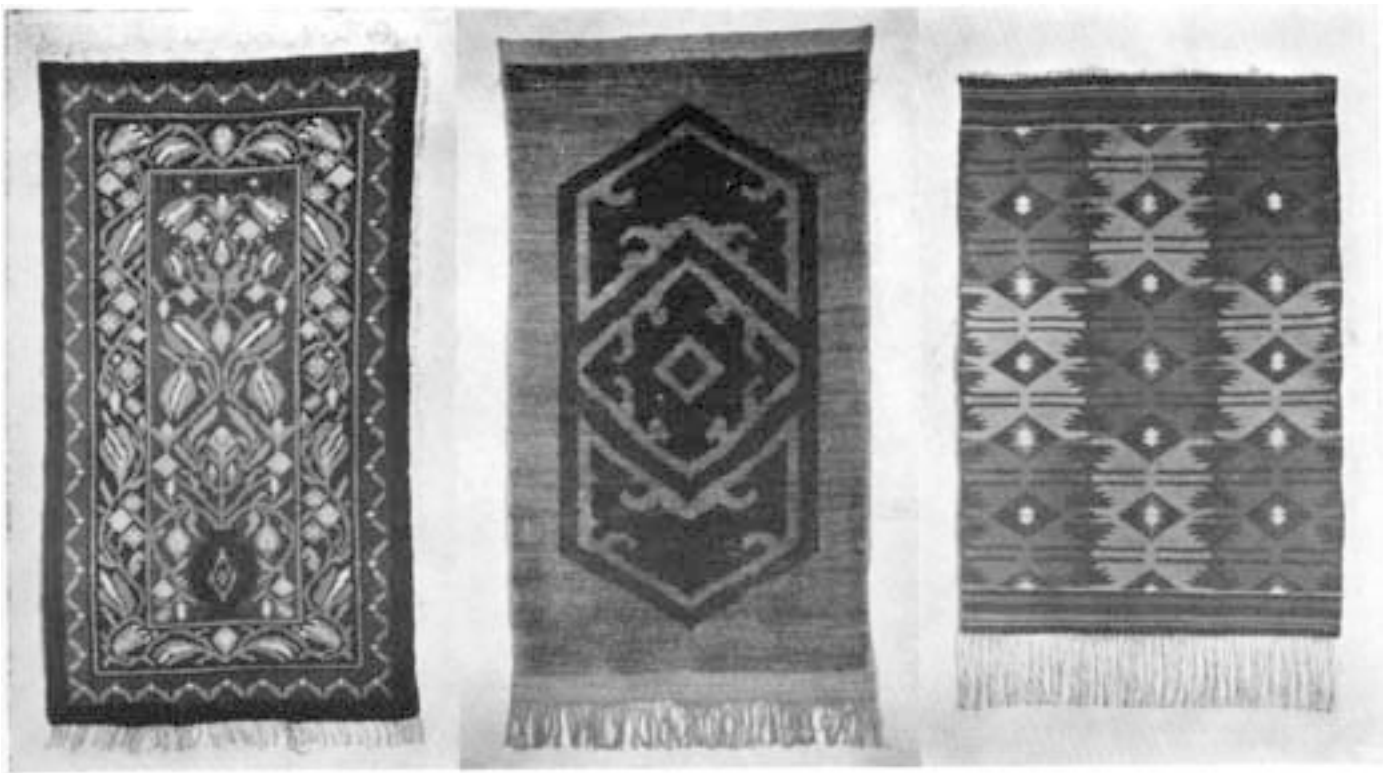
Outstanding examples among the rugs were two knotted ones (illustrations 2 and 3), and one in the Khilim technique (illustration 4). Two rugs of the Navajo type were notable for their high technical excellence. A coat of arms woven in the Norwegian tapestry technique (illustration 5), and a transparent tapestry (illustration 6), were two examples of the wall hangings displayed; these give some idea of the variety in design as well as technique which was in evidence.

Bags, table mats, a portfolio, pillows and a tea cozy (illustrations 7, 8, and 9), were exhibited in long cases in the same gallery. All of these pieces were notable for excellence of workmanship and finish as well as originality of design and pleasing color selection. Illustration 10 includes some of the more interesting linen pieces. These were significant for beauty of texture as well as the skillful handling of the pattern. Three of the five coverlets were of the summer and winter variety and the other two were in four harness overshot.



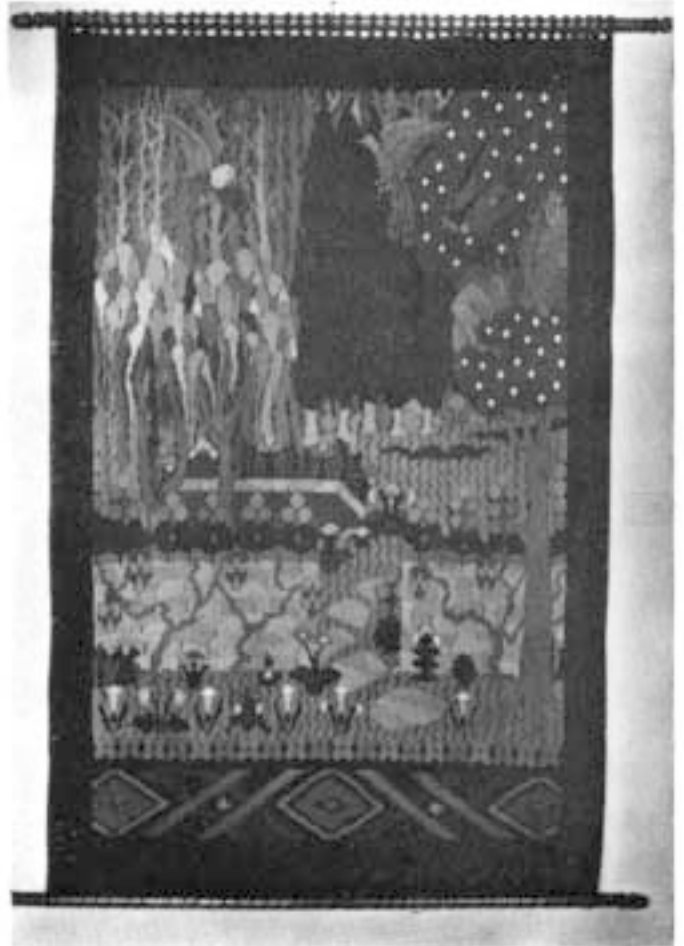
General View

Illustration 1



Tapestry
Mrs. E. H. Wuerpel

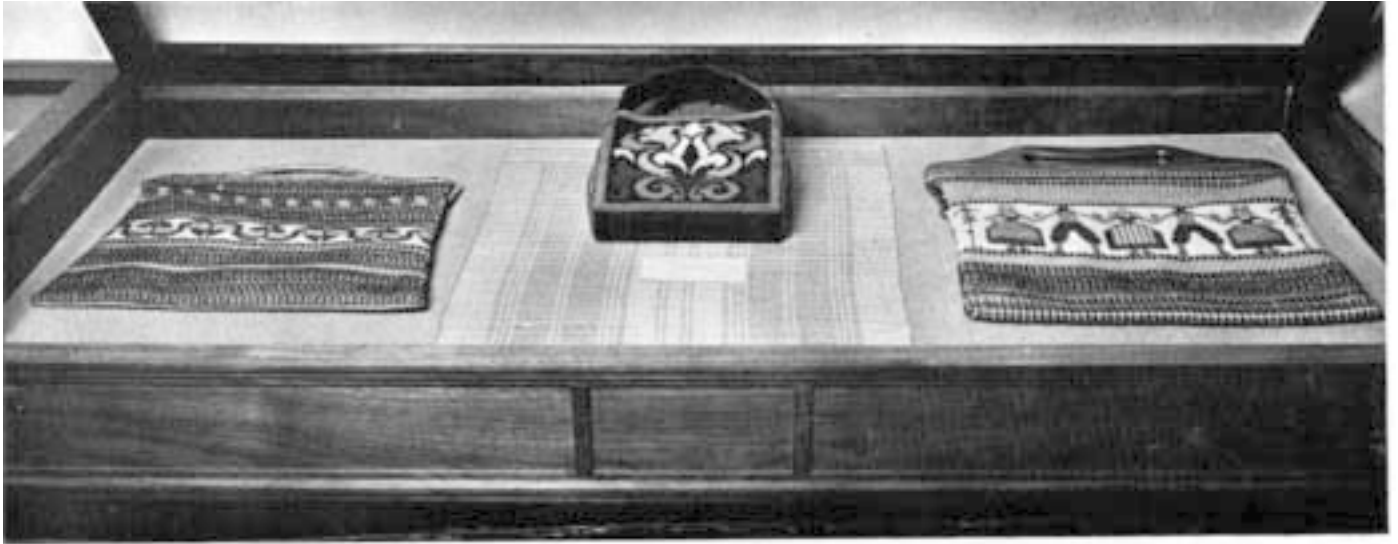
Illustration 5



Transparent Tapestry
Mrs. E. Siroky

Illustration 6

Illustration 7

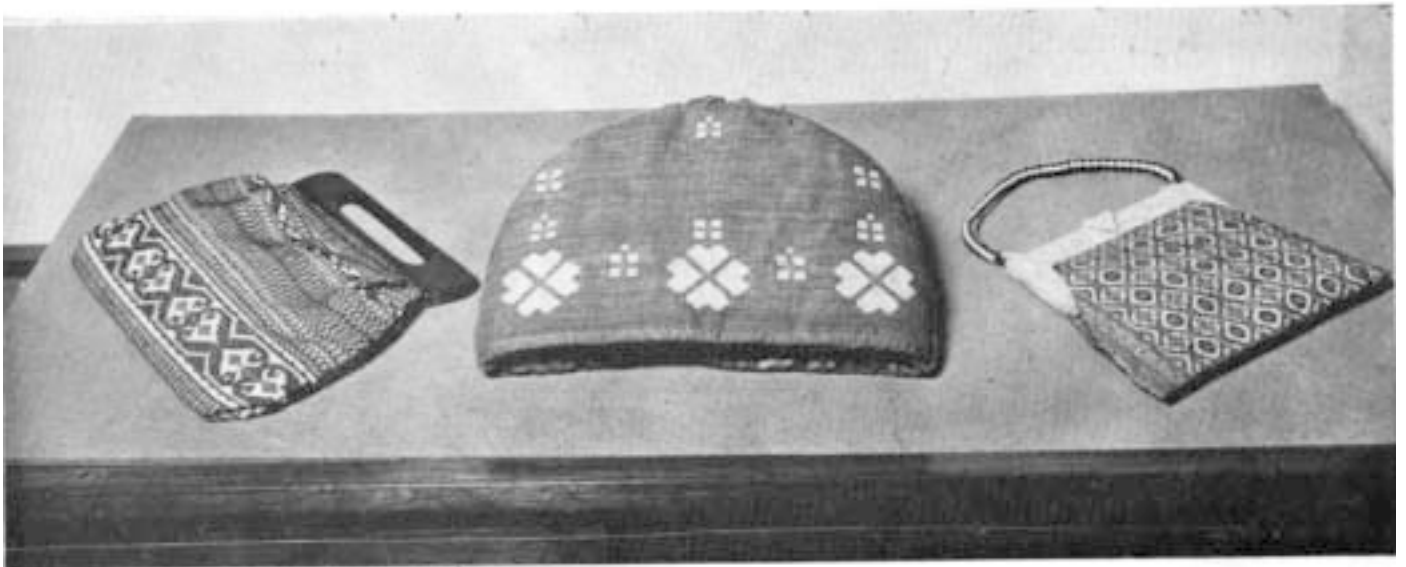


Bag, Rosengang and Dukagang Technique
Mrs. Grace L. Brumbaugh

Bag, Greek Tapestry Technique
Mrs. H. Powell
Table Mat, Summer and Winter Technique
Mrs. E. H. Wuerpel

Bag, Rosengang and Dukagang Technique
Mrs. Samuel Cottrell

Illustration 8



Bag, Rosengang and Dukagang Technique
Miss Augusta Harvey

Tea Cozy, Dukagang Technique
Mrs. W. John Harris

Bag, Miniature Maltese Cross
Mrs. Ada Eaton

Illustration 9



Table Mat, Pick-up
Miss Elizabeth Tenney

Portfolio, Dukagang Technique
Miss Elizabeth Tenney

Table Mat, Honeycomb and Dimity
Mrs. E. H. Wuerpel

Illustration 10



Luncheon Set, Bronson Weave
Miss Edith Lundblad

Table Mat, Spanish Weave
Runner, Embroidery Weave
Miss Edith Lundblad

Luncheon Set, Bronson Weave
Miss Augusta Harvey

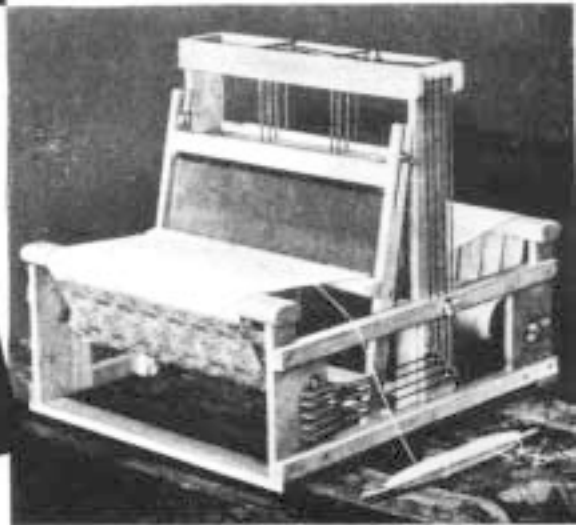
BERNAT

SUPERIOR LOOMS



With our years of experience furnishing superior yarn for Weavers, it is but natural that we turned to the manufacture of looms. In presenting Bernat Superior Looms we feel we have taken a real step forward in the world of weaving.

No ordinary looms are "Superior" looms, but instead they are the most advanced models in the market, embodying many new ideas. There are three sizes, each of outstanding merit. You'll want to know about each so we have prepared an illustrated catalogue, which is free upon request. Send for it today and see for yourself how easy it is to use the new Bernat Superior Loom; how because of their collapsible feature they can be stored away in a minimum of space. Bernat Looms, like Bernat yarns, are guaranteed. Prices are reasonable and are illustrated in the catalogue. If you cannot get the Bernat Looms at your dealer, write us.



EMILE BERNAT & SONS COMPANY, 99 Bickford Street, Jamaica Plain, Mass.

Makers of Looms and Yarns for Beautiful Weaving