

BULLETIN

of the

Basin, Montana

Shuttle-Craft Guild for January, 1937

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A hand-weaver who has never made a coverlet has missed one of the chief thrills in weaving. The coverlet remains our proudest product. A new weaver need not hesitate to undertake a coverlet, however, for there are many things more difficult. Even weavers who are limited to small looms can achieve a coverlet, though of course more weaving time will be required than for the making of a coverlet on a large loom.

Ever since the Guild came into existence over twelve years ago we have devoted the January Bulletin to this great subject -- coverlets. January is a good month for a large project, and it would be fine if each member were to make a coverlet this month. We could then exchange photographs and samples and each would have a fine collection to refer to. Guild members who are interested in this suggestion are invited to send in their names and I will make the arrangements.

The most important part of making a coverlet is probably the planning. Each coverlet should be a separate and unique work of art, designed to suit a particular room and the personality of the room's occupant. I cannot imagine making two coverlets exactly alike, -- unless as a pair for twin beds. To do so would be to miss much of the excitement even the most seasoned weaver feels when taking a new coverlet off the loom.

Of course there are no rules to follow in planning a coverlet, but there are a few things it is well to avoid and a few things that usually work out well. Here are a few hints that may prove useful: Consider first the size, style and color-scheme of the room in which the coverlet is to be used. It is probably unnecessary to say that a strictly "period" Colonial "blue and white" would be inappropriate for a bed in one of the box-and-bent-metal interiors, or that a fantastic modernistic coverlet would be unhappy on an ancient four-poster in a stylized Colonial room. So if we must have rules let the first one be to play along with the room in style and general color scheme. However, above all avoid the "matching" mania. Many of us may have seen colored illustrations of a bedroom in the White House furnished in hand-woven textiles done in blue and white on a familiar wheel pattern. The whole room is wheels -- curtains, rugs, chair-coverings as well as coverlet. The result is atrociously ugly, and to live for any length of time in that room would, I am sure, have a very unpleasant effect on the disposition. Too much pattern is far worse than too little pattern, -- and too much of the same pattern produces a monotony of a very distressing kind. So perhaps the second rule should be to avoid a patterny effect and not to be misled into a "matching" color scheme.

The size of the room is important in choosing a pattern. In a general way, for a small room use a large figure and for a large room use a small figure. It is no use trying to make a small room look large, it is better art to accent the smallness which has pleasant qualities when developed properly. If everything in a small room is small it make the normal sized occupant feel like a giant -- an unpleasant sensation to most of us. The same reasons make it undesirable to use a large pattern in a large room. We don't like to be made to feel like dwarfs

A large room is apt to be either a formal room requiring a rather stiff treatment of decorative features, or else it has already a great many things of different kinds already in it and the coverlet should be planned to produce harmony rather than to add a new note to the general excitement. Of course if the room is large and very bare, with plain plastered walls, -- Spanish style -- the coverlet should be as gorgeous and fantastic as we can possibly make it.

A coverlet should, in my opinion, be designed with borders. A coverlet without a border is like a picture without a frame. Whether to make the border elaborate or plain, wide or narrow, depends on the style of the bed on which it is to be used. If the bed is low the top of the bed is the part chiefly in evidence and the border may be narrow. If, however, the bed is high, the part of the coverlet most in evidence is the overhang and this should be a deep and elaborate border while the center of the piece is quite plain -- made up of many repeats of a small figure. Do not make both border and center equally elaborate, as it is contrast we should strive for.

In a general way, as frequently noted in the Bulletin and elsewhere, any two patterns in the same weave can be used together as border and main figure. It is poor practise, however, to combine two patterns of equal importance. Always use one big pattern and one small pattern. Many of our standard patterns are composed in this way -- a large figure with a plain figure. For instance the charming "Wreath Rose" pattern, draft No. 93, page 182 in the Shuttle-Craft Book, consists of a large wheel figure and a figure made up of nine small roses. Other patterns consist of elaborate figures set between plain squares or "tables" composed of two alternating blocks. For instance the "Queen's Delight" pattern, draft No. 61, and the "Double Bow-Knot" pattern, draft No. 115. For composite patterns of this order a good threading for a border is the simple "diamond". For a narrow border a run of blocks in twill succession is usually agreeable, though this is too monotonous for a wide border.

The manner of arranging plain borders for an elaborate pattern has been described several times in the Bulletin, so for this month it might be desirable to consider the coverlet with an elaborate border and a plain center. Take for instance the "Wreath Rose" pattern mentioned above; Thread several runs of twill for a selvage. Begin at thread 151 of the draft and thread to the end. Then put in two complete repeats of the draft. For the rest of the warp thread from 151 to the end of the draft as many times as required to make the desired width. This will make a field of small roses for the center of the piece, a group of four large wheels in the corners, and an interesting border.

Here is an arrangement of "Tennessee Trouble," draft No. 53, page 172 of the Shuttle-Craft Book; After the selvage, begin at thread 217 of the draft, thread to the end. Then thread one complete repeat of the draft. Then from the beginning to thread 214. Thread the rest of the threads by repeating from 149 to 214 (inclusive) as may be required. The center seam should come either at thread 153 or at thread 186, -- whichever is the more convenient.

Another interesting effect could be made, using draft No. 109 as a border, with this arrangement: One complete repeat of the draft; then from the beginning to 372. For the center repeat as required from 233 to 373 (inclusive). Make the center seam either at 283 or at 353. The former would be the better place for the seam.

Before putting these threadings on the loom it would be wise to write them out on cross-section paper.

These patterns, of course, are classic in form. A more modern effect can be produced on any of the old patterns -- the simpler ones are to be preferred -- by threading the figure all across, without a side border, and weaving in bold cross-wise bands of pattern weaving alternated with spaces in which one or another of the pattern sheds is used continuously to make a length-wise stripe, as sketched on the opposite page. Several colors can be combined in

such an effect with great freedom. For a room that needs toning up this would be an excellent form of coverlet to make. The pattern threading for this is not very important. "Maltese Cross," "Whig Rose," the small "Single Chariot Wheel," "Sweet-Briar Beauty," "Solomon's Seal," any of the small patterns in crackle weave, a pattern of small alternating blocks in the summer and winter weave, even the plain Diamond Diaper pattern, -- all would give good results used in this manner.

For an elaborate coverlet the Finnweave offers wonderful possibilities. A combination of silk and wool would be extremely gorgeous, and of course the pattern possibilities are unlimited. The Spanish pattern given in the Recipe Book, Series I, No. 20, could be used for this weave as well as for tufted weaving, and would make a very gorgeous piece for a room in the Spanish style.

Coarse linen done in the Swedish lace-weave or in the Spanish openwork weave makes a handsome bed-covering where wool is not held desirable.

All the above suggestions are for four-harness weaving.

The pattern shown on the diagram is an unusual old Colonial pattern for six-harness summer and winter weave. On eight harnesses a plain border made of alternating solid stripes would be effective. The pattern is from a photograph contributed by one of our Guild members. It is a rather open pattern and if a more solid figure is desired this may be accomplished by a slight change in proportions: increase the large corner blocks of the main figure and reduce the size of the three center blocks of this figure.

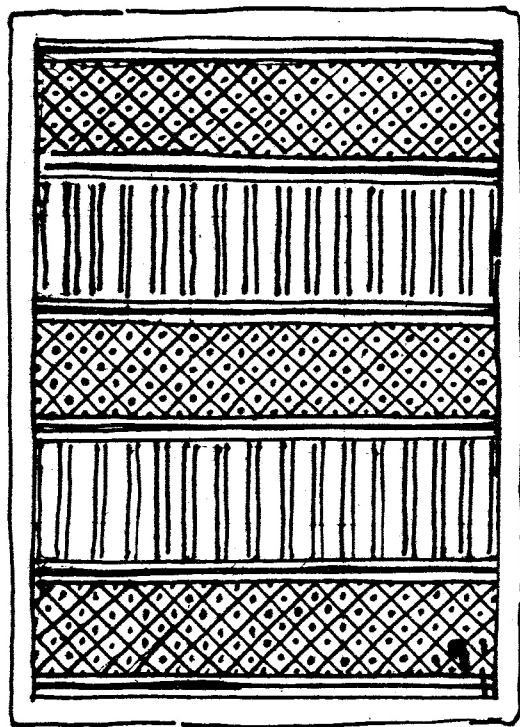
An interesting pattern of the modernistic type can be produced by using a part of the main figure, repeated in twill order, as shown on the diagram.

There are many other ways in which this pattern could be arranged to produce a variety of effects. An interesting way to pass an evening would be to experiment on cross-section paper with the various design elements of this pattern and so produce a pattern of ones own. It is not necessary to be a professional designer in order to give oneself this pleasure. It is one of the great pleasures in weaving and those who have not experienced it have missed part of the pleasure to which they are entitled.

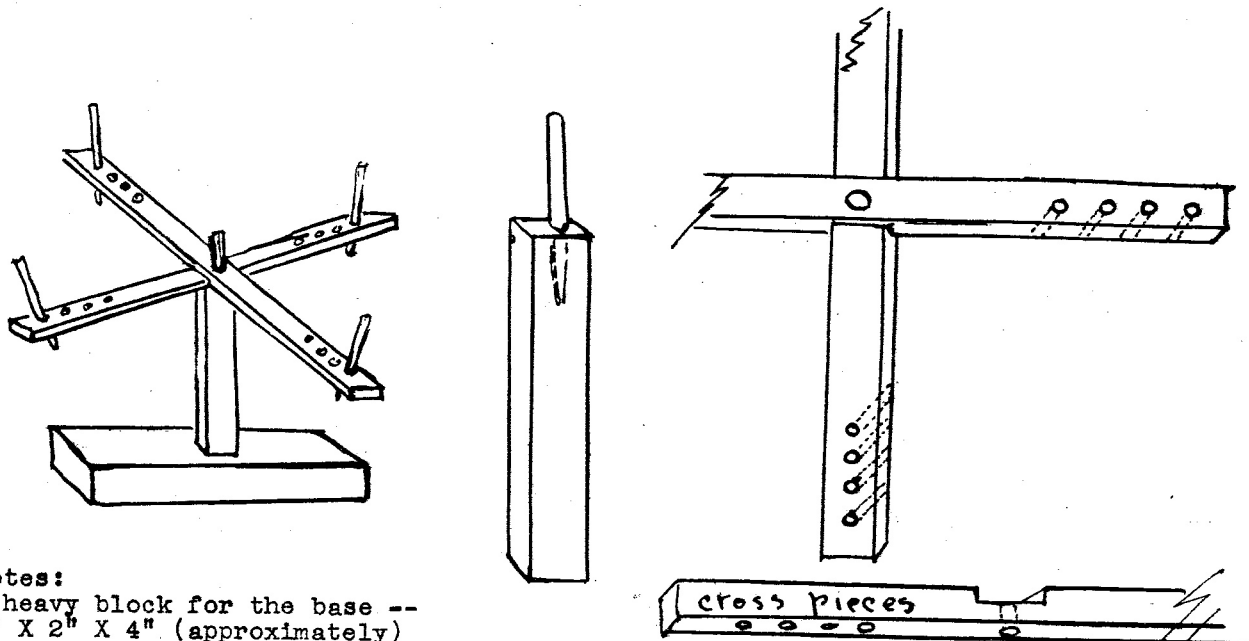
For instance: this pattern as shown is developed as-drawn-in, with no blocks overlapping. A quite different effect would result from weaving the center blocks of the main figure rose-fashion. Whether this would make the figure more or less interesting one could find out quickly and easily on paper. Paper costs very little and if the variation proves displeasing there are always waste-paper baskets handy.

Perhaps Guild members who follow this suggestion will send in their drawings. I shall be glad to have them for a future Bulletin.

Last month's Bulletin has brought a number of interesting and practical suggestions from Guild members. Professor John E. Lear writes that he uses a small fan-motor -- such as may be purchased from the mail-order houses for \$5.25 -- for winding warp-spools and shuttle bobbins. Instead of the ordinary warp-spools he uses the metal spools on which Kodak film is supplied. These may be had free of charge from the local photographer.



Mrs. Bertha G. Johnston contributes sketches of a home-made swift which I reproduce here with thanks. This type of swift if made heavy enough is entirely practical, though for rapid winding I prefer the upright type with two large adjustable spools.



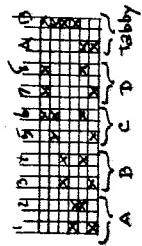
Notes:

A heavy block for the base --
 1" X 2" X 4" (approximately)
 One piece for upright, about
 2" X 2" X 10", fastened into
 the base, either inset or by long screws from the under side. Drilled at top to
 hold dowel which is glued in. Use 3/8" dowel.
 Two cross-pieces, each 7/8" X 2" X 22" (or 24" if preferred.) Cross-pieces
 drilled with as many holes as desired -- should be on a slight slant.
 Four dowel-pins, 6" long or longer. Removeable.
 Two metal washers on the upright under the cross-pieces facilitates the movement.

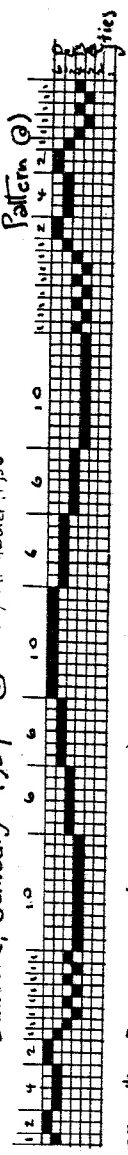
A new member of the Guild is Mr. Edward T. Hall. Director of the Universal School of Handicrafts, RKO Building, Rockefeller Center, New York City. Guild members will find it interesting to visit the school when in New York. Mr. Hall writes: "The school offers instruction in loom weaving, card-weaving, tapestry weaving and rug weaving under Kristin Berglund of Sweden and Mme. Kelz of France. Other courses include jewelry, metalry, leather, wood carving, design, and the simple forms of handicraft used in schools and camps. Students may enroll any day and when desirable may take intensive work for a short period. Tuition varies from eight dollars to fifty dollars a month. The supply service of the school is open to all craftsmen and includes over four thousand items. A line of vegetable dyed handspun yarns has recently been added. These yarns are guaranteed to be color fast and to be approximately true to sample."

A new edition of our card-weaving pamphlet is now being published by the Universal School of Handicraft. This may be purchased either from the school or from the Shuttle-Craft Guild. The price is \$1.00. The school keeps weaving cards in stock also.

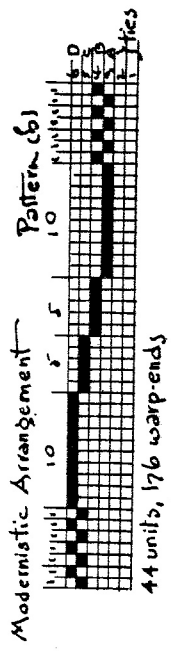
May M. A. A. A.



Tie-up

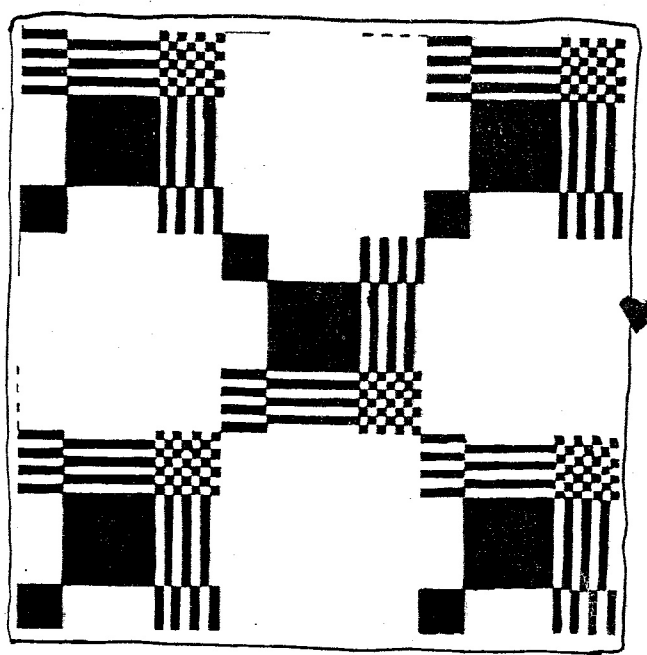
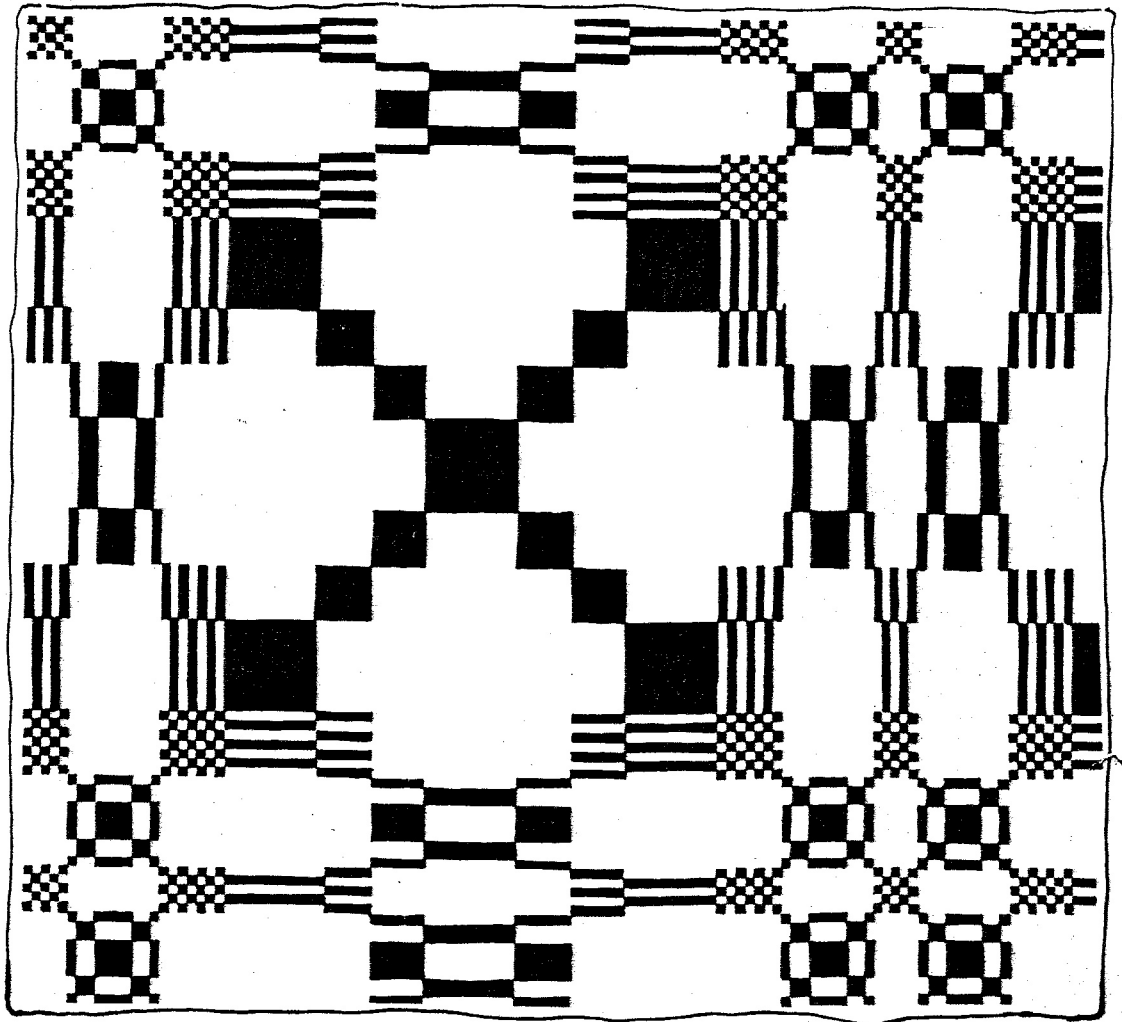


93 units, 372 warp-ends



44 units, 176 warp-ends

Pattern (b) is woven on the same tie-up as Pattern (a) and in other variations. An interesting effect results from wearing the Band Cobbed in a different color from the A and D sheds, and these A and D sheds may also be of different colors. For a border use a twill or diamond arrangement of single-unit blocks or a pattern of plain stripes on two additional harnesses. The effect will be more striking if the pattern is made twice as large as shown on the draft: thread each unit of the draft twice, making a repeat of 352 warp-ends.



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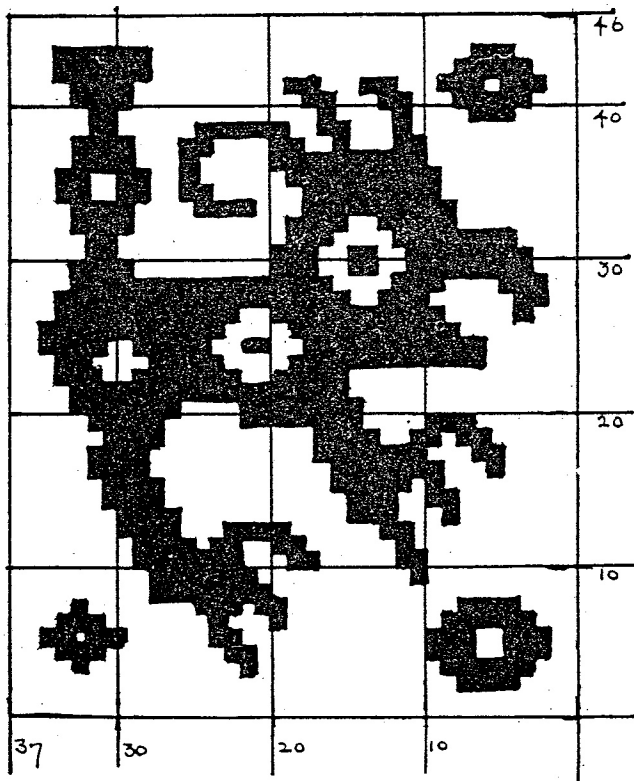
(Copyright, 1937. Mary M. Atwater)

There have recently come to my desk a good many questions about "double" weaving, and it may be a good idea to run over the entire subject and answer these questions in the Bulletin.

First, what do we mean by double weaving? We usually mean the making of two separate fabrics -- one above the other -- at the same time. We may mean either a seamless bag, a double width fabric, or a pattern weave. We may also mean a padded, quilted weave in which the two fabrics are caught together at intervals.

On four harnesses one may weave a double width tabby fabric or a seamless tubing in tabby weave. One may also produce double-weave patterns of the most exciting nature by the special technique known as the "Finnweave," directions for which were given in the Bulletin some time ago.

Draft (a) on the diagram shows the threading and tie-up for double width fabrics and seamless bags on four harnesses. Please do not be confused if you have seen a draft that looks different from this. The warp may be threaded in regular twill succession if preferred, or in different order, so long as the tie-up is made to correspond. The threading at (a) is used here because it follows the same plan as the other threadings given below. It seemed logical to write all the drafts according to the same plan. Treadles 1 and 4, as given on the tie-up draft, weave the upper face of the fabric, and treadles 2 and 3 the lower fabric. To make the fold come along the right-hand edge of a double width fabric weave the treadles in succession as given in the tie-up, throwing the first shot from left to right. If the first shot is thrown from right to left the fold will be along the left hand side of the fabric. For a seamless bag use the treadles in the following order: 1,2,4,3, and repeat.



Treadles 2 and 3 may not open clear sheds on a counterbalanced loom, as they sink one harness and raise three. If the sheds are poor, make a false tie, as explained a number of times in the Bulletin.

On the Structo loom use lever 2 for treadle 1; levers 1-2-3 for treadle 2; levers 1-2-4 for treadle 3; lever 1 for treadle 4.

There are various ways of giving an effect of pattern to a tabby fabric. Plaid patterns for instance, or the "Log Cabin" effect -- which is excellent for a couch blanket done in coarse yarns. At (b) on the diagram is given the Log Cabin threading as used on two harnesses. At (b') is given a four-harness draft for weaving this pattern double width. The pattern at (c') is developed in the same manner from draft (c).

The ferocious creature to the left is an ancient Peruvian animal from the d'Harcourt book, arranged for Finnweave. Just what animal is intended seems uncertain -- probably a cat-animal of some kind.

On eight harnesses it is possible to weave a four-harness pattern double width. Drafts (d) and (d') illustrate one manner of arranging a four-harness overshot pattern to weave double width. The draft is simply written twice, once on harnesses 1,2,3,4, and once on harnesses 5,6,7,8. The only difficult thing in making such an arrangement is to take the pattern correctly around the fold. As indicated on draft (d), the 26 threads from (U) to (P) are used for the upper fabric, threaded on the four front harnesses, and the 26 threads from (L) to (R) for the lower fold, on the four back harnesses. This shift of one thread is required to make the block on which the fold comes correct. The draft may also be used for a seamless tube. Thread as many repeats as required but use full repeats as shown and do not thread a selvage. For a coverlet, of course, borders as desired may be arranged along the free edge. It is hoped that the diagram is clear enough to permit Guild members to make similar arrangements of any overshot pattern they may wish to weave in this manner. Treadles 1,2,3,4 are the pattern treadles for the upper fabric, and treadles 5,6,7,8 the pattern treadles for the lower fabric. Treadles A,B, are the tabby treadles for the upper fabric, and treadles C,D, the tabby treadles for the lower fabric. Treadles X,Y weave the two fabrics together with a double tabby. For double width fabric they are not used, but for seamless bags they are useful in weaving the bottom of the bag. An amusing way to use the seamless tube is to weave a heading on X and Y, then tubing in pattern for a pillow top. Separate the two fabrics by raising the four front harnesses, insert the pillow, and weave it in with another heading on X and Y. Finish with a warp-fringe at each end.

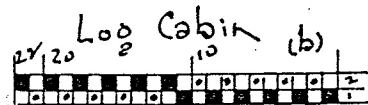
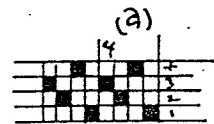
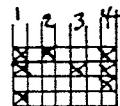
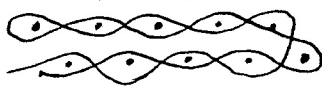
The tie-up as given for (d') can be used with any overshot pattern arranged in the same manner as the one shown. The ties indicated are the "rising" ties. If a double tie-up is used tie the blank spaced on the tie-up draft to sink.

The draft at (e) is for quilted weaving. If coarse materials are used the 56-thread draft would be the one to use, but if the warp is fairly fine increase the number of ends in a repeat as suggested below the draft. The spaces may be repeated four times if desired, or only twice. The two front harnesses in the arrangement make the upper fabric; the rest of the harnesses are for the under fabric and the ties. It is interesting to make the front and back fabrics of different colors. To do this make the warp half of one color and half of the other and alternate the colors in threading. Of course if two colors are used in the warp the weft should be in the same two colors also, and to bind the edges of the fabric pass the shuttles around each other when laying them down, so that the thread will catch. On a ten harness loom the two additional harnesses may be used for a selvage. The manner of weaving is as follows: Weave back and forth across the upper fabric on treadles 1 and 2; then back and forth on the lower fabric on treadles 7 and 8. On treadle 9 throw a shot of padding material. A wool roving is best. Repeat this. (If the warp and weft materials are fine and the padding heavy it may be necessary to weave four shots on each side of the fabric between the shots of padding.) To make the first tie: weave, for the top fabric, treadle 1, and then treadle 3. Weaving on 7 and 8 as usual. Weave on 1 and 2 again till ready for the second tie, then weave 1 followed by 4, and so on. The draft is arranged to produce a diamond figure in the ties. This weave would be charming for a baby blanket: warp and weft of a fine, soft yarn in blue and white, or pink and white.

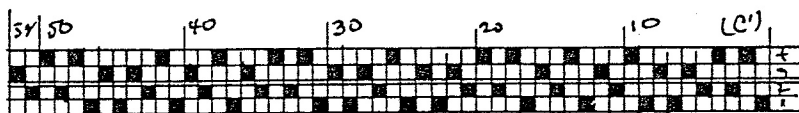
Draft (f) is for a simple two-block pattern in double weave on eight harnesses, written in the conventional manner used for patterns in summer and winter weave, double twill and damask as well as for the "double plain" weave. The draft at (f') is the same pattern written in a different manner that some people may find easier to use in threading.

I have never been able to discover why people used to speak of the double plain pattern weave as a "lost art." Of course it was never anything of the kind as most Swedish hooks on weaving show it and it has always been quite generally practised among European weavers. There is nothing occult about it. It is not even difficult to do, -- provided one has a loom with the necessary number of harnesses. I really prefer the effect of the summer and winter weave and the double twill weave to double plain. But of course this

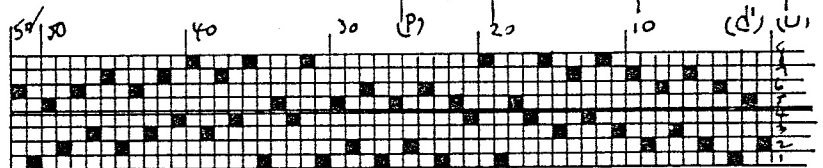
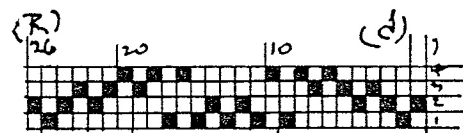
Shuttle-Craft Bulletin, February, 1937
 Double Weaves



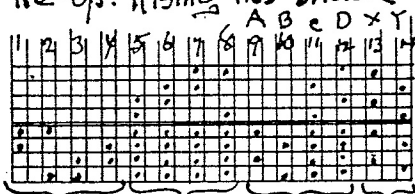
Tie-up as
for (a)



Tie-up as
for (a)

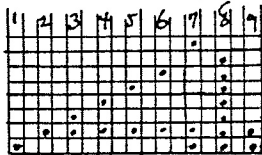


tie-up. Rising ties shown



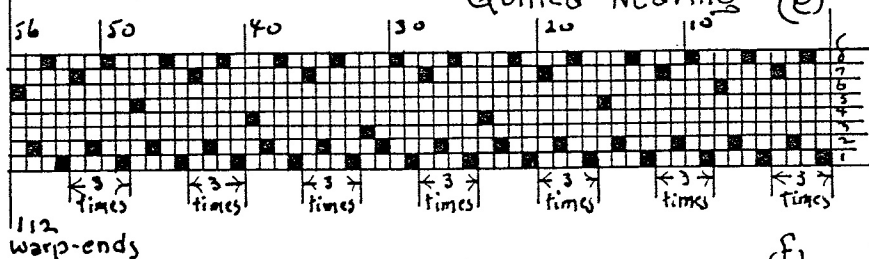
Pattern-
Upper
Pattern-
Lower
Tabby
Double
Tabby

Tie-up - Rising Shed

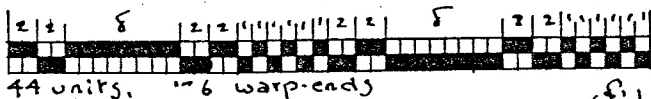


(Rising ties shown) ↑
Quilting
Shed

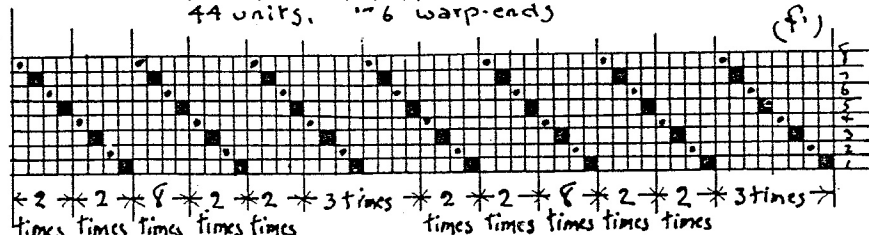
Quilted Weaving (e)



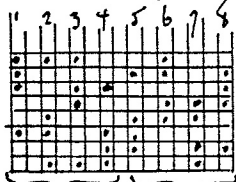
112
warp-ends



44 units. 116 warp-ends



Tie-up. Rising ties



First
Block
Second
Block

is purely a matter of taste. I have an idea, however, that the great admiration for double weaving was in the beginning due to the odd "lost art" superstition.

There are two methods of setting up the loom for double plain pattern weaving -- the Swedish and the English. By the Swedish method four harnesses are required for each block of the pattern; a three-block pattern, for instance, requires twelve harnesses and so on. Some of the ancient Colonial looms carried as many as twenty-five harnesses, but this is very unmanageable, and many of the more elaborate double woven coverlets of the period were probably made on simple draw-loom of the type in quite general use abroad. The English method requires four harnesses for the weave and two harnesses in addition for each pattern block. A two-block pattern requires eight harnesses by either method, but by the English set-up a four-block pattern may be woven on twelve harnesses while by the Swedish method this number of harnesses will weave only three blocks. The English method, however, is more complicated to set up. The four front harnesses must be equipped with long-eyed heddles and each warp-thread is threaded through two heddles -- one on a pattern harness and one on a weave harness. By the Swedish method the warp-threads are threaded through a single heddle of the ordinary kind.

For all kinds of double weaving the warp must be set twice as close as for ordinary single tabby weaving as, of course, it is warp for two fabrics. This makes it impractical to use a fuzzy material for warp in this weave, and any warp not very strong and smooth should be liberally treated with warpdressing. In the classic double-plain coverlet the two warps were usually one of white cotton and one of colored wool. When using two different materials in the warp it is desirable to use two warp-beams. However, unless it is to be a long warp for several coverlets both warps may be wound on the same beam without inconvenience. The two materials should be similar in grist, and the weft used should be the same as the warp-material or materials.

Several of our members have had warp-tensioners made after Mr. Gardner's drawings in the December Bulletin and report that the device works "perfectly." Mr. Gardner has another "wrinkle" to contribute which seems to me very practical. After making several pieces on a long warp it is sometimes difficult to determine just how much warp remains on the beam. Mr. Gardner's device is to write figures on slips of paper and wind these in with the warp on one of the sections of the beam after each round. That is, when one yard is on the beam wind in a slip of paper with the figure "1", and after the second yard a slip with the figure "2", and so on. As the warp is used the slips of paper, of course, come out, and by reading the figure on the one that happens to be uppermost one can tell at a glance how much material remains on the beam.

One of our Guild members, Mrs. H.K. Stebbins, writes of having visited in England the weaver who made the card-woven rugs recently shown in THE WEAVER magazine. She says these rugs were made in strips sewed together, and were woven on wooden "cards" larger than the ordinary card used for fine materials. The equipment was set up on a frame that stood on the floor. She did not have the details of this. The reason that the patterns of the strips looked familiar is that they were taken from our pamphlet. A number of people have expressed interest in these rugs, and it would be simple enough to make them. There are no wooden cards on the market but any wood-working shop should be able to make them up at low cost. Perhaps ply-wood could be used. Five inches square would probably be large enough, though perhaps six-inch squares would be better if heavy rug-yarn is to be used. A frame to hold the warp would be useful, but one can use the frame of a large loom if one likes, taking out the harnesses and batten, of course. If this is done the rug could be woven full width, though of course the cards would have to be turned in groups. Perhaps some ingenious Guild member will devise some method of turning the cards with a crank. I have always thought this should be possible though I am not mechanic enough to invent it. If this could be done we should have a new loom with amazing possibilities.

May M. Atwater

THE SHUTTLE-CRAFT GUILD

BULLETIN

Basin, Montana

for
March, 1937.

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The Bulletin this month will discuss window-drapery, -- an exciting subject that recurs each year when we begin to think about "spring house-cleaning." There is just as much thrill in new dresses for the windows as in new clothes for oneself, and there is no better way to get new curtains than to weave them -- in just the colors and materials best suited to the rooms in which they are to hang.

There are, of course, two main types of window-drapery -- side curtains designed to soften the harsh lines of the window-opening and fit the window into the wall, and glass curtains designed to cut off glare and to afford privacy. For lack of space it is impossible to discuss both kinds of drapery in this Bulletin, so let us confine ourselves to glass curtains, which present some special problems.

Some of us may have windows so cleverly designed of small panes that they do not glare, and some of us may have windows that look out into a quiet walled garden instead of on a street, but most of us have both glare and the need of privacy to consider in planning our glass-curtains. But though we want to reduce the glare we of the modern time want all the light in our houses that we can induce to enter, so our glass curtains must be as thin and open as possible, to admit the light, and still with enough body to give the necessary screening. If we live right on a public street our curtains must necessarily be heavier than if our windows are set back a little or are above ordinary eye-level of passers-by. These are details each must decide for herself. A good plan sometimes is to make a curtain that is fairly close and opaque at the bottom and very filmy at the top.

The simplest way, of course, to make curtain material is to use the plain tabby weave, setting the warp far apart and beating lightly. A fabric made in this manner can be varied by setting the warp close for stripes of firm fabric between stripes set far apart. Or heavy threads may be introduced at intervals -- either white or colored -- and if also woven in the weft these coarse threads will give an interesting cross-barred effect. There is, however, a limit to this method. If the warp is set very far apart and the weft put in very lightly the fabric will not have stability enough to hold together and it will soon look very unpleasant. Even the lightest tabby fabric we can weave will cut off a great deal of light and will seem to most of us too heavy for a glass-curtain.

The way to let in more light is to weave a meshed fabric of some kind. This is occasionally done in plain tabby weave in the following manner: The warp is sleyed in groups of threads, the number depending on taste, with spaces between. In weaving: after putting in a number of tabby shots to correspond with the number of warp-ends in a group, insert a thin lease-stick the width of the spaces between warp-groups. Leave this stick in till the next set of weft-shots has been woven, and then withdraw it. A fabric woven in this simple manner will admit light, afford protection, and will look very attractive when first taken from the loom, but it is hardly a practical fabric as in a short time the threads will tend to fringe out and the effect will be ruined. We weavers do not like to see our handiwork deteriorate, so I cannot recommend this system. However, a fabric woven in this manner will be entirely satisfactory if reinforced with needle-work. I have seen a sample of some Spanish curtains apparently woven this way and then held together with diagonal threads knotted over each intersection of warp and weft groups. This may have been done after the fabric was taken from the loom but could be done on the loom and carried along with the weaving, I fancy. This would make handsome curtains though somewhat slow in manufacture. The sketch at (a) of the diagram shows the effect.

Two interesting large-mesh fabrics shown in the d'Harcourt book of Ancient Peruvian textiles hold suggestions for curtain weavers. In one the intersections between wide-spaced groups of warp and weft are held together by figures done in tapestry weave. Each of these figures, of course, must be woven seperately, so this would be a slow process, but the effect is very handsome. In the other example lozange forms are produced on a warp set in widely spaced groups, plain weave being used to catch the threads together and produce the mesh. Of course each bit of tabby weaving must be done seperately. A technique similar to the Spanish lace-weave process might be used, and this would be a much quicker way to weave than the process described above. These two methods of weaving are sketched at (b) and (d) of the diagram.

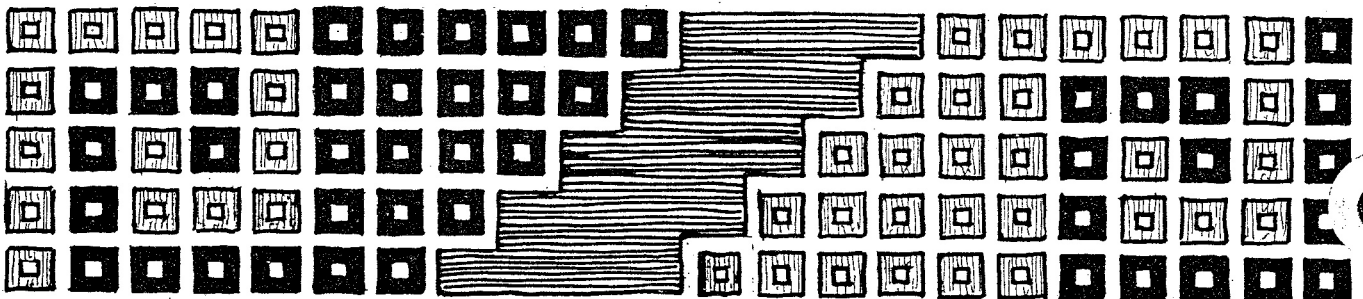
The Spanish lace-weave process is not advised for curtains, -- it requires a fairly close setting of the warp for best results and a curtain woven in this manner, though it would be very handsome, would cut off too much light to be practical over the glass.

The Swedish lace-weave, sometimes called "mock-leno", is probably the simplest technique for an openwork fabric. This is familiar to most Guild members and the patterns given in the Recipe Book -- Series IV, No.2; Series V No.20 and No.21. The draft of Series III, No. 24 may also be used for the open-work effect if each pattern block is threaded twice and the warp is spaced for an open weave.

This mock-leno weave, however, should not be attempted in mercerized material or other slippery thread as silk or rayon. The best material is a fairly rough "line" linen or the cotton and jute "drapery yarn" supplied by some dealers. An unmercerized cotton might also be used though it is not advised. In making this weave remember that the open-work effect does not appear on the loom but is developed when the fabric is washed.

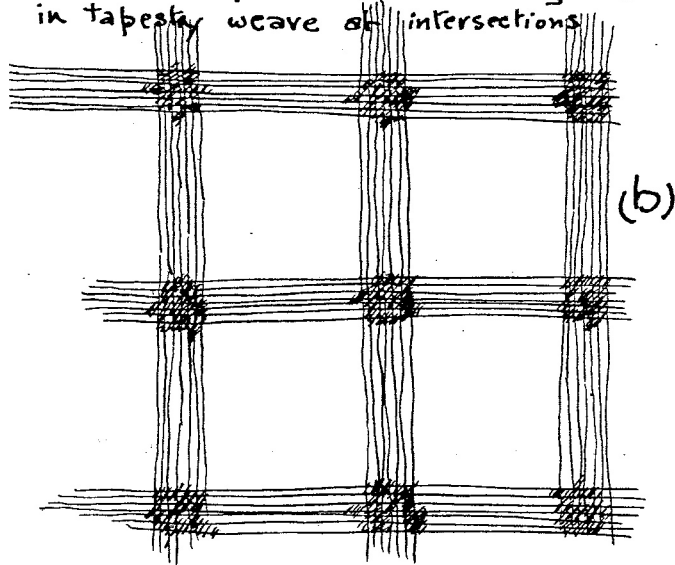
A curtain in the above weave cannot be made as open as a true mesh-fabric, and though handsome for a door-panel or other place where the admission of full light is less important than the masking necessary for privacy, it makes too opaque a fabric for glass-curtains where light is important.

The best weave for curtains is some form of "cross" or "leno" weave. This weave twists the warp-threads together and holds the weft securely even when the spacing is very open. Directions for setting up the loom for this interesting weave were given in a Bulletin of last year and need not be repeated here. However the variations of this weave shown on the diagram will be found of interest, I am sure. At (e) is shown a simple variation of the plain marquissette, taken from an illustration in the d'Harcourt book. If one chose, the threads that make the heavy bar might be of a different color from the rest of the warp, and in coarser material also if desired. These colored threads could be introduced into the weft to make a squared figure. As noted in a previous Bulletin, the ancient Peruvians often enriched their plain cross-woven fabrics with bands and figures in tapestry. For a curtain with a heavy and opaque bottom border and a very open top-portion this technique is ideal. Any figure developed on cross-section paper can be used for this type of weaving. The simple one shown below will be found effective.

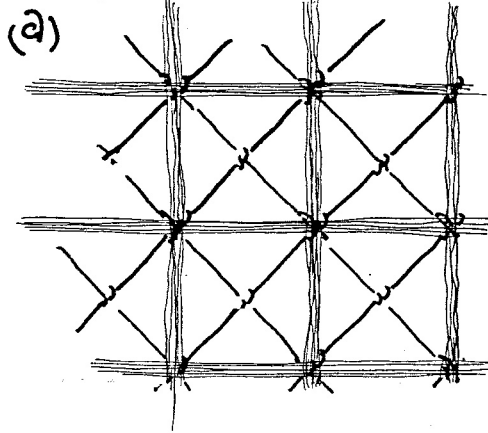


Page three
Mesh Fabrics

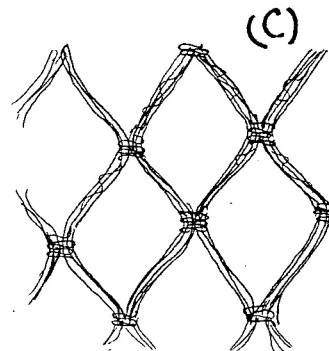
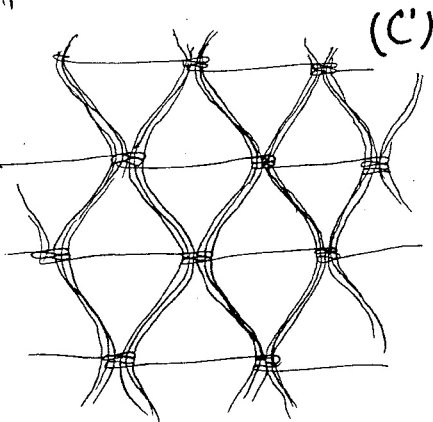
Peruvian Mesh Fabric with figures
in tapestry weave at intersections



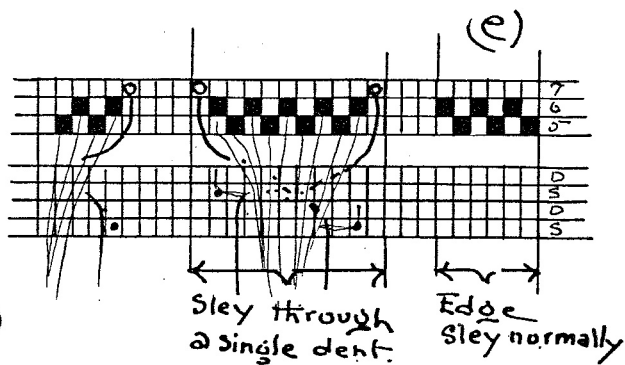
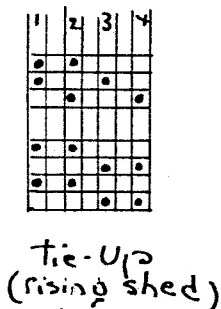
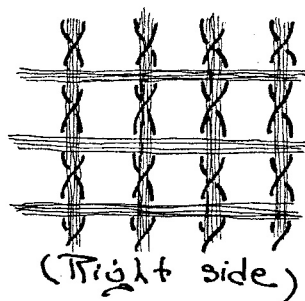
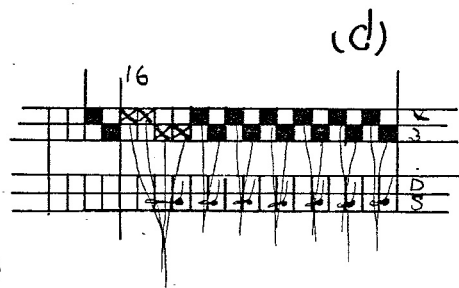
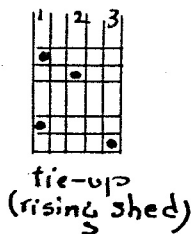
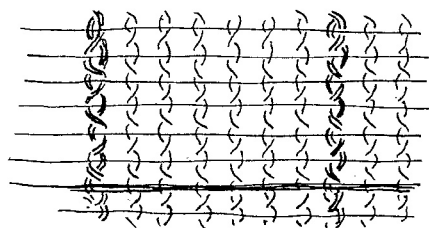
Open mesh with needle-
work reinforcement.



(c')
Suggested variation
of (c) - woven
in the Spanish
manner.



Peruvian Mesh



The threading at (d) of the diagram is, of course, simply the plain marquisette cross, as described in the Bulletin for April, 1936, except for the suggestion of the doubled threads. These threads will tabby double in the threading given. By adding another harness they may be made to tabby singly with the rest of the warp.

The threading at (e) produces a simple cross-fabric of interesting effect. By this process a more open mesh is possible than in the plain marquisette cross. The set-up is not difficult, but unless made exactly as sketched the thing will not work. For my experimental piece I set nine threads of 20/2 cotton with a single thread of coarse cotton on either side of each group of fine threads. Each group -- the nine fine threads and the two coarse threads -- must be drawn through a single dent of the reed, so a coarse reed is advisable. I used a ten-dent reed, leaving eight empty dents between the groups of warp-threads. Of course the number of threads in each group and the spacing of the groups is a matter of choice. Two standards and two doup-harnesses are required, as indicated on the draft. Thread the warp as indicated. Then set a standard heddle to the right of the first group of threads and draw the loop of a doup through the eye. Through the loop of the doup pass the left-hand coarse thread, taking the thread under the group of fine threads. Set a standard heddle -- on the second standard harness -- to the left of the group of threads and draw the right hand coarse thread through the loop of the doup on the second doup-harness, bringing this thread also under the group of fine threads.

The weaving is done entirely in fine thread: Alternate treadles 1 and 2 for nine shots; then alternate treadles 3 and 4 for nine shots, spacing the groups of weft shots fairly far apart.

On the set-up as given the fabric will weave wrong side up, and the cross will be on the under side. It is more convenient on our equipment to weave it in this manner, though it can be woven right side up if preferred by attaching the dous to the top bar of the doup harnesses instead of to the bottom bar, and by crossing the coarse threads above the group of fine threads instead of below. However, the loom will work better if the set-up is made as recommended.

Attractive color effects can be introduced into this weave by making the groups of fine threads of different colors and by weaving the cross-bars in a variety of colors in some regular succession.

Lengthwise stripes in openwork and plain may be woven on this set-up. Thread the plain stripes as shown for the edge on draft (e) -- either in coarse or fine thread, slewing without spaces between dents.

The special Bulletin in which were given directions for the Finnish double weave -- the "Finnweave" -- has been out of print for some time. But so many requests for this material have been received from new members of the Guild that I have had this Bulletin reprinted, together with a number of additional patterns for this weave that have come out from time to time in the Bulletin. This reprint is now available -- price \$1.00.

A number of Guild members have inquired about a travelling exhibit for this year. I shall be glad to start another exhibit if there is sufficient interest. Will Guild members who wish to participate please write me at once, giving the approximate number of pieces they will have to send in? If enough members respond I shall have an announcement of arrangements in the April Bulletin

Miss Hall, whose silk samples were sent out with the Bulletin some time ago, writes me that her shipment has not yet been received, due to the long tie-up of the west coast shipping strike. She expects it in at any moment, however, and by the time the Bulletin is received will no doubt be able to fill orders. She will have seventeed colors in this attractive material.

May M. Atwater

BULLETIN

of the

Basin, Montana

Shuttle-Craft Guild for

April, 1937

Easter, to be sure, has come and gone, but the subject of dress-fabrics is always of interest -- perhaps never more interesting to hand-weavers than this year, with the return to fashion of certain types of fabric that we can make so beautifully on our hand-loom.

Plaids of all kinds, from the little "shepherd's check" to large figures a foot or more across, are even more in evidence than last year, and the striped and bordered fabrics, such as we wove with so much pleasure a number of years ago, are this year the newest thing.

But before discussing these new fabrics, a few words about tweeds. There seems to be some confusion of idea as to what is and what is not a "tweed." The word "tweed" is derived from the word "twill" and properly speaking a tweed is a fabric made of rough hand-spun or "homespun" wool yarns woven in a twill. Therefore a tabby fabric made with a worsted warp and a homespun weft, for instance, should not be called a tweed.

The famous "Harris tweeds" of Scotland are the aristocrats of the tweed family and their history goes a long way back through the ages. Here are the "recipes" taken from a few imported samples of Harris. The material in all is the same -- a sturdy handspun wool yarn with a peculiar wiry texture due, no doubt, to the wool of some special breed of sheep.

Sample No. 1. Threading, plain twill: 1,2,3,4 and repeat. Warp, 2 threads white, two threads "colonial" blue. Weft, a mixed yarn, -- reddish brown and white. Treadled as for plain 2-2 twill: 1-2, 2-3, 3-4, 1-4, repeat.

Sample No. 2. Warp: the same mixed brown and white yarn as the weft in No. 1. Weft: 2 shots reddish brown; 2 shots a dull, light blue. Threaded and woven the same as sample No. 1 but more closely beaten.

Sample No. 3. Warp: mixed tan and natural white, with two threads of a very dark Oxford grey set at intervals of one inch. Weft, mixed grey and natural white, with four threads of a taupe shade woven at intervals of two inches. Threaded and woven as for plain twill, rather loosely beaten and somewhat "fulled."

Sample No. 4. Warp, light grey; weft, a mixed grey and red-dish brown. Threading, Herringbone. Woven in regular twill order. This sample is considerably fulled so that the herringbone weave is hardly apparant.

Sample No. 5. (This is a sporty plaid effect, excellent for a sports coat.) Warp: 4 threads white; 4 threads golden tan or light brown; 4 white; 4 brown; then 2 white; 2 dark blue, repeated for 24 ends. Then the whole pattern repeated. Weft, same colors as the warp, woven: 4 white; 4 brown; 4 white; 4 brown; then 2 white; 1 brown; 1 blue, repeated for 24 shots.

Other samples are woven in yarns of the same color but slightly different twist for warp and weft. Variations in texture are made by setting the warp close, or somewhat far apart, and by beating lightly or firmly. But all are in plain twill or one of its simplest variations. The use of mixed yarns, and the use of different shades of color for warp and weft give life to the plainest of these fabrics.

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The Scotch tartan plaids are perennials, -- always handsome and always smart. These plaid patterns are excellent for scarves, skirts, whole dresses, and particularly desirable for light flannel outing shirts for those who take to the woods on hunting and fishing trips. The true tartans are woven in twill, but for our uses we often prefer the plain tabby weave which gives a lighter weight fabric than twill. Bernat's "Fabri" yarn warped and woven at 24 ends to the inch makes a very satisfactory fabric. If woven in twill a setting of 30 to the inch in this yarn is better.

The ancient tartan patterns are loved for their romantic history as well as for their beauty, and those among us who through Scotch descent are entitled to the use of the family pattern of course prefer the name-plaid to any other, but those who are not bound by tradition consider rather the color-effect. The "Royal Stewart" pattern, often called the "Queen Victoria plaid", is a prime favorite because of its gayety and charm. This pattern and a number of others are to be found in the Recipe Book. There are four pages of these patterns each with from four to six "setts." I can supply separate pages of the Recipe Book if desired, at 25¢, or six pages for \$1.00, as a convenience to those who have not the complete publication.

It is not the traditional tartans, however, that are most prominent among the new fabrics. Many of the new "fancy" plaids are very striking, and the only limit is the taste and fancy of the designer. Many of these plaids are composed of rather narrow stripes of color, set far apart to make a pattern of large squares. They appear not only in wool fabrics but in the filmiest of materials for evening wear. Those who plan to weave cotton fabrics for summer will not go far wrong in making plaids and checks a specialty.

A good way to design these patterns is to use colored crayons on cross-section paper, drawing the figures of the size they will be when woven. It is very difficult for even an experienced designer to guess at an effect of several colors combined in this manner, and the only safe way is to see it before putting it on the loom.

An interesting manner to make these fabrics is to thread the main part in a fine warp and introduce a plaid pattern in single coarse threads of the same color as the ground or in a different color.

Much grey is to be used in the coming season. All shades of grey from the warm color that is almost rose-taupe to the cold bluish shades will be fashionable. "Queen's grey" which is a mingling of black and white, can be made by warping in white and weaving in black, or the other way 'round. This, enlivened by lines of black and white is excellent

In the limited space of the Bulletin I can do no more than suggest the unlimited possibilities of the plaids and checks.

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The new striped fabrics seem to me, however, more interesting than even the plaids and checks. Many of us no doubt recall the "peasant" skirts, imported from Europe, that were such a feature of summer fashions some years ago. These fabrics were "linsey", woven in wool over a rather coarse cotton warp, and were done in tabby weave in bold stripes of color in great variety. The fabric was woven the width of a skirt-length and the skirts were made up with the selvages at the top and bottom of the garment. Exactly this same thing may go well this season, but "linsey" has a peculiar stiffness that many people do not care for. For this year I believe it would be better to make either all-wool, or all-cotton, or linen fabrics.

Some of the newest dresses are of stripes running lengthwise, with bands of round-and-round stripes at the bottom of the skirt to carry out the new "swing" idea. Here would be an attractive way to weave such a dress: Make the warp of fine unmercerized cotton in stripes of color as desired, setting the warp far enough apart to produce a light-weight fabric when woven in the tabby weave. Thread to the 1,2,3,4 twill. For the stripes at the bottom of the skirt weave in twill, in the colors of the stripes or in a contrasting color, beating fairly close. Between the stripes of twill weave tabby, lightly beaten. And for the main part of the fabric weave lightly beaten tabby in the background color. The heavier stripes at the bottom will give just the effect desired in the new skirts.

Some of the new striped fabrics are in broad bands of pattern, as elaborate as one chooses, separated by narrow sections in light-weight tabby, and are made up with the stripes running 'round and 'round. The pattern threading to use for this sort of thing is a matter of taste. However an overshot pattern with long skips would, in my opinion, be a poor choice, and I would not advise one of the more pronounced Colonial coverlet patterns. The effect is of the "peasant" type and "Monk's Belt", "Bird-Eye", "Sugar-loaf", "Ms and Os", a pattern in "Bronson weave" or in "crackle weave" would give better results.

The "leno" weave will also prove very useful for these striped fabrics, -- done in bands of leno and plain weave, or (if one has a loom of six or eight harnesses) a combination of leno and pattern weaving.

A novelty of the season is a sweater fabric made of rows of narrow fringe. To produce this effect set a foundation warp, say of Fabri yarn, in the ordinary way. Make a second warp, at least four times as long as the foundation warp, of the fringe material, which should be a soft, fluffy yarn. Put this on a second warp-beam. Thread alternate ends of foundation and fringe, or -- if the fringe yarn is coarser than the foundation yarn -- thread two or even three foundation threads to each fringe-thread. The threading can be put on two harnesses, though it is more satisfactory to put it on four, threading to the plain twill. Weave plain tabby for about an inch; reapease the beam carrying the fringe yarn, raise the fringe threads and insert a lease stick an inch and a half wide, set this on edge. (If the fringe is to be cut it would be more convenient to use a bar with a slot and a pile-knife as for Swedish tufted weaving.) Weave another inch of tabby, and so continue. Another way to get this effect is to weave the inch of tabby, put in a lease stick two and a half or three inches wide, laying it flat; weave a few more shots of tabby; take out the lease stick; release the fringe-warp, and with the batten drive the tabbies together. This, however, is hard on the warp and does not work well unless a strong and slippery warp is used. Wool frønge could be woven this way over a silk warp. Bands of loops woven in this manner might make an unusual border and trimming for a fabric in plain weave.

Fabrics in "basket weave" and "waffle-weave" are good this season, also. As drafts for these weaves have been given, and are in the Recipe Book also, it seems unnecessary to repeat them here.

It must be remembered that texture and color are the important matters in planning a dress fabric. For texture the materials must be carefully selected for the desired purpose and the warp-setting chosen to suit not only the material but the weave. As a rule it is best to make warp and weft of the same yarn, or yarns similar in kind and grist. Soft and fuzzy yarns can be used successfully as warp if the warp is treated with dressing. And this, too, which has been said often before but seems to bear repeating: an all-wool fabric and an all-linen fabric must be washed in order to give them a finish. This washing is less important for cotton fabrics though it is best to wash them, too. In allowing for shrinkage, remember that a loosely woven fabric shrinks much more than a closely woven fabric, and make a generous allowance. No rule, unfortunately, can be given as different yarns shrink differently. A loosely twisted yarn, of course, shrinks far more than a hard-twisted yarn.

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At the time of writing not enough names have come in for the travelling exhibit to make the project sufficiently interesting. I am therefore not suggesting definite dates or arrangements for this exhibit. Perhaps it will be best to put it off till the end of summer. We will organize the exhibit when -- and if -- the Guild members want it.

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There seems to be a bit of confusion over the orders for Bernat yarns. Guild members who can buy the Bernat yarns at the wholesale rates should order direct from Bernat. There is no discount allowed. Our service is for those members who have been unable to buy direct. The 20% discount applies only to the retail prices and brings the cost of the materials down to about the wholesale rate. These retail orders to which the discount applies should be sent to this office and not to the Bernat Company, but the material will be shipped from Jamaica Plain.

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Several Guild members who are already making summer plans have asked me whether I shall be in Basin this summer or on the Glacier Park Ranch. I expect to spend part of the summer on the ranch, but have agreed to conduct a weaving "institute" at Palmer Lake, near Denver, Colorado, beginning about August 15. I hope to see many Guild members at this meeting in Colorado, which promises to be interesting. The project is under the auspices of Mrs. Anne Fisher, El Cunejo Blanco, Palmer Lake, Colorado, to whom inquiries as to terms and arrangements should be addressed.

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And speaking of summer plans: my son, Montgomery Atwater, and his wife, have decided to open the Glacier Park Ranch as a small dude-ranch. It is an ideal spot and will give visitors to that part of the country all the advantages of a visit to Glacier Park under less "touristy" surroundings and at less cost. There will be trips through the park, horses to ride, trout-fishing, hikes, pack-trips into the mountains, and so on. The place is easily accessible as it is on the Great Northern railway and also on the main highway. For further information address Mr. M.M. Atwater, Drifting Snow Ranch, Essex, Montana.

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May M. Atwater

THE SHUTTLE-CRAFT GUILD

BULLETIN

Basin, Montana

for

May, 1937

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The Bulletin this month -- by request, and to answer a number of questions -- will be on the subject of upholstery fabrics. The weaving of upholstery fabrics and draperies has always seemed to me to offer the skilled hand-weaver the best "line" for a profitable business, and to be besides the most interesting branch of our art. To build up such a business takes more time and effort than to get started making and selling dress-fabrics, for instance. It means developing a sales-outlet through manufacturers of furniture, decorating firms and architects. And a weaver to be successful in this line from the commercial standpoint would need to have training in design and be a skilled craftsman. But the profits are good as the public is trained to pay good prices for these fabrics, and such a business once established is likely to prove more stable than most weaving projects.

For most of us, however, the problem is not how to go about building up a business but what colors, materials, weave and pattern to use for chair-covering for that old wing chair in the living room, or for a settle in the hall, or a sun-room chaise longue; and not having specialized in this line we are sometimes at a loss in making the important decisions.

It simplifies the problem a little to ask ourselves what qualities we want our chair-covering to have. We want it to be handsome, of course, and we want it to be durable so that it will be handsome for a long time. To be handsome it must suit the piece of furniture and the room in which it stands, and to be durable it must be made of strong materials and must be woven in a firm, closely combined texture. Overshot patterns, except those composed of very short skips, are ruled out at once. The best weaves are "summer and winter," "Bronson," the "crackle" weave, double-faced twill and damask. "Ms and Os" in one of its variations may also be used, though this weave does not wear quite as well as the others named.

A certain amount of pattern is desirable for upholstery as an indefinite "fabric" effect is rather monotonous if the piece is large, and not very interesting even for a small piece, but a "patterny" effect should usually be avoided. When you look at a handsome piece of furniture you want to see its architecture before you notice the pattern of the covering. Probably nobody is likely to fall into the error of using a modernistic pattern for an antique chair, or a Colonial coverlet pattern for a modern couch, but it is not always easy to choose a pattern that will harmonize with the structural lines of the piece of furniture instead of fighting with them.

It has been my observation that the wheel patterns so dear to the hearts of the Colonial coverlet weavers usually look very unhappy when used for upholstery and I would advise -- in a general way -- avoiding all these patterns. It is safer to select something else. As an illustration: observe the wing chair in the cut on page 55 of my Shuttle-Craft Book. The chair is an authentic antique and the fabric with which it is covered is a beautiful piece of "summer and winter" weaving in a classic Colonial pattern -- "Wheel of Fortune." In my opinion the pattern is too large and too prominent to be becoming to this old chair. The effect is of a big chair dressed in a coverlet and one wishes the coverlet were spread over a four-post bed and that the chair had been covered in something less obtrusive. Now note the antique settle in the illustration on page 76 of the Shuttle-Craft Book. The pattern of the old piece of weaving used on the seat is not a small figure, but its masses harmonize with the lines of the settle and the effect is agreeable.

It is obvious that it is impossible to lay down rules that will apply to all cases. Each project is a separate problem in design. And this, of course, is the reason that many people find Upholstery difficult. It is hoped that the following suggestions will prove useful.

First to consider the materials suitable for upholstery. Mercerized "perle" cotton is sometimes used. The interesting imported sample for which a draft is given at (b) of this diagram, is in coarse perle cotton. The material is handsome in some weaves but the only mercerized cotton that -- in my opinion -- is good enough to use for upholstery is the imported D.M.C. cotton, which is hideously expensive. Ordinary perle cotton loses its lustre after a year or so and the effect is shabby, even when the fabric shows little wear. We want our upholstery to look handsome for longer than that so -- unless D.M.C. cotton is used -- I do not recommend perle cotton for our purpose. The unmercerized cottons give more satisfactory results if one wishes to make a cotton fabric. A heavy linen fabric is handsome for dining room chairs, bed-room and sun room furniture; Warp and tabby of 40/3 linen and pattern weft of coarse linen floss makes a good fabric, -- in crackle weave or summer-and-winter weave, "Bronson" weave, and so on. Not for any pattern in overshot weaving. A good cotton or linen warp woven in a hard-twisted worsted such as "Fabri" or "Saxony" yarn give highly satisfactory results. A fine linen warp woven in real silk is perfect for some pieces of furniture. A very "modern" fabric is rough yellow tow for warp woven in coarse rayon "art silk." This combination of materials, of course, would be entirely inappropriate for a Colonial chair or a Colonial pattern. In a general way, all soft, fluffy, unstable materials should be ruled out for upholstery. However a fabric made on a warp of Fabri yarn, woven in wool or in a combination of wool and silk, is particularly good. The stretchy quality of the worsted makes such a fabric easy to shape to the desired form. For some pieces, -- delicate old chairs of the Empire period, for instance -- anything but silk is unthinkable.

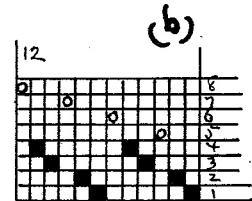
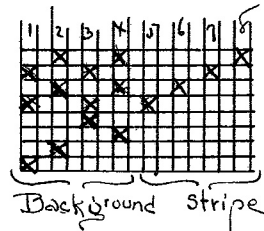
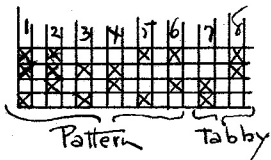
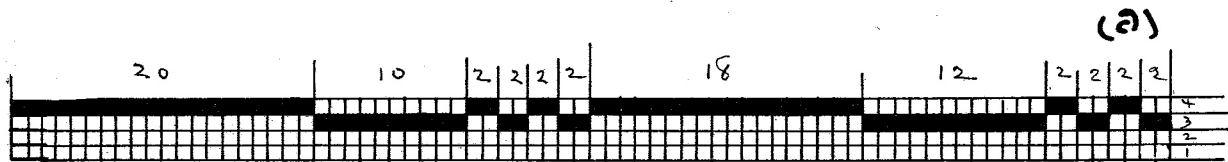
The colors for our upholstery must be chosen with an eye to the color-scheme of the room, of course, but this does not mean that it must "match" walls, draperies or rugs. Sometimes it is a note of contrast we want in an "occasional" chair; and here again it is impossible to lay down rules that will be of any great assistance. However, if a number of colors are to be combined in an upholstery fabric it is advisable as a rule to keep them all fairly close together in "value." That is to say there should not be a violent contrast of light and dark. Otherwise the effect is likely to be spotty and a spotty effect makes the pattern too prominent and detracts from the main architectural effect. A dress for a chair is, in a way, like a dress for a person, -- it is the chair we want to set off, not the fabric that we wish to display. Ask yourself, "If I were that chair or that couch, what kind of a dress would be most becoming to me?"

The problem of pattern is the most difficult part of designing an upholstery fabric, but is somewhat simplified by deciding on materials and colors before choosing a pattern. Here are a few patterns in overshot weave that are practical for upholstery: Drafts (a), (a'), (f) and (g), page 144 of the Shuttle-Craft Book. These can be woven in several colors if desired. Drafts 1 -8 page 158. Draft 34; draft 62; 66; 137; 140; 142; all from the Shuttle-Craft Book. These are all classic patterns, of course, but many of them can be given a somewhat modern slant in the weaving. None of them should be woven to give the "coverlet" effect, even for an old piece. Unless the entire effect is to be very light in color do not use a white warp and tabby. Taupe, ecru and tan or "old gold" are good shades to use for warp and can be woven with a variety of colors. Black is often especially handsome. Grey is better avoided as it gives a cold effect.

Any crackle-weave pattern is suitable for upholstery as far as fabric-structure is concerned. The choice depends on the type of figure desired. Among the crackle-weave patterns are many that are suitable for furniture of modern and modernistic design. Our Crackle-weave pamphlet is out of print and I am not planning to reprint it at present, but there are many

Page Three

Diagram



The pattern at (a), designed for summer and winter weave on four harnesses, is effective and "new" and also simple to weave. Material suggested: Warp, Egyptian cotton 16/3 set at 24 ends to the inch, color natural. Tabby Egyptian 24/3, natural. Pattern weft, Fabri yarn, doubled, Shetland, or saxony yarn in four shades: Dark(d), two medium shades (m) and (n); light(l). For instance, taupe, tan, ecru, cream. Or three colors may be used, the darkest shots being omitted.

Weave as follows: Treadles 1 and 2 alternately for about two inches, or as desired, color (n); treadles 1,2,1,2 (d). Treadles 3(m); 5(l); 4(m); 6(l). Repeat these four shots six or eight times, weaving a tabby shot after each pair of pattern shots. Treadles 3(l); 5(m); 4(l); 6(m). Repeat these four shots six or eight times weaving a tabby shot after each pair of pattern shots. Treadles 1,2,1,2(d). Repeat from the beginning.

Of course the pattern may be woven in many other ways. Strand cotton may be used for pattern weft if desired. And the draft may be varied. It will be noted that the two large blocks between the groups of small blocks total 30 units of the weave: instead of repeating the draft as required for width each pair of large blocks might be different. For instance after repeating the four small blocks make the next pair of large blocks each of 15 units, and the following pair of 8 and 22 units respectively, and so on. Each pair, however, should total 30 units.

This pattern is suitable for a large overstuffed chair of the blocky modern type.

Draft (b) is an interesting weave from an imported sample sent me by one of our Guild members. The piece is in mercerized cotton, all in natural cream color, except the fine threads of the warp which are in a very fine unmercerized thread. The warp is #3 perle cotton, indicated on the draft by the squares, and a cotton finer than 20/2. However #20 perle might be used. The fine threads are indicated on the draft by the circles. The setting is 22 coarse threads and 11 fine threads to the inch. The weft is #5 perle cotton, used double. A strand cotton such as Bernat's "pearleen" might be used if preferred. There is no tabby. The background is woven on the first four treadles in the order given and repeat. This gives an unusual and interesting texture. In the sample a hit-and-miss effect of irregular overshoot groups is woven over this background. This effect cannot be produced on a harness loom except by the use of a shed-stick, however stripes in the overshoot effect may be woven on the last four treadles. To produce the effect of the sample, open the shed on treadle 1, then with the other foot on treadle 5 raise the fine threads on harness 5 a little higher than the top of the shed. Insert a shed-stick under these threads and over the rest of the warp where you wish the overshoot to occur, and through the regular shed the rest of the way. Release the treadles and make a shed for the shuttle by setting the stick on edge. For the next shot use treadles 2 and 6 in the same manner, and for the following shots, treadles 3 and 7, and treadles 4 and 8. This is not difficult and though slower than straight weaving it does not take a great deal of time. The effect is good. This fabric, however, is not as closely combined as summer and winter weave and would not stand as much hard wear. It would be only moderately durable.

drafts in this weave in back-numbers of the Bulletin and in the Recipe Book. In addition to those specially given for upholstery some of those written for coverlets and for other purposes will also be found excellent for upholstery. Series I (Recipe Book) No.5; No.6; No.9; No. 17; Series II No.4; No.10; Series III No.3; No.9; No.10;No.14;No.16; Series V No.4; No.6; No.18;No.19;No.22; Series VI No. 2 -- not a crackle-weave pattern but an effective threading for upholstery -- VI No.11; No.13; Series VII No. 2; are crackle-weave patterns, some modernistic and some classic in form, that are excellent for upholstery.

One of our members writes of having used "Drifting Shadows," Series III No. 9, for a room-sized rug, done all in one shade of blue (both warp and weft) woven all-over fashion. She writes that this was very successful. Upholstery done the same way would, I believe, be charming.

Any pattern in summer and winter weave is suitable for upholstery, as far as fabric structure is concerned. The best combination of material for this weave and for this purpose seems to me: warp of Egyptian cotton 24/3 at 30 ends to the inch; tabby like the warp, or in #20 perle cotton; pattern weft, Fabri yarn. The choice here is entirely one of figure. As noted above, the ring-patterns seem to me unpleasant for most upholstery purposes, though of course this is a matter of taste. Rings lying flat, as on a bed-covering, are agreeable to the eye, perhaps because they have the feeling of rings in the water -- always soothing. Rings standing on edge are like rolling hoops or wheels and give one an unquiet sensation. A ring-pattern for a chair seat would be agreeable, but to have them whirling all over a large overstuffed chair seems to me distressing. Summer and Winter weave patterns I would recommend are the following: From the Shuttle-Craft Book, draft No.157; 159; 160; 161; 162; 164 (all four-harness); 165; 166; 170; 173; any of the drafts on page 221 though the large figures would be less attractive than the small ones; 218; 219; 220;230; 236;243;244--248 inclusive. Drafts 246 and 247 are particularly good. I have used them and seen them used for upholstery many times with highly satisfactory results. A variety of colors can be introduced by weaving the upright lines in one color, the horizontal lines in another, and the small rose or snow-ball figure in a third. These patterns are similar in design but give a very different effect as one is more open, gayer and less formal than the other. For some pieces of furniture the large, widely spaced figures of No. 248 would be exceedingly handsome.

The double twill weave is perhaps the best of all weaves for upholstery as it produces an extremely firm and durable fabric. Two-block patterns may be done in this weave on eight harnesses as described in the Shuttle-Craft Book, or on six if one uses the three-harness or "jean" twill as shown on pattern Series I No.2 of the Recipe Book. By this system three-block patterns may be woven on nine harnesses and four-block patterns on twelve harnesses. Few of us have looms of greater capacity, so the more elaborate patterns are impossible in this weave.

Any pattern in Bronson weave is suitable for upholstery, with the proviso that it should be woven with tabby shots alternated in the usual manner -- not all the tabby shots on one shed as is the method in using this weave for linens. The wrong side of the fabric will be entirely uninteresting, but this does not matter for upholstery and the fabric will not have the weak spots that the other system of treadling involves. A simple "point" threading in this weave is probably the best. Draft No. 24, Series III of the Recipe Book gives such a threading and a variety of weavings. On this same threading all the figures illustrated on Series V No.9 may also be woven, and some of these are particularly good for upholstery, -- (c) and (d), for instance. These figures may, of course, also be woven on a "point" or diamond threading in summer and winter weave on eight harnesses, and the size of the figures may be varied according to taste by making the blocks large or small as preferred.

In ordering Bernat yarns on the 20% discount basis kindly observe the following conditions: Orders for not less than \$5.00 worth of material; send check with order, made out to me or to the Guild; send orders to me and not to Bernat. Note that the discount applies only to the retail prices. Those entitled to wholesale rates should order direct from Bernat. There is no discount from wholesale prices.

May M. Atwater

THE SHUTTLE-CRAFT GUILD

BULLETIN

Basin, Montana

for

June, 1937

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For this month we have two interesting patterns for white cotton bedspreads, from the South. This is a type of weaving less familiar to modern weavers than the overshot coverlet of wool and cotton, and it deserves more attention than we have been giving it. In early New England much of the weaving was done in homesteads on small farms, where life was very plain indeed and where the hand-loom stood always handy in the kitchen and the bed was, more likely than not, a feature of the living room. The coverlet, woven of dark blue wool, made a slightly and practical cover for the bed by day and a warm blanket for cold nights. In the south life went to a different tune. In the spacious mansions on the large plantations the beds had rooms to themselves; warmth in a bed-cover was not desired; a dark-colored coverlet that would not "show dirt" was unnecessary; fine white cotton was plentiful, and there were slaves to do the weaving in the weaving room that was a regular feature of plantation life.

We no longer live as our New England fore-fathers did, and the white cotton bedspread of the south might well be revived. To be strictly "period" the pieces should be done in bleached white cotton, but there is no reason they should not be woven in color for modern rooms.

A feature of the ancient bedspreads of this order was always the fringed border, -- usually quite heavy and elaborate. As a rule these fringes are knotted in more or less elaborate macramé patterns. On the two ancient pieces from which this month's patterns have been prepared (kindly lent to the Guild by Miss Lula Maddox, one of our Southern members) one fringe is of knitted lace with a fringed edge, and the other is the unusual fringe sketched on the diagram. The material of this fringe is a fairly coarse white cotton, about the grist of #5 perle, but unmercerized, of course. The exact quality of the ancient hand-spun cotton is different from any of our commercial yarns, but some of the soft knitting cottons are close enough in texture to give a similar effect. For the fringe sketched the material should be cut in 14" lengths. Take a strand of 18 ends, double it at the center, and sew it at this point to the edge of the spread. Attach similar groups in the same way at intervals of three quarters of an inch around three sides of the piece. As a rule the upper end of a bed-spread is not fringed. The pattern is made with a needle and a separate thread, somewhat as one makes a smocking pattern. The detail is clear on the sketch. This is a particularly handsome fringe.

The material of which the spreads are woven is a fine cotton, somewhat finer than our 20/2, with a warp-setting of 40 ends to the inch. I believe that 20/2 cotton set at 36 to the inch would be satisfactory. The same material is used for both warp and weft, and the fabric is firmly beaten up. This last is very important in weaving a piece of this type. Weavers who do not like to pound had best not attempt this form of weaving.

Spread No. 1 is treadled in a very simple manner, as indicated on the diagram. The effect is of honeycomb stripes between stripes in an odd texture that is part twill and part ribbed. The piece is of three strips, each of three repeats of the pattern, and no attempt has been made to balance the design so the two sides are unlike. This does not matter, perhaps, but I am sure that if I were making a piece of this kind I should wish to balance the figures. This can be done very easily by beginning the threading in the middle of the

stripe marked (X) on the diagram. Thread to the end of the draft; repeat the complete draft twice; then repeat from the beginning to the middle of (X)

Three repeats of the pattern in cotton at 36 to the inch would make the strips 33" wide, and three such strips would make a very large bed-spread. Two strips, each of four repeats, could be used instead, -- or three strips, the center one of three repeats and the two side strips of two repeats each.

Spread No. 2 is in a "Huck" pattern, arranged in squares. The effect is somewhat more elaborate than No.1, but both are handsome. The "huck" weave is an unbalanced weave, and on two sheds a single harness is sunk and the other three are raised. On a counterbalanced loom it is sometimes difficult to get a good shed on treadles 2 and 4 without making a "false tie" as explained once or twice in the Bulletin. I repeat the directions for making this tie for the benefit of new members:

When treadle 2 is depressed it may happen that harness 2 rises very high and harnesses 3 and 4 rise very little. To correct the shed, have someone hold down the treadle and make a tie to harness 2, drawing the cords just tight enough to bring harness 2 down to the correct raised position. As harness 2 is drawn down the two back harnesses will rise. When the three raised harnesses are level the adjustment is correct. In the same way a false tie will be required on treadle 4. In this case the correcting tie should be made to harness 3/. If preferred the tie-up may be made in reverse, so that the fabric weaves wrong side up. Tie treadle 1 to 1 and 3; treadle 2 to 2,3, and 4; treadle 3 to 2 and 4; treadle 4 to 1,2, and 3; treadle 5 to 3 and 4, and treadle 6 to 1 and 3. The wrong side of the fabric is not as attractive as the right side, as it is covered with loose floats. However the weaving can be done wrong side up perfectly well.

The weaves of these two spreads can be used for linens if desired, but as the fabric is one-sided it would not be a good way to weave towels.

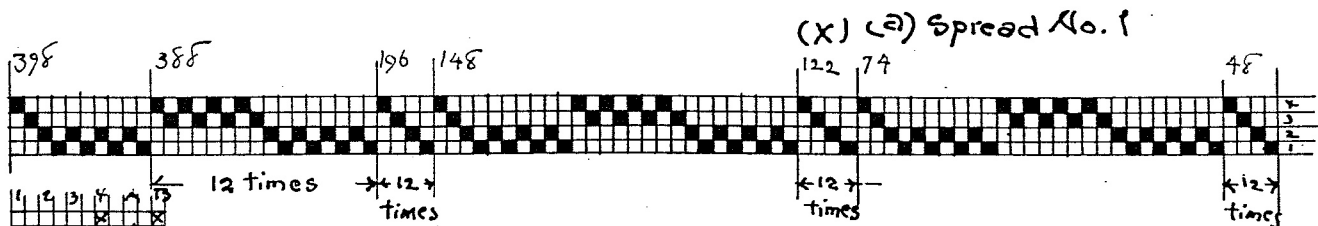
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To change the subject very radically: I have been asked so many questions about Navajo rugs that it seems a good idea to discuss the subject in the Bulletin. There is cult of the Navajo rug, and in some quarters an admiration that appears to me exaggerated. A heavy, well-woven Navajo makes a nice floor-covering for a log cabin or for an informal house of Spanish type, but it must be confessed that in a room such as most of us inhabit it makes a distressing discord. Of course this is true of most primitive art, but particularly true of this particular object because of ~~its~~ the vigorous and rather brutal patterns and because of the black, white, grey, red color scheme, that fights with everything else.

Of course we could weave rugs in the same technique, using colors and patterns better adapted to our ideas of decoration, but the result would be nothing in the least like a Navajo rug. The technique is simply a coarse tapestry weave with interlocking colors. There are ancient Scandinavian pieces woven in this manner, and the tapestry weave is one of the fundamental weaves known to all people who do any weaving at all.

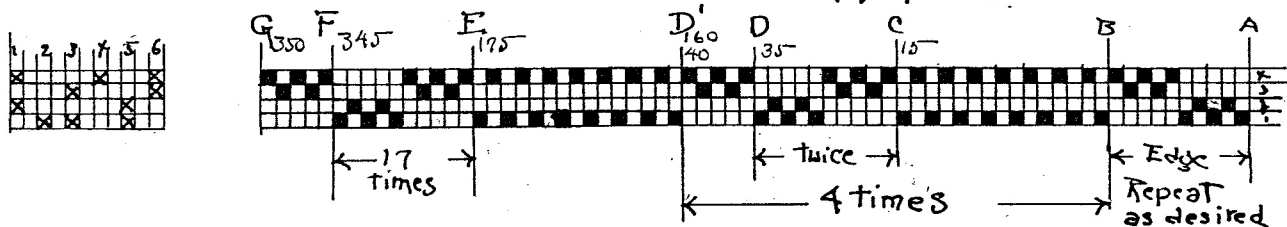
There seems to be an idea that the Navajo rug-weaving is something very ancient, evolved by this tribe of Indians in pre-historic times. There is no truth whatever in this idea. As a matter of fact the colonial coverlet is almost as ancient as the Navajo rug. The Indians owe their knowledge of weaving to the early Spanish settlers, and the Navajo loom is simply a crude native form of the upright tapestry loom. The special effect of the Navajo weaving is due to the coarse yarns used, the very heavy beat, and the primitive forms of decoration used. It must be confessed that some of these forms when considered dispassionately are extremely hideous, though they may appear interesting due to their vigor, their savage directness of expression.

I cannot see much value in reproducing these things. We cannot be savage and primitive except as an affectation and this form of artistic expression is entirely foreign to our ways of thinking and doing. It would perhaps be best to leave the making of Navajo rugs to the Navajo Indians.



Treadle: 1, 2, 1, 2, 1, 2, A, B
3, 4, 3, 4, 3, 4, A, B
Repeat for entire length of the piece

(b) Spread No. 2.



Thread: Edge, A-B, repeated 2 or 3 times

Pattern: B-C, 15 threads } Four times
C-D, twice, 20 threads }
D-D', 5 "
D'-E, 15 "
E-F, 17 times 170 "
F-G, 5 "

Treadle (tie-up as given)

* Edge, 1, 2, 1, 2, 1, 3, 4, 3, 4, 3

Repeat as required

* Large block, 5, 6, 5, 6 - repeat for 15 shots

Huck 1, 2, 1, 2, 1, 3, 4, 3, 4, 3, - twice

1, 2, 1, 2, 1.

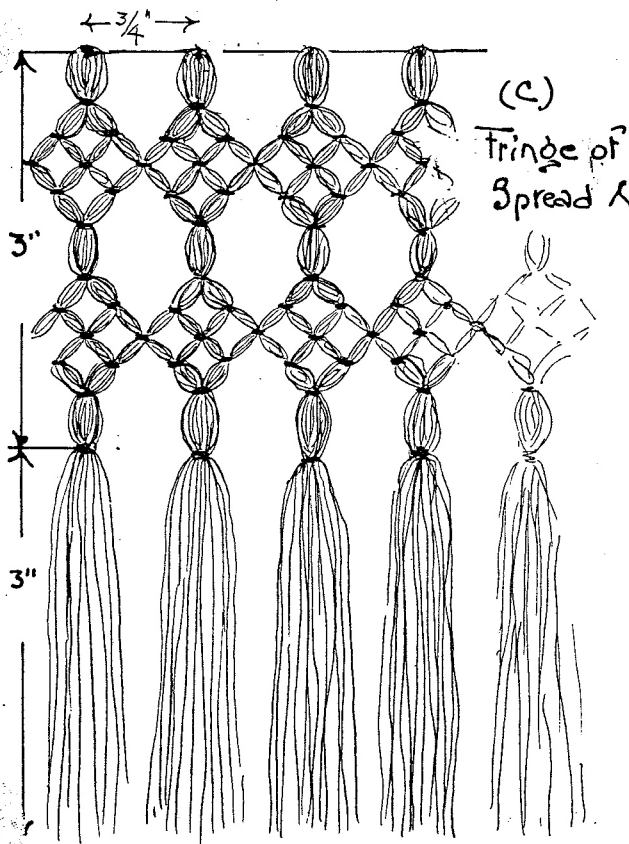
Repeat large block

Repeat Huck

Repeat from *, Four times

Huck square, 1, 2, 1, 2, 1, 3, 4, 3, 4, 3 -
repeat 17 times, 1, 2, 1, 2, 1

Repeat from *.



Plain Tabby may be woven on 1 and 3.

This, at least, is my reaction and I state it for what it is worth.

But suppose one really wishes to weave a Navajo rug: It is not necessary to build a loom of rough logs and hang it in a tree. The work can be done better and more easily on a better constructed tapestry loom. It is necessary, however, to have yarns of the peculiar texture produced by the Indian method of spinning. Such yarns can be procured from The Native Market in Santa Fe, New Mexico. An extremely hard-twisted wool yarn is used for warp, and more loosely-twisted yarns for weft. A great quantity of yarn is required for a good rug, as the quality depends of the firmness with which the weft is beaten up and consequently the weight of the rug. The Indians use a heavy wooden beater, and the comb used for fine tapestry is, of course, entirely inadequate for this heavy work. As noted above, in Navajo weaving the colors interlock around a warp-thread and there are no slits as is Kiz-Killam tapestry.

There are a number of excellent books that describe Navajo weaving and show many patterns, pictures of the Navajo loom, etc.. Unfortunately most of these books appear to have been written by people who know little or nothing about weaving so that some of the directions need to be taken with several grains of salt. However the thing is extremely simple, and there is no reason why anybody should hesitate to undertake making a Navajo rug, providing he or she has the time, the muscle and the material.

I have received samples of what seems to me an excellent line of homespun wool yarns, suitable for tweeds, and also of course for coverlets and for all the things for which we use a yarn of this type. These yarns are to be had in several weights, in a number of good colors, and in mixed shades. The prices range from \$1.40 to \$1.65 a pound. I shall not attempt to stock these yarns or handle them through this office. If interested, write the Anniel Woolen Mills, Inc., Mount Airy, North Carolina, for sample cards and prices.

One of our Guild members, Mrs. Bertha G. Johnston, conducts classes in weaving in connection with the Chautauqua summer courses. I enclose an announcement that will be of interest to many, I am sure. For further information write Mrs. Johnston, 847 Shadowlawn Drive, Westfield, N.J.

I am also sending out a leaflet that gives details of the weaving Institute to be held this summer at Palmer Lake, Colorado. I expect to be at Palmer Lake for this meeting and am looking forward to the pleasure of personal meetings with many of our Guild members whom I have known for years by letter. Until I leave for Colorado I shall be happy to meet Guild members here in Basin, or at my son's "dude-ranch" near Glacier Park. Those planning to come to Montana will, I hope, notify me of their proposed visit in time so that I may be certain of being at home when they call.

One of our Guild members, Miss Florence Crocker, 4217 S.W.Kelly Ave., Portland, Oregon, has designed a small four-harness loom and can supply a set of blue-printed working drawings for \$2.50 a set. Those who are interested should address Miss Crocker about this offer. The size of the loom is 28" X 32½", height 48". Miss Crocker will supply a snap-shot picture of the loom on request.

May M. Atwater

BULLETIN

of the Shuttle-Craft Guild for July, 1937

Basin, Montana

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Several Guild members have requested information about the Summer-and-Winter weave. The "short" form of draft used for this weave appears to puzzle some people, and I have complaints that the explanation in my Shuttle-Craft Book is not entirely clear. This month I shall take occasion to answer some of the questions and try to clear up some of the obscurities.

Why is it called "Summer-and-Winter?" I am often asked this. The answer is lost in the mists of time. Perhaps the old-time weaver who originated the weave also gave it the name, seeing in the different effect of the two sides of the fabric a fanciful analogy with the summer and winter aspects of nature. When woven in white cotton and dark wool, as is usual in the old coverlets, one side is white with a dark figure, while the other side is dark with the figure in white. At all events the name is historic, like the quaint names of the old patterns, and it is pleasant to preserve it.

As far as I can discover the weave originated in Colonial America, and probably in Pennsylvania. In structure it is related to the "Bronson" or "spot" weave, and also to the damask weave. It might be called "three-heddle damask" if there were such a thing. It seems to me probable that in the beginning it was a make-shift -- a way of weaving on a simple loom the patterns and a texture that ordinarily required far more elaborate equipment than was available in the colonies at the time. If so, it was a happy inspiration.

Some ancient pieces in this weave are to be found in museums and private collections, though they are rare compared to the number of old Overshot coverlets still in existence. When I first became interested in hand-weaving, a good many years ago, no one seemed to know any weave but "overshot," and the manner in which these old coverlets were woven appeared something of a mystery -- a lost art. I think I am entitled to the bit of credit for its re-introduction to American weavers, and I think perhaps nothing I have done in weaving has been of greater value to the craft. For this is a very beautiful weave -- better than any other I know of for many of our purposes -- and of particular interest to us as it is so peculiarly our own.

When hand-weaving was first revived in this country, some thirty years ago, the overshot weave seems to have been the only weave still fairly current. This weave was used for many purposes for which it is poorly suited. Rugs, for instance, and upholstery. Our Colonial weavers would not have used it so. They reserved the overshot weave for coverlets. Rugs in overshot weaving are often attractive in appearance when first made, and if the pattern used is one in which all the skips are short the rug may also wear well. However a pattern made up of long skips is impractical for rugs, as the loose floats of weft catch and tear and the rug is ruined. The summer-and-winter weave, and the "crackle" weave which is similar, produce a far better rug, as in these weaves there are no skips and the fabric is closely combined. The same considerations apply to upholstery fabrics, and all fabrics that are expected to stand up under friction.

In the summer-and-winter weave the pattern weft is tied into the fabric by every fourth warp-thread. Over the pattern blocks the weft passes over three warp-threads and under the fourth, while over the background blocks it passes under three and over one. The fabric produced is "double-faced." That is, it is reversible, and just as handsome on one side as on the other. There is a difference of opinion as to which side should be considered the "right" side. I hold

that the side on which the figure appears in pattern weft against a warp and tabby back-ground should be considered the right side, though many people prefer the effect of the obverse, on which the background is in pattern weft and the figures are in warp and tabby.

The weave is produced by threading the "tie" threads of the warp -- every other thread of the threading -- through one or the other of the two front harnesses. These tie-threads alternate with threads threaded on a pattern harness according to the desired pattern. The tie threads are threaded as though for plain tabby, and the same for all patterns, and need not be shown on a threading draft as they go without saying, -- just as the tabby shots are assumed in weaving. A draft written out in full, as for the overshot weave, is confusing to the eye and difficult to follow, so a different form of notation is generally used for these drafts. Each four threads of the threading constitute a "unit" of the weave and this can be expressed as clearly by one square of the draft as by four. Each of these units consists of one tie-thread on harness #1, one tie-thread on harness #2, and two threads on a pattern harness. The two pattern threads are indicated by the draft, the tie-threads being taken for granted as they are always the same. Suppose the first block of the pattern is shown by the draft to be on harness #3 -- the first of the pattern harnesses as the two front harnesses are reserved for the tie-threads. This block should be threaded: 1,3,2,3. If the block indicated by the draft is of more than one unit these four threads should be repeated for the number of units indicated. A block shown on harness #4 is threaded: 1,4,2,4, and repeat for the number of units indicated. A block on harness #5 is threaded: 1,5,2,5, and repeat if required by the pattern. And so on through the draft. This seems simple enough and if it appears confusing in my Shuttle-Craft Book I must have failed rather badly in my explanation. Perhaps the confusion is due to the system of indicating the pattern blocks by letter rather than by the harness number. I thought this system made for clarity, as it seemed to me some people might be annoyed to find the first pattern block on harness #3. However as the system appears to be more hindrance than help, I withdraw it.

On the diagram at (a), herewith is a simple "point" or "diamond" pattern composed of two-unit blocks, written by the "short draft" method of notation. At (b) I have given the same pattern written in a different manner, and at (c) the same pattern again written out in full. I hope these three drafts will make the notation entirely clear.

There are several reasons for using the form of notation as at (a), which I use for all drafts in this weave. It is much clearer to the eye than either (b) or (c) and is easier to follow in threading. It is much easier to use than either of the other forms when developing a draft on paper. Moreover this form of draft, as it indicates units of weave rather than individual threads, can be used for other weaves also -- double-faced twill and damask, for instance. Finally it is the ancient form of notation for this weave. It differs, to be sure, from the familiar form of drafts for overshot weaving, but this is not a serious difficulty I am sure. So much for notation -- and I do hope that this time I have made it clear. If not, I hope Guild members will write and state their questions and I shall try again if necessary.

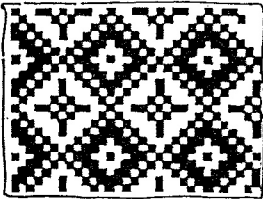
The summer-and-winter weave requires a somewhat different balance of material from other weaves. In overshot weaving a heavy pattern weft is ordinarily used with a much finer warp and tabby. A good deal of latitude is allowable. In the summer-and-winter weave, however, the number of weft shots for each unit of the threading is definite, and if the pattern weft is too coarse for the warp and the setting in the reed the figures will be too high for their width, and if the pattern weft is too fine the figures will come out squatty. The beat also makes a difference. It is impossible to state definite rules, but the warp and the pattern weft should be similar in grist, and the tabby finer than either. A combination that has proved entirely satisfactory is warp of Egyptian cotton 24/3 set at 30 ends to the inch, pattern weft of Bernat's "fabri" or other 15/2 yarn, tabby in #20 perle cotton or a 20/2 unmercerized cotton. For coarser weaving, this is satisfactory: warp of #10 perle cotton or a 10/2 unmercerized cotton set at 24 to the inch, pattern weft Shetland yarn, tabby 24/3 cotton.

When a very coarse weft is used, as in rug-making a special manner of treadeling is required. This will be explained in a moment. For rugs an ordinary carpet warp set at 12 ends to the inch is satisfactory for either

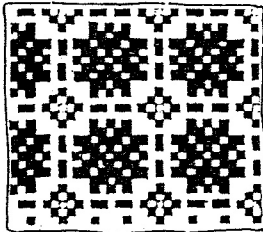
heavy rug-wool (which makes the best rugs), cotton chenille or rather finely cut rags.

As the size of blocks in this weave is not limited, as in overshot weaving -- by the practical length of an overshot skip -- the weave permits far more freedom of design than the overshot weave. As it permits the weaving of overlapping blocks, or several blocks at the same time, many different figures may be woven on the same threading with slight changes in the tie-up.

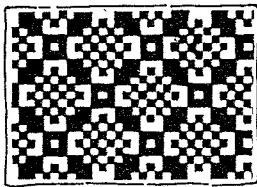
For instance the little patterns shown in the illustration may all be woven on draft (a). The pattern may, of course, be woven in a great many other ways, also, and this draft will be found useful for upholstery fabrics, fabric for bags and so on. If large figures are desired the number of units in each block may be increased as required.



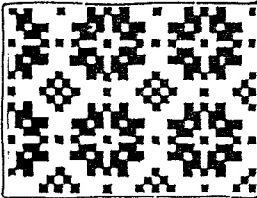
Pattern (a)



Pattern (b)



Pattern (c)



Pattern (d)

A complete tie-up for this weave requires two treadles for each pattern block and two additional treadles for the tabby. For an elaborate pattern this may run to more treadles than the loom will accommodate. In this emergency we may use what is known as the "X-Y" form of tie-up. This reduces the number of treadles, but two treadles must be used together to produce the weave, -- one treadle for the figure and one for the "ties." This is explained in detail in the Shuttle-Craft book and is illustrated on the diagram on page 208. I have not received many inquiries on this point so apparently the notes in the book have been found adequate and I will not take the space to repeat the directions here. It may, perhaps, be useful however to explain how the pattern tie-up may be worked out from an illustration such as those on this page.

Consider, for instance, Pattern (a). Taking the block on which the diagonal lines cross as the first block to be woven it is obvious that the pattern block on the third harness is involved, as this is the "return" block of the draft. Harness 3 must therefore be sunk for this shed. But two other pattern blocks are also woven on this shed. A study of the figure in relation to the draft will show that these are the blocks on harnesses 6 and 7, and these harnesses must also sink to produce the desired shed.

The next change in the design shows the blocks on harnesses 4 and 8 as weaving. The third change weaves blocks on 3 and 5. The next change, blocks 3,4 and 6. The next, blocks 4,5 and 7. The next, blocks 5,6 and 8. The middle of the figure, blocks 3,6 and 7. From this point the pattern weaves in reverse back to the beginning. This gives the sinking harnesses for the various pattern sheds. On a loom that operates with a rising shed the tie-up should be made in reverse. That is tie to rise -- not the harnesses as listed but all the harnesses except these. For the first block, therefore, tie harnesses 4,5 and 8

to rise. Or, on the Structo ten-harness loom, use levers 4,5, and 8. The sinking tie-up as given, and the rising tie-up are given below, in order to make this perfectly clear, and the sinking tie-up is given both for the "X-Y" arrangement, and in complete form.

Another method to make a simplified tie-up for an elaborate pattern is to tie each treadle to the same tie-harness -- No. 2 to sink or No. 1 to rise, -- thus eliminating the X and Y treadles. Woven on such a tie-up the texture of the weave is altered, making it like the texture of "crackle" weave. It is not classic

Tie-up drafts, Figure (a), above.

X	Y	1	2	3	4	5	6	A	B
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0

"X-Y", Rising shed

X	Y	1	2	3	4	5	6	A	B
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0

"X-Y", Sinking shed

1	2	3	4	5	6	7	8	9	10	11	12	A	B
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0

Complete, Sinking shed

and should not be used for a "period" Colonial pattern, but the effect is good for a pattern of the modern style.

When woven in the strictly classic manner each unit of the weave is treadled with four tabby shots and four pattern shots, as illustrated at (g) on the diagram. This illustration shows the weaving of the four pattern blocks of draft (e) enclosed in the pen-line. This method of treadeling is used for all patterns in the weave. The complete treadeling for the four-harness draft at (e) is given on the diagram. For elaborate patterns a written set of treadeling directions is impractical, as it might cover pages of manuscript and would be very confusing to follow. As these patterns are rarely woven as drawn in, one block at a time, some guide to the weaving is required, of course, and the best form for this is a drawing of the figure, -- such as the illustrations on page three.

A tabby shot is used in this weave, as in overshot weaving, between pattern shots. It is important to weave the "B" tabby between the paired pattern shots, as this gives the correct back-ground effect. This cannot be shown on the drawing, but an experiment at the loom will soon show the difference in texture when the "A" tabby is used between pairs.

If the materials used are improperly balanced for the classic form of this weave, -- as in rug-making, where the pattern weft is very coarse -- it is best to weave "one and one" instead of in pairs. That is to say alternate shots with the "X" tie with "Y" shots. When woven in this manner simply use the number of shots required to square the blocks and make the pattern symmetrical. The texture of the back-ground is less interesting when weaving is done this way than when treadeled in pairs, but this method of weaving is entirely correct and is found in some of the ancient pieces.

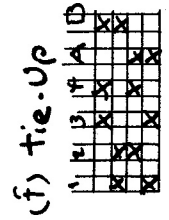
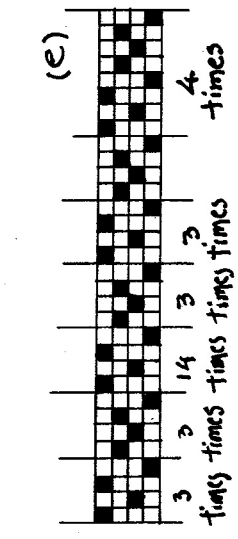
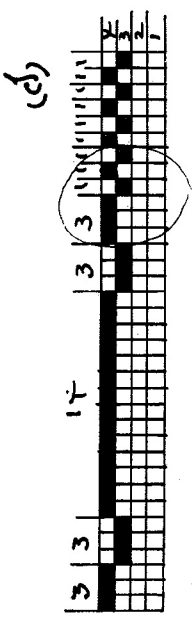
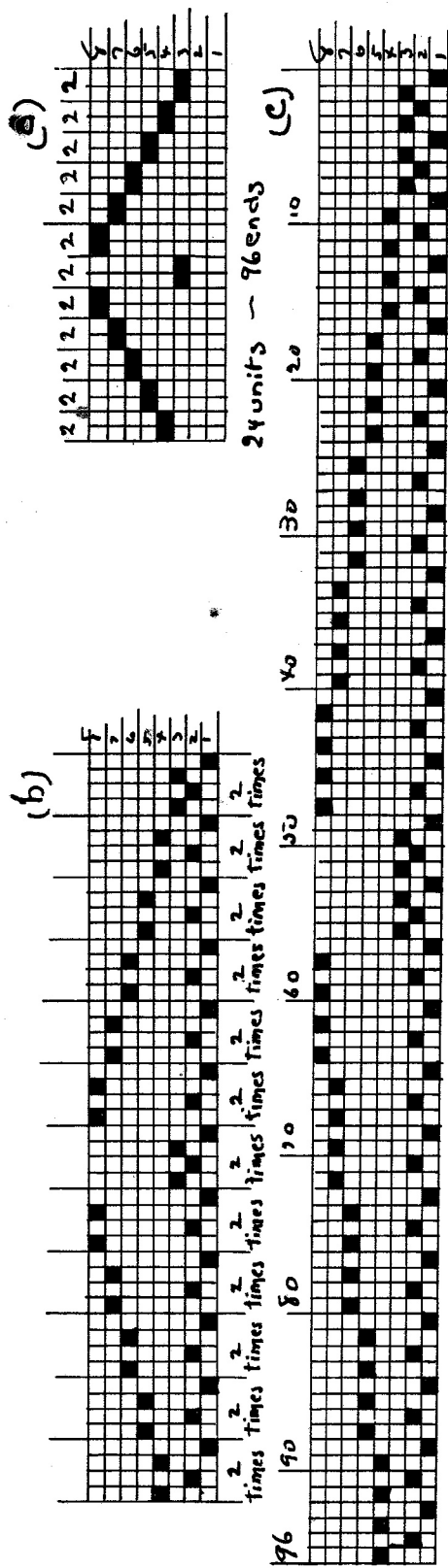
These notes, I hope, answer most of the questions about this weave, but a word should be said about weaving in several colors and weaving on opposites. The summer-and-winter weave permits weaving different parts of a pattern in different colors. For instance pattern (a) on page three might be woven with the diagonal lines of single blocks in one color and the solid figures in another. To weave in this manner more treadles are required -- one set for each color. In weaving throw a shot of each color between tabby shots. Few looms are equipped with enough treadles to make a complete tie-up for weaving an elaborate pattern in this manner and my practise is to make a plain tie-up -- one harness to each treadle -- with the two tabby treadles, and additional treadles for the sheds that are most difficult to make on the plain tie-up with one pair of feet. For each shed several treadles must be held down at the same time, and some remarkable gymnastics are required at times, however the results are so interesting that an ardent weaver overlooks this slight inconvenience.

Weaving on opposites also requires more treadles than the ordinary loom will accomodate, and for elaborate patterns must be woven on the plain tie-up as noted for weaving in several colors. The effect is very handsome. Strictly speaking no tabby is required when weaving on opposites, however in practise the warp-threads tend to draw together and the fabric to narrow in unless an occasional tabby shot is introduced. I use a tabby shot after each four shots of pattern weft, as a rule. These tabby shots do not show if the fabric is firmly beaten up. They simply serve to keep the warp in correct place.

I have never seen an ancient piece of summer-and-winter weaving done either by the two-color method or on opposites. However these weaves are entirely conventional and may be used for a classic pattern as well as for one in the modern manner. A piece done on opposites is much heavier than a piece woven in the ordinary way. Rugs are handsome done this way. Of course in a four-harness pattern such as pattern (e) on the diagram, weaving on opposites requires no more treadles than the six shown on the tie-up draft. To produce the effect treadle as follows: For the first block, treadle 1, pattern color; treadle 4, back-ground color; treadle 2, pattern; treadle 3, background (tabby). Repeat these shots as may be required to square the block. For the second block treadle the same way, but reverse the colors. This pattern, by the way, is a handsome one for a couch-cover when woven in the ordinary manner.

A solid effect can be woven all across the loom by sinking all the harnesses but one or the other of the tie harnesses. And a solid border may be made all around by threading the side borders on a special pattern harness and tying this harness to sink on all pattern sheds.

Mary M. Abrahams

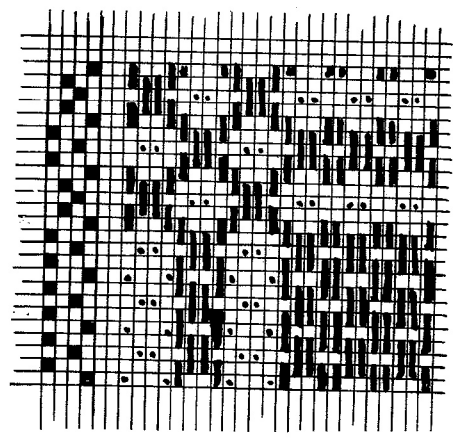


Weave pattern (d) as follows

- Treadle
- 1, once
 - 2, twice
 - 1, once
 - 3, " twice
 - 4, twice
 - 3, once
 - 1 twice
 - 2 twice
 - 1, once
 - 3, "
 - 4, twice
 - 3, "
 - 4, "
 - 3, "
 - 4, "
 - 3, once

- Continue:
- Treadle 1, once
 - " 2, twice
 - " 1, "
 - " 2, "
 - " 1, "
 - " 2, once
 - " 1, once
 - " 3, "
 - " 4, twice
 - " 3, "
 - " 4, "
 - " 3, "
 - " 4, "
 - " 3, once

- Continue:
- Treadle 1, once
 - " 2, twice
 - " 1, "
 - " 2, "
 - " 1, "
 - " 2, once
 - " 3, "
 - " 4, twice
 - " 3, "
 - " 4, "
 - " 3, "
 - " 4, "
 - " 3, once
- Repeat.





BULLETIN
of the
Shuttle-Craft Guild
for
August, 1937.

Basin, Montana

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A number of requests for additional "miniature" overshot patterns have come in recently; and several Guild members have asked for directions by which to write these little drafts for themselves. I believe the interest in drafts of this type is part of the unmistakable trend away from the ancient overshot coverlet effect. We are beginning to realize that the overshot weave in its classic form, with its long, loose floats of weft, is poorly adapted to some of the uses to which we have been putting it, and still we are unwilling to give it up altogether for one or another of the other weaves.

It is perfectly true that long skips of weft weaken the fabric and make it impractical for hard wear of any kind. Overshot is an excellent weave for coverlets, and satisfactory for hangings, but for rugs and upholstery it is undesirable. The old-time weavers would not have dreamed of using an overshot pattern for some of the purposes to which modern hand-weavers have put it, but when hand-weaving was revived in this country some thirty years ago the overshot weave was the only weave anybody knew anything about. It was used for everything. There are still many hand-weavers who know no other weave.

It is true that overshot patterns in which there are no long skips can be used successfully for many things that should not be woven in the patterns that include very large blocks, and the "miniature" drafts, in which there are no long skips, are practical enough for bags, runners, and so on. I am not sure but that some other weave is to be preferred, but that is a matter of taste.

By "miniature" I take it we mean a pattern written as small as possible. A pattern, theoretically, remains the same whether large or small, if the proportions are preserved. In practise, however, it is usually impossible to preserve the proportions exactly when writing a pattern down to its lowest terms. This is due to the structure of the weave, which requires an odd thread in the "return" blocks. In a large pattern the extra thread makes little difference in the effect, but when written very small this extra thread changes the proportions a good deal, so that the pattern becomes "chunkier" and less graceful than in its original form. It is easy enough to write the pattern down to miniature size, provided it is a suitable pattern, but whether or not the reduced form will be attractive is a question for the eye. It is well to try out these drafts on paper before threading them on the loom.

An easy method of making a small draft is shown at (a) and (a') on the diagram. For the illustration I have taken draft 97 from the Shuttle-Craft Book. The blocks in this pattern are all of either four or eight threads except the return blocks which are of five and seven threads. As the smallest possible pattern block is one of two threads we can reduce this pattern to its lowest terms by taking two threads out of each of the four-thread and five-thread blocks, and four threads out of each of the eight-thread and seven-thread blocks. I have drawn a pen-line around each of the groups of threads to be

omitted. Re-writing the draft now, leaving out the ringed threads, gives us the "miniature" draft at (a').

It will be obvious that a pattern, -- like "Honeysuckle" for instance,--that contains two-thread blocks to begin with, cannot be written any smaller and is already in its lowest terms. To make it any smaller it would be necessary to leave out part of the blocks, and that would make a different pattern. Patterns composed of blocks of many sizes from small to very large do not lend themselves well to reduction. In these miniature drafts a skip of more than five threads is hardly allowable. The reason is this: as many of the blocks will be two-thread blocks, woven with a single shot of weft, a skip of more than five threads in a single weft-thread looks skinny and skimpy and does not carry the pattern. Another group of patterns that cannot be written successfully in miniature form are those either in whole or in part "on opposites. In these patterns there are "accidentals" of two threads, and when the smallest pattern blocks are also of two threads the accidentals become so prominent that they confuse the pattern and its character is gone. We are therefore rather closely limited to patterns in which all blocks are of the same size, and those in which the blocks are of two sizes only -- the larger blocks twice the size of the smaller ones.

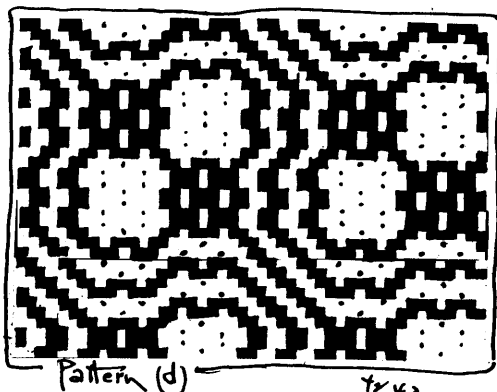
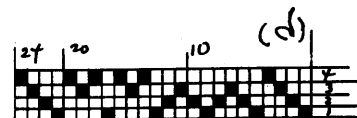
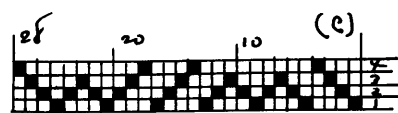
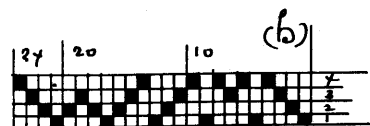
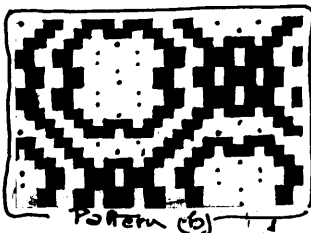
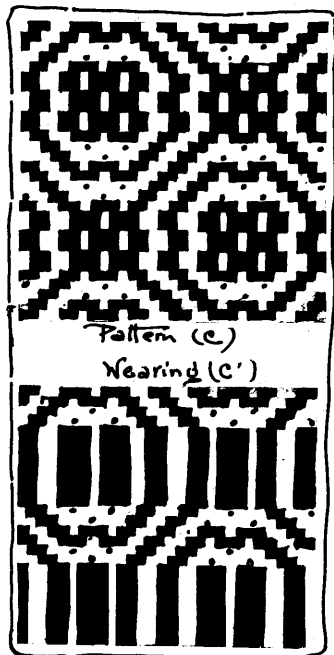
A group of ten "miniature " drafts was printed in the Bulletin for January, 1936. Copies of this Bulletin are still available, and new members who wish these patterns can obtain them by sending for this number. The price is 35¢. These include the patterns that lend themselves best to reduction -- "Whig Rose," "Chariot Wheel," "Star of Bethlehem" and so on.

Of the patterns on this month's diagram: (e) is the figure known as "Diamond Squares," reduced from the draft No. 7 of the Shuttle-Craft Book. The illustration of the effect of the reduced draft when compared with the illustration in the book will show the "chunky" appearance of the figure explained above. It must be borne in mind that the actual size of the figure is much smaller in the reduced form. As the draft covers only 42 threads the two alternating squares will be less than an inch and a half in combined width if threaded on a warp set at 30 to the inch.

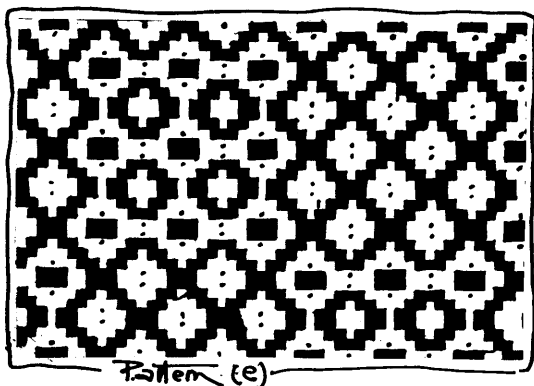
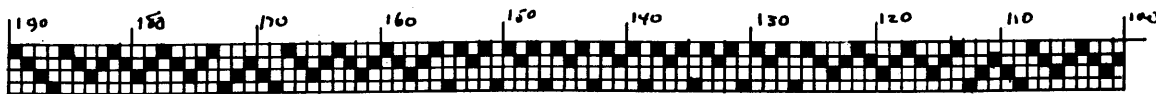
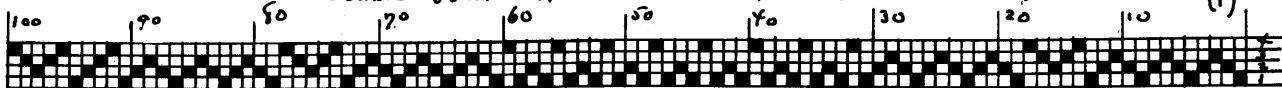
In my opinion, the small drafts are most successful when written with two-thread and three-thread blocks only. Patterns written in this manner give a fine, close weave of excellent wearing qualities. Naturally it is impossible to write all patterns in this form without changing them a good deal, however, one may preserve the "movement" and spirit of a pattern and make what is an "arrangement" rather than a direct reduction. In draft (b) of the diagram I have made such an adaptation of the star and circle motif. It seems to me better than the literal reduction. In the same way draft (c) is an arrangement based on "Solomon's Delight." The two methods of weaving illustrated show the two ways in which this pattern is ordinarily treadled. Draft (d) is an arrangement based on "Winding Vine." An interesting variation of this pattern is to repeat the draft from the end back to the beginning, and then from the beginning again. In other words, take the draft as half the pattern with centers on the first and last threads of the draft. This makes the figure called "Dog-Wood Blossom." Draft (f) is the reduced version of a very large pattern, "Double Sunflower" or "Double China." In the original version -- draft No. 141 in the Shuttle-Craft Book -- all the blocks are of four or five threads and the whole pattern takes 422 warp-ends. This reduced version will be found an interesting one, though it should perhaps not be classed as a miniature.

There are many ways in which these threadings may be used. They are practical for upholstery as well as for small articles, and they may be woven in many variations. The classic method for overshot weaving can be depended upon to give good results, but it is important to make a careful choice of yarns. In weaving a large pattern in the overshot weave a good deal of latitude in the grist of the pattern weft is allowable. If the weft is coarse one uses fewer

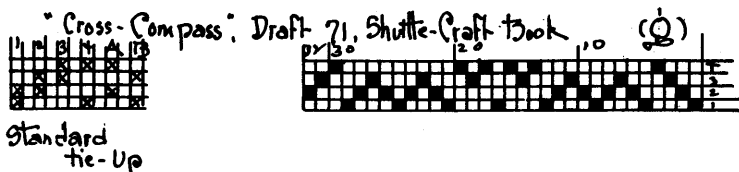
Draft 97, Shuttle-Craft Book, The Dagget House Coverlet



"Double Sunflower." Draft No. 141, Shuttle-Craft Book



Pattern (a) is illustrated, page 185 of the Shuttle-Craft Book. Pattern (b) is not illustrated. All the above patterns should be woven as drawn in, with a tabby as in other overshot weaving. Or these patterns may be woven on without a tabby "on opposites." Use the standard six-treadle tie-up.



shots to square each block than when weaving with a finer weft. But for these patterns of small blocks it is necessary to use a pattern weft that will exactly square the pattern when one shot is woven over each of the two-thread blocks and two shots over the three-thread blocks. If the weft is too coarse the pattern will be distorted lengthwise. If the weft is a trifle too fine the pattern will be flattened, and the weaving of two shots over the smallest blocks and three or four shots over the three-thread blocks will probably distort it the other way. No rule can be given, for the manner in which the fabric is beaten up is also a factor, and each weaver has his own individual beat. There is no way to determine the best weight of weft-yarn except to experiment on the loom. A tabby should be used with these patterns unless the system of weaving "on opposites" is used.

An interesting way to use these weaves is not for fine fabrics but for coarse work in heavy yarns. Make warp and pattern weft of coarse material, the same or similar in weight, and use a fine tabby. Or set the warp far apart and weave on opposites, beating the fabric close so that the warp is completely covered.

It is probably unnecessary to say anything about the treadeling of the patterns as given on the diagram. They may be treadled in many ways, of course, but the ordinary way is to weave them "as drawn in." Pattern (c), for instance, should be treadled as follows: (on the standard tie-up as given on the diagram) Treadles 1,2,3,4,1, one shot each; treadle 2, twice; treadle 1, twice; treadle 2, twice; treadles 1,4,3,2,1,4,3,2, one shot each; treadle 1, twice; treadle 2, twice; treadle 1, twice; treadles 2,3,4, one shot each. This produces the figure as shown on the upper illustration. The other weaving illustrated is treadled as follows: Treadles 1,2,3,4, one shot each; treadle 1, 8 times; treadles 4,3,2,1,4,3, one shot each; treadle 2, 8 times; treadles 3,4, one shot each; repeat. The only confusion apt to occur when following the threading draft for the treadeling is on the repeat: do not overlook the 1-4 block between the last thread of the draft and the first thread of the repeat.

Structo weavers should transpose the treadeling as given, of course, in the usual way: For "treadle 1," use levers 3-4; for "treadle 2," levers 1-4; for "treadle 3," levers 1-2; and for "treadle 4," levers 2-3.

"Miniature" drafts for patterns in Summer and Winter weave need hardly be given. There are no long skips in this weave, and most of the patterns include blocks of one unit so they cannot be written smaller without changing them, -- though of course small patterns of a few blocks can be designed in this weave. The smallest possible pattern is one of two one-unit blocks, threaded: 1,3,2,3,1,4,2,4. This extremely simple threading, on a coarse warp and woven on opposites, is the foundation of much gorgeous Spanish weaving, as has been described in the Bulletin. When used in this manner it can hardly be called "summer and winter" weaving, as it has an entirely different effect though in structure the weave is the same. The simple "point" or diamond threading given in the July Bulletin could be made half as large by threading one unit for each block instead of two units as shown on the draft. The effect, however, would be less interesting.

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As announced in the Bulletin, the weaving Institute at Palmer Lake, Colorado, will be held from the sixteenth of August to the sixth of September. During that time I shall be away from my office and though letters addressed to Basin will be forwarded I shall receive mail more promptly if it is addressed to me in care of Mrs. Anne Fisher, El Conejo Blanco, Palmer Lake, Colorado. A number of Guild members have written to me to say that they plan to attend the institute, and I am looking forward to meeting many people whom I have known for years by letter. The September Bulletin will be somewhat late in the mails in all probability, as I shall not be able to mail it till my return from Palmer Lake.

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May M. Atwater

BULLETIN

of the
Shuttle-Craft Guild
for
September, 1937.

Basin, Montana

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Not long ago I made some remarks in the Bulletin about the weaving of Navajo Indian rugs. A very distinguished member of the Guild, Mr. Gouverneur Morris, took me up on this matter and we have had a spirited correspondence since on the subject of Indian weaving. Mr. Morris pointed out that I should have explained that I was referring simply to the large tapestry rugs which the Navajos make for sale to tourists, and never use themselves. He suggested that the weaves used for saddle-blankets, which are altogether different, might prove of a good deal of interest to Guild members. He sent me a book -- NAVAJO SHEPHERD AND WEAVER, by Gladys A. Reichard -- with a number of illustrations showing these weaves; and ever since I have been experimenting on my loom with very interesting results. I think Mr. Morris is entirely correct in his idea that these weaves are much better suited to our equipment and ways of weaving than the tapestry rugs, and that many of us will enjoy making pieces in the saddle-blanket weaves.

The weaves are simple and can be carried out without difficulty on an ordinary four-harness loom, -- far more easily and rapidly than on the type of loom used by the Indians. Anyone who wishes to weave in the Indian manner will find detailed directions for setting up the loom in Mrs. Reichard's book. Or a large upright tapestry loom could be used if preferred. But as the weaves are all made on four sheds it is, in my opinion, more practical to use a four-harness loom.

The fabric produced is very thick and heavy, so that this form of weaving is not recommended to Structo weavers. A large treadle loom with a heavy batten is desirable.

The warp is completely covered in these weaves, and any good, strong warp may be used. Mr. Morris writes that the Indians use "string," of any kind they can obtain from the store. For my experiments I used ordinary carpet-warp, doubled, but as the warp must be set far apart and must carry the weight of a great deal of weft I am sure it would be advisable to use a better warp. A strong, heavy, rough linen or tow yarn would be best, I believe, though a very hard-spun wool warp would also be excellent. I set my warp at 12 ends to the inch and threaded it double which, of course, gives the same effect as a coarser warp set at 6 ends to the inch. For weft I used a heavy knitting yarn. The Indians, Mr. Morris writes, use Germantown yarn. Mrs. Reichard also mentions the use of this yarn, but says the Indians usually re-spin it to make it harder. Why they do not buy a harder twisted yarn to begin with is a question to which I have no answer. Mr. Morris says that instead of re-spinning they usually soak the yarn in water and wind it into a hard ball while it is wet and allow it to dry in the ball. This, naturally, takes the spring and fluffiness out of it to a considerable extent. It seems like heroic treatment.

A large quantity of yarn is required for a rug in this weave. I made my experimental piece 19" wide, and three 2-oz skeins of yarn wove exactly 12" in length. On this basis a rug 28" X 40" would take about 15 skeins or almost two pounds of yarn. However, this is not prohibitive. The knitting yarn obtainable from the Crescent Company at \$1.60 a pound seems to me excellent for the purpose. It is about the same weight as Germantown, though not as fluffy.

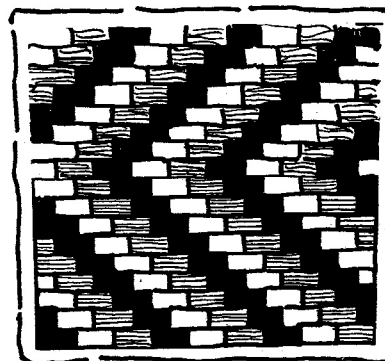
Rugs in this weave would prove agreeable for many uses, and need not have a savage appearance -- out of key with civilized interiors -- as there seems no reason one should choose the color schemes of the Indians unless one likes. The

weaves themselves are quite similar to certain Scandinavian weaves, as a matter of fact, and oddly similar in structure to some ancient Egyptian weaves except that the Egyptians wove them warp-face while these are done weft-face.

It is difficult to show the weave in illustration. However, the diagrams on this page will perhaps serve to convey the idea. One shows the effect in plain twill and the other a simple diamond figure. As explained on page three, the effect depends on using a sequence of three colors and four sheds, and at first, -- till one becomes accustomed to it -- this is a bit confusing as the twill pattern runs the opposite way from the twill weave. However with a little practice this becomes clear.

Mrs. Reichard has written a number of books on Navajo weaving, and there is also a book by Amsden that shows many interesting illustrations. The references I am giving with the accompanying drafts are to illustrations in Mrs. Reichard's NAVAJO SHEPHERD AND WEAVER, cited above. Many Guild members will no doubt be able to find this book in local libraries. For those who may wish to purchase it: the publisher is J.J. Augustin, 145 West 44th Street, New York, N.Y.. Mrs. Reichard's directions are a trifle difficult for a weaver to follow as they are not given in the ordinary weavers' language, and are so greatly concerned with the type of loom used by the Indians -- the making of the healds and so on. Many words used by Mrs. Reichard are used in a sense so different from weavers' usage that they are a bit confusing also. For instance, by "batten" she means a heavy piece of wood used as a beater, and not such a batten as we have on our looms. It is because few people, I fancy, would care to follow the procedure as she describes it that I have ventured to put the thing in form for use on harness looms.

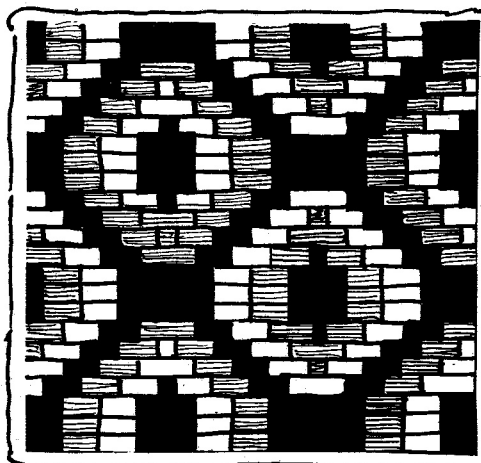
Mrs. Reichard gives detailed directions for the tapestry rugs as well as for the saddle-blanket weaves, and many illustrations. These may be of interest to some of our Guild members. Though, as I said in the previous article, in my opinion there are other forms of wool tapestry that are better worth imitating. For these tapestry rugs a large upright tapestry loom of civilized construction would be more convenient to work on -- for a civilized weaver -- than the Indian version of the tapestry loom used by the Navajos.



Twill

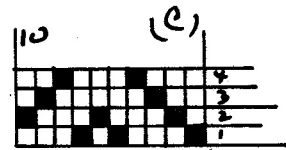
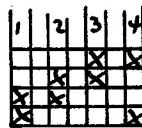
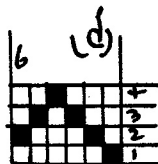
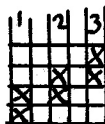
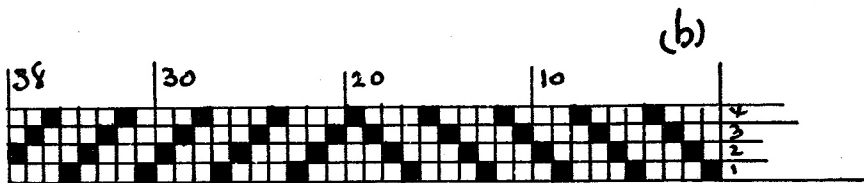
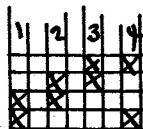
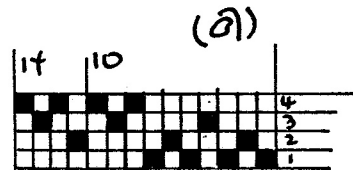
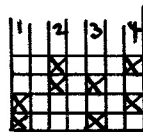
Some of the patterns used in the tapestry rugs make use of symbolism that has a meaning to the Indians. This is particularly true of those done after the traditional sand-paintings, such as the handsome one illustrated at (b), Plate IX of Mrs. Reichard's book. There is a sacredness about symbols, and in my opinion they should not be used carelessly, merely as a decoration, and I cannot feel that anyone not a Navajo should wish to imitate these tribal symbols. However, many of the decorative forms used are not symbols at all.

Diamond



There is no symbolism involved in the saddle-blanket weaves. These are simply a special type of fabric-structure and may, it seems to me, be used with propriety for the making of many articles for our own purposes. The weaves are very ancient -- probably much older than the tapestry blanket effects -- but all weaving is ancient. We do not invent new weaves; it is by using the ancient weaves in new ways to serve changed conditions of life that the art lives on and is constantly renewed.

Draft (a) is for the pattern in alternating squares, shown at (a), Plate XI in Mrs. Reichard's NAVAJO SHEPHERD AND WEAVER, opposite page 142. It should be woven in two colors as follows: Treadle 1, dark; treadle 2, light; 3, dark; 4, light and repeat, ending on treadle 1, dark. This makes the first row of blocks. For the second row begin on treadle 2, dark; 3, light; 4, dark; 1, light; ending on 2, dark. For the plain dark stripes weave all four shots of the repeat in the dark shade.



Threading draft (b) can be used for all the twilled effects, and for the large diamond figures. If the 1,2,3,4 twill threading is repeated for the entire warp it may be woven in twill all the way, or by reversing at intervals it will give the effect illustrated at (a), Plate VII of Mrs. Reichard's book. If threaded: 1,2,3,4, and repeat all the way to the center of the warp and then in reverse -- 4,3,2,1 -- for the rest of the way, the effect illustrated at (c), Plate VIII can be produced. When the threading as written is used for a repeat, the patterns at (d) Plate VIII and at (a) Plate X may be woven on it. Draft (c), above, can be used for a variety of small diamond figures, varied by wavy lines and perpendicular stripes, -- as, for instance, (b) Plate VIII. Draft (d) above is for the small diamond figure illustrated at (c) Plate VII of Mrs. Reichard's book.

All these threadings, except the last, are woven by using a repeat of four treadles and three colors. Twelve shots of weft are required for one complete repeat of the twill weave, as follows:

treadle 1, dark color;	treadle 2, medium shade;	treadle 3, light;
" 4, "	" 1, "	" 2, "
" 3, "	" 4, "	" 1, "
" 2, "	" 3, "	" 4, "

The pattern effect depends on weaving a different shed in each color each time through the succession of treadles. If four colors were used each color would weave each time on the same shed and an effect of perpendicular stripes would result. The same thing would happen if alternating shots in two colors were woven. To produce the twill effect in two colors weave: treadle 1, dark; treadle 2, light; treadle 3, light; treadle 4, dark; treadle 1, treadle 2, light; and so on. To make a three-color perpendicular stripe, as in (a), Plate X of Mrs. Reichard's book, omit the fourth treadle and weave the first three treadles only.

To weave the diamond figure, Mrs. Reichard's (d), Plate VIII, use threading (b) above. Weave the twelve shots of the basic threading and repeat the first three rows. Then weave: treadle 3, dark. Then from the end of this row: 1, light, repeat back to the beginning in reverse order; then weave the whole succession of twelve shots beginning at the right hand end of the bottom row. This makes the repeat for the figure. A great variety of treadeling is possible and space is lacking to give details of all the possible variations.

For the small diamond, illustrated in Mrs. Reichard's Book at (c), Plate VII, use threading (d) on the diagram herewith, and the three-treadle tie-up as given. Weave as follows: treadle 1, white; treadle 3, black; treadle 2, white; treadle 1, grey; treadle 3, white; treadle 1, grey; treadle 2, white; treadle 1, black and repeat.

One of the beauties of the Navajo weavings is the firm edge, made by a pair of twisted cords along each selvage. The Indian weavers twist this cord as they go, but this is a somewhat slow and trying process. I find that the twisted edge can be made very easily indeed by using the card-weaving method. I cut two squares, somewhat larger than the standard weaving card, from heavy card-board, and cut holes in from the corners as usual. I strung one of these with heavy material for each side of the rug, drawing all the ends from the card through the same dent in the reed and letting the cards hang in the space between the heddle frames. A very pretty edge results from giving both cards a quarter turn after throwing each three shots of weft, but unless the cord is rather fine this makes the edge too tight and hard. An excellent edge results from making the turn after six shots, turning only one card at a time. This way: When all three shots, say, have been thrown from right to left, make the turn on the left hand card, and make the three shots from left to right; Turn the right hand card, and weave back. The turns may be made at longer intervals if preferred, of course. This twisted edge is important. As anybody knows who has ever used a heavy weft-weave like this, with the warp set far apart and completely covered, the edges are difficult. The fabric tends to narrow in and the edge itself is weak and apt to break in service, which of course ruins the piece. This hard twisted edge cures both these troubles in a very handsome and effective manner.

The Indians string a warp for a single piece, taking the warp-thread back and forth between the top and bottom members of their loom. They make a twined edge of cord as a finish at top and bottom. On our looms this is, of course, impossible, and a knotted fringe would not be at all desirable as the warp is scant and unhandsome in comparison with the weft. We can make the finish at top and bottom in several ways. One way is to weave a narrow tabby heading as we do for ordinary rugs, make a very narrow hem of this and finish it with a cross-stitch in coarse material and a sacking needle, to simulate the twined edge. To make this perfectly firm, however, the warp-ends should be securely tied before being cut off and hemmed under, and the finish unless very carefully done will be somewhat clumsy. I think possibly the best finish would be to use the system of tying the warp-ends used by the Philippine weavers, and illustrated on one of the diagrams in the Recipe Book. A coarse cord like that used for the side edges could be braided in with this tie and when the warp-ends are clipped close the finish will have much the same effect as the twined finish used by the Navajos. Another way to make the finish is to twine two cords through the warp top and bottom, before taking the piece off the loom, and then with a needle draw the cut ends of warp back invisibly into the web. This finish will look almost exactly like that used by the Navajos but will not be as strong as by the Philippine method. The finish cannot be too firm. A piece that ravel's out on the ends after a few years wear is ruined, of course, and a piece of this kind should be expected to last a long time.

Last spring when I proposed another travelling exhibit many members of the Guild wrote that they were interested, but had nothing suitable at the time to contribute. Perhaps more material is available now, and I will ask all who are interested in another travelling exhibit to write me before September 30th, listing the pieces they will have to send in. For the information of new members: It has been our custom to hold a travelling exhibit once a year. Members send pieces of their work to me at Basin to be included in the exhibit, and the entire collection is then sent to the contributing members, "round robbin" fashion, along a route charted to be as economical as possible in the matter of carriage charges. There is no expense except these charges. The exhibit cannot be sent to members who do not contribute, but as a rule those who receive the exhibit give the other weavers in their communities an opportunity to inspect the collection.

The Bulletin goes to press on the eve of my departure for the weaving Institute at Palmer Lake, Colorado. I am looking forward to meeting many of our Guild members, and shall have notes of the meeting for the next Bulletin.

May M. Atwater



BULLETIN

of the
Shuttle-Craft Guild
for

Basin, Montana

October, 1937

(Copyright, 1937, Mary M. Atwater,)

The weavers' "Institute" held recently at Palmer Lake, Colorado, under the auspices of Mrs. Anne Fisher and El Conejo Blanco training school, brought together many members of the Guild. It was an enthusiastic meeting, and we greatly enjoyed meeting each other and working out together some new ideas that will, I believe, prove interesting to the entire membership. In this Bulletin I shall try to pass on some of the Institute findings.

First I want to speak of the "round table" discussions held in the evenings, at which many of the problems of our craft were brought up for the consideration of the members. Many of these discussions turned on the economic questions that constantly crop up. At one meeting we discussed the always troublesome matter of selling prices for hand-woven articles. There are no standard rates in force, and people who wish to sell part of their work are often at a loss as to the price to set. Those who weave as a business are in better position to set these prices than those who weave chiefly for pleasure but like to sell enough of their weaving to cover the expenses for yarn and equipment. If this latter group, however, sells things at too low a rate it works a hardship on those who make a business of weaving and depend on their profit for a livelihood. With the idea of putting a little order into this matter of prices I shall send out a questionnaire with next month's Bulletin and will ask all Guild members to fill it out and return it to me. We are getting tired of footless questionnaires, I know. The mails have been full of them. But this will have a very definite and practical purpose, and by "getting together" on our prices I believe we can do a good deal to stabilize the craft and make weaving more profitable to everyone.

Another discussion was concerned with the teaching of hand-weaving. Just what should be included in a general course of instruction? Was a teacher, one of our members asked, in duty bound to teach a pupil all special weaves and "tricks of the trade?" The question was made specific as to the "leno" weave, in which everyone at the meeting was particularly interested. This weave has very definite commercial value. Scarves made in this weave are extremely attractive and will make, we agreed, a very saleable product, -- a product that should return an excellent profit, as the scarves can be made very rapidly and take very little material. This particular weave, in the form we have found practical on our regular types of loom, is something I worked out for the Guild and presented through the Bulletin a year ago. My stand in the matter is that as the Guild through its subscriptions pays for the experimental work I do, the results belong to our members to be used as they choose. This particular trick in weaving is by no means general practice and it appears to me that the most conscientious teacher need not feel duty bound to pass it on to everyone who comes in for a general course. Those who wish instruction in this, or other special weaves, should be expected to take a special lesson or set of lessons and pay a special price for this specific thing. A rate of \$15.00 for instruction in the leno weave was suggested and tentatively approved. I shall be interested to hear from Guild members their opinion on this point.

We discussed also the problem of the improper labeling of machine-made fabrics as "hand-woven." There appears to be a tendency to label such spurious fabrics by a new trade-name: "Hand-loomed," instead of "hand-woven." If this meaning of "hand-loomed," as of a fabric made by machinery in imitation of a hand-woven fabric, is generally accepted and understood by the buying public, there can be little objection. But at the present time the term is misleading.

Hand-weavers cannot, of course, compete in price with machine-weavers, and the present methods of certain manufacturers appear unfair and to be a detriment to our craft. We agree on this, but the question of what to do about the situation is another matter. Here, again, I should like the opinions of Guild members.

In this connection we discussed the selling methods of the WPA hand-weaving projects, who sell their woven pieces for the replacement cost of the raw material. This highly uneconomic procedure was sharply criticised, but no one had a suggestion as to how to combat it. The solution will probably have to wait till WPA either passes out of existence or is reformed. A person, for instance, may now go to a WPA weaving shop and buy a hand-woven blanket of hand-spun wool, paying for it an equal weight in raw wool or the money equivalent. The government meanwhile pays the spinners and weavers a salary and also pays the instructor a salary, and provides equipment and quarters. This sounds very benevolent, but is it? These spinners and weavers they are training will someday be "on their own." When the government no longer pays them wages and no longer supplies equipment, the cost of these things will have to be added to the selling price of the blankets they make. This will certainly much more than double the present prices at which these things are selling and I fancy it will prove extremely difficult to persuade purchasers that the new price is reasonable. Fortunately the output from WPA weaving projects is not large, and much of it is absorbed by people on "relief," to whom it is issued without cost. It is a troublesome matter, affecting of course chiefly those who weave as a business, and is not a major problem of our craft. The competition of the "hand-loomed" fabrics is far more serious.

Another interesting feature of the Institute was the collection of looms of many different types, assembled by Mrs. Fisher. Several manufacturers sent examples of their newest models to be tested at the meeting, and there were little and big looms, from an ancient Colonial affair as big as a wood-shed down to tiny table looms only a few inches wide. Everyone was particularly interested in Mr. Gilmore's eight-harness looms and in a new large treadle loom soon to be put on the market by a leading manufacturer. The 45" size, equipped with four harnesses, will sell for \$75.00, I am told. The loom will also be supplied in six-harness and eight-harness form, I believe.

On these looms we did a variety of weaving -- leno, Finnweave, Swedish knotted pile-weaving, Spanish open-work, warp-face weaves, three-harness weaving in several styles, several Scandinavian weaves, lace-weave or "mock-leno," double-width cloth and seamless bags, the Indian saddle-blanket weave explained in the September Bulletin, and many other things. We also did a lot of card-weaving and made belts on a little English "Inkle" loom. I received one of these little looms from England not long before leaving for the Institute and took the thing with me. Everyone was delighted by it and a local cabinet-maker was kept busy turning out replicas. I got my loom from Dryad, Ltd., Saint Nicholas Street, Leicester, England. The cost, including postage and duty, is about five dollars. One of our Guild members may be able to supply a similar little loom for about the same price. We worked out many patterns and four distinct techniques for the inkle loom. One of our members, when she left for home, took her "inkle" along in her hand, to weave on on the train.

We all greatly enjoyed seeing Mrs. Fisher's wonderful collection of textiles, and the beautiful hand-spun silk and angora yarns produced at El Conejo Blanco.

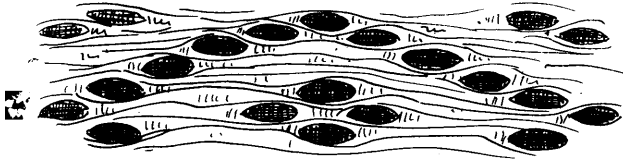
All in all, the meeting was voted a great success, and the hope was expressed that a similar Institute might be held next summer.

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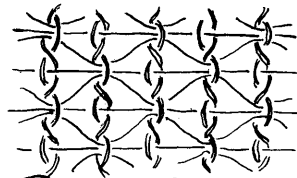
For a number of years it has been the custom to devote the October issue of the Bulletin to the kinds of weaving we like to do in preparation for Christmas and the holiday season. I propose to give notes on some of the special things worked out at Palmer Lake, as some of these will make excellent gifts for

(c)

Effect of Weave (b)

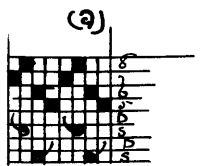
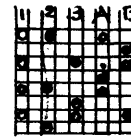


(a)



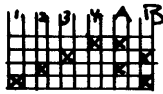
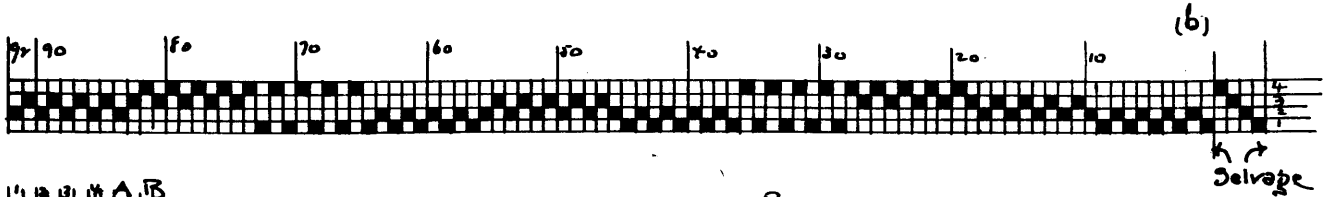
Plan of the weave

the "Diere Twist"



tie-up - rising shed

Weave (a): treadles 1, 2, 1, 3, Repeat



Tie-up.

Weave: Treadle A, treadle B, - coarse weft.

Treadle 1, treadle 2, alternately, for 12 to 20 shots - fine weft

A, B, coarse weft

2 and 3 alternately for 12 to 20 shots - fine weft

A, B, coarse weft

3 and 4 alternately for 12 to 20 shots, - fine weft

A, B, coarse

4 and 1 alternately for 12 to 20 shots, - fine weft

A, B, coarse

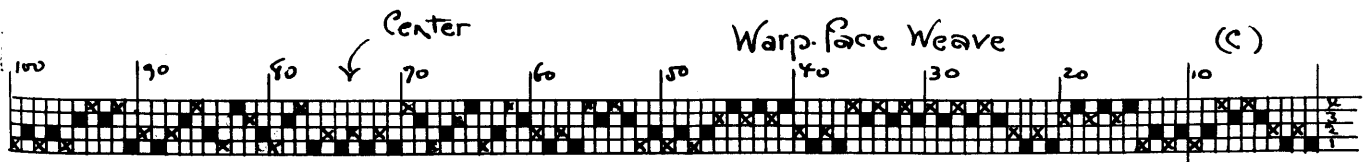
1 and 2 alternately for 12 to 20 shots - fine weft

A, B, coarse

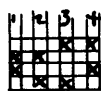
2, 3, alternately for 12 to 20 shots, - fine

This is the center of the figure; repeat the Treadling in reverse back to the beginning.

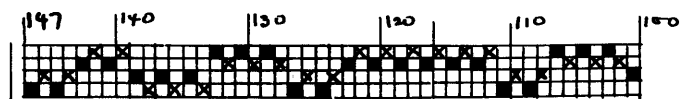
On the Structo loom: for "1" use levers 2-3-4. For "2", levers 1-3-4. For "3", levers 1-2-4. For "4", levers 1-2-3. For "A", levers 1-2. For "B", levers 2-4.



- White or light colors
- Dark Colors



Tie-up



Weave: Treadles 1, 2, 3, 4, 1, 4, 3, 2, one shot on each, Repeat

Christmas I shall describe such of them as space permits.

Scarves in leno weave, such as we made at Palmer Lake, will I think be particularly attractive. We set up two looms in this weave, one with a warp of white spun silk and the other with a warp of Fabri yarn. The silk warp was set at 15 to the inch and sleyed: two threads through a dent and skip a dent. The Fabri warp was set at 12 to the inch and sleyed in the same manner through a 12-dent reed. On these warps we used a variety of weft materials -- floss silks, "novelty" yarns of many different kinds, combinations of material. The results were charming. One of the looms was set up with the six-harness threading given in the Bulletin that explained this weave. On this set-up small "motifs" in a tapestry effect were woven into the leno mesh, initials, and so on. On the four-harness set-up the same technique could not be used, but initials were put in with a heavy needle instead of a shuttle, with excellent results. Length and width for a scarf are matters of taste. Ours were set 14" or 15" wide and were woven about a yard and a quarter long. Some, made with Angora yarn on the Fabri warp, were particularly soft and lovely and I believe anyone getting such a scarf as a Christmas gift would be delighted.

One of the looms used for the leno weave was a Bernat treadle loom. We had a bit of trouble with the adjustment as the harnesses were not heavy enough to keep the doup-harness down. An extra treadle hung from this harness and weighted with a bit of iron gave the extra weight required and the loom then worked beautifully.

A new leno arrangement is given at (a) on the diagram. The zig-zag effect produced in the weft gives an interesting texture. This weave, however, is not suitable for the inset motifs and initials. If such decorations are planned the plain leno is better.

Bags, of course, are always a prominent feature of the holiday season. A weave that would make attractive bags for the evening, and be a bit out of the ordinary, might be made on the threading at (b) of the diagram. The weave is a Scandinavian weave, used for bed-spreads and bureau scarves, and is ordinarily woven in cotton. For an evening bag I suggest a warp of spun silk set at 30 ends to the inch, pattern weft of the same material, either white or in colors, and tabby weft of a very heavy silk floss or a coarse corded silk. The effect of this weave depends on an unusual balance of materials; it has a lacy appearance though it is a solid and firm fabric. As shown on the diagram, four treadles are tied each to sink a single harness. Sinking a single harness while raising three is simple enough on a loom of the "jack" type, of course, but is sometimes troublesome on a counterbalanced loom. If the sheds do not open correctly it may be necessary to put in a "false tie" as explained more than once in the Bulletin. The top of the bag should be woven in tabby, with alternate shots of coarse and fine weft. A little below the top a narrow band of pattern weaving might be introduced. Tabby again, then, for a few inches, and pattern weaving for the bottom of the bag to the depth required. Then tabby again, narrow band of pattern work, and two inches or so of tabby back to the top of the bag. The draft is for a simple diamond figure. A somewhat more elaborate pattern, arranged as a bureau scarf, will be found in the Recipe Book. This is a simple weave, but as it appears to be little known among American weavers it has the interest of novelty.

Another thing we worked out at Palmer Lake will, I believe, prove a novelty and can be used for small bags, flat purses and so on. This is a simple warp-face effect on four harnesses, which is given at (c) on the diagram. To make this weave effective a great many colors can be combined. The draft shows merely dark and light threads. The light may be all white and the dark threads in five or six brilliant colors, or the dark threads shown in the draft may be black and the light threads may be in many different shades. It makes little difference just how the colors are arranged, though the central figure should be made the point of chief interest. The draft as written, threaded in #3 perle cotton gives a width of a little less than three inches. For a wider piece use the first 88 threads of the draft as a repeat, and repeat as desired.

In weaving a warp-face fabric of this type it is best to dispense with the reed. If the warp is sleyed through a reed closely enough to produce the effect, it will be found very difficult to open the sheds. When done without a reed the width is regulated by drawing the weft as close as may be required. A flat stick shuttle is best to use, and the weft can be pressed back with this after each change of shed. As the weft is not required to be very close this is not difficult to do. The weft should be drawn so tight that it is completely covered by the warp. A fairly coarse weft thread should be used.

The Finnweave offers many delightful possibilities for Christmas weaving. We wove a whole managerie of strange birds and beasts, also conventional patterns of many kinds, at Palmer Lake. We had two looms set up for the weave -- a large treadle loom and a small hand-lift loom. It was easier to find the sheds on the large loom, but it was not very difficult to accomplish the work on the small loom. Everyone was surprised to find how easy the technique is, -- after one gets the idea of it firmly fixed in mind. The thing that appears to cause most of the difficulty in the beginning is putting in the round stick. This must be inserted under the cross, as shown on the diagram in the leaflet. When inserted through either of the upper triangles of course the thing will not work as desired. The other point that seems confusing at first is that one picks up the pattern to weave the background, and picks up the background to weave the pattern. After weaving the first few blocks the thing becomes clear.

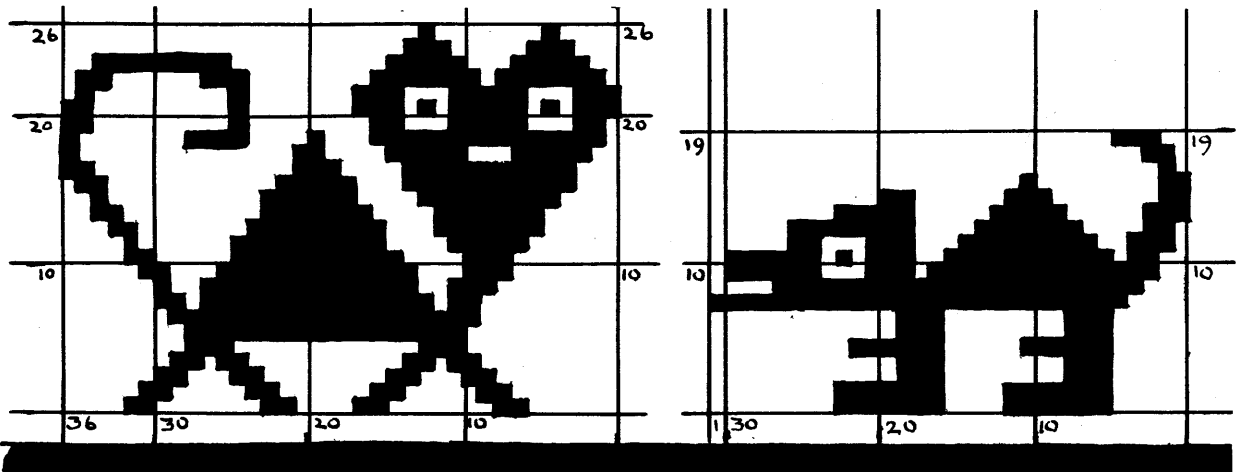
The dog and cat, at the bottom of the page, are two Peruvian animals drafted at Palmer Lake. Either figure might be used double, face to face, or singly, on a child's bib, for instance, or in the corners of a crib-blanket.

A Finnweave runner made at the Institute was a particularly handsome piece. On one end it showed a figure given in a bulletin some time ago. It represents a highly stylized version of a house beside the road. On the opposite end of the runner, instead of repeating the design, we used a figure in the same spirit, representing a road and a tall cactus. The body of the runner was done in an arrangement of lengthwise stripes. The whole effect was unusual and extremely handsome.

One of the things we did at Palmer Lake that proved of particular interest was the three-harness weave. We set this up in wool and wove some very handsome knee-blankets. We also set it up in two different forms in fine warp on two table looms. The three-harness weave is one of the most exciting things in hand-weaving. It has been explained in a previous Bulletin, but as this has been out of print for a long time, and as some of the things we did with the weave were different from anything set out in that Bulletin, I shall make the November issue on this subject. The knee-blankets are quickly and easily woven and will prove excellent as Christmas gifts.

With this issue of the Bulletin the Guild enters on its fourteenth year. It gives me great pleasure to find on the membership list so many names that have come with us all the way.

May M. Cramer





BULLETIN

of the

Basin, Montana

Shuttle-Craft Guild for November, 1937

(Copyright 1937, M.M. Atwater)

The three-harness weave has always seemed to me to be one of the most interesting and exciting weaves we have. The reaction of weavers at the Institute in Colorado last summer when this weave was put on the looms seems to bear me out.

The charm of the three harness weave is in color, chiefly -- and to a lesser degree in texture. Several different textures can be produced. However without color -- and lots of it -- the weave is not particularly interesting. Moreover the effect should be bold, and coarse materials rather than fine yarns are advisable. It is difficult to write treadeling directions for the weave as the most interesting effects are the improvisations one makes directly on the loom. My system is to choose a pleasant background color -- tan or a warm taupe by preference, as almost any bright colors may be used with these shades -- and then to surround myself with skeins of yarn in every bright shade available, not forgetting to provide plenty of black. Then the fun begins. And it is fun!

The weave is used chiefly for portieres, upholstery, large knitting bags, couch blankets, and pillow-tops. At Palmer Lake we set up a large loom in the weave and made "knee-blankets" that proved highly attractive. These little blankets will make extremely acceptable Christmas presents, I believe; I shall therefore describe in detail how they were made. For warp we used a hard-twisted wool warp Mrs. Fisher had in stock. It is perfect for the purpose. This yarn is called "Chimayo warp" and is supplied by the Charles Ilfield Company, Santa Fe, New Mexico. The price is \$1.60 a pound. Only a few colors are available in the warp-yarn, but a variety of colors may be had in a somewhat coarser "filler" Chimayo yarn, from the same firm, at \$1.70 a pound. I have purchased some of these yarns and shall be glad to send samples to anyone who is interested and will write enclosing a stamp for reply.

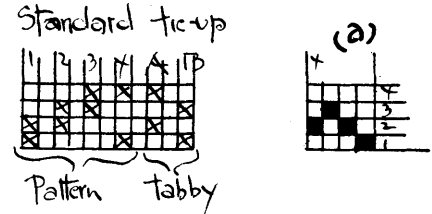
At Palmer Lake we made the blanket warp in dull blue, and set it at fifteen ends to the inch. I expect to make some of the blankets in the near future and plan to use natural white warp set at 12 ends to the inch, which will, I believe, give a somewhat gayer effect. The blue warp is best if one wishes to make automobile blankets. Though, as a matter of fact, unless one alternates tabby stripes with pattern stripes in weaving the blanket, the warp will show very little.

For the blankets we used the small threading given at (a) of the diagram. The effect of this is less bold than when threading (b) is used, but the fabric is more closely woven, and for a blanket no long skips of weft are advisable.

When setting up for the three-harness weave on a four-harness loom, do not take the fourth harness out of the loom. Take the heddles off it and leave the harness frame in place. Of course the fourth harness may be taken out if one chooses, but it is far more difficult to make a tie-up to balance three harnesses without the fourth, and nothing whatever is gained by taking out the harness. The regular standard tie-up may also remain undisturbed.

Suppose, now, that you have set up your loom as described above and are now sitting before it, prepared to start on the thrilling adventure of the three-harness knee-blanket: First weave two inches or so in plain tabby, using

the A and B treadles as usual. Use yarn like the warp for weft, or weave in the background color, which I shall call color (1).

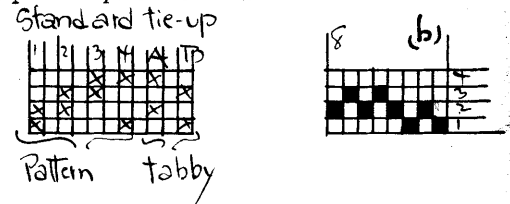


I hope you also have five or six brilliant colors at hand, including plenty of black. For the first band of pattern weaving select a bright shade -- neither black nor the lightest color in your collection -- say red. I shall call this color (2). Weave as follows:

Treadle 2, color (1); treadle 4, color (2). Weave these two shots alternately for six shots. Use no tabby.
 Treadle 1, color (2); treadle 3, color (1). Alternate for six shots.
 Treadle 1, color (2); treadle 3, color (2); treadle 2 color (2); treadle 4, color (2)
 Treadle 2, color (2); treadle 4, color (3)-- the next shade in your list. Alternate for six shots.
 Treadle 1, color (3); treadle 3, color (2). Alternate for six shots.
 Color (2) is now eliminated, as color (1) was eliminated after the second group of shots. Weave treadle 1,3,2, and 4 in color (3) as was done with color (2) in the third group of shots above, and continue by weaving color (3) on treadle 2 and introduce color (4) on treadle 4. This system may be followed throughout, the colors following each other in regular order, -- which makes zig-zag rows of color -- or at any point one may "return," by reversing the treadeling back to the beginning.

This is simple enough. The amazement is that so many variations can be introduced into so easy a technique. It is useless to attempt writing them out for to do so would take the space of a book, and besides as mentioned above the most amusing effects are those improvised at the loom.

The standard method of treadeling, given above, may be followed for weaving on threading (b), which has a longer skip and produces a bolder effect than threading (a). Threading (a) is advised for blankets and also for bags, but for portieres and for large couch pillows threading (b) will be found the more effective. The difference in form is sketched below, but as the thing depends so greatly on color it is hopeless to give a good idea of it in black and white.



For upholstery an entirely different manner of treadeling is used. For this technique use only three treadles: treadles 3, 4 and A of the standard tie-up. Each of these treadles raises two of the pattern harnesses and sinks one. Weave these three treadles in the same order throughout the entire piece, producing the pattern by changing the alternation of the colors. For instance weave as follows: treadle 3, Color (1); treadle 4, color (2); treadle A, color (1). Repeat 3 times.

Treadle 3,	color (1);	treadle 4,	color (2);	treadle A,	color (1). Repeat 3 times.
" 3,	" (1)	" 4,	" (2)	" A,	" (2) " " "
" 3,	" (1)	" 4,	" (3)	" A	" (2) " " "
" 3,	" (2)	" 4,	" (3)	" A	" (2) " " "
" 3,	" (2)	" 4,	" (3)	" A	" (3) " " "
" 3,	" (2)	" 4,	" (4)	" A	" (3) " " "

This finishes color (2), and it should be easy to continue, having reached this point. To weave a plain color use the treadles in the same order, but all in the same color. The figure may be varied in many ways, of course. The system of weaving given above is the basic form for the weave. Threading (b) may be woven in exactly the same manner. This technique produces a very firm, smooth surface without skips. The under side of the fabric is loose and not particularly handsome, but for upholstery this does not matter. The weft should be closely beaten up and the warp spaced far enough apart so that it will be entirely covered by the weft. For upholstery and ordinary carpet warp set at 12 ends to the inch and woven in knitting yarn or homespun serves very well. A coarse linen warp may also be used if one prefers.

Structo weavers will find this weave entirely practical on their equipment. As the fourth harness is not required for balance it may be removed, or permitted to remain in the loom, as is most convenient. The levers to use to produce the sheds are as follows:

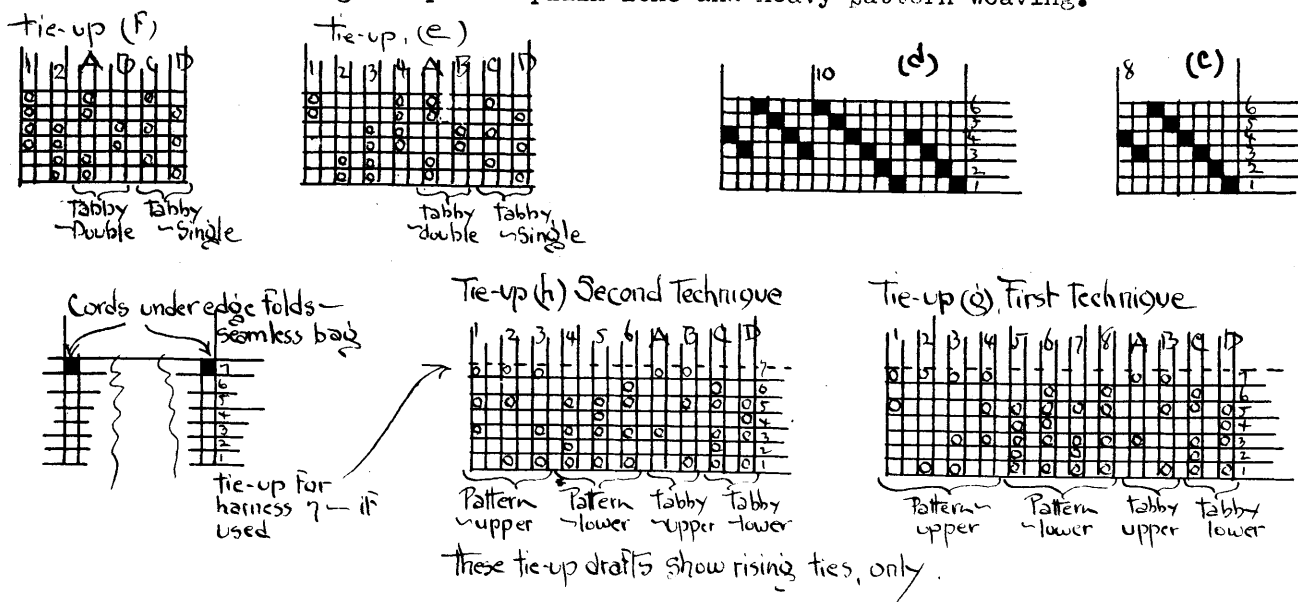
For "treadle 1" use lever 3, alone. For "treadle 2" use lever 1, alone; for "treadle 3" use levers 1-2; for "treadle 4" use levers 2-3; for "tabby A" use levers 1-3; for "tabby B" use lever 2, alone.

Threading (c) and threading (d) below, can be woven in many different ways. Tie-up 1 can be treadled as for the weave on three harnesses, and will give the same effect as the first technique described, except that that the warp will be double instead of single. Tie-up 2 can be used to produce the second technique described. The only advantage of the six-harness threading over the three-harness threading for these effects is that a close tabby can be woven with the heavy border stripes. On the three-harness threading the warp is set too far apart for a good tabby. This permits the use of the weave for borders in the ends of table runners and for similar purposes.

However, the most interesting use for the six-harness threading is for the weaving of seamless bags or double-width fabric. Tie-ups 3 and 4, below, are for this use of the weave, -- one for the first technique and the other for the second technique.

The chief difficulty in weaving double width or a seamless bag is to keep the edges from drawing in, with a resulting dense streak through the center of the piece in the case of a double-width blanket, for instance. Here is a "kink" of my own devising that may or may not appeal: Use a fairly heavy cord on each edge threading it through a seventh harness. This harness is then tied so that all weft shots of the upper fabric will go over it and all shots for the under fabric will go under it. In other words it will lie free inside the fold. As it does not interweave it can be withdrawn readily when the piece is taken from the loom. But as it has no take-up it is necessary to tighten it now and then at the back of the loom. I have shown this bit of strategy on the diagram. It may, of course, be omitted if found too troublesome. However I find it a help. If a double-width piece has a streak up the center it might just as well have been woven in two strips and seamed.

Another suggestion for the use of the three-harness weave, which is not shown on the diagram, is to use it in connection with leno. Thread the three back harnesses -- or the six back harnesses if preferred, -- to the three-harness weave and use two front harnesses for the cross. This would be an interesting way to weave drapery fabrics, and would be very unusual and striking. The weaving would then be done in alternating stripes of plain leno and heavy pattern weaving.



When threading for a seamless bag, using draft (c), omit the first thread of the draft at the beginning of the threading and add this thread at the end, after the last repeat. On draft (d) omit the first three threads and add them at the end. This brings the figure correctly at the folds.

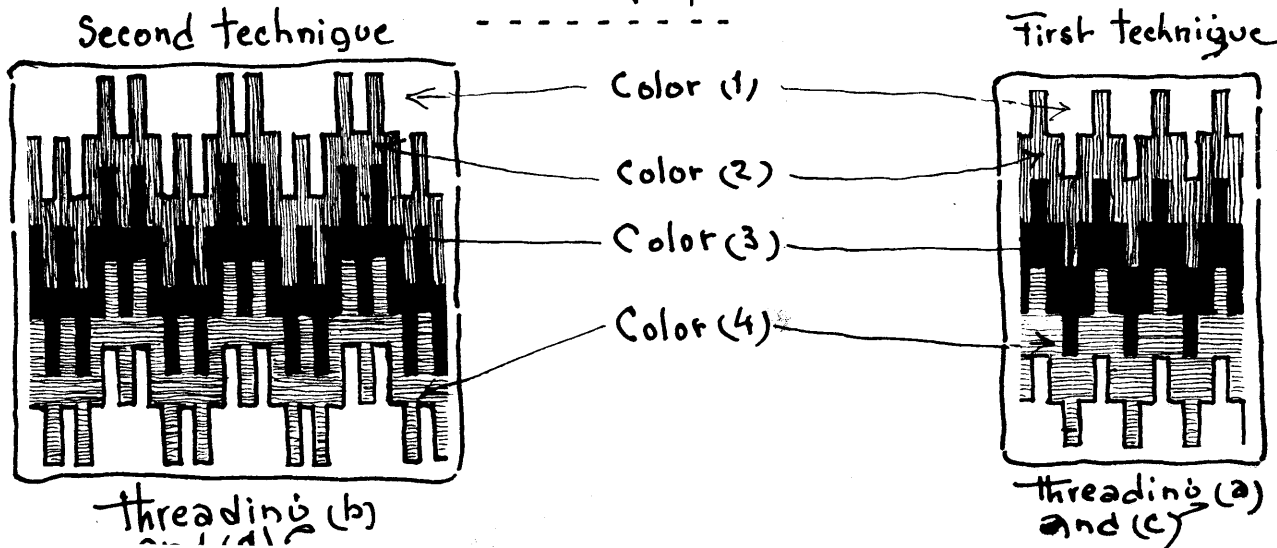
To weave a seamless bag on tie-up (h) proceed as follows: Weave a tabby heading, A,C,B,D. and repeat. Patterns: Treadle 1, color (1); treadle 4, color (1); treadle 2, color (1); treadle 5, color (1); treadle 3, color (2); treadle (6), color (2). This completes the first round of shots, as given on Page Two of this Bulletin for the second technique. The treadles should be used in the same order throughout the weaving. Treadle 1 corresponds to treadle 3 on the standard four-harness tie-up and weaves across the upper fabric. Treadle 4 weaves the same shot across the under fabric. Treadle 2 of tie-up (h) corresponds with tabby A in the standard tie-up, and weaves across the upper fabric. Treadle 5 weaves the same shot across the lower fabric. In making tie-up (h) treadles 2 and 5 may be omitted and the corresponding tabby treadles used instead. This is a little confusing, however, and it is rather better to make the complete tie-up as shown. In the same way: treadle 3 weaves the upper and treadle 6 the lower fabric.

To weave double width simply use the treadles in a little different order. Suppose you wish the fold to be along the left-hand edge: treadle the tabby, beginning at the right, A,C,D,B, and repeat. Use the pattern treadles in the following order, beginning at the right hand side of the warp: 1,4,5,2,3,6, 2,1,2,5,6,3, and repeat.

Space is lacking to give the treadeling for tie-up (g), but this should be simple enough. Treadles 1,2,3,4, weave the upper fabric and correspond exactly with the treadles as given in the treadeling for the first technique. Treadles 5,6,7,8, weave the corresponding shots for the lower fabric. A little experimenting on the loom will make the matter clear.

The enclosed Questionnaire speaks for itself. I hope all members of the Guild will fill out the blanks and return the sheet to me. As mentioned in the October Bulletin, this is an attempt to carry the round-table discussion on selling prices -- held at the Palmer Lake Institute -- to all our membership. If we can establish standard prices for certain basic products it will be very useful to all who weave articles for sale, -- whether they make a business of weaving or simply sell part of their work, weaving chiefly for pleasure and to make things for their own use. We want our selling prices to be high enough to return a reasonable profit to the weaver, but not so high that the things will not sell. Some of us, I believe, are inclined to price things much too high, while others sell their work far too cheap. If we can adopt some convention in the matter it should help the entire craft. At least that is my hope, and I ask the co-operation of our membership.

May M. Atwater



THE SHUTTLE-CRAFT GUILD

BULLETIN

Basin, Montana

for

December, 1937

(Copyright, 1937, Mary M. Atwater)

Our December Bulletin is, of custom, devoted to matters of equipment and supply. As there have been many questions from Guild members about the little "inkle" loom, this seems a good time to answer some of them.

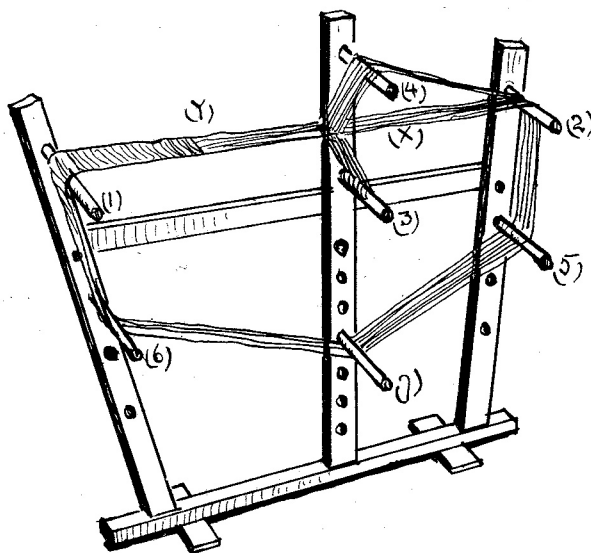
I am informed that the word "inkle" is the old English word for a narrow band, and that the "inkle" loom was used in England in the old day for the weaving of belts and garters, draw-strings and the like. I cannot recall ever seeing one of these little looms in any museum collection of old American Colonial weaving equipment, or in any antique shop. There must, of course, be some of these old inkle looms in existence, and possibly we have missed them because in their taken down form they show little resemblance to a loom. Even when set up they look more like a small warping frame or a spool rack of some kind than like a loom. We may have seen them dozens of times without recognizing them. I hope Guild members will keep an eye out for an old inkle loom -- it would be something of a find.

The thing is extremely simple, as the sketch below will show. It consists of a base, three uprights, a brace, and a set of seven large pegs. The sketch was not drawn to scale, but exact proportions are unimportant, and I dare say the loom could be made from the sketch without difficulty. On my loom the height, from the floor, of the center upright is 31" and the spread from center to center of the pegs marked (1) and (2) is 30". The base measures 30" overall, and the from the outside of the right upright to the outside of the

left upright, at the base, is 27". The middle upright is not set exactly in the center between the side bars, but somewhat closer to the right than to the left. The uprights are bored with holes to take the pegs, which are $\frac{7}{8}$ " in diameter. A light brace across the back is required for rigidity. The uprights are of $1\frac{7}{8}$ " X $1\frac{1}{4}$ " material.

Though it is easy to build such a loom if one has the material, the tools, and the required skill, for most of us it is easier -- and cheaper -- to buy one ready-made. One of our Guild members, Mr. E. Everett Gilmore, 1200 West Harding Way, Stockton, California, can supply these looms. Price \$5.00, shipping weight, 8 lbs. They may also be procured from Dryad, Ltd., 42 St. Nicholas Street, Leicester, England.

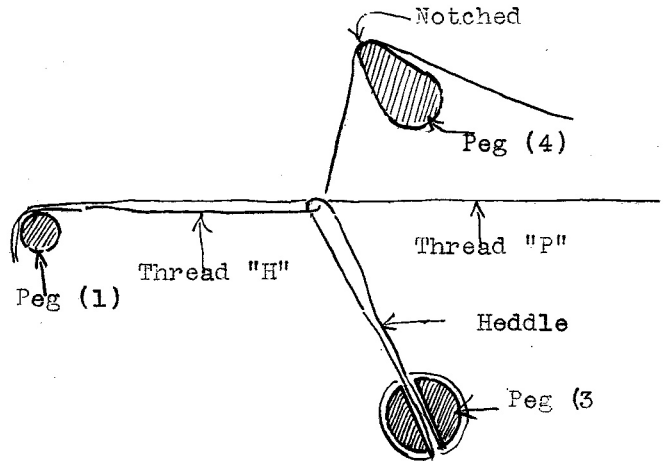
The pegs numbered (3) and (4) on the sketch are not plain round pegs like the others. Peg (3)



The "Inkle" Loom

has a slot sawed through the center for most of its length and is provided with linen loops, tied through this slot, which serve as heddles. Peg (4) is cut down to a narrow edge and this edge is notched. These details are shown on the accompanying sketch. On my loom the perpendicular distance between these two pegs -- center to center -- is 7". The upper peg is $2\frac{1}{2}$ " above the straight line of the warp between pegs (1) and (2), and the heddle loops measure $4\frac{1}{2}$ ". The sketch does not show these proportions as it is exaggerated for clearness.

Pegs (1), (2), (3) and (4) remain always in the same position, but the other pegs are set as required for the piece of work in hand; (5) and (6) regulate the length of the warp and (7) is used for tension.



In warping, one thread is taken around the pegs "plain" -- that is, it is attached to peg (1), carried over (2), under (5) and (6) and back to (1). The second thread is taken through a heddle loop of peg (3) and is carried over peg (4); thence over (2), under (5) and (6) and back to (1). These two threads alternate for the complete warp. If a warp all in one color and one material should be desired, the whole warping might be done with a single continuous thread, but when the end is reached the first thread must be detached from peg (1) and the two ends of the warp tied together. The warp must be free to move about the pegs as it is woven. As a rule, of course, several colors and materials are combined in a piece of inkle weaving. Each thread in a change of color is first attached to peg (1), but this tie must be taken out and the two ends of the thread tied together at the finish.

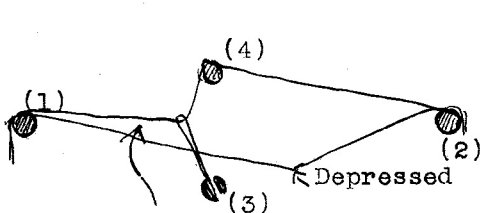
The sheds are changed by raising and lowering the lower strand of the warp, with the right hand, at the point marked (x) on the sketch. Weaving is done with a small flat shuttle, at the point marked (y).

Many interesting effects are possible in plain weave by this extremely simple process, the patterns being produced by the arrangement of colors in the warp. The fabric is a "warp-face" fabric, and in weaving the weft should be drawn tight enough to bring the warp-threads close together, so that the weft is entirely covered, as in card-weaving. The weft should be well beaten together to make a solid fabric. Also as in card-weaving.

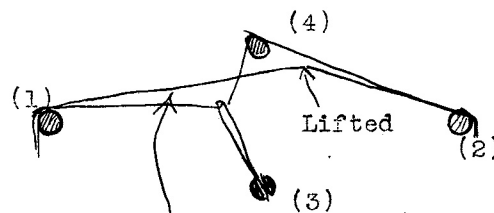
It may be remarked in passing that the inkle loom makes a convenient frame for card-weaving. Of course when used for this, pegs (3) and (4) should be removed, and the sheds made by turning the cards.

On the threading drafts given below, the upper row, marked "P", indicates the threads taken "plain" through the loom, and the lower row, marked "H", indicates the threads taken through a heddle. The hatchings indicate the colors in the threading.

The sketch below shows the way in which the two sheds are produced. I shall refer to these as the "H" and "P" sheds, for clearness.



Shed, "H" threads on top



Shed, "P" threads on top

The first three drafts show simple, but effective patterns in plain weave. The (a) pattern was taken from a piece of Navajo weaving in wool. The weft was a coarse cotton. Most of the Indian pieces show this combination of material. The cotton lends the desired stiffness to the fabric, which -- for a belt -- should be very closely beaten. It is customary to thread four threads of the plain cotton along each edge for a selvage. The "Chimayo" yarn, mentioned in a previous Bulletin, is excellent for this piece. Pattern (b) is a narrow bit, also Navajo, in three colors. Pattern (c) is after a Swedish sample, done in perle cotton. The effect, when many bright colors are combined, is very gay and attractive.

It is well to begin ones "inkling" with one or another of the plain weave patterns, but weaving on the inkle loom is by no means limited to these. Patterns, as elaborate as one chooses, may be made by the "pick-up" technique. The draft at (d) shows the system of warping used for most of the Navajo belts, and also for some pieces from Guatamala that have come under my observation. In the Navajo belts the edge is of cotton, as explained above. The border, -- as wide as one wishes -- is in solid stripes of green and red wool; the center part, on which the pick-up work is done, is threaded with cotton through the heddles and double strands of red wool, plain, as indicated by the draft. The weaving is done in natural cotton. When this draft is woven in plain weave it produces alternating cross-stripes of white and red across the center. The figures are produced as follows: Weave the "P" shed by raising the lower strand of warp as indicated; make the "H" shed, and with the fingers pick up a double strand of wool at the spot where the figure is to begin. For a simple figure to illustrate the method, pick up the center strand. Weave "P". Make the "H" shed and pick up a double wool strand on either side of the center one. On the following "H" shed pick up a colored thread on either side of the figure, now started. By continuing in this manner you will produce a chevron, and by reversing back to the center will make a diamond. The same method is used to produce any figure desired. Of course other colors and other materials may be used. The piece from Guatama was in black and white silk -- very handsome and effective.

The same threading may be woven in a different manner, that gives a different texture to the background. This is also Navajo. It is simple to do but a bit difficult to describe. However I shall make the attempt. Suppose you have fifteen double strands of pattern material in the center of your piece, and wish to make a figure of two triangles. On the "P" shed, suppress the center pair of threads. That is, push it down so that the shuttle will pass over it. Weave this shed. On the "H" shed, pick up the second, fourth, sixth, tenth, twelfth and fourteenth pairs of pattern threads. Weave this shed. On the following "P" shed, suppress the first, pair, keep up the next five pairs, suppress the seventh and ninth pairs, keep up the next five, suppress the last one. Weave this shed. On the following "H" shed, pick up the third, fifth, eleventh and thirteenth pairs. Weave. On the following "P" shed, suppress the second, sixth, eighth, tenth and fourteenth pairs. Weave. On the following "H" shed, pick up the fourth and twelfth pairs, which make the points of your little pyramids. On the following "P" shed, suppress all the odd-numbered pairs. Weave the next "H" shed plain, and the following "P" shed, suppressing all the even-numbered pairs. In other words, for the pattern, pick up alternate ~~the~~ pairs on the "H" shed, and for the background, suppress alternate pairs on the "P" shed. This method of weaving gives a righer effect and a sharper figure than the simpler technique first described.

A somewhat similar effect, easier to weave, can be produced on the threading at (e).

For the last two weaves, do not draw the weft as tight as in the other techniques, and use a rather coarser weft, permitting it to show a little.

The Navajos, of course, do not weave on an inkle loom. And the old English weavers probably did not use the Navajo styles of weaving. But the Navajo belt-loom is clumsy compared to the inkle loom, and the techniques are attractive, so why not combine the two ideas -- the old English loom and the old Indian weaves? To me it seems entirely legitimate, and it is very amusing to do.

Here are a few useful addresses. Some have been printed before in the Bulletin and are re-printed for the convenience of new members. Some are new:

EQUIPMENT

The Whitaker Reed Company, Worcester, Mass., reeds. Specify length and dentage, -- also: "Four inches between ribs; with end-pieces." (We are always wanting reeds

Looms.

Miss Florence Crocker, 4217 S.W.Kelly Avenue, Portland, Oregon. (Guild member)
Small foot-treadle looms, also blue-printed working drawings.

Mr. E. Everett Gilmore, 1200 West Harding Way, Stockton, Cal. (Guild member)
Treadle looms of the "jack" type, in various sizes, equipped with four to twelve harnesses, as desired.
"Inkle" looms

Small hand-made hand-shuttles
Mr. W.H.Worth, 812 South Hadden Street, El Reno, Oklahoma, (Guild member)
Treadle looms of unusual construction
Large hand-made throw-shuttles with wooden spool-bobbins, price \$2.00 each, with two bobbins and postage included. Extra bobbins, 50¢ per doz.

Mrs. Edna S. Burchard, the Burchard Weavers, 608 Grand Avenue, Oakland, Cal. (Guild member) Looms, and other equipment.

Mrs. Osma Couch Gallinger, Cromaine Crafts, Hartland, Michigan (Guild member)
Looms of special design.

Mr. Edward T. Hall, Universal School of Handicrafts, RKO Building, Rockefeller Center, New York, N.Y.. (Guild member) A great variety of craft supplies and equipment. Send for catalogue.

Bag Mountings, Commercial, The Jackmore Company, 392 Fifth Avenue, New York, N.Y.
" " Hand-made. Wood, carved or plain, Mrs. Marie L. Robbins, (Guild member), Hastings, Iowa.

Mrs. O.C.Houchin, Babcock-Selvidge Building, Billings, Montana

Yarns

Mrs. Mary D. Stronach, Box 322, Antigonish, N.S., Canada. (Guild member)
Hand-spun wool yarns, natural and hand-dyed

Anniel Woolen Mills, Inc., Mount Airy, N.C.
Homespun wool yarns, moderate price, good quality.

West Coast Woolen Mills, Ltd., 440 Clarke Drive, Vancouver, B.C., Canada.

Chippewa Falls Woolen Mills, Chippewa Falls, Wisconsin,
Waste yarns, "thrums", at 65¢ per lb.

The Chenille Rug Company, (Mr. H. Glickman), 875 East Hennepin Ave, Minneapolis, Minnesota. Coarse wool-and-cotton rug-yarn, (respun material) in colors, price 50¢ per lb. Also chenille made of this material, price 60¢

The Percelay Yarn Co., Pawtucket, R.I., Cotton chenille in plain colors and variegated. Packages of 5 lbs. at 80¢ per lb.. (This is the nicest cotton chenille I have ever seen.)

Charles Ilfield Co., Santa Fe, New Mexico, "Chimayo" yarns.

Mrs. J. Clarke Baker, Box 925, Beverly Hills, Cal. (Guild member)

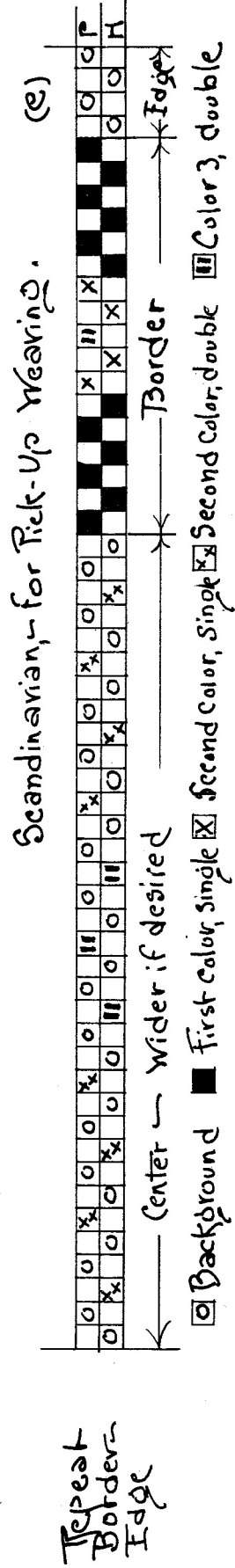
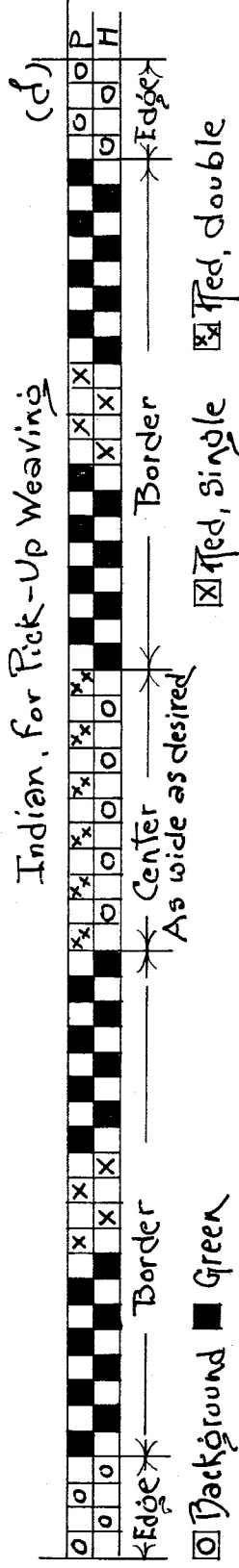
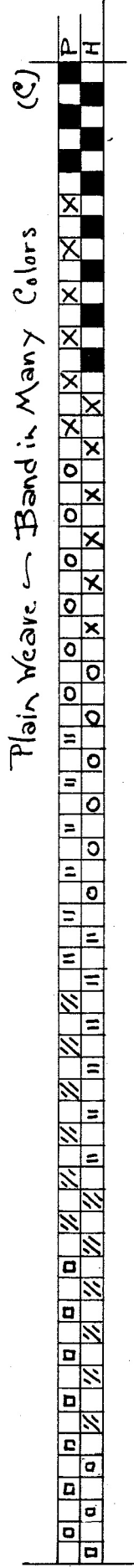
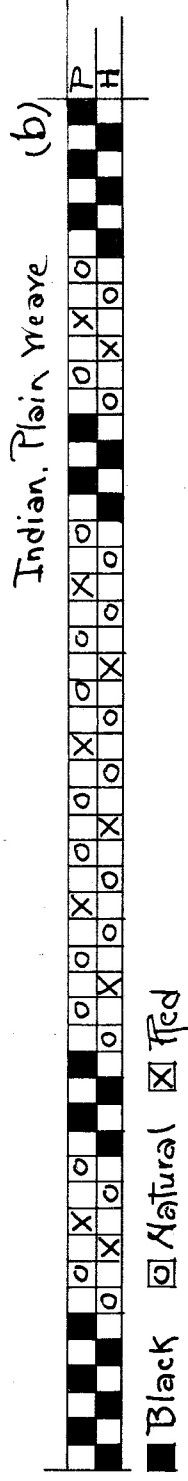
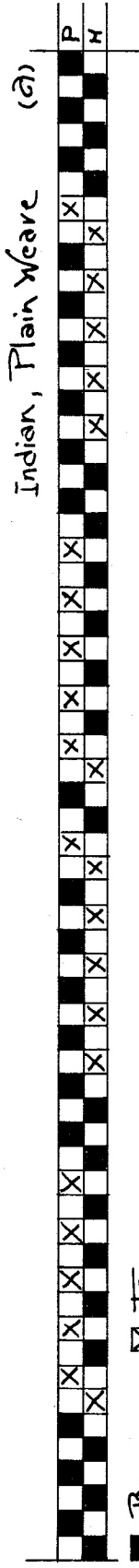
Very beautiful worsted yarns and Cheney "Sports" silks, spun silks, etc. Sample cards on request.

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I have received for review a book by Allen H. Eaton, entitled "Handicrafts of the Southern Highlands," published by the Russel Sage Foundation, New York, N.Y.. This book is beautifully printed and illustrated with charming photographs. It is of interest to anyone who cares about the sociological values of handicraft, and it would make a valuable guide for any craftsman travelling in the south. However, it is hardly a craftsman's book, in that it gives very little technical information, such as a weaver or basket-maker could use to advantage. There is very little about hand-weaving. It is unfortunate that the legend under the colored illustration opposite page 186 is quite erroneous in calling a simple overshot "Whig Rose" a "summer and winter weave" coverlet. The book covers somewhat the same ground as "Mountain Homespun," published some years ago, though it is more complete in that it deals with many forms of mountain handicraft -- pottery, wood-carving, basketry and so on. If you like that kind of book you will like it; if not -- not. The price is \$3.00

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May M. Whitaker



Repeat
Border
Edge