

THE SHUTTLE-CRAFT GUILD

BULLETIN



for

Basin, Montana

January, 1943

January is of custom "coverlet month" in the Bulletin. Anyone who has never made a coverlet has missed one of the thrills of weaving, and those who have woven many always enjoy making another. And January is a fine time to make it -- with the holidays over and winter weather ahead.

Of course when we think of a coverlet we think first of the old traditional blue and white Colonial bed-coverings. They have a charm all their own. I am not offering a "new" pattern as we already have a great many very handsome coverlet patterns, and to judge by the questions in my mail it would probably prove more useful to discuss the problems of arrangement and borders. Borders have been considered in the Bulletin before, but this was some years ago and the back-numbers are no longer available. "Old Members" will bear with me if I repeat some of the material presented at that time, and may find some useful hints in this new discussion.

A coverlet should always be made with a border. The border adds greatly to the finish and distinction of a piece. But a poorly designed border may be a disfigurement. The border threading used must, of course, conform with the main pattern in the matter of weave, but it should also harmonize with the main pattern in other ways, and should join the main pattern at the proper point. Theoretically, any four-harness overshot pattern might be used as a border with any other overshot pattern, but in practise some combinations would be very unfortunate. As the purpose of the border is to make a frame around the main pattern it is obvious that pattern and border should present a strong contrast. If the main pattern shows a large figure the border pattern should be a small one. If, on the other hand, the main pattern is a small figure the border should be threaded to a large and more or less elaborate pattern. But the matter of scale must also be considered. If the main pattern contains no little two-thread blocks there should be no two-thread blocks in the border, except in such a border arrangement as is shown at (e) on the diagram -- which will be discussed later.

The width of the proposed border depends on the pattern to some extent, but a more important consideration is the size and shape of the bed. A narrow border, for instance, should be used on a four-poster with side-boards and no deep overhang, but on a high spool bed, with a deep overhang, the border should be wider and more elaborate as it is much in evidence.

The simplest border threading is a twill succession of blocks as shown at (a) on the diagram. This does not make a handsome border and is very monotonous if wider than four inches. It can be used with almost any pattern, and is the best border threading for patterns that "go all one way" like drafts 38 and 39, page 167 of the Shuttle-Craft Book. It is also a satisfactory border threading for the radiating patterns, such as "Double Bow Knot" and the various "Sunrise" patterns.

For most large figures the most satisfactory border threadings, however, are the various "Diamond" patterns. Many patterns include a diamond figure, and when this is the case this part of the main draft should be used as a repeat for the border, as it is certain to combine properly with the main figure. Note, for instance, the diamond figure in draft No. 110 -- threads 49-68: this is the same as draft No. 2, page 158, as a glance will show. Draft 19, page 161, shows two little diamond figures. Threads 111-132 make the repeat for an attractive border. This is a variation of the diamond figure that would not be suitable for use with a pattern in which all blocks were of four threads or more/.

An important point, sometimes overlooked with disastrous results, is that a diamond pattern used as a border must conform with the main pattern in the matter of "returns." That is to say if the figures of the main pattern center on the 1-2 block, the diamond threading used must also center on this block. If the main pattern centers on two different sheds, as many do, then the border must also center on the same two sheds.

Any pattern, of course, may be written four ways without changing the pattern, and it is a simple matter to transpose a diamond threading to center on any chosen shed or sheds. For convenience three forms of the diamond pattern are shown at (b), (c), and (d) on the diagram, each written four ways. This diagram will prove useful to keep for reference, and it should be simple enough to select the correct draft to use as a border with any pattern except -- as will be explained -- a pattern written "on opposites," or one that features an unusual form of the diamond figure, like pattern No. 19, as noted above.

Consider, for instance, draft No. 97: The center of the main figure and also the center of the diamond figure are on the 1-2 shed. It follows that the threading to use as a border would be draft (b-1) on the diagram. In draft 95 one of the figures centers on the 2-3 block and the other on the 1-4 block. These two blocks are "opposites" so the best border threading would probably be the twill arrangement of blocks, draft (a) on the diagram. Draft 61 does not include a diamond, but one of the star figures centers on 1-4 and the other on 3-4. The best border threading for this pattern would be draft (d-3) on the diagram. Draft (b-4) might also be used, but does not conform as well with the main pattern as will be clear on study.

Many of the drafts in the Shuttle-Craft Book are written from center to center of the small figure, for convenience and uniformity. As the small figure of a pattern is usually a diamond, in these drafts half the figure will be found at the end of the draft and half at the beginning. For instance, draft No. 74: use the last ten threads of the draft, followed by the first ten threads and you will find you have a diamond threading like draft (b-1) on the diagram. However when a pattern includes a "table" figure this has usually been written first in my drafts and the diamond -- if there is one -- occurs later in the pattern. For instance draft No. 88: the unusual diamond figure in this pattern covers the threads 141-168.

The patterns written altogether or partly "on opposites" are in a separate class. None of the border threadings so far considered are suitable for these patterns. Many of them, of course, include a diamond, as for instance draft No. 70: use the last twelve and the first twelve threads of the draft as a repeat for the border. Draft 3, page 158 of the Shuttle-Craft Book, shows a twill arrangement on opposites suitable for a narrow border with a pattern written entirely on opposites, and draft No. 5 shows a diamond arrangement for a similar pattern. (The blocks in this threading may be written two or four threads smaller if desired.) Draft No. 4 is an odd little threading that makes an excellent border for patterns written partly on opposites.

In arranging a coverlet pattern for threading on the loom it is highly important to consider how the border threading and the main pattern should come together. The old-time weavers seem to have had a good deal of trouble with this problem. Note, for instance, the illustration on page 120 of the Shuttle-Craft Book: This is really very bad indeed as the border threading does not conform with the diamond in the main pattern and joins the large figure in a very awkward fashion. It is important to have a complete figure in the corner of the coverlet and let the border join this figure in a smooth and natural manner.

Suppose you plan a coverlet on the "Queen's Delight" pattern, draft No. 61: The border might join either the star-and-rose figure or the square table. The table makes the better corner. However, if the border joins the table directly you will have a somewhat truncated effect as the table figures in the main pattern are surrounded by a frame. This frame should also surround the corner figure. To produce this frame, the threading should begin with thread 185 of the draft; thread to the end, and then repeat the pattern from the beginning as may be required, ending the last repeat at thread 143, for the seam edge of the strip. Or, if you wish the seam on the right side of the loom, begin with thread 142 of the draft; thread to the end; repeat the complete pattern as may be required and on the last repeat before the

border end with thread 101. Using draft (d-3) -- on the diagram -- as a border, begin the border threading with thread 14; continue to the end and then repeat the complete border threading as may be required, ending with a four-thread or eight-thread selvage, threaded twill fashion (1,2,3,4 and repeat or 4,3,2,1 and repeat.)

As an example, a complete arrangement in detail of draft 61 would be made as follows: Suppose you plan a coverlet for a narrow bed, to be made in two strips each 36" wide, and suppose you wish the seam edge on the right hand side of the loom. Suppose also that the warp is to be a 24/3 cotton set at 30 ends to the inch. Your warp will have 1,080 ends. Reserving 180 ends for a six inch border -- which may be made wider or narrower as occasion demands, -- you will have 900 ends for the main pattern. Thread 142 to the end of the draft takes 73 threads, and the draft to thread 101 take 101 ends, leaving 726 ends. Divide by 214 -- the number of ends in the complete repeat -- and you find you will have three repeats with 84 ends over. These can be added to the border and selvage without inconvenience. The complete threading directions will then read like this:

Draft 61, thread 142 to the end	- - - - -	73 ends.
3 complete repeats	- - -	242 "
first 101 ends of draft		101 "
Border (d-3) thread 14 to end		19 "
complete border draft 7 times		224 "
first 18 ends of draft		18 "
		1074
Six threads selvage, 1,2,3,4,1,2		6
		1080

If you wish the seam to the left of the loom simply reverse these directions. Whether to have the seam on the right or the left is a matter of convenience. Most weavers tend to weave one edge better than the other -- a matter usually of the position of the window or light. Put the seam on the edge you watch most closely. As there is no selvage on this edge it is necessary to take particular pains not to narrow in in weaving.

A word about the border threading at (e) on the diagram. This is a very effective border arrangement as it produces a very solid "frame", and it may be used with any four-harness overshot pattern. It may be made as wide as one wishes.

So far we have considered only the type of border to use with large patterns. Most coverlets are made in this manner, but sometimes one wishes a coverlet with a small figure for the main part of the piece. In that event the border should be wide and quite elaborate. Draft 106, page 190 of the Shuttle-Craft Book provides a pattern of this type. The first 420 threads of the draft constitute the border. Repeat the last 44 threads of the draft for the main part of the coverlet, ending either on thread 431 or on thread 453 for the seam. For a narrow bed with a deep overhang this is an excellent pattern. Such a pattern as draft 93 gives an attractive effect when arranged as follows: one complete repeat of the draft, the first 150 threads of the draft -- for a border. Then the main part of the coverlet using the last 48 threads of the draft as a repeat, as may be required, ending at the end of the draft with the addition of a thread on harness 1.

In general, the rules governing choice and arrangement of borders apply to coverlets in summer and winter weave as well as to those in overshot weave. However there are, of course, many borders possible in summer and winter weave that cannot be woven in overshot. The famous "Pine Tree" border, for instance. This border may be woven with any summer and winter weave pattern that includes a three-block figure with overlapping. It could not, for instance, be woven with any of the patterns on page 225 of the Shuttle-Craft Book, or with those on page 226, as there are no overlapping blocks and no three-block figures. The border is illustrated on page 229 in connection with draft 210 (a) and the same threading may be used with draft 212, 217, 218, and 219. Of course the appearance of the "tree" is different with each pattern. (By the way, there is a missprint in draft 210 (a). The center one-unit block of the diamond figure should be a "C" block -- threaded on harness 5 -- instead of an "A" block as shown. It is suggested that a correction be made in your book.) Draft 227 gives the Pine Tree threading for patterns with five blocks, such as draft 225 and 226, also 228, 229, 230, 231 and so on.

And interesting way to make a narrow border is to use two harnesses threaded in any arrangement of large and small blocks to produce stripes. Tie one harness to weave with all the sheds of the pattern and the other not to weave at all, and you will have a solid effect, of stripes.

Last year I mentioned a Mexican type coverlet I had seen, done in lively cross-wise bands of color in plain weaving, twill, and picked up patterns. Several people have asked for further notes on this.

The techniques described in the Bulletins for May, June and September, 1942, might be used, though the one in the September number is perhaps the best one for the purpose. The sketch at (f) on the diagram is merely a suggestion of the effect. The borders might be arranged to suit ones taste -- either wider or narrower than shown, with more or fewer bands of colored twill. The pick-up figures in each row may be made in one color, or several colors may be used, each figure a different color through a regular succession as: red, blue, brown, black, orange, green and repeat. The effect of a bed-cover -- a "spread" rather than a coverlet perhaps -- is very gay and spirited. The weaving should be done all in cotton as explained in the Bulletin directions for the technique.

I am sorry to say that, though many Guild members have written that they would take part in the war-weaving project proposed in November, not enough names have been received to warrant going after a government contract, so I have had to drop this plan for the time being. Perhaps it can be revived later. Whether the project seemed too realistic for most of our weavers, or whether they thought weaving to government specifications might prove too exacting, I do not know. But be that as it may here are some new suggestions for those who would like to use their looms for war-weaving: My son, who is an officer in the Mountain Infantry, was recently at home on a short leave. He was very proud of some shirts made for him by his bride, and he suggested that those who have men in the services would make a great hit by sending light-weight wool shirts made of a hand-woven fabric such as we have been making for years in tartan plaids for shirts, scarves and neckties. Of course for the army the shirts should be woven in regulation o.d. color. For neckties a new "forest green" shade is now proper also for wear with army uniforms. Some of us may be clever enough to make properly tailored uniform shirts. Those who are not can no doubt find a tailor to make them. The dress shirts sold officers cost fourteen dollars or more. He told me also that though a scarf or muffler is not an "issue" part of army uniform there is nothing against the use of a muffler, and suggests that light weight hand-woven ones would make an excellent gift for any man in the service. The color, of course, must be plain o.d., though a pattern effect in the weave would be allowable. Such scarves, he said, should be 10" to 12" wide and about a yard long.

When the Lily Mills Company recently sent me samples of their new cotton the material was listed as Art 600, and it was so mentioned in the Bulletin. The line is now ready to put on the market and will be listed as Art. 1014. Kindly note this correction to avoid confusion.

As there is much interest at present in occupational therapy I have decided to offer a set of four "lessons" covering certain small textile crafts especially adapted to ward-work, in hospital practise. These will be: No. 1, card-weaving; No. 2 "inkle" weaving; No. 3, Mexican plaiting; No. 4, braiding -- the "Osage" braiding, Peruvian braids and so on. The charge for these lessons will be \$5.00 each or \$15.00 in advance for the series of four. If desired, I may later add a fifth lesson covering knotting and simple macramé. The lessons will include patterns, directions and samples, notes on the best way to use these crafts in o.t. practise, the type of patient for whom each craft is desirable, criticism of work sent in. To any Guild member in actual army hospital service I shall be glad to supply the material at half price -- \$7.50 instead of \$15.00.

May M. Wheeler

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for

Basin, Montana.

February, 1943

In reply to my request for suggestions, a number of Guild members have written -- some to say that they have enjoyed the unusual weaves given in the Bulletin during the last year and requesting "more of the same," some to say they would like more of the Classic Colonial material, and others to tell me that they sometimes find the Bulletin "difficult," and "over their heads." I shall keep all these matters in mind during the coming year, and wish to thank those who have written.

As I have explained a good many times, the material in the Bulletin is prepared with the assumption that Guild members are familiar with my Shuttle-Craft Book or can refer to it when necessary, so directions given in that book are not repeated in the Bulletin. This is necessary to save space. But I shall keep the needs of beginners in mind and shall try to include some material especially designed for beginners in each issue.

I fear that those among us who wish to work only in the classic Colonial manner will be "out of luck" for the coming year or years, as it is impossible to be "period" Colonial without wool yarns and linens, and these materials are scarce and will soon be unobtainable. The only way out of this difficulty will be to set up a spinning wheel and make ones own yarns. Of course spinning and home dyeing are pleasures in themselves and this may appeal to many.

But perhaps my correspondents mean only that they prefer the old overshot patterns to any others and wish to know how to use them in the materials still to be had. Weaving is a living art and I see no valid reason why we should not weave the old patterns in any way we wish, provided the effect is good -- even though that effect will not be strictly "Colonial." But there are difficulties. The old "four-harness overshot" is the pet weave of Colonial-minded weavers, and unfortunately this is not a good weave for anything but a wool pattern-weft. Wool threads cling together, and after washing become somewhat felted together, so that a pattern "block" in overshot skips makes a solid effect. Cottons do not have this property -- and it is to cottons we shall have to turn for our material, more and more as time goes on. Cottons, in the overshot weave, have a stringy appearance, and after use tend to stretch into loose loops. The result is far from sightly. To those who are unwilling to adventure into any other weave, all I can say is to advise using only patterns in which there are no large blocks with long skips, and to avoid using a very coarse cotton for pattern weft over a fine cotton warp. The stranded cottons, either mercerized or dull finished, are in a general way better material for pattern weft than any of the hard-twisted cottons.

In my opinion, however, it is better policy to lay aside the beloved four-harness overshot for the duration and turn to weaves better suited for the materials at hand. The summer and winter weave, and the similar "crackle" weaves, are very satisfactory for cottons, and one may if one wishes reproduce the old patterns in these weaves -- though of course the effect will not be "period" Colonial.

For the past year I have done a great deal of experimental work in cotton weaving, and the cotton manufacturers have co-operated nobly by putting on the market new cotton yarns better suited for our work than they shiny mercerized threads that used to be practically the only colored cottons available. Our devotion to the Colonial tradition is no doubt responsible for the fact that in general we have been using cottons very much less expertly than the hand-weavers of other countries. And this is odd as this is a great cotton-producing country. I am glad that necessity is turning our attention to this

beautiful material, and forcing us to learn to use it. But it is, I think, a mistake to try to use cotton as a substitute for something else. It can never be a satisfactory substitute for wool or linen. We should use it in ways that bring out its own special values and fine qualities.

With this in mind I began my study of cottons and their possibilities by a look to the southward, where the native weavers have worked almost entirely in cotton for centuries. The Mexican and Guatemalan weavers, to be sure, produce their gorgeous cotton fabrics on primitive equipment that would be extremely inconvenient for our use. We should not enjoy sitting upon the ground to weave with the end of the warp attached to our bodies. At least I doubt if many of us would. However these weaves can be adapted for use on our more convenient equipment, and some of the adaptations I have devised have been given in the Bulletin.

There is nothing difficult or complicated about these really delightful weaves, and a new weaver need not hesitate to attempt them. They offer the greatest opportunity for the use of lavish color, and hold unlimited pattern possibilities.

The weave outlined in the Bulletin for last December seems to me one of the most interesting and useable of these "south of the border" techniques, and I wish to give here more detailed directions than space permitted in December. I have myself woven many yards of fabric in this weave, using various combinations of material and a great many fascinating patterns -- from the little humanesque figures that make the Mexican and Guatemalan work so sprightly, birds, beasts, flowers, geometric figures, and classic figures to patterns of the modern style. Nothing could be more amusing.

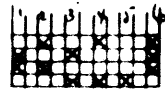
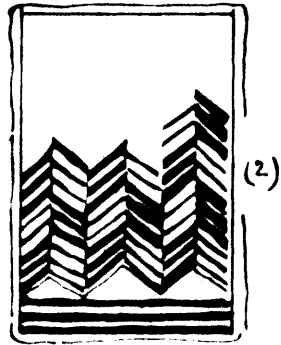
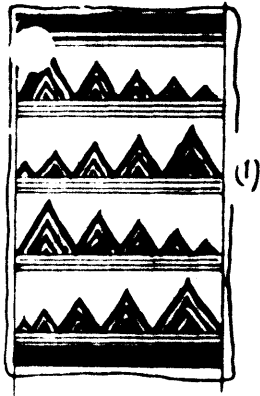
The fabric has somewhat the structure and texture of a summer and winter weave, but warp-wise instead of weft-wise. Simple patterns could be produced on an eight-harness loom without recourse to the pick-up stick, but the more amusing figures do require a simple and rapid method of pick-up.

For the benefit of those who have never done pick-up weaving may I say that the pick-up stick should be made of hard wood, about an inch or an inch and a quarter wide, and not more than ~~an~~ a quarter of an inch thick. It should be long enough to go easily across the work and the ends should be beveled down to a rounded point. It should be sandpapered down to perfect smoothness. Weaving should be done with flat "poke-shuttles," long enough to go across the work and wider than the pick-up stick.

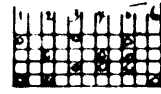
For warp two kinds of cotton are used: a fine white cotton and a coarser cotton in colors. For my first warp I used Egyptian 24/3 for fine warp and double strands of the new "soft-twist" 20/6 cotton recently put on the market by the Lily Mills. This warp at a setting of 45 ends to the inch -- one fine and two colored ends to the dent of a 15-dent reed -- produced a pleasant fabric that is excellent for towelling as it is absorbant, has enough body, and is neither too light nor too heavy. The same fabric could be used for a table set, or a bag.

For a heavier fabric a combination of mercerized cotton in white -- The Lily Company's 10/3 -- with strand "thrifty-knit" cotton in colors, or the new coarse 4/4 soft twist cotton, at a setting of 24 ends to the inch, is also very handsome indeed. This makes a good fabric for large bags, for table sunners and the like. It would also make excellent upholstery, and for this use the fine part of the warp might be in a dark color instead of in white.

On the diagram I have sketched some of the towels I wove, and I am also giving a detailed drawing to show the weave. This detail shows a repeat of the pattern sketched at No. 7. Weaving directions are given on the diagram, but to explain further: Using treadles 5 and 6 alternately produces plain weave, in an effect of alternate white and colored bars. The background effect shown at the bottom of the detailed drawing, weave treadles 6,1,6,2, -- one shot each, -- and repeat as desired. For the solid effect weave treadles 5,3,5,4 -- one shot each, and repeat. End on 5. To begin the pattern treadle on 4, and with the pick-up stick go under seven of the raised threads, over 1, under two, over one, under one. over seven, under one, over one, under 1, over two, and repeat all across. Do not weave this shed. Treadle on 6 and weave. Treadle on 3, and with the pick-up stick go under six, over two, under two, over one, under one, over six, under two, over one, under one, over two, and repeat. Do not weave. Treadle on 4 and weave. With the pick-up stick still in place, weave on 6. After the first pick-up, weave two shots each time under the pick-



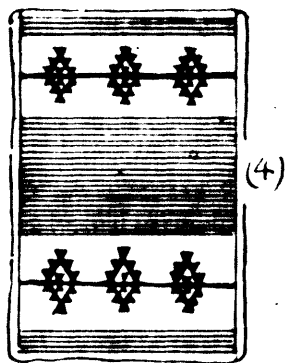
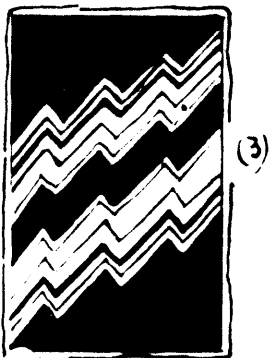
Tie-up - Sinking shed



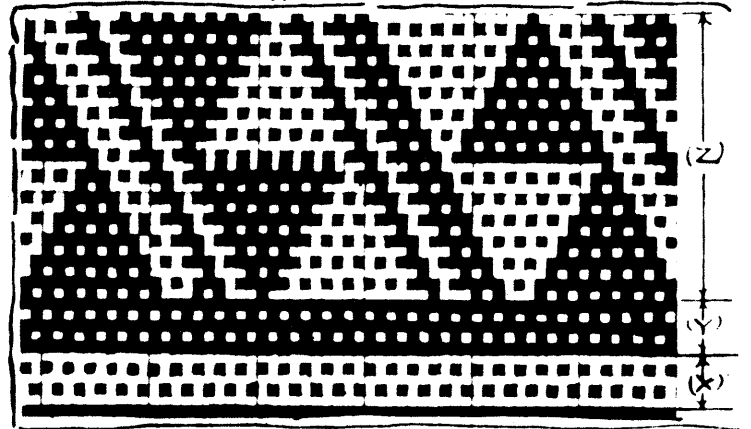
Tie-up - Rising shed



■ Fine white
■ Coarse Color



Detail of Pattern (7)



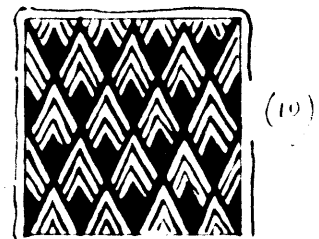
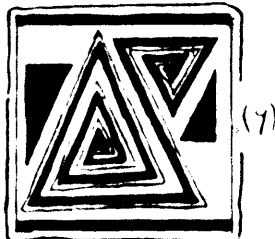
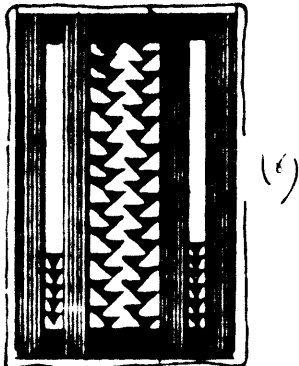
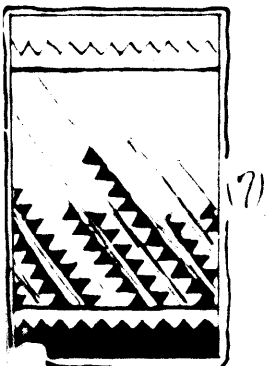
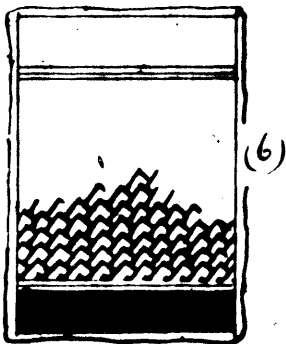
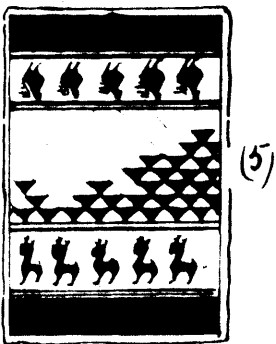
Weave heading: treadles 5 and 6 alternately as desired

(X) Background effect: treadles 6, 1, 6, 2, — one shot each — Repeat as desired

(Y) Solid pattern effect: treadles 5, 3, 5, 4, — one shot each — Repeat as desired

(Z-I) Pattern ▲-figures: Treadle 3, make pick-up but do not weave. Treadle 4 and weave. Treadle 6 and weave. Treadle 4 and make pick-up. Treadle 3, weave. Treadle 6, weave

(Z-II) Pattern ▼-figures: Treadle 3, make pick-up. Treadle 6, weave. Treadle 4, weave. Treadle 4, make pick-up. Treadle 6, weave; Treadle 3, weave



Pick-up stick



Poke Shuttle — used as indicated

up stick, as given on the diagram under (Z-I) . For the third pick-up treadle on 4; with the pick-up stick go over the first thread, under the next five, over three, under two, over one, under one, over five, under three, over one, under one, over two, under five and so on. Treadle on 3 and weave. Treadle on 1 and weave. Having got to this point it should be simple enough to continue.

It will be noted that one set of triangular figures has a clear outline while the second set has a feather edge. Also diagonal lines have a sharp outline on one side and a feather edge on the other. This is a part of the structure of the weave. If all the figures are A-shaped, as in the pattern sketched at (1), there will be no feather edges if weaving is done as at (Z-I) . On a figure that reverses at the center, like the figure at (4), weave the first part as at (Z-I) and the second part as at (Z-II), reversing at the center by weaving three shots instead of two . This figure, by the way, is illustrated in detail in the inkle pamphlet.

A great variety of figures can be produced easily and pleasantly in this weave, which I have tried to indicate by the sketches. It is a fine weave for weavers who like to make their own designs. Any pattern developed along diagonals is suitable. Square figures and perpendicular lines are somewhat less easy to manage. However, I made a handsome piece using the pattern at Series II No. 15 in the Recipe Book. It was very effective.

If one wishes, the pattern effect can be limited to lengthwise stripes as sketched at No. 8 on the diagram. The spaces between the stripes of pattern should be threaded: 1,2,1,2 and so on, and sleyed close enough so that the weft will be entirely covered. These stripes may be in a series of colors. The pick-up work, of course, is limited to the stripes threaded for pattern.

A word about the proper beat in this weave: For the towelling do not beat too close or the fabric will be stiff, and the interesting criss-cross effect of the fine warp in the background will be lost. But beat -- as in other warp-face weaves -- against the flat shuttle, left in the shed. That is: after weaving a shot change the shed, put the flat shuttle through the shed and beat, then draw the shuttle through for the shot of weft. As the shuttle is wider than the pick-up stick one can beat in this fashion without difficulty even though the pick-up stick is in the warp.

The weft-material for this weave should be white -- or the color of the fine part of the warp. It should be finer than the coarse warp and coarser than the fine warp. For the towelling I used a single strand of the soft-twist 20/8 for weft, and for the coarser fabric described I used a double strand of the material used for the fine warp.

I have gone into this weave in great detail in the hope that even those who have never done any pick-up weaving will try this, as I am sure it will prove useful and interesting.

The first lesson of my occupational therapy course is now ready -- the lesson on card-weaving. I am hoping it will be found useful. Occupational therapy is a craft in itself, of which the handicraft project is simply the means and not the end. One may be a highly skilled craftsman and a very poor occupational therapist. And a no doubt with the demand for o.t. workers for army hospital service, many craftsmen may be accepted without professional o.t. training. As happened last time. Suppose you are a skilled weaver and find yourself inducted into the service and assigned to a ward inhabited by sixty or more youngsters in various stages of convalescence. You are given no instructions and no equipment, simply orders to take over the ward and practise occupational therapy. What do you do first? and how do you do it? This happened to me when I reported for service at Camp Lewis Base Hospital at the end of the first world war.

I believe, too, that some knowledge of the techniques of occupational therapy should prove useful to those not in hospital service. So many of us have a sick or disabled member of the family to care for. To amuse them is not enough. If we understand how to use occupation for its curative values we can give them real help on the way back to health and usefulness.

May M. Atwater

THE SHUTTLE-CRAFT GUILD

BULLETIN



for

Basin, Montana

March, 1943

For a long time I have been promising myself the adventure of experimenting with some of the warp-dyed and weft-dyed patterns seen in ancient Peruvian weaving and in weavings from Guatemala and other countries. Last month this intention came to a head, and here is the story. Guild members who may have a similar urge will perhaps be saved some disappointments and some lost motion. I discovered plenty of things not to do, and that is always useful.

Much of the ancient Peruvian work appears to have been done by the "resist" method, similar to the batik process. This involves the use of cold dye, and dye-stuffs that give a "fast" result are practically unobtainable at this time, so I limited my experiments to tied dyeing. For this technique the "resist" is produced by wrapping and tying the strands of material to protect it from the dye. The material may then be boiled in the dye-stuff as desired. This process, according to d'Harcourt, in his priceless book, "Les Textiles Anciens du Perou", is called "iklat." In Guatemala, according to Pedro J. Lemos in his book, "Guatemala Art Crafts," it is called "jaspe." "You pays your money and you takes your choice," but I propose to use the Guatemalan name, as it comes from nearer home and is less cumbersome than "tied-dyeing," -- which also means an entirely different process used for resist dyeing of a woven fabric, so is somewhat ambiguous.

For the jaspe effect the warp may be tie-dyed and woven with a plain weft, or the weft may be tie-dyed, and woven over a plain warp. For the Guatemalan methods of weaving, with short warps stretched full length in a "belt loom," warp-dyeing is perhaps the more popular method, but for our weaving equipment the weft-dyeing method seems the more practical, so most of my experiments were carried out in this technique.

The material to be dyed must first be stretched on a frame. This may be a special frame made for the purpose, like the one from Cambodia shown in an illustration in an interesting book I recently happened upon. I found, however, that my spool-rack made an entirely satisfactory substitute. I took out all but two of the wires, and set these at a distance apart equal to the width of my proposed warp. It is very important to be exact in this measurement because if the skein of weft material is made either a trifle too long or too short the pattern will not register correctly when woven and the result will be chaotic. A bit of experiment may be required, as some materials shrink in the dyeing process while others stretch, and an allowance must also be made for the slight narrowing in required for a good edge. A simple way to get around this difficulty is to make the skein a little shorter than the width of the warp. Then if necessary some of the warp-ends at the edges may be omitted in weaving. This is easier than adding warp-ends, and though it may result in wasting a few threads of the warp it will save a lot of time.

The weft-material should be wound over the wires in a continuous thread to make a skein -- simply 'round and 'round, without a cross or "lease." It is important to make each turn with exactly the same tension for if some of the threads are loose while others are tight the pattern will be distorted.

All the weft material may be wound over the bars in this manner before starting the tying, but I found it easier to wind each strand of four or six ends separately, attaching the free end of the weft material to the bar by a loop-knot while I made the ties. I do not know which method is pre-

ferred by the Guatemalan and Cambodian weavers. It is a matter of convenience and one may take ones choice.

For my experiments I used coarse materials, as it is easier to see what happens. I tried the thing first with rags, cut quite narrow, and sacrificed an old sheet to the good cause. I got a pattern, but when all was said and done the thing was still just a rag rug and seemed hardly worth the trouble.

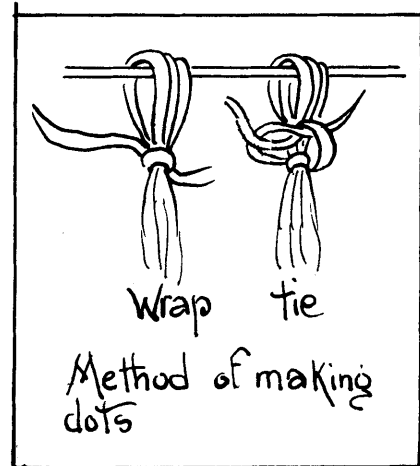
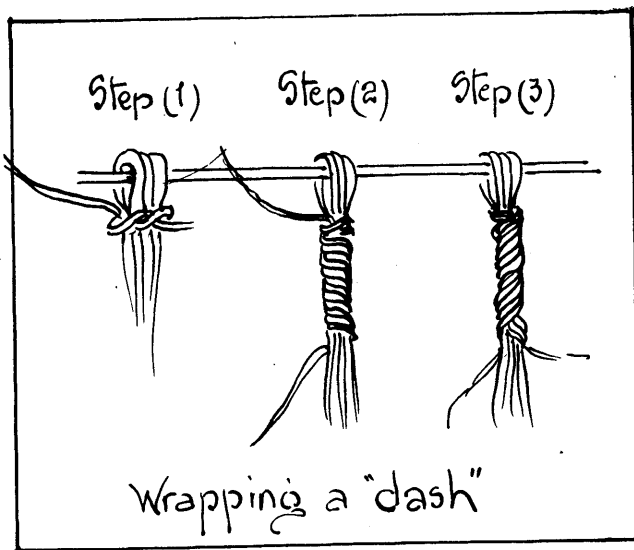
I next used the light-weight cotton rug-yarn supplied by Lily Mills and got much handsomer results. I tied this material in strands of six ends, but four ends would have been better. In fine material one might use strands of eight or more ends. I tried using length of rag for making the ties, but found this unsatisfactory as it is impossible to wrap and tie tight enough to keep out all the dye. I got much better results when I used lengths of the rug-cotton for the purpose.

Patterns in this techniqe are made up of small dots and of wrapped "dashes", and the figures may be as elaborate as one chooses. The dots may be made as illustrated: wrap the tying material once or twice around the strand and tie the ends. Make both the wrapping and the tie as tight as possible. It is the compression rather than the thickness of the wrapping that protects the material from the dye.

The method I used in wrapping the dashes is illustrated below. For a dash about an inch and a half long I used a 14" length of wrapping material. I tied this at the center at one end of the proposed dash and then wound one end for the length required, winding the other end over the first in the opposite direction. At the end I tied the two ends together. This wrapping must be done with precision, and -- I repeat -- as tight as possible.

The illustration on the opposite page shows the frame and the simple pattern I used, tied on 17 strands. Of course the pattern might be repeated as desired.

When the wrapping and tying is complete a cord should be run through the loops at either end of the skein and tied as indicated on the sketch. It saves time to lay these cords along the bars before winding the weft-skein and winding over both the cord and the bar at the same time.



The skein may now be taken off the bars and dyed by any method one chooses. Of the "drug-store" dyes that are easily available I have found the Putnam dyes more reliable than any of the others. A dark color should be used to get the most effective results. The Guatemalan pieces I have seen have all been dyed in dark blue over white. This may be tradition or merely chance. Of course the material may be colored if one chooses -- instead of white -- with the dyeing in a much darker color.

In order not to boil the material a long time I used more dye-stuff than

The directions call for, and boiled the material only ten minutes.

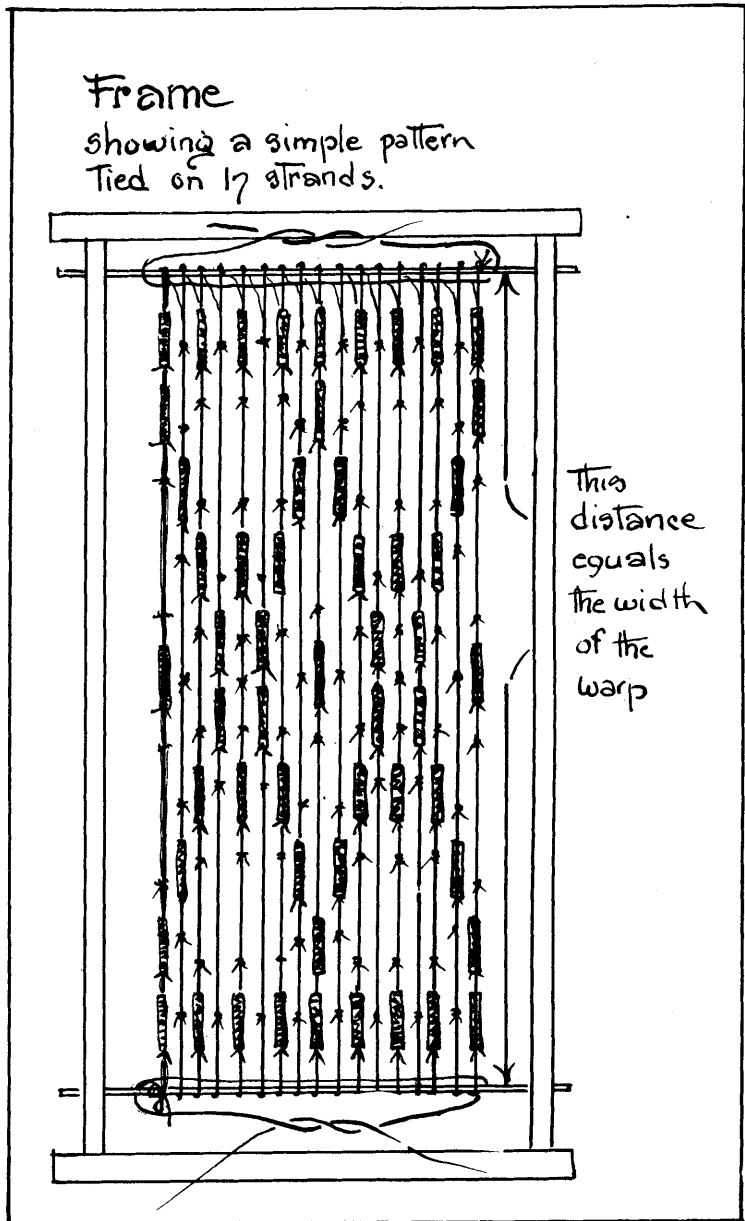
After the skein is dyed, thoroughly rinsed and dried, the wrappings may be removed. This must be done with care not to cut the material. When all the wrappings are off, the skein may be put on a swift or winder and wound off into a ball or directly on the shuttles.

If the weave is to be plain tabby the warp should be set far enough apart to allow beating up the weft to cover the warp. A rather better way is to thread the warp: 1,2,3,4, (twill) and weave a double tabby on 1-2 and 3-4.

In most of the Guatemalan pieces the jasje effect is not used as an all-over effect, but in stripes of various widths, set off by stripes in plain color -- usually several brilliant colors. This makes the effect far more lively, and also saves time, as only part of the weft is tie-dyed. I have one sample in which each group of tie-dyed threads -- in this case six -- is separated from the next strand by ten shots in a lighter blue in plain color, the whole feature being set off from the next by bands of plain color in green, yellow, red and dark blue.

The jasje effect is extremely bold and striking. If one wishes to tone it down a bit and give it a bit of mystery, the weft may be woven a trifle off-center, so that the dots and dashes do not register exactly one over the other. The effect is to produce a smaller plain block with a shading on each side. I rather prefer this effect to the sharper and more definite effect of making the weft-shots register exactly.

One thing I tried in my experimenting is so childishly simple that I hesitate to suggest it. Though we sometimes feel like making something pretty and effective with as little time and trouble as possible and this may appeal. There is in the stores a crochet cotton known as "space-dyed" cotton which shows dashes -- usually in two colors and white -- that suggests a tie-dyed yarn. The kind I got was Coates, and I found it at Penny stores and ten-cent stores. My idea was that this material might be woven to produce figures of some kind. In that I was disappointed, as the dashes of color are too long. However when woven as follows I got a pleasing effect that could be used for window drapery, a table set for the breakfast table, or even for summer bags.



I used a 10/3 cotton warp set at 12 ends to the inch, and wove in plain tabby as follows: Border, four or five inches, using the space-dyed cotton for all shots; then two or three inches with one shot plain white followed by two shots in the s-d material; after that a section woven with two shots plain white to one shot in s-d; next a section woven with four shots plain white to one shot in s-d; then six plain white to one s-d; finally eight shots white to one s-d. For a curtain the number of white shots might be increased regularly in this manner to the top of the curtain. For a runner the weaving should be reversed from the eight to 1 section back to the border. The space-dyed material woven in this manner does not produce a distinct figure, but as the dyeing is regular one gets a vague effect of pattern -- enough to kill the deadly "hit and miss" effect that is usually so distressing.

For table pieces done in this manner the warp should be set closer, of course. A #10 mercerized set at 24 to the inch and woven in a double tabby -- 1-2 and 3-4 alternately on a 1,2,3,4 twill threading -- would be suitable. Or a coarser warp might be used. For a bag one should begin with the eight to one effect graduated to the solid weaving in s-d for the bottom of the bag.

The space-dyed material is supplied in many varieties. The shaded effects and the effects in very pale colors are not very interesting when woven this way. Choose a material with strong colors and sharply defined color sections. If one prefers, a weft in one of the colors of the s-d material may be used instead of plain white.

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A book-note: The invaluable "Encyclopedia of Knots and Fancy Rope Work" that used to sell for \$10.00 (and well worth the price) may now be had for \$5.00. This seems to me a book that no weaver's library should be without. The interesting book in which I found the illustration of the Cambodian frame for tied-dyeing is called "Tools and Toys of Stitchery," by Gertrude Whiting. The title of this book seems to suggest sewing and embroidery, and is misleading as the book contains delightful pictures of textile tools and equipment from every country in the world. It is a beautiful book and was published at \$10.00 but -- in limited quantity -- may now be had for \$2.50 from the Wittenborn Co. 38 East 57th Street, New York, N.Y.
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Several of our weavers, who are now in the military and naval service, have sent me interesting suggestions for things we might make for service men. I am making experiments and expect to have specific directions for approved projects. Fabric for shirts and medium weight scarves seem to lead the list. These, of course, must be of wool in o.d. color. It is not altogether easy to find suitable material, but Mr. Paul Bernat writes me that small quantities of the excellent "fabri" yarn are coming through from the manufacturers from time to time and can be supplied in the o.d. color. He suggests that those who wish some of this yarn get in their orders -- for not less than two pounds -- as promptly as possible. Orders will be filled when the yarn is available.

On the more frivolous side, it is suggested that shoe-bags-- especially for service men stationed at dry, dusty camps,-- would be very acceptable. These need not be in the o.d. color, but may be as gay as desired. I recall from my own army service that service men who live surrounded by the rather depressing o.d. color become color-starved, so this would be an opportunity to provide a bit of bright color to camp life. Fabric covered boxes for stationary and oddments may also be gay in color. A suggestion that will appeal to the braiding and inking group is this: service men must wear their "dog-tags" at all times. They are issued a narrow white cotton tape by which these tags are hung about the neck, but many purchase chains or round cords to use instead. A braided cord or a narrow inkle, or a narrow strip of card-weaving would be excellent. These things need not be in o.d.. Belts, too, are suggested. The "issue" belts are satisfactory, but only one is supplied. Those offered for sale are very poor. I am making up samples of these things in different techniques and shall send them to our service men to be passed upon. I hope to have the results for the April Bulletin. Meanwhile Guild members may wish to do a bit of experimenting on their own account.

May M. Atwater

THE SHUTTLE-CRAFT GUILD

BULLETIN



for

Basin, Montana

April, 1943

The year turns toward spring again, though here in the mountains it is still winter. But even here there will soon be little purple pasque-flowers among the rocks of the hillsides, and a mist of green among the willows along the creek. A mental picture that always means "spring" to me is a glimpse of gay curtains billowing at open windows in a lusty warm breeze, and perhaps that is why we usually have a pattern for window drapery in one of our spring Bulletins.

The little pattern^s given at (a) on the diagram will, I think, be found very pleasant for new spring curtains. It weaves an effect of openwork squares between stripes of tabby and might, of course, be woven all of one color, but the use of four colors as indicated gives a gay and attractive effect. The weave is from a sample sent in by one of our members. The sample was in fine wool, but the effect in the "soft-spun" cotton seems to me much handsomer -- even if the wool were available.

At 18 ends to the inch a 10 yard warp 36" wide would take about a pound and three quarters of soft-twist cotton -- half a pound of blue and one and a quarter pounds in the linen shade, if set up as suggested on the diagram. As this is a "50-50" weave, the quantities for weft would be the same. Actually, of course, a little less weft than warp is required, as there is unavoidable warp-wastage. At a different setting the quantities of warp and weft would of course be different.

This seems a good time to make a few remarks about warp-settings, and to repeat what I have said so often that it seems to me like a parrot-song. It seems to need repeating at intervals: No one factor affects the result of ones weaving as much as the setting of the warp. If the warp is set incorrectly the fabric will be unsatisfactory, no matter how well the colors are arranged and no matter how perfectly the weaving is done. No one reed will give all the variations of warp-setting we may wish to use, and it follows that unless we confine our work to a few weaves and a few warp-materials -- that suit the reed in the loom -- it is necessary to have several reeds.

At one of our summer "institutes" I was delighted to find two looms set up for patterns in the same weave and both with warps incorrectly set -- one sleyed far too close and one sleyed far too far apart. These looms provided a perfect object-lesson on warp-setting. We wove samples on each loom as set up, and then we re-sleyed correctly and wove a second set of samples. Those who saw and studied those samples are, I am sure, clear on the importance of warp-setting. I should like to suggest that Guild members make a similar experiment for themselves -- either with the little weave presented this month or with any weave they happen to have on the loom. This is worth doing.

Unfortunately no hard-and-fast rules for correct warp-setting can be supplied. The most desirable setting depends not only on the warp-material used but also on the weave and on the desired texture. It is sometimes necessary to make a number of experiments to find the setting that will give exactly the result desired. Before embarking on a large and important weaving project it is always wise to experiment in this way. It saves time in the end and prevents disappointments.

The Lily Mills Company has recently issued a leaflet containing a "Weaving Chart" listing warp-settings for the various cottons supplied by the Lily Mills. This chart will be found useful in that it lists the yardages per pound of the various cottons, but the warp-settings proposed should be taken with rather more than the proverbial "grain of salt."

This statement from the Lily leaflet: "Every warp thread gives best results when threaded for what might be called a perfect tabby setting," is, of course, the purest nonsense. A "perfect tabby setting," -- whatever that may be -- is the correct setting for the tabby weave. Not necessarily, or even probably, for any other weave. And what, one might ask, might be considered a "perfect tabby setting?" A light, open, tabby fabric and a very close hard-beater tabby are equally "perfect" if warp and tabby are equal, but the settings are of course entirely different.

The chart also lists various weaves and types of fabric as suitable for the different cotton yarns. Is one to infer that all of these fabrics are to be woven in a "perfect tabby?" For most of the weaves listed a tabby set-up, no matter how "perfect", would be entirely unsuitable.

I am led to make these criticisms of the Lily chart because it has no doubt been sent to many of our members and may cause confusion and disappointment. It may also be useful to note that the weave shown on page five of the same leaflet is not "summer-and-winter" weave, as stated, and that the result illustrated would not result from the treadeling and tie-up given. The rest of the leaflet is devoted to our old friend "Honeysuckle". The draft on page 7 is an unusual writing of the Honeysuckle pattern, but it is Honeysuckle nevertheless. A weaver unfamiliar with draft-writing might put this threading on the loom expecting something different and feel disappointed to see the result.

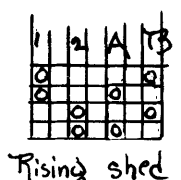
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I have been devoting most of my time recently to experiments with weaving for our service men, along the lines of the suggestions received. After a number of experiments I finally arrived at what has been passed on as an entirely satisfactory scarf. For this I used a high-grade worsted 20/2 yarn in o.d. color, at a setting of 20 ends to the inch. The threading I used was the small dornik threading given on the diagram. I set the warp 11" wide in the reed which made the finished scarf 10" wide. At each end I wove a border like this: a few shots on A and B for a heading. Then 1,2,3,4, twice. Then A and B alternately for seven shots, with a double thread on the eighth shot. I repeated this three times. Then 1,2,3,4 for 16 shots. And the A and B feature repeated. After that I wove the body of the scarf all the way in 1,2,3,4 order. I did all the weaving with a very light beat. To get a light beat and avoid streakiness it is a good idea to allow the shed to close each time before bringing the batten gently against the web. I wove the scarf a yard and a half long, including the borders. There was a lot of shrinkage, of course, in the washing. The finished scarf was not much over a yard and a quarter long. The yarn used was soft and felted nicely in the washing, so that it was unnecessary to finish the ends in any way. I simply cut the ends about half an inch below the heading. There was no tendency to ravel.

For a scarf in Bernat's "fabri" a setting of 18 to the inch would give similar results, though the scarf would not be as light and soft as with the 20/2 yarn. I had difficulty in obtaining the fine yarn I used, and was requested not to give the address in the Bulletin. However I may be able to get some of this material for Guild members if they wish. The yarn comes on large cones weighing a little over two pounds, and the price is \$3.50 a pound. This is a high price, of course, but the yardage is high and the cost per scarf is not great. A pound of this yarn would make about eight of these scarves. And though the yarn is fine and soft, I had no trouble with it as a warp. I used no dressing other than a dampening with water, and in eight yards of weaving had only one broken warp-end.

I am making a shirt-fabric of the same yarn, at a setting of 30 ends to the inch, woven in tabby. I made up a set of samples at 40, 36 and 30 ends to the inch, woven in tabby, 2-2 twill and 3-1 twill, and sent the samples to several of our service men. They thought the closer settings gave too heavy a fabric, and preferred the tabby weave to twill as it would give a more tailored effect than twill. For officers' dress shirts, however, a dark tan shade is

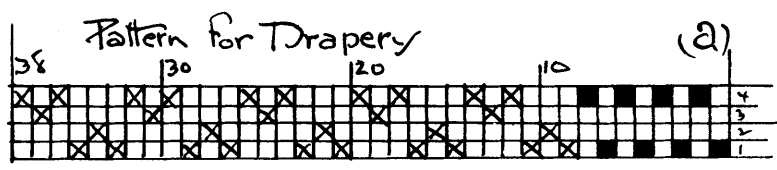
Page three



Rising shed



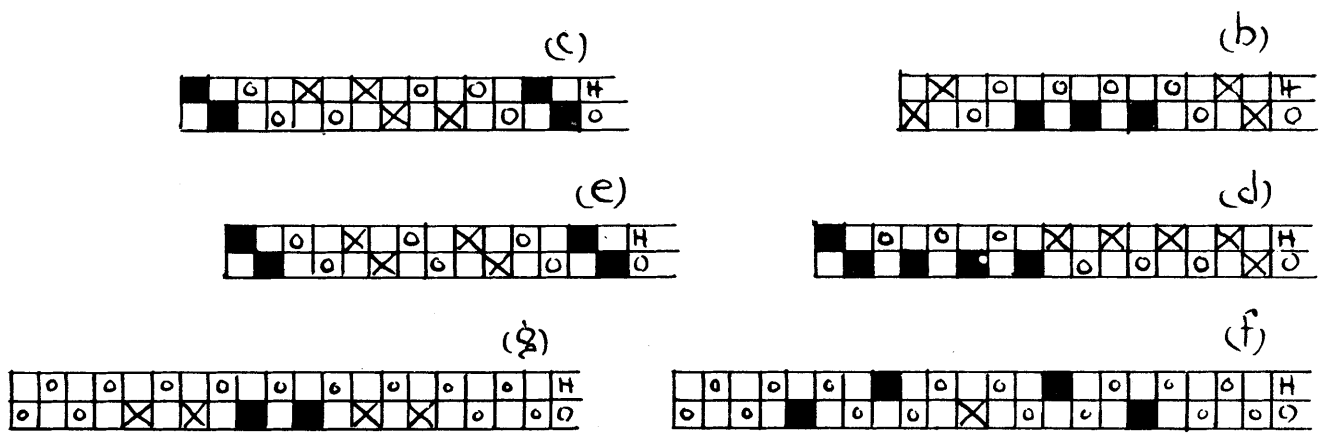
Sinking shed



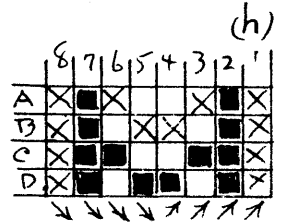
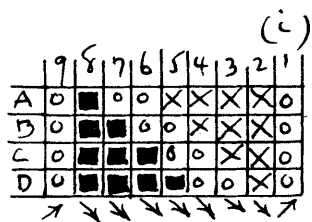
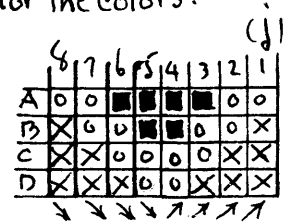
Warp, (suggested) Lily's "soft-spun" 20/6 cotton in two colors:
 ■ Blue, ☒ "Lincn" color; setting 18 ends to the inch.

Wef, same material; colors, dark blue and Tan
 Weave: Treadle A, treadle B, alternately for 8 shots — in dark blue
 Treadles: A, 1, A, B, 2, B, — repeat five times — in tan

For a more open fabric, get the warp at 15 or 16 ends to the inch and weave the same number of weft-Shots to the inch
 Any preferred colors may be used.



Patterns (b), (c), (d) and (e) are for "Dog-Tag" inkles in plain weave. For material use Lily's "soft-spun" 20/6 cotton in ☒ red, ☒ white and ■, — or other colors if preferred. Use the soft-spun also for weft — in the color of the edge threads.
 Patterns (f) and (g) are for dog-tag inkles in pick-up pattern techniques as given in the Inkle pamphlet. Use 20/2 or 24/3 cotton for the ☒ threads and soft-spun (single) for the colors.



Patterns (h), (i), (j), for dog-tag tapes in cord weaving. Material 20/2 cotton or similar.

"regulation." The o.d. color is used for work-shirts only. For neckties the proper color is a light tan, known as "tan No.5". So far I have been unable to find the fine yarn in these colors, but I am searching. The o.d. color is said to be "o.k." for the scarves.

A shirt fabric in fabri yarn woven in tabby at 24 to the inch would be satisfactory, though the finer yarn is better.

I also experimented with the little braided cords and woven "inkles" suggested for the "dog-tag" cords. I made a number in different lengths -- braided woven in various ways, in a variety of colors, -- and sent the result to one of our service men. The opinions collected appeared to favor the narrowest tapes woven on the inkle loom, and the brighter the colors the better, though of course first choice, as might be expected, was for a red, white and blue combination. As to length: from 28" to 31" seemed to be correct. I finished the ends of the tapes by making two small braids of the warp-ends -- about an inch and a half long. The tags can be attached to the tape by these braids. On the diagram I am giving several threadings for these little inkles, and also some threadings for narrow card-weavings, which are also acceptable, -- though a bit stiffer and thicker than the inkles. The round braided cords I submitted with my samples aroused no enthusiasm, and as they take longer to make than the woven bands I do not recommend them.

The material used for the inkles in plain weave was Lily's "soft-spun, and I used the same material -- single -- for the band in pick-up pattern weaving, but in this piece the white threads were 24/3 cotton. For the card-woven band I used Bernat's "Perugian" cotton. For all I used the soft-spun cotton as weft. The little bands should be not over a quarter of an inch wide.

The dog-tag ribbons may seem a frivolous war-weaving project, but they are interesting to make and the service men enjoy having them -- and most of us have a soldier or two for whom we like to do little special jobs. Even a hidden bit of color like this means a good deal to a color-starved man in o.d.. This seems to me much better worth doing than a good deal of the "war work" one sees going on. I hope Guild members will agree with me.

The neckties for service men will make a useful and interesting project when we are able to get suitable material in "tan No. 5." They are, of course, strictly tailored ties of the four-in-hand style, and may be of cotton or fine wool. The weave is tabby, but a sample I made in a basket weave effect with a double tabby also found favor. I have samples of the ties and will be glad to cut patterns for those who wish them.

I am also experimenting with a weave for belts and though I have tried a number of things that are promising these experiments have not yet reached the point of passing information along. Perhaps Guild members of the experimental turn of mind will feel like working on the problem. The sample belt sent me is of a coarse cotton in tan No. 5 woven to make a thick, stiff fabric. No pattern. I am told that the government "issue" belts are satisfactory, but a man is allowed only one. The belts offered for sale are inferior and if we could produce something better it would be appreciated.

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Mr. Paul Bernat writes that the Bernat Company can supply fabri yarn in limited quantities -- on orders for not less than two pounds,--and can dye it to the proper color for officers' dress shirts and in the tan No. 5 shade for neckties.

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For the information of new members: woven samples of this month's drapery fabric, as of each month's patterns, may be obtained from Mrs. Maybelle Cano, 2016 Castillo Street, Santa Barbara, California.

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Mary M. Atwater

THE SHUTTLE - CRAFT GUILD

BULLETIN



for

Basin, Montana

May, 1943

It happens that several Guild members have written me recently about exhibitions of hand-weaving -- to say they have been asked to arrange such an exhibit and find it difficult to find outstanding work of sufficient interest, or write of having been disappointed on visiting exhibitions to find the work shown so commonplace.

This seems a pity, for there is a growing interest in hand-weaving and one of the best ways to let people know about our art is by showing our work. But I fear it is true that all too few of us are turning out distinguished weavings of exhibition quality. Not that we couldn't do it, if we chose. Why don't we? I'd like to suggest that each member of the Guild plan now to produce one really outstanding piece of work this year, so that if and when we are invited to participate in an exhibition we shall have something suitable to contribute. In a way, we owe it to our craft.

An exhibition piece need not be large or elaborate. It should, however, be beautiful, and excellent in workmanship. If it can also be unusual, so much the better. But by unusual, I do not mean queer. I do not favor what might be called the "boogy-woogy" school of thought in art. I don't favor weaving into a fabric unsuitable substances as, say, cockle-burrs or spaghetti, any more than I care to hear a pianist render the moonlight sonata with interpolations of train-whistles and bells. A piece of weaving must first of all be an honest textile fabric or its nothing much.

Originality, though, is not necessary for the production of distinguished work. Many of our Guild members will recall the exquisite linens in the Spanish open-work technique made by Mrs. Gertrude W. Howells -- whose death not long ago was a great loss to our craft. Mrs. Howells' work was strictly classic in design and execution and could not be called "original," but it was so beautiful in plan and execution that every piece she made was of "exhibition" quality. We can all do distinguished work if we will. Why don't we? -- at least once a year.

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My own time this past month has been devoted to a rather harrowing series of experiments to find a good use for the coarse soft-spun 4/4 cotton recently put on the market by the Lily Mills Co.. It seemed to me a clumsy material for most of our familiar weaves, so I tried it finally in the "shadow" weave introduced some months ago through the Bulletin. Here it seemed to fit in -- not as a substitute for wool, but on its own merits. I am suggesting it for a couch-blanket, an automobile blanket, or for a summer-camp coverlet.

Lily lists this material as "Art. 1014" and it comes in a good range of colors. "Thrifty-knit" cotton, (Lily's Art. 514) can be used in the same way for the same purposes and makes a harder, less fuzzy fabric. I prefer the latter, myself, but it is a matter of taste.

The shadow-weave patterns may, of course, be used for blankets done in Germantown or coarse knitting worsted, if one can obtain the material, and are suitable also for upholstery done in mercerized cotton as explained in a previous Bulletin.

The patterns in this weave depend on the use of two colors, light and dark, and there should be a good deal of contrast to make the result effective. The same two colors may be used in both warp and weft, but I find a rather more pleasing result can be obtained by using three or four colors -- for instance maroon and cream in the warp and black and linen color in the weft. Or the same light color in both warp and weft with two dark colors; or the same dark color throughout with two different light shades.

A warp-setting of 10 ends to the inch suits the 4/4 cotton best. The thrifty-knit cotton may be used at the same setting or at 12 ends to the inch if one wishes a closer weave. For a couch-blanket set 42" wide and woven about two and a half yards long about three pounds of cotton will be required.

The shadow weave is among the more occult of our weaves and cannot be worked out successfully on paper in the ordinary way. It is really necessary "to see it to believe it." And the correct treadelings are somewhat confusing, so I am giving treadelings in detail. Of course each of the threadings may be woven in a variety of ways, but those given may be considered "normal."

For the eight-harness patterns, if the suggested border threading is used, weave the bottom border this way: treadles 1 and 5 alternately, in the dark color, for the number of dark threads in the border warp; then for nine shots in the light color.

Weave Pattern No. 1

treadle	5, dk
"	2 lt, 6 "
"	3 " 7 "
"	4 " 8 "
"	5 " 1 "
"	6 " 2 "
"	7 " 3 "
"	8 " 4 "
"	1 " 5 "
"	2 " 6 "
"	3 " 7 "
"	4 " 8 "
"	5 "
"	8 dk 4lt
"	7 " 3 "
"	6 " 2 "
"	5 "
"	2 lt 6 dk
"	3 " 7 "
"	4 " 8 "
"	5 "
"	8 dk 4 lt
"	7 " 3 "
"	6 " 2 "
"	5 "
"	4 " 8 "
"	3 " 7 "
"	2 " 6 "
"	1 " 5 "
"	8 " 4 "
"	7 " 3 "
"	6 " 2 "
"	5 "
"	2 lt 6 dk
"	3 " 7 "
"	4 " 8 "
"	5 "
"	8 dk 4 lt
"	7 " 3 "
"	6 " 2 "

Repeat.

Pattern No. 2

First figure:

treadle	5 dk	1 lt
"	6 " 2 "	
"	7 " 3 "	
"	8 " 4 "	
"	1 " 5 "	
"	2 " 6 "	
"	3 " 7 "	
"	4 " 8 "	
"	5 " center	
"	8 lt 4 dk	
"	7 " 3 "	
"	6 " 2 "	
"	5 " 1 "	
"	4 " 8 "	
"	3 " 7 "	
"	2 " 6 "	
"	1 " 5 "	

Second figure

treadle	1 dk	5 lt
"	2 " 6 "	
"	3 " 7 "	
"	4 " 8 "	
"	5 " 1 "	
"	6 " 2 "	
"	7 " 3 "	
"	8 " 4 "	
"	1 " center	
"	4 lt 8 dk	
"	3 " 7 "	
"	2 " 6 "	
"	1 " 5 "	
"	8 " 4 "	
"	7 " 3 "	
"	6 " 2 "	
"	5 " 1 "	

Repeat

Pattern No. 3

First figure

treadle	1 dk	5lt
"	2 " 6 "	
"	3 " 7 "	
"	4 " 8 "	
"	5 " center	
"	8lt 4 dk	
"	7 " 3 "	
"	6 " 2 "	
"	5 " 1 "	

Second figure

treadle	5 dk
"	2 lt 6 "
"	3 " 7 "
"	4 " 8 "
"	5 " center
"	8 dk 4 lt
"	7 " 3 "
"	6 " 2 "
"	5 "

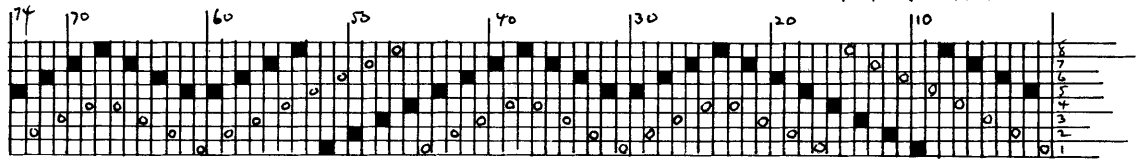
Repeat.

Pattern No. 4

treadle	1 dk	5 lt
"	2 " 6 "	
"	3 " 7 "	
"	4 " 8 "	
"	5 " 1 "	
"	6 " 2 "	
"	7 " 3 "	
"	8 " 4 "	
"	1 " 5 "	
"	2 " 6 "	
"	3 " 7 "	
"	4 " 8 "	
"	5 " 1 "	
"	6 " 2 "	
"	7 " 3 "	
"	8 " 4 "	
"	1 " 5 "	
"	2 " 6 "	
"	3 " 7 "	
"	4 " 8 "	
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"	1 " 5 "	
"	2 " 6 "	

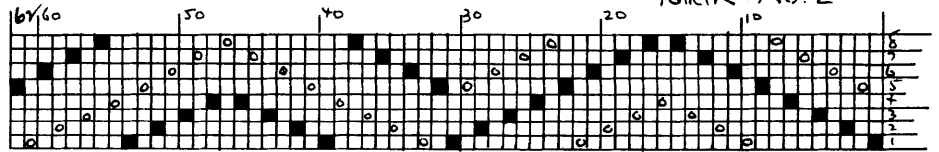
Repeat.

Pattern No. 1

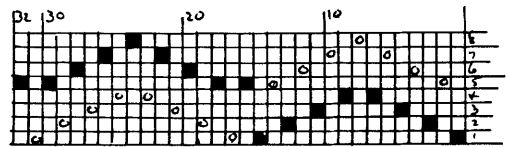


■ Dark color
□ Light color

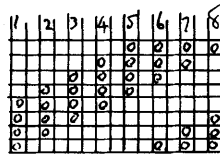
Pattern No. 2



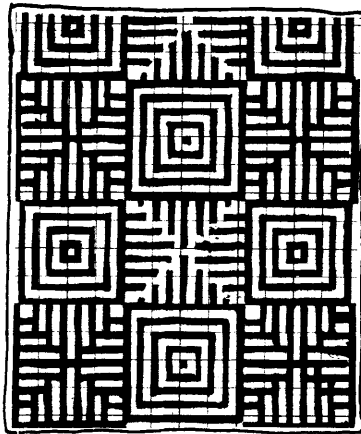
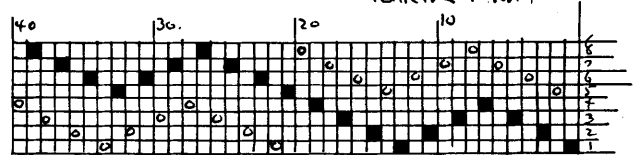
Pattern No. 3



Tie-up, — patterns
1-4, Rising shed

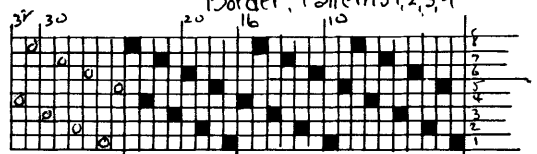


Pattern No. 4



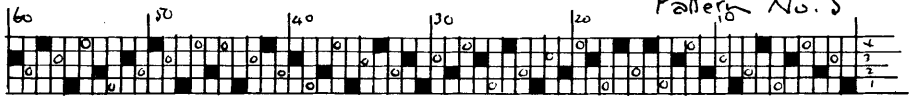
Pattern No. 3

Border, Patterns 1, 2, 3, 4

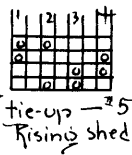
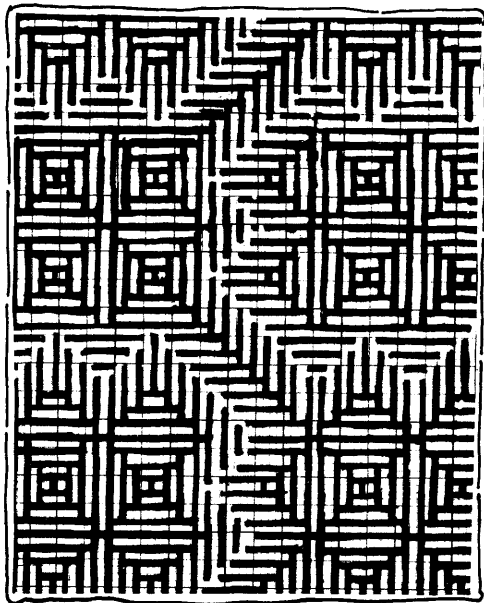


← Repeat as desired →

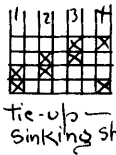
Pattern No. 5



Pattern No. 1

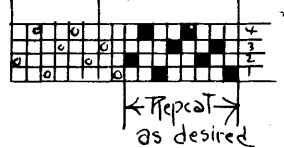


tie-up — 5
Rising shed

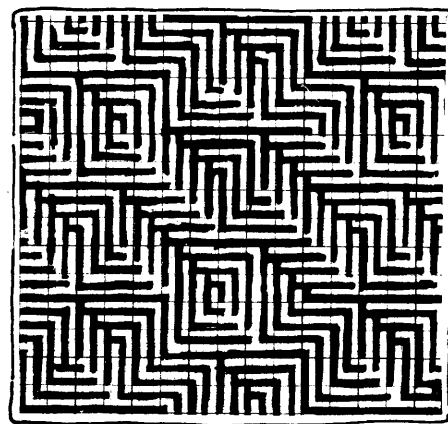


tie-up — 5
Sinking shed

Border, Pattern 5



← Repeat as desired →



Pattern No. 4.

Weave Pattern No. 5
First Figure

treadle	1 dk,	3 lt	} twice
"	2 "	4 "	
"	3 "	1 "	
"	4 "	2 "	
"	1 "		
"	2 lt	4 dk	} twice
"	1 "	3 "	
"	4 "	2 "	
"	3 "	1 "	
"	3 "		

Second figure

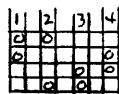
treadle	1 lt	3 dk	} twice
"	2 "	4 "	
"	3 "	1 "	
"	4 "	2 "	
"	1 "		
"	2 dk	4 lt	} twice
"	1 "	3 "	
"	4 "	2 "	
"	3 "	1 "	
"	3 "		

Repeat

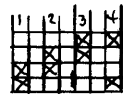
This four-harness pattern has an effect quite different from that of the eight-harness patterns, but makes an interesting weave for a blanket. A four-harness draft that produces an effect similar to Pattern No. 2 will be included in the June Bulletin if space permits.

The "dornik" threading referred to for scarves in the April Bulletin was not given on the diagram last month as it has been printed so often, but as there have been inquiries about it, it is given again below. It is, of course, a herringbone threading with two threads omitted. When the ordinary herringbone pattern is used for a suiting or scarf the three-thread skip that occurs at the "return" mars the smooth effect of the fabric. This is avoided by using the dornik threading. The treadeling, of course, is the same as for 2-2 twill.

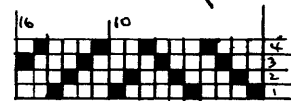
Rising Shed



Sinking Shed



Dornik



It has been decided not to hold the "work shop" at Berkeley again this summer as planned, -- due to war-conditions. The war, of course, is the chief job for everyone till victory is ours and peace returns. When that happy time comes perhaps we can hold our meeting again.

I shall, however, be at the Montana State University at Missoula, Montana, for two weeks during the summer session -- June 14--26. I shall give instruction chiefly in the weaving crafts used in occupational therapy: card-weaving, inkle weaving, braiding, knotting, plaiting, etc., -- but shall also give instruction on hand-loom weaving to those who prefer, and to the limit of the available equipment. Will those who wish to attend kindly write Mrs. Belle Bateman, 535 Keith Avenue, Missoula, Montana for terms and further information.

The second lesson of our Occupational Therapy course by correspondence is now ready. It covers use of the inkle loom and the hole-and-slot heddle. The material includes a pamphlet of patterns and instructions, special notes and diagrams, samples, etc.. This lesson may be purchased separately from the rest of the course if desired. The price is \$5.00, -- \$4.00 to those who already have the pamphlet "How to Weave on the Inkle Loom."

We have a number of new members, and for their information: samples of the weaves and patterns given in the Bulletin may be obtained from Mrs. Maybelle Gano, 2016 Castillo Street, Santa Barbara, California.

Here is an address for those who wish to dye with professional dye-stuffs; The Ciba Company, Inc., P.O.Box 25, Station C., New York, N.Y.. The smallest quantity supplied is one pound.

Mary M. Atwater

THE SHUTTLE - CRAFT GUILD

BULLETIN



for

Basin, Montana

June, 1943

I have, from time to time, received a number of questions dealing with the so-called "miniature" patterns. Just what is meant by a "miniature" pattern? Why do people want these small patterns? For what purposes may they be used? How should they be written and treadled?

By "miniature" patterns people appear to mean Colonial coverlet patterns in the overshot weave reduced in size as much as possible. To be considered a miniature the longest skips should be over four threads.

Just why people wish to reduce the ancient patterns in this manner I do not altogether know. It is quite impossible in these reductions to preserve the quality of the old figures for a number of reasons: The effect of a pattern is not merely in the sequence of blocks, but also in the proportions of large blocks to small, the proportions of background tabby and half-tone to the figure, and the rich effect of long skips of pattern weft. In the reductions it is usually quite impossible to preserve any of these proportions. There is often very little background and practically no half-tone, and the special quality of the overshot weave goes lost when all the skips are short. To be frank about it, I very much dislike the practise of "writing down" the old patterns in this manner. The results are neither Colonial nor modern, nor -- in my opinion -- attractive. But of course this is a matter of taste.

There is, of course, for many people a charm in miniature -- miniature trains, ship-models, tiny images of birds, animals and people. One might wish to weave a miniature coverlet for a miniature four-poster in a Colonial doll-house. This would seem to me a legitimate use for a miniature draft of a Colonial coverlet pattern. But this is a very limited use. I have also seen tiny tapes and book-marks woven in very fine silks in a miniature pattern that were dainty and pretty, though rather useless. This seems legitimate enough also, if one wishes to make such things.

But some people use these small drafts simply to reduce the size of the figure when woven over a coarse warp. This seems to me extremely poor practise. The quality of the overshot weave depends on a certain balance of material -- a fine warp and tabby, making a firm background, with the pattern in skips of a much heavier, much richer material. When a coarse warp is used, the pattern weft must be extremely coarse to preserve this balance, and the resulting fabric is apt to be clumsy, even for a rug. To weave it in a small figure certainly does not help the effect. If a coarse warp is used with a pattern weft only a little heavier, the result will be "warpy" and rather repulsive. So, if you must use a miniature draft, weave it over an extremely fine warp and tabby.

Another use for very small patterns is in making fabrics for upholstery and drapery, -- to give a fine all-over "texture" effect rather than a definite effect of pattern. This is legitimate enough, if successful. There are, however, a great many weaves better adapted for the purpose than the overshot weave, no matter how small the pattern used. The smallest pattern blocks, those of two-thread skips, tend to merge with the foundation and the four-thread skips stand out in little lumps that do not appear as part of the pattern but look more like mistakes in weaving. As a texture effect this seems to me singularly lacking in charm.

The drafts are easy enough to write -- anybody can do it. Simply make all the smallest blocks with two-thread skips, like the skips of a twill, with three threads of course on the centers; make all the large blocks with four-thread skips. I suggest proving the result on paper before putting your draft on the loom, however, for some of these effects are very unsatisfactory.

The pattern weft used must be carefully chosen to make the figures square. If the weft is too coarse the figure will be distorted lengthwise. In ordinary patterns it is possible to vary the number of weft shots when required to bring the pattern square, but of course it is impossible to use less than one shot of weft, and if this shot is too coarse to square the two-thread skips correctly, the pattern cannot be woven correctly at all.

The order of treadeling, of course, is the same as for a larger version of an overshot pattern. Of the three "miniature" drafts given at (a), (b), and (c) on the diagram, (a) and (d) are shown as when woven as drawn in and treadeling directions are unnecessary. Pattern (b) is shown as woven "rose-fashion" and the treadeling is given on the draft. This threading may also, of course, be woven as drawn in, when a star instead of a rose will result.

Pattern (a) would be suitable for a doll-bed coverlet. This pattern might also be used for the center of a very small pincushion, the edges being threaded in twill for an inch or two on either side. On a fine warp set at 40 ends to the inch, this threading will make a figure about $1\frac{3}{4}$ " square. Pattern (b) would have a repeat of $\frac{1}{2}$ " and pattern (c) a repeat of 1". Pattern (c) might be used for upholstery over a somewhat coarser warp, but as noted above, in my opinion a different weave would give a more interesting and attractive fabric. In fact I do not recommend these drafts for anything except miniature weaving, done in extremely fine material. In these days when dress-trimmings of all kinds are pretty well off the market it may be that narrow bands woven in "miniature" might be used as edgings on childrens clothes and the like, though for this and similar purposes the bands woven on the little inkle loom or made in card-weaving are handsomer and more practical in my opinion.

At (d) and (e) on the diagram are given two four-harness patterns in the "shadow weave" that, for lack of space, could not be included with the Bulletin for May. Pattern (d) has somewhat the same effect as the eight-harness pattern No. 2 in the May Bulletin. The illustration showing the eight-harness pattern is also given on the diagram. The draft at (e) is a four-harness version of pattern No. 4 in the May Bulletin. Notes on material, setting in the reed, and uses for these shadow weave patterns were given in May and need not be repeated.

Treadle pattern (d) as follows:

First figure

treadle 1, dark; 3, light -- twice

" 2 " 4 " "

" 3 " 1 " "

" 4 " 2 " "

" 1 " 3 " "

" 1 " (center)

" 2, light, 4, dark -- twice

" 1 " 3 " "

" 4 " 2 " "

" 3 " 1 " "

Second figure:

3, dark; 1, light -- twice

4 " 2 " "

1 " 3 " "

2 " 4 " "

3 " 1 " "

3 " (center)

4, light; 2, dark -- twice

3 " 1 " "

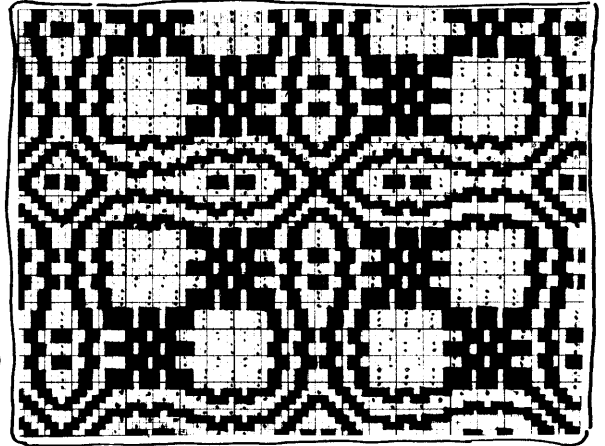
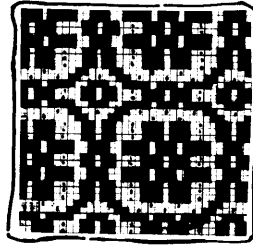
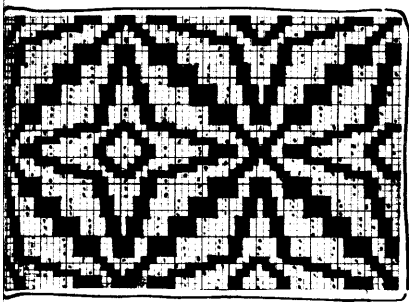
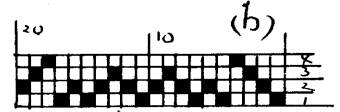
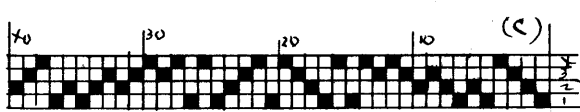
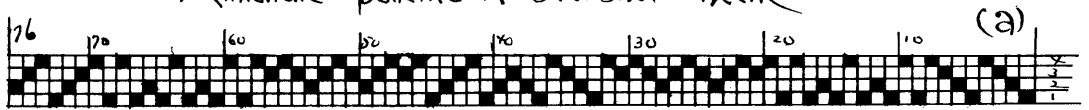
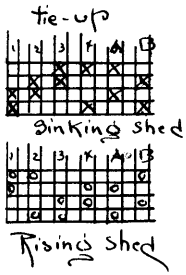
2 " 4 " "

1 " 3 " "

Of course the pattern may be treadled in many variations, but this treadeling produces the effect as sketched. A quite interesting effect results from repeating the first four pairs of shots of the treadeling as given, for instance.

Page Three

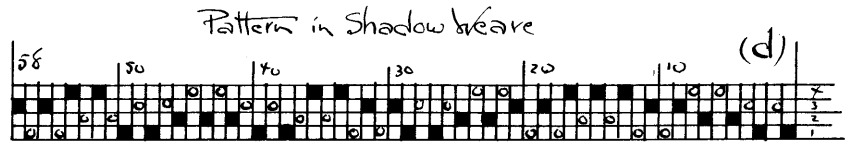
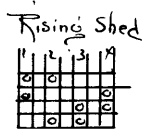
"Miniature" patterns in Overshot Weave



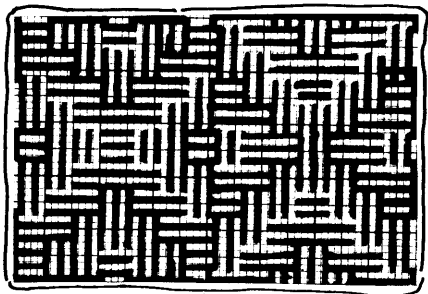
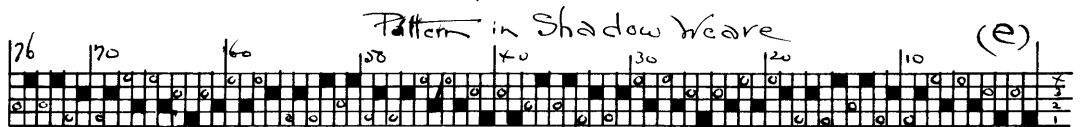
(c)

Weave (b): Treadle 1, once
 " 4, "
 " 3, "
 " 2, 3 shots
 " 1, 2 "
 " 2, 2 "
 " 1, 2 "

Treadle 2, 3 shots
 " 3, once
 " 4, "
 " 1, "
 " 2, 2 shots
 Repeat

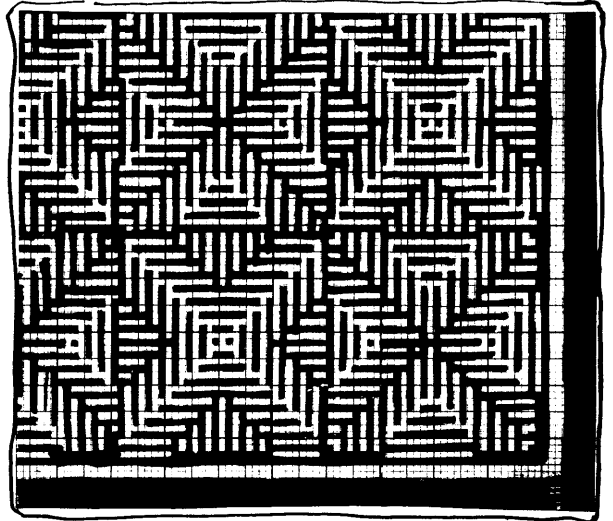


■ Dark colored warp-ends □



(d)

Illustration
 Showing
 Pattern No. 2
 in the May
 Bulletin



Weave Pattern (e) as follows:

treadle	1, dark;	treadle	3, light -- twice
"	2 "	"	4 "
"	3 "	"	1 "
"	4 "	"	2 " treadle 4, dark
"	1, light;	"	3, dark -- twice
"	4 "	"	2 "
"	3 "	"	1 " treadle 3 light
"	2, dark	"	4, light -- twice
"	3 "	"	1 "
"	4 "	"	2- "
"	1 "	"	3 "
"	2 "	"	4 "
"	3 "	"	1 "
"	4 "	"	2 " treadle 4, dark
"	1, light;-	"	3, dark -- twice
"	4 "	"	2 "
"	3 "	"	1 " treadle 3, light
"	2, dark	"	4, light -- twice
"	3 "	"	1 "
"	4 "	"	2 "

Repeat;

This pattern may also, of course, be treadled in a number of different ways. The effect is distinctly of the modern type.

As explained in the Bulletin for May, four colors may be used: a dark and a light color in the warp as indicated, and a different dark color or light color, or both different shades, as weft. This weave is not effective in very fine materials, and warp and weft must be of exactly the same grist, with a setting in the reed designed for a fairly close tabby. The fabric shows no skips of more than two threads, so it is a practical fabric for upholstery, bags, blankets, scarves and dress-fabrics. The colors used should show a fairly strong contrast or the pattern effect will be lost! The eight-harness patterns are neater and clearer in outline than the four-harness versions, but the latter are interesting and unusual and also attractive.

The third "lesson" of our Guild course for occupational therapists is now ready. It deals with braiding and knotting and includes a number of simple braids used for finishing fringes, for bag-handles and the like; also the best braid for braided rugs; also an interesting Peruvian braid for making belts, the "Osage" braid for girdles, belt-knotting in the "Solomon knot" and in half-hitch work. Eleven practise samples, started for the student to finish, accompany the instructions. This material would be useful to many weavers who do not intend to use the crafts in hospital occupational therapy, though of course it is arranged especially for use by o.t. "aides." Some of the braids have been given in the Bulletin from time to time, but not in as detailed and practical a form as in this set of instructions. The fourth lesson in the series, dealing with plaiting, done over sticks, will be ready soon.

As announced last month, I shall be holding a weaving "institute" in Missoula, Montana, at the Montana State University, during the last two weeks in June. Those wishing to reach me at Missoula should address me in care of Mrs. Belle Bateman, Montana State University. Mail will also, of course, be forwarded from Basin. However I should like to ask that those who are taking my course by correspondence try to send in their work for criticism during the first part of June or hold it till July when I shall be back in Basin. There promises to be a large group in Missoula for the weaving, and the work will not be confined to the occupational therapy crafts as at first arranged. We shall also have a number of good looms to work on. Further information may be obtained from Mrs. Bateman.

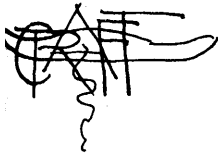
May M. Atwater

THE SHUTTLE-CRAFT GUILD

BULLETIN

for
July, 1943

Basin, Mont.



Several Guild members have expressed interest in the suggestion that we each plan to produce an "exhibition-piece" during the year, and some have asked for further suggestions.

In my opinion an exhibition piece should be planned, first and foremost, to catch the eye. It should be unusual and interesting -- even a bit fantastic if one likes. That is showmanship, of course, but an exhibition is a show, and a bit of showmanship is required. Next it should be designed to give pleasure to the beholder, and to that end it should be beautiful. Finally it should be at least adequate in workmanship to satisfy the "craftsman's conscience" of the maker and also of other craftsmen.

It is not necessary to make a large and elaborate thing on order to satisfy these conditions, but it is a good deal easier to be interesting in a large piece than in a small one. A very small piece, to be of "exhibition" quality, must needs be a real little gem. A small rectangle of linen, for instance, with a few strands of color or something shiny woven across the ends would hardly do, no matter how beautifully it might be woven. And though I won't say it is impossible to make something unusual and arresting with "Honeysuckle," -- anything is possible in art -- I think it might be well to avoid that overworked little threading.

Though excellence of workmanship is important, the saddest exhibits one sees are elaborate and perfectly executed pieces that are so poor in design and color that they lack all interest or beauty. These things are heart-breaking; one thinks of all the beautiful hours used to no very valuable purpose.

To be sure we can't all be designers. But there are plenty of good patterns available, and by taking thought any of us can make a selection, and can develop something that will give the chosen pattern a new beauty.

Perhaps color is our chief difficulty. Many people seem to be color-inhibited. They are afraid of it. "Somebody says" that such and such colors do not "go together"; they may have "read a book" with elaborate color charts; it all seems very confusing.

Color perception is the function of a highly specialized set of nerve-endings in the retina of the eye -- known as the "rods and cones." The acuteness of color perception depends on the number of these nerve-endings, and people vary greatly in this respect. It is built-in equipment, and no amount of education will alter it in the least. Of course it is necessary to have normal color perception in order to work successfully with color, but it is not necessary to have extremely acute color perception. I have known people who could distinguish variations of shade that are quite invisible to most of us, but who were completely helpless when it came to combining colors for a pleasing effect. So color vision and what is known as a "sense of color" from the point of view of art do not necessarily go together.

The "sense of color" is something that can be developed and cultivated. By working with color, looking at it, enjoying it, by not being afraid of it. I like to have a box of materials in every imaginable color close at hand when I am working so that my eye can rest on it from time to time. Now and then I stir it up to make new combinations. There is much pleasure in this. I happen to know that through a peculiarity of my own "rods and cones" my vision is more sensitive to the cold colors than to the warm shades, so I correct this by wearing a red smock at work.

The pleasure-pain reaction to color that we call a "sense of color" is largely a matter of time, place and education. It varies from country to country and from year to year. Color combinations that we find delightful today would have caused shudders of horror twenty-five years ago. It cannot be reduced to formula, and in this game there are no rules.

A good many years ago I was a student in the Chicago Art Institute School of Design, and our Master was Louis Millet -- a fine artist and an inspired teacher. One day a very earnest student came to Mr. Millet and said, "I want to make a really serious study of color. I'm willing to work hard and put in a lot of extra time. What books shall I study?"

Mr. Millet put on a very serious expression to match hers. "Have you your note-book?" he asked, -- "your pencil?" By this time the whole class had rallied 'round, of course, and dozens of note-books were fluttering. "Very well, write this down: when you want to find out whether or not certain colors will combine well in your design -- try them. If the result looks right, it is right; if it looks wrong, it is wrong. That's the only rule, and that's all you need to know about color."

Now this may seem a hard saying, but from the point of view of art it is the truth of the matter. Of course it means that one must be willing to "try" and able to "see." And to do this one must get rid of color inhibitions and superstitions.

Though there are no rules, and can be no rules, there are a few suggestions about the use of color that are useful in a practical way. The colors used in a design, for instance, should suit the pattern and fabric and purpose of the piece of weaving. As color is so much a matter of time and style, if we use a classic style we should use the color-arrangements that are as much a part of the style as the shape of the design. For instance if we make a bed-cover in a classic Colonial pattern it is advisable to use the Colonial colors. To dress up such a piece in a modernistic set of colors would be distressing. But this is a question of taste rather than of color sense, perhaps.

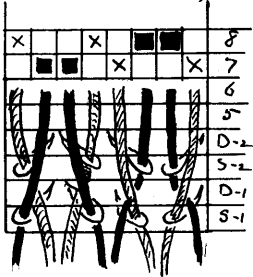
While it is true that any colors may be combined -- theoretically -- it is far more difficult to make harmonies of some colors than of others. If all colors used in a combination are of the highest intensity they can be combined almost at will, like flower-colors in a sunny garden. But to combine dull colors and "off-shades" with brilliant colors is often very difficult indeed. It is this fact that gives us some of our unpleasant surprises in weaving, for in the web the colors often interweave and mix, producing intermediate colors that may ruin what promised to be a delightful effect. Also it is always difficult to make a pleasant combination of two colors that are direct opposites, and this may only be done if the proportions are very different. One might think that to use two opposite colors together would give the most brilliant effect possible, but instead the colors tend to cancel each other out, and if exactly the same amount of each is used the effect when seen at a distance will be a more or less dirty grey. Blue and yellow are opposites, of course, and so are red and green. But a blue-green is not the opposite of a purplish red. The proportions of one color to another ~~xx~~ in a color combination are of as much importance to the result as the shades of the colors themselves. It may be said that any colors may be combined if the proportions are suitable. And of course it follows from this that a color combination that may be very handsome in one weave and for one pattern may be hideous in a different pattern and weave, because of changes in the proportions.

Quite often, too, colors that are hideous in themselves will sing like larks in the correct combination with something else. There is, for instance a very harsh and cruel shade of blue that seems to rasp like a file. It is an extremely useful color in color-design. There is also a very unpleasant shade of mustardy yellow that combines beautifully with a sharp blue-green. And there is a cold bluish pink, that seems to me the ugliest color in the world, but one has only to look at a few Chinese designs in color to discover what can be done with it to delight the eye.

If the figure of the design is dominant in ones plans, the color effect should be restrained or it will detract from the figure. If what one plans is a riot of color some very simple weave or pattern should be used, or an effect in detached figures in one of the free weaves, like the Guatemalan

A Peruvian Leno (b)

1	2	3	4
		0	0
	0	0	0
	0	0	0
0			



tie-up —
rising shed

Weave:

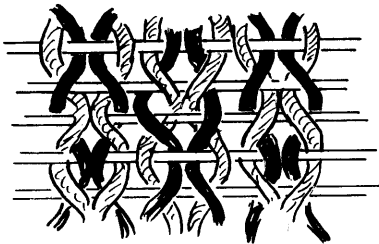
2, 1, 2, 3, 4, 3
Repeat

Use the dark color for weft

⊗ Light threads
■ Dark threads

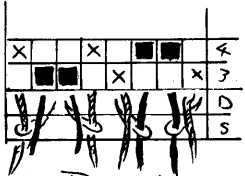
Threading for Inkle Loom (c)

⊗		⊗	■	■	■	H
■	■	⊗				⊗



tie-up —
rising shed Four Harness Version (d)

1	2	3
		0
	0	
	0	0
0		

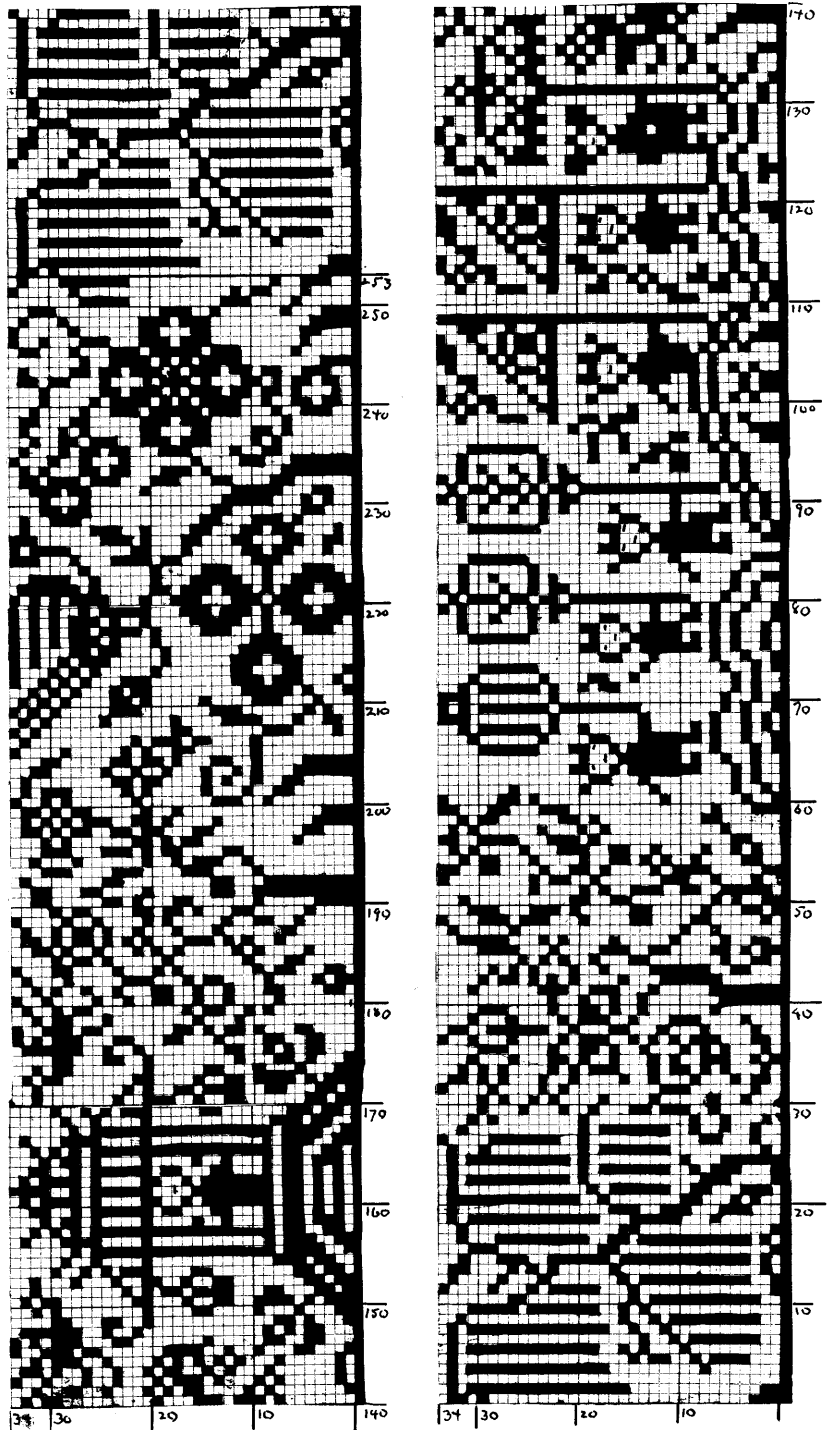


Weave: 1, 2, 3, 2, Repeat

this produces an effect
similar to the above, though
not exactly like the Peruvian
piece.

Page Three

Chinese border pattern, — A Wedding Procession —
from a piece in cross-stitch. A traditional pattern,
suitable for Double Weaving. May be woven length-
wise or cross-wise. A cross-wise repeat of 34 units; a
length-wise repeat of 253 units (a)



weaves given in the Bulletin last year, or some arrangement in broad bands of color, or the special technique in summer and winter weave that permits using a different color for each block if one chooses, with a covering background color to hide the often unpleasant mixture of colors in the half-tone areas.

I shall, of course, be happy to give any helpful suggestions I can if Guild members will write of their plans for an exhibition piece. But please do not expect an intelligent reply if you write something like this: "I want to weave an upholstery fabric for my living room, using brown and purple and green, with touches of blue and yellow. How will it look?" All I can answer to such a question is, "Perhaps extremely handsome; perhaps perfectly hideous. Try it and see."

- - - - -

For this month I have two interesting bits that are as unrelated as possible. The Chinese design, which can be used for four-harness double weave, represents a wedding procession. It was taken from the border of a very beautiful piece of Chinese cross-stitch embroidery -- done in dark blue on fine linen. The piece was lent us by one of our Guild members, Miss Violet Stewart, who has spent many years in China as a missionary. The piece is a runner with this charming border all around and a large medallion in the center. This medallion shows the bride being carried in a sedan chair, surrounded by family and friends, The groom also figures and the wedding feast. I have a drawing of this design also and shall have it printed for the Bulletin one of these days. The border design might be woven in the narrow dimension as shown on the diagram, for use as a valence or similar piece, or might be woven across a wide piece. A delightful way to use it -- suitable for an exhibition piece -- would be for a hanging or a bed-cover, using successive rows of less or more than a single repeat so that the prominent figures, such as the delightful willow tree or the little pagoda, occur at a different place in each row, producing large diagonals. This would be gorgeous.

The other novelty is an odd "leno", from a small bag illustrated in the d'Harcourt book on ancient Peruvian textiles. It makes an interesting fabric that at first glance does not resemble leno at all. It is nice for bags, and done in wool makes an excellent fabric for a sweater jacket. The effect is a small diamond figure in warp-face weaving.

Guild members would be amused to learn of the hours of struggle I put in to arrive at the quite simple solution of this weave given on the diagram. As will be noted, six harnesses are required -- two for the threading, with two sets of doups and two sets of standards. On an eight-harness loom use harnesses 7 and 8 for the threading and the four front harnesses for the leno as indicated on the draft. This is a weave for coarse material. I tried it in Germantown yarn at a setting of 20 to the inch, and in Lily's "thrifty-knit" cotton at the same setting. I also tried it using the thrifty-knit material double, sleying four ends through each dent of a six-dent reed. The manner of taking the threads through the doupes is indicated on the diagram, but to make it as clear as possible: For the first pair of warp-ends take the dark thread through the loop of doupe No. 2, -- on harness 4 -- and take the light thread over the doupe. Now take the dark thread over doupe No. 1, -- on harness 2 -- and take the light thread over the dark thread and through the loop of doupe No. 1. These two doupes are set to the right of their standards as shown. The second pair of threads are taken through the doupes in the same way exactly, except that this set of doupes go through the eyes of the standards from left to right. The doupes for the third pair are also from left to right, and for the fourth pair from right to left, like the first.

The weave may be used for belts on the inkle loom, the two plain sheds being made in the ordinary way and the two cross-sheds picked up. This is not difficult and gives a handsome effect. The sketch, showing the sheds, should make it clear. If not, a sample may as usual be obtained from Mrs. Maybelle C. Hancock, 2016 Castillo St., Santa Barbara, California.

May M. Astor

THE SHUTTLE-CRAFT GUILD

BULLETIN

for

Basin, Montana

August, 1943

Guild members need not be told that it is becoming increasingly difficult to get materials for hand-weaving. In a way this is perhaps a good thing as it stimulates experiment and encourages us to devise new ways of using what we have. Already, I think, we have learned a lot about how to make good use of cottons, and a good many people are working with novel fibres and materials.

I think there is a very strict limit to the "novelty" idea. If we use something in weaving simply because it is novel, and even though it may not make a good textile fabric, the thing seems to me poor craftsmanship. A textile fabric should have stability and substance and a useful purpose. Those things come first, and no matter how novel it may be, unless it holds together and can be used for something it is hardly worth making. For instance, fabrics woven of paper seem to me a waste of time.

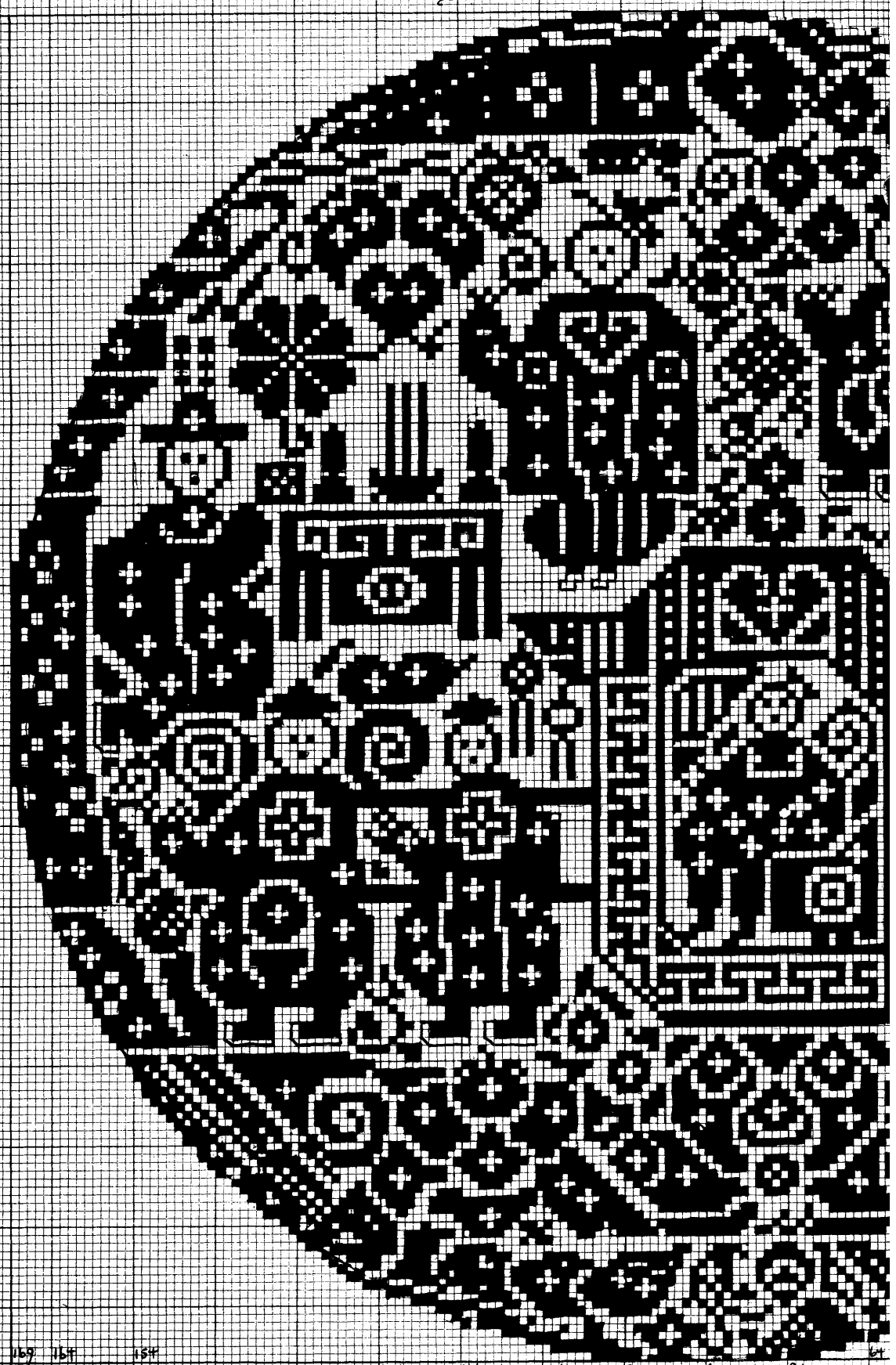
Many primitive peoples decorate their fabrics by introducing feathers, shells, "tags" of one kind and another. And of course if this is thought handsome and interesting there is no reason we should not do the same. But the foundation fabric must be practical. If we want to use shoe-laces, or snake-skins or old automobile tires for weft, it is quite all right -- provided that the result is a practical and handsome textile fabric. Otherwise the "novelty" of the material is hardly justified.

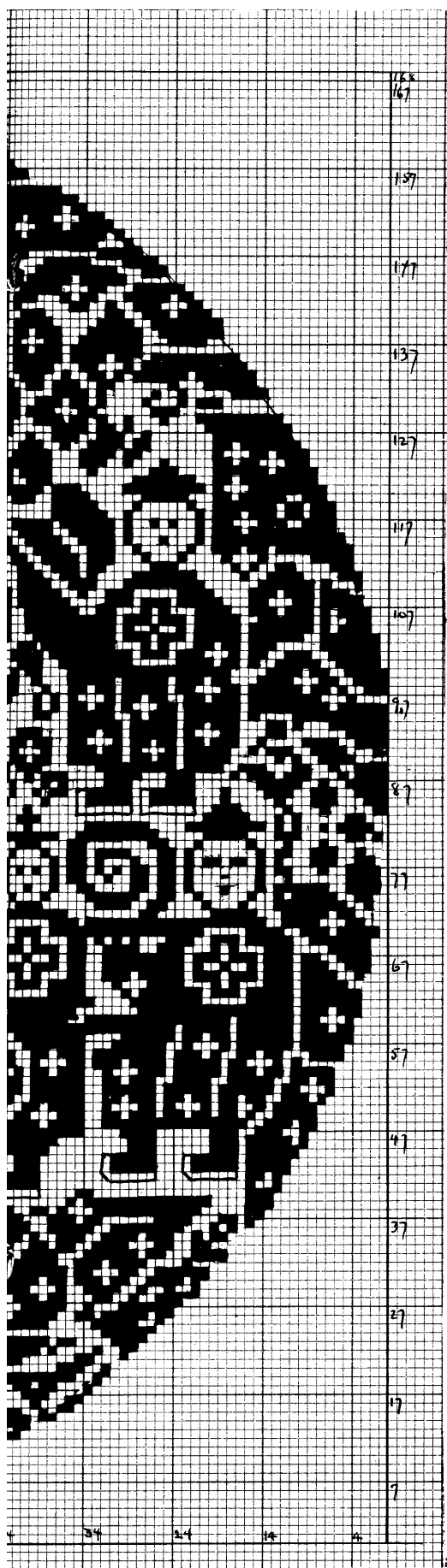
But we should, I think, all be on the lookout for new and untried ways of using the material still available. For instance: I happened to go to the hardware store recently and saw some interesting looking fine fibre material that looked to me worth a bit of experiment. It is used, I was told, by builders who calk joints with it. A similar material, but much coarser, is used in mops. Just what the material is, the hardware man could not tell me. It looks and feels like a vegetable fibre, similar to linen but stiffer. However it cannot be a fibre of natural growth for it is far too long. The material comes in a heavy strand of about 2,000 extremely fine ends. I bought two pounds and found the strand measured thirty yards long. The fibres though so fine are remarkably straight and strong and I had no difficulty in drawing out eight-end strands for the full thirty yards, to serve as weft. I wove a sample and washed it, and got what seems to me a very nice stiffish linen like fabric that would be excellent for lunch cloths and table mats, though too stiff for towelling.

I also tried using the material as warp, drawing six ends through each dent of a 20-dent reed. For a short warp this is entirely practical, but as there is no lease in the strand of material it would be somewhat difficult to put on a long warp in this fashion. However I fancy that the material could be beamed to a sectional beam in fairly long lengths if taken through a tensioner to separate the strands. I have not tried this but expect to do so later. Of course the material might also be spun on the wheel if one wished.

Naturally it takes a bit more time and trouble to use a material like this -- not prepared for weaving -- than to use nicely skeined and prepared yarns as we have been accustomed to do, but here is something really practical and handsome at a very low cost. The price I paid was 70¢ a pound. It may, of course, vary in different places. If Guild members who are interested will send me self-addressed stamped envelopes I shall be glad to supply samples of this material.

Any of the linen weaves are suitable for this material -- "Bronson", "Ma and Os", double-faced twill, "Huck" and so on. We might call it "Victory Linen," to be in tune with the times. A few suitable drafts are repeated






Chinese design from a piece in fine cross-stitch—dark blue on fine white linen. The pattern is an ancient traditional design. This medallion occupies the center of the piece, surrounded by the border given in the July Bulletin.

The figure represents a wedding celebration. The bride is carried in a sedan-chair with four bearers and a lantern boy to light the way. At the top of the design the bride's parents appear, and to the left is the bridegroom kneeling before a table on which are placed the ceremonial family symbols.


(The original Chinese piece lent us by Miss Violet Stewart.)



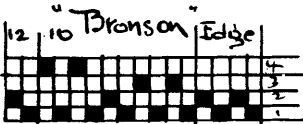
below for convenience. This is not a suitable material for overshot weaving and is not very good for either the summer and winter weave or for crackle weave.



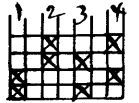
Rising Shed



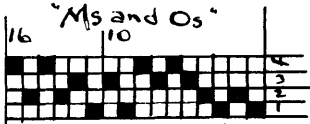
Sinking Shed



"Bronson" Edge



Weave: 1, 2, 1, 2, 1, 2, 1, 2, 3, 4, 3, 4, 3, 4, Repeat




"Ms and Os"

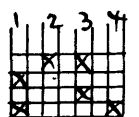
Weave: 1, B, 1, B, A, B, 2, B, 2, B, A, B

Weave: 1, 2, 1, 2, 1, 2, 1, 2, 3, 4, 3, 4, 3, 4, Repeat

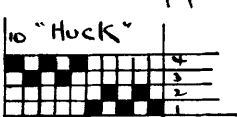
Other patterns in these weaves will be found in the Shuttle Craft Book and the Guild Recipe Book.



Rising Shed



Weave: 1, 2, 1, 2, 1, 3, 4, 3, 4, 3, Repeat



"Huck"

The summer weaving institute held at Missoula was to me a particularly interesting session. The people were all beginners, and I had an opportunity to try an experiemnt I have often wished to try. I started several people with Finnweave as their first weaving, and as I quite expected, they had no more difficulty with it than with ordinary overshot. They did not know it was supposed to be complicated. It was really easier for them than it often seems to be for experienced weavers.

On the way home from Missoula I stopped at the Montana State Prison at Deer Lodge on a small matter of business and was interested to see the craft work of the inmates that is offered for sale. Especially interesting to me were some very nice silver belt buckles, either plain or ornamented with chasing. These were priced at \$2.00 for very small ones up to \$4.00 for the large ones. I fancy one could have them made to order in any size or design desired, with initials if one wished. The "set" includes a buckle, a silver sheath for the end of the belt and a "keeper." Very nice leather work is also done at the state prison. I saw a display of carved and stamped cow-boy belts, very nicely made. Camera cases and so on can be made up to order. The work is excellent in quality. But to me the belt-buckles were of particular interest. The belt-makers among our Guild members may be interested to know where hand-made silver mountings are to be had. Simply address the Montana State Prison, Deer Lodge, Montana.

Several Guild members have expressed interest in the Chinese design given last month, so I am taking the space this month to print the large central medallion, mentioned last month. It seems to me a charming thing. The bride's father and far more impressive mother may be identified at the top of the design, and the bridegroom to the left of the table bearing the family symbols. The bride herself in the sedan-chair with the bearers and a lantern-bearer occupy the bottom of the design. This seems to me a quaint and charming thing and I hope it will give pleasure to our members. We owe thanks to Miss Violet Stewart for shwing her Chinese treasures with us.

Mrs. Maybelle Gano, 2016 Castillo Street, Santa Barbara, California, is -- as noted several times in the Bulletin -- our official sample weaver, and supplies Guild members with samples of the weaves given each month in the Bulletin. There is, however, a charge for this service, and it will be appreciated if those writing Mrs. Gano for information will enclose a self-addressed stamped envelope for reply.

May M. Abrah

THE SHUTTLE-CRAFT GUILD

BULLETIN



for

Basin, Mont.

September, 1943

September has somehow come to be our month for innovations and special weaves. This just "happened" at first; of recent years I have made it deliberate practise. We do not all like unusual techniques, but even for those among us for whom the chief pleasure in weaving is in repeating over and over the same familiar and satisfying thing, it is perhaps a good idea to embark -- at least once a year -- on a weaving adventure. I do hope that each of our Guild members will at least make an experimental piece in the weaving techniques presented this month.

For some time I have been interested in a type of weaving seen in pieces from Guatemala, Bolivia, Peru and other South American and Central American countries. It seemed to me to have valuable qualities of texture and structure and to present interesting decorative possibilities. Some of the pieces studied were in an odd form of double weaving -- entirely warp-face with the weft completely covered -- and others that had almost the same surface effect were closely combined to make a solid four-ply fabric. The effect is like a warp-face tapestry, very rich and handsome.

Many of the pieces in this style are wide belts, worn by men. They are made of fine, hardtwisted wool -- a material it is almost impossible to obtain even in normal times. The "Chimayo" yarn we used to get from New Mexico was excellent for the purpose, but has been unavailable for a long time. The soft worsted yarns, such as knitting yarn, can be used, but do not give exactly the right effect. The cottons may, however, be used very well for this weave.

The girdles are usually made in four colors: a dark and light color for a fairly wide stripe up the middle and two other contrasting colors for wider stripes on either side. Sometimes there is also a border in plain color. The colors used, may of course be anything one chooses. Taking "1" as the lightest shade in the combination and "4" as the darkest, the center stripe should be in shades 2 and 4 and the outer stripes in shades 1 and 3. One handsome piece in coarse material that I have been studying is in gold and a dull mauve for the side stripes and bright red and medium green for the center stripe. The narrow plain border is in red. This may sound like a rash combination of colors, but it is extremely handsome in this piece. Another piece is red and white on the sides and green and white for the center. An old Peruvian piece is in red, yellow, dark brown and blue.

Sometimes decorative bands, lengthwise of the fabric of course, are introduced between broad stripes in plain weave rep -- that is a fabric in plain weave with the warp set close enough to cover the weft completely. This use of the weave is seen in old Peruvian pieces and also in woven bags and ponchos from Bolivia. A wide plain weave border of this kind may also be used for a girdle. It is most convenient for this to use six harnesses -- two for the plain weave part and four for the pattern weaving, as indicated on the diagram. Sometimes the warp in these decorative bands is set further apart than in the girdles and a sort of double summer-and-winter weave results. This is handsome, but for the girdles the warp should be set close enough to cover.

The setting in the reed is a matter of prime importance -- as of course it is, as a matter of fact, for any kind of weaving. In experimenting with a coarse effect I used the Lily Mills' "thrift-knit" strand cotton at a setting of 36 ends to the inch, sleying six strands through each dent of a six-dent reed. This appeared to be exactly right for this material.

(As has been previously explained in the Bulletin, for extremely close-set warps it is necessary to use a very coarse reed. Otherwise the sheds will not open. But in order to beat with the batten it is necessary to insert a flat shuttle through the shed and beat against this in order to drive the weft together closely enough. For narrow pieces the Norwegian type belt-shuttle is the best type of shuttle for this kind of weaving, but an ordinary flat "poke-shuttle" can also be used.)

It is not absolutely necessary to take the warp through a reed at all, but use the knife-edged belt-shuttle as a beater, in the manner of weaving on the inkle loom or on the cards. If a soft knitting yarn is used for warp it is impractical to use the reed.

If a fine warp material is used it is possible to weave patterns as elaborate as one chooses, but if the warp is coarse it is advisable to attempt only simple figures. The figures shown on the diagram are typical of the girdles in this weave and are quaint and amusing, but many pieces are done chiefly in simple small round figures or rings, one in each stripe, or elongated S-figures, also one in each stripe. Many of the Bolivian and Peruvian pieces show a scroll figure such as the one shown at (f) on the diagram.

The weft should be somewhat finer than the warp, and may be in a different material. For instance a cotton weft is desirable with a wool warp. The color of the weft should be the same as the border as it shows nowhere except along the edges.

The true double weave on this set-up seems somewhat simpler than the solid fabric so I shall describe it first. To weave light on top, dark under:

Rising shed, tie-up (b)	Sinking shed, tie-up (c)
1	3-5
4-5	2
3	1-5
2-5 Repeat	4, Repeat

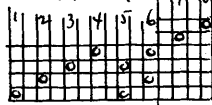
For dark on top, light under:	
2	4-6
1-6	1
4	2-6
3-6, Repeat	3, Repeat.

This, of course, is exactly the same as treadeling for double cloth. The only difference is due to the close setting of the warp as a double rep rather than a double tabby is produced.

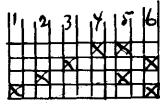
To make a figure: Rising shed, tie-up (b), treadle 1 and insert a pickup-stick under the threads for the light part of the desired effect. Then treadle 2 and with a second stick pick up the dark part of the effect. Note that on the second pick-up the first thread to the right in each group should be omitted. The second stick may be passed under the threads held by the first stick as well as under the desired dark threads, when the first stick may be withdrawn and the shed will be on the second stick, which should be wide enough to make a shed for the shuttle when set on edge. Weave this shed. Leaving the stick -- turned flat -- to ride the top of the shed, treadle 3-4 and weave. Take out the stick. Treadle on 3 and pick up the light threads. Treadle on 4 and pick up the dark threads on a second stick, as before. Weave this shed. Leaving the stick in place, treadle 1-2 and weave. This is the complete process, and though it may sound complicated as described it is extremely simple in practise -- much simpler than the "Finnweave" method of double weaving.

For a man's belt, however, the solid fabric is better as it is firmer and stiffer than a piece in the double weave. There are two different ways to produce this weave, and which to use is a matter of personal choice. I

(b) tie-up, rising shed

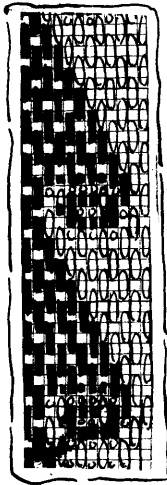
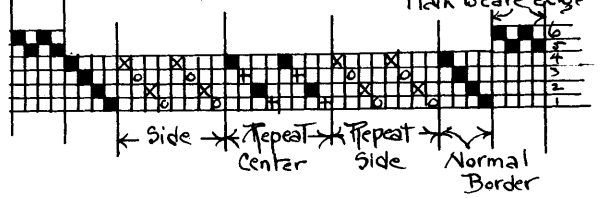


(c) tie-up, sinking



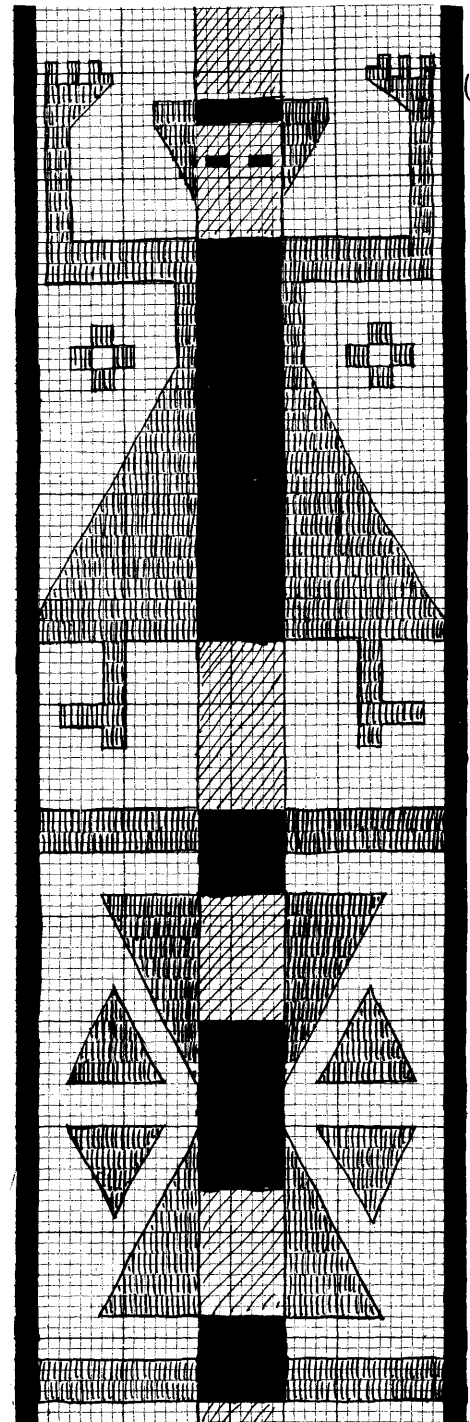
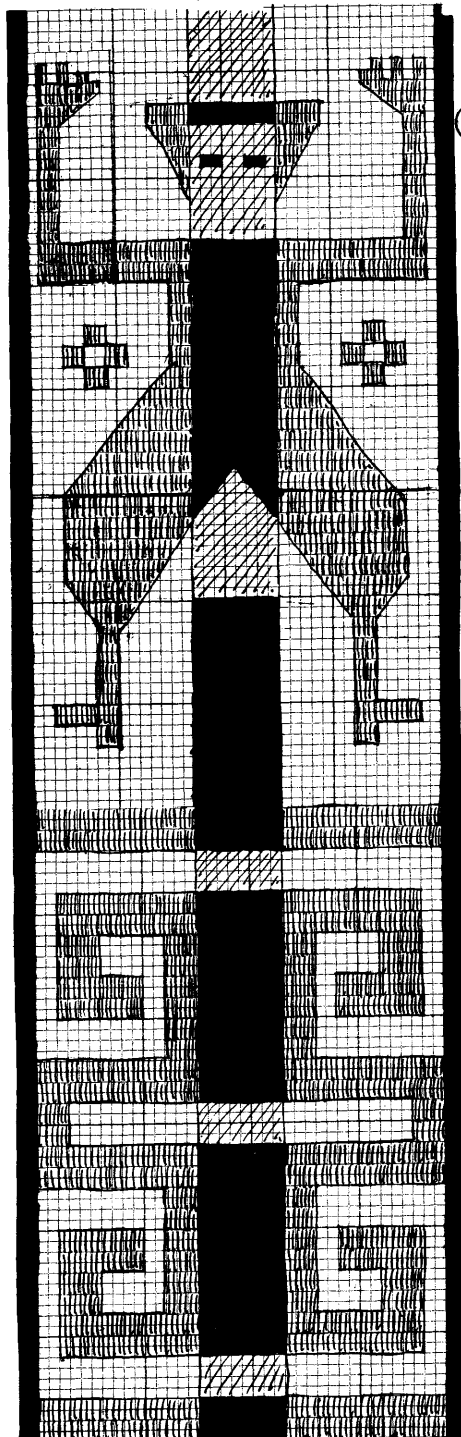
□ Color(1) — lightest
 ▤ " (2)
 ▨ " (3)
 ■ " (4) — darkest

(a) Threading Draft



Narrow pattern
 on 22 ends —
 shown large
 scale to show
 pick-up in
 detail.
 (from a Bolivian
 poncho.)

(d) and (e) are the
 traditional figures
 for a man's belt.
 The figures occur
 in regular se-
 quence and are
 woven first dark
 on light as shown
 and then with the
 colors reversed,
 making the piece
 the same on both
 sides.
 For fine material
 allow four or more
 ends to each space
 of the paper —
 for a coarse warp
 two ends to the
 space.



I do not know which method was used by the old-time Peruvian weavers, though I fancy it was probably the second method described below as this is somewhat more rapid than the other. However I find it easier to follow the design neatly by the following system: For plain weaving, light above and dark below, treadle as follows -- either tie-up: 5; 1-2; 5; 3-4; repeat; end on 5/. For dark above treadle: 6; 1-2; 6; 3-4; repeat; end on 6. To produce a figure, treadle 5 and take up the desired light threads on a pick-up stick. Treadle 6 and take up the dark part of the pattern, omitting the first thread on the right in each group. Weave this shed. Take out the sticks, treadle 1-2 and weave. Treadle 5 and then 6 and make the same pick-up as the first time. Weave this shed again. Treadle 3-4 and weave.

To make a figure by the second method, on a rising shed loom with tie-up (b), treadle 1 and pick up the light part of the figure. Then treadle 2 and pick up the dark threads. Do not weave this shed, but treadle on 4 and weave. With the shed still open, take out the stick under the dark part of the pick-up and put it in again under the new set of dark threads. Treadle 3 and weave. With the shed open take out the other stick and put it back under the new set of light threads. Treadle 2 and weave. Take out and put back the stick under the dark pick-up. Treadle 1 and weave. Take out and put back the stick under the light threads, and you are back at the beginning of the series -- treadle 4 and weave.

On a counterbalanced loom the first method is the more practical, though the second method may be used if one wishes. For "1" treadle 3-5. For "2", treadle 4-6. For "3" treadle 1-5 and for "4" treadle 2-6.

As the pick-up sticks in this weave are not used to make a shed for the shuttle, but merely to control the pattern, very small light sticks should be used. They ride on top of the shed. It is well to make a practise of taking out the lower -- or nearer -- stick on each change and setting it in again above the stick that remains in the shed. This prevents confusion.

Though this method of weaving may sound complicated, and may seem so on first trial, it goes along very easily and neatly after one becomes accustomed to the rythm.

I am sure those who try this weave will find it an interesting little adventure and will be pleased by the handsome results. I believe the technique could be used with interesting effects for small rugs, done in a hard-twisted wool rug-yarn. The Thrifty-knit cotton might also be used for a rug if threaded double. I plan an "exhibition piece" for myself in this technique. It is to be a large bag with the body in plain weave and bands of pattern weaving, in the manner of certain Peruvian pieces. I expect to use for the purpose some hoarded coarse silks in many delightful colors.

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Miss Martha Stagg, 105 West Second St., Frankfort, Kentucky, has a small eight-harness MacKay "parlor loom" that she wishes to sell or to exchange for a larger four-harness loom.

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Mr. E.E. Gilmore, 1200 West Harding Way, Stockton, California, is still building his excellent looms and writes that he will be able to continue as the problem of supplies has been solved. However he is extremely busy and cannot always make immediate delivery.

Mr. Gilmore has sent me a shuttle made on the pattern of the little Norwegian belt-shuttle but longer, so that it can be used for wider pieces. This is an excellent shuttle for any form of warp-face weaving as it has one knife edge and one brad edge against which to beat with the batten. It will be found excellent for the weaves described in this Bulletin.

May M. Atwater

THE SHUTTLE-CRAFT GUILD

BULLETIN



for

Basin, Mont.

October, 1943

Again we have come to October, and it is time to think seriously about our Christmas weaving. Perhaps Christmas is more important to us in war-time than in time of peace. I do not know. In order to win the war we must feel an active hate for our enemies and for what they stand for, but perhaps for that reason we feel a greater need than usual to express our goodwill toward our friends and those we love. How shall we do it?

Our Gifts should be gay and as beautiful as we can make them, but they should be practical and useful too. In these times we have no place for dust-catchers and useless junk. And our gifts should, I think, be simple. With so many urgent calls upon our time we should not attempt elaborate or extravagant Christmas programs.

It is not always easy to think of something a bit "different," that will be useful and attractive, easy and inexpensive to make. How about -- wash-cloths? Nobody ever has too many, and as far as I know this is something we have never made for Christmas. A set of three or six gay-colored wash-cloths in a Christmas folder should make a pleasant gift. If we want to be a bit more elaborate we might make sets of wash-cloths and cotton towels to match in color. And let's have lots of color.

I have done a good bit of experimenting on the wash-cloth idea. The kind that seem to me most interesting and attractive are the ones I made in the leno weave. I used for these Lily's "soft-twist" cotton both for warp and weft. I made colored borders, setting the warp at 30 ends to the inch -- a pair of threads through each dent of the reed -- and set the main part of the affair at 15 ends to the inch -- a pair of threads through every other dent of the reed. The weaving may be done in plain leno all the way, in alternate bands of white and colors, weaving not too close and not too open -- about eight weft shots to the inch. The material for weft should be the same as for the warp but a double strand should be used. The size is a matter of taste. I like a rather large wash-cloth and think 14" or 16" square not too large, but a 12" square might be preferred by some people. As a finish the edges may be buttonholed all around or bound with a narrow cotton tape, or the ends may simply be hemmed. One may be as fanciful as one chooses in making these little pieces. Initials, or small decorative figures may be introduced in a tarsestry effect as sketched on the diagram. This may be done with a small shuttle as the work proceeds or may be darned in with a large needle. The latter method I find the more rapid. Do it with the piece on the loom rather than after taking it off. Those who have eight-harness looms may indulge in one or another of the pattern lenos given in the Bulletin for February, 1941. I do not, however, advise the three-thread leno which would make the fabric rather too stiff.

If one wishes, a plain weave border may be made, as shown at (a) on the diagram, simply by taking the threads on harness 3 through the loops of the doupes instead of the threads on harness 4. I have been asked how to do this, so am explaining it here, but I do not think this is a good edge for our wash-cloths as the weft is so far apart that it is not firmly enough held in the plain weave. I think it better practise to take the leno all the way to the edges, but to mark the borders by using contrasting colors and setting the leno pairs closer.

In weaving one may use alternating stripes of leno and plain weave. If this is done it is better to use the weft single rather than double.

Pattern (b) on the diagram may be woven in many pleasing ways. I used it for some of my wash-cloth experiments. I made a border of 24 threads in green, then 12 threads in orange, sleyed two threads to the dent of a 15-dent reed. Then 150 ends in white, arranged in five blocks of fifteen pairs each, sleyed two threads in every other dent of the reed. With the border repeated this gives a width of twelve inches. I wove top and bottom borders in plain weave in green and orange to match the side borders, and for the body of the piece I treadled: 2, white; 1, white; 2, white; 7, green; 2, white; 1, white; 2, white; 5, green, and repeated as required. For this I used the weft in a single strand.

Another weave that makes a nice fabric for wash-cloths is the threading at (a) in the Bulletin for April of this year. As most Guild members have this issue of the Bulletin I am not repeating the threading. The material should be soft-twist cotton at a warp-setting of 15 to the inch.

One might, of course, make wash-cloths in "terry," like the ordinary ones of commerce. But these are rather a nuisance to weave on a hand-loom -- two warp-beams are required -- and are not as interesting as those in leno in my opinion. An imitation terry is sometimes made by weaving in plain weave using a fine cotton chenille for weft, but this I do not think very good craftsmanship. Also the result is apt to be rather thick and awkward.

For cotton towels to go with the Christmas wash-cloths I suggest pattern Series V, No.2 in the Recipe Book. A fine cotton may be used for weft instead of linen. Any arrangement of stripes and colors in the warp may be used. For warp material use the soft-twist cotton at a setting of 30 to the inch.

By the way, if you happen to have received the schedule of warps and warp-settings put out not long ago by the Lily Mills Co., and have noted that the soft-twist cotton is not advised for warp, do not let this worry you. The material makes a delightful warp for things of this type.

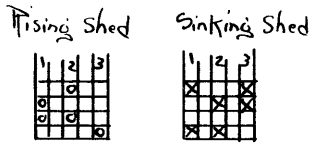
Another excellent weave for cotton towelling is the "ne-tabby" weave used so much in Italian towelling. The Bulletin in which directions for this were given is now out of print, but I have also given directions for this weave in a leaflet issued by the Lily Mills. Many Guild members have this leaflet and I shall be glad to send a copy to anyone who will send me a large self-addressed and stamped envelope.

It is too late, of course, to plan gifts for service men overseas but there are many of our soldiers still stationed in this country, and it is not too late for their Christmas gifts. The Bulletin for April, 1943, carries several suggestions for gifts for service men. The little "dog-tag tapes" have proved very popular and for a small gift that can be slipped into a note with a Christmas greeting these are excellent. They may be woven on the inkle loom or done in card-weaving, and as it is not required that they be o.d. in color it is best to make them in bright colors. The red, white and blue combination is of course the favorite. One of our soldiers suggests that the tape be sewed or woven together near the ends to make a loop to go over the head, thus avoiding a bulky knot. One of the ends should be longer than the other so that the tags hang at different levels. I finish my pieces with two tiny braids on each end that may be knotted together to hold the tag.

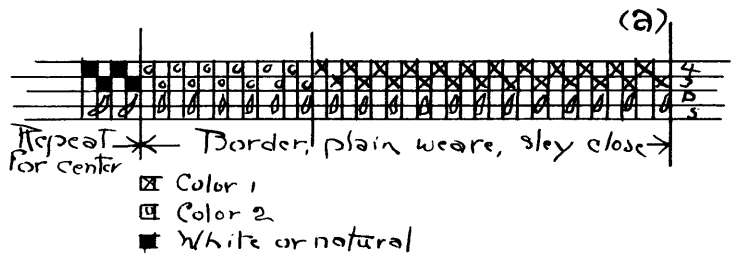
Scarves, neckties and belts for service men must be regulation in color and it is not always easy to find suitable materials. The weave suggested for scarves in the April Bulletin was given in the Bulletin for October, 1942, but as this issue is out of print the draft is repeated at (c) on the diagram. It is the ordinary four-harness "dornik" herringbone, sleyed in a special manner that gives an interesting effect. A very fine yarn should be used for warp and a somewhat coarser yarn may be used for weft. The beat should be light so that the fabric is soft and not too bulky. The men like these woven scarves much better than the somewhat clumsy knitted ones.

This same weave may also, of course, be used for scarves for civilian friends and may then be woven in gay and interesting color combinations. This is one of the nicest weaves for scarves that I have ever come across.

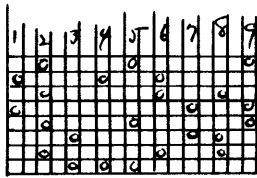
Page three



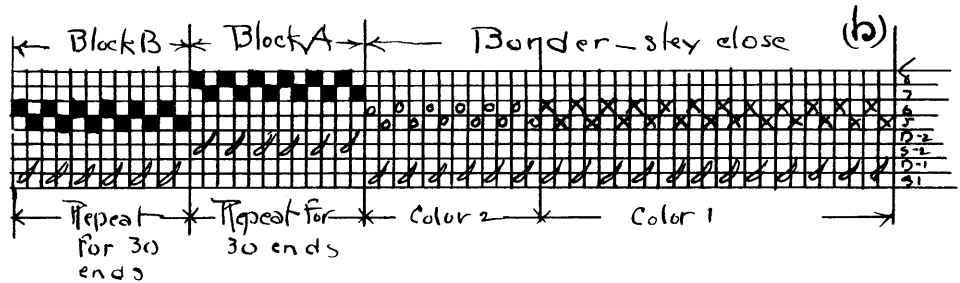
Weave: plain, 1, 2, 1, 2, etc
leno 2, 3, 2, 3 etc



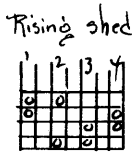
(For a leno border, thread the douces as for the center)



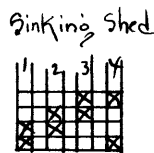
Tie-up - Rising shed



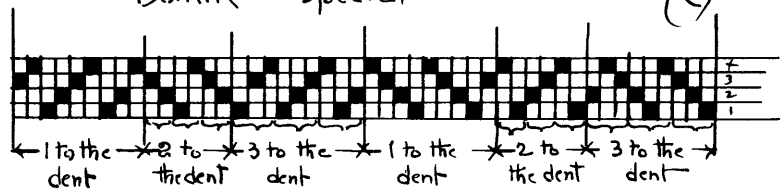
Thread: Border, Blocks A, B, A, B, A, Border - in reverse
(this pattern is similar to (F), Bulletin for February 1941)



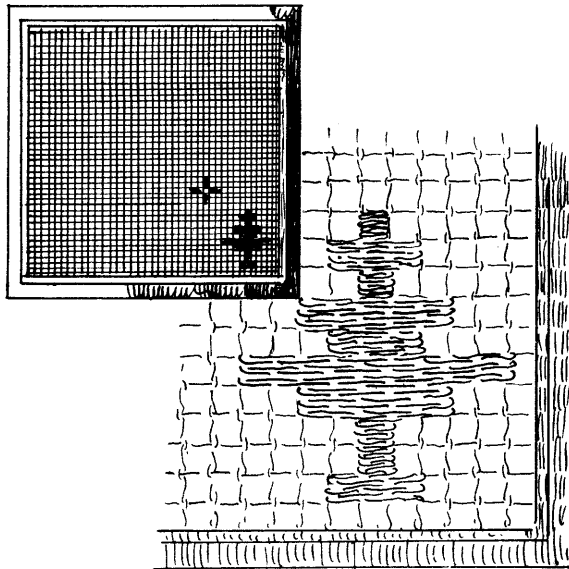
Weave: 1, 2, 3, 4. Repeat



Dornik - Special

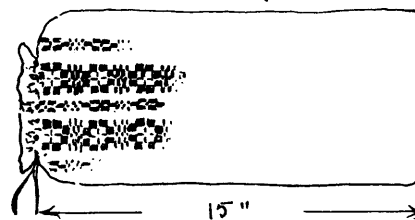


Leno Wash. Cloth



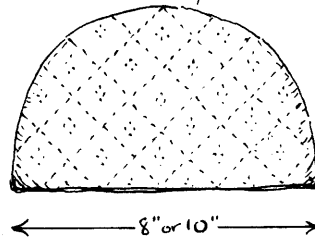
Detail

Shoe-Tag



Make these 7 1/2" in pairs.

Tea-Cozy



7" or 8"

One of our soldiers suggested that a very acceptable gift for a man stationed at a dusty desert camp is a shoe-bag. This should be of light, close, washable material, and may be as bright in color as desired. I suggest a firm tabby fabric in fine colored cotton with bands of decoration -- perhaps on the "Monk's Belt" pattern which permits the use of several colors. People often make the mistake of sending service men everything in olive drab, not realizing that this is not necessary, and that men in uniform become starved for color. Olive drab is a depressing color; it gets on the nerves. So send your man something as bright colored as possible, when it is not required to be regulation. A zipper closing is of course the neatest for a shoe-bag, but in these zipperless days we have to resort to the old-fashioned draw-string. A shoe-bag, giving dimensions, is sketched on the diagram.

The little hoods that were a suggestion in the Bulletin for October 1940 proved extremely popular and might well be used again this Christmas. One I made for a young friend in the double weave, lightly padded, as suggested in the Bulletin, is still in use and much prized. This number of the Bulletin also contained patterns for baby blankets -- an article we often wish to make for Christmas. As some back-numbers of this issue are available I will not repeat the directions given for these things.

A nice way to make a baby blanket of the heavier and warmer type is to use the quilted weave described in the Bulletin for May, 1941. I expect to be a proud grandmother for the second time this fall, and that is the weave I plan to use for the baby-blanket I shall make.

Canadian Guild members write of using this quilted weave for making a "tea-cozy." This quaint article is not in general use among us in the United States, but would make a clever gift for a tea-addict on the Christmas list. There is a sketch of one on the diagram. For this purpose the Finnweave might also be used, with the figures lightly padded to give the quilted effect. If the Peruvian manner of double weaving, described in the Bulletin for last month, were used instead of the Finnish or Mexican method, it would be very simple to introduce the padding as a shot of a soft yarn between the two fabrics before each pattern change. The warp might be set as for Finnweave, and the weft used in an intermediate color, as it interweaves with both colors of warp by this method. I have not tried this yet on the loom but I believe it would give interesting results. Of course the color contrast between the figure and the background would not be as sharp as in the more conventional forms of double weaving.

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Miss Elizabeth Roberts, 1417 North Church St., Rockford, Ill., writes that she has a large eight-harness Structo treadle loom, in new condition, for sale. This is one of the best of the large eight-harness looms and is not being manufactured at present, so this is a chance for someone.

Miss Margaret Stack, Box 256, Superior, Wisconsin, writes that she has a number of ten-yard, 60-end Structo warp-spools in 40/2 linen, and would like to sell some of this material at 60¢ a spool.

Mrs. G.W. Ebner, 81 Union St., Fairhaven, Mass., has 2,000 12" metal heddles and a 45" 12-dent reed that she is willing to sell.

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For a time I was unable to accept further orders for the little course in small weaving crafts arranged for use in occupational therapy. A great deal of work is involved in preparing this material. I have now got caught up, however, and the "lessons" are again available. Lesson Four, which gives instructions for "plaiting", will be of interest not only to occupational therapists but also to those planning Christmas weaving. Scarves and bags made in this technique are very attractive. The technique was described some time ago in the Bulletin, but is more completely presented in this new special lesson. Price \$5.00.

May M. Atwater

THE SHUTTLE-CRAFT GUILD

BULLETIN

for

Basin, Montana

November, 1943

There have been so many interested comments on the material contained in the October Bulletin that for this month I shall continue the subject and give some further notes and suggestions.

One of our Guild members suggests that the leno weave in the material and arrangement suggested for wash-cloths would make attractive window drapery. This is entirely correct. There is no better weave for curtains of the semi-transparent type than the leno weave. However this is hardly a thought for our Christmas weaving but is something to keep in mind against the coming of spring that always seems to bring a wish for new draperies.

Others have written with questions about further uses for the quilted weave, and along this line I have been making some experiments and have some new suggestions to offer.

An attractive and useful gift for a feminine friend who is her own "kitchen mechanic," -- and aren't we all, in these days! -- would be a set of three or four gay pot-holders made either in the plain quilted weave or in double weave in a pattern with the figures lightly padded. I have been making some of these, and have been experimenting with double weaving done in the Peruvian manner as explained in the Bulletin for September.

The Peruvian weave, as used for belts, is made in warp-face effect on a heavy warp set extremely close, so that the weft is completely covered. The same method of weaving may, however, be used to produce double cloth on the more familiar and more easily managed set-up as made for the "Finnweave," (or the same weave as done in the Mexican manner.) For this I find a very satisfactory warp is "Frost tone" cotton (Lily Mills Co., Shelby, N.C., Art. 714,) at a setting of 40 ends to the inch. The warp, of course, should be made in two strongly contrasted colors, threaded as shown on the diagram. In the Finnweave the weft is the same material as the warp and a light and dark tabby fabric are produced, interlaced along the lines of the design. In the Peruvian weave a single weft-thread is used and when woven over a Finnweave setting it interweaves with both the warp-colors so that there is not the same sharp light and dark effect in the weave. However this interweaving of three colors gives a very agreeable effect. The weft color should be a shade intermediate in "value" between the light and dark of the warp. For instance a warp set in dark blue and white might be woven in "Colonial" blue. A warp in dark brown and natural might be woven in light brown or dark tan, or in a medium green, a medium blue, or any other color that combines pleasantly with brown. The weft may be in the same material as the warp or may be coarser. For my experimental pieces I used Lily's "thrifty-knit" strand cotton, (Art. 514), and thought the result very nice.

To weave plain double cloth, light above and dark below, on a rising shed loom tied up as at (c) on the diagram, treadle as follows: treadle 1, alone; 3-5 together; 2, alone; 4-5 together. Repeat as desired. For the light fabric above and the dark one below, treadle this way: treadle 3, alone; 1-6 together; 4, alone, 2-6 together. Repeat as desired. On a sinking shed loom, tied up as at (b) on the diagram, treadle the opposites: Dark above: 2-6 together; 4, alone; 1-6 together; 3, alone. Repeat. Light above: 4-5 together; 2, alone; 3-5 together; 1, alone. Repeat.

To weave a figure, treadle to raise harness 1 -- treadle 1, tie-up (c); treadles 2-6, tie-up (b) -- and take up on a pick-up stick the dark threads desired for the pattern. Now treadle to raise harness 3 -- treadle 3, tie-up (c); treadles 4-5, tie-up (b) -- and on a second stick take up the light threads for the background. I find the easiest method is to use a very small stick for the first pick-up and for the second pick-up a flat shed-stick. Take the second stick under the back-ground threads and also under the dark threads raised by the first stick. The first stick may then be withdrawn. Set the shed-stick on edge and weave the resulting shed. Treadle 2-4 -- tie-up (c) -- or 1-3, tie-up (b), allowing the shed-stick to ride the top of the shed. Weave. Treadle to raise harness 2 -- treadle 2, tie-up (c) or 1-6 tie-up (b) -- and on the small stick take up the dark threads for the figure. Treadle to raise harness 4 -- treadle 4, tie-up (c) or 3-5 tie-up (b) -- and on the flat stick take up the light threads for the back-ground and also the dark threads that lie over the first stick. Set the shed stick on edge and weave. Leaving the shed stick in place, treadle 1-3, tie-up (c) or 2-4 tie-up (b), and weave. These four shots repeated produce the pattern as desired. This is far easier and more rapid than either the Finnweave process or the simpler Mexican technique.

The fabric produced by the above method is not exactly like Finnweave, either in structure or effect, but it produces an excellent double fabric -- perhaps not as desirable for large pieces as the other but better in some ways for small pieces, especially if padding is to be introduced.

In regular quilted weaving the padding is woven in as a strand of soft material. A different method is required for padding a pattern in double weave. The material used for padding may be cotton batting, absorbent cotton, or unspun wool. Treadle 1-2, which will open the pockets that are light above and dark underneath if a rising shed loom is being used, and will open the reverse part of the figure on a sinking shed loom. Put in the padding with the fingers. For small blocks a knitting needle or a small stick may be required. Treadle 3-4 and pad the rest of the piece. Caution: do not put in too much padding or the result will be too lumpy. The time to introduce the padding is when one block of the pattern has been woven and a change in the figure will be made next. Of course after a change of figure that closes the pockets made by the double weave it is impossible to put in the padding.

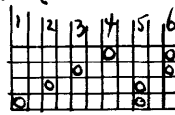
For pot-holders, set the warp 7" wide. Weave a narrow heading in plain double weave using a fine weft. This heading is later turned in and the edges are whipped together to make a nice finish. Weave 4" in quilting or in padded double weave, using a coarse weft if preferred. Weave one inch in a finer weft -- like the warp -- treadling 1-3 and 2-4, or in twill: 1-2, 2-3, 3-4, 1-4 and repeat. This stripe will make the holder fold at the center. Weave 4" in quilting or padded double weave and end with a narrow heading in fine weft.

Any pattern suitable for Finnweave may be used for pieces of this type, but if padding is to be introduced it is best to choose a bold figure with no very small blocks.

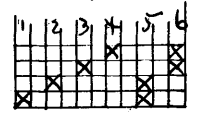
Table mats, to put under hot dishes, may also be made in the quilted weave or in padded double weaving. The corners may be turned in to give a rounded effect if desired. Another nice use for these weaves is for children's bibs. Crib coverlets or a comforter for the bassinette may be made in these weaves also. For such pieces, of course, the warp should be a fine worsted yarn either all white or in white and a light color. An interesting effect for large pieces is to pad only the figures of the pattern, leaving the background unpadded. This gives a relief effect that is very unusual and handsome. For such pieces it is better to use the Finnweave than the Peruvian double weave, however.

And speaking of bibs -- these make very nice gifts for Christmas, and of course they can be made in many different ways. For an older child, for instance, a very gay and delightful affair may be made using a fairly coarse tabby fabric in cotton for the main part of the piece, with borders and decorations in one or another of the Guatemalan pick-up weaves given in Bulletin for the summer of 1942. Such gay effects, of animals, birds, men, women, fish and flowers can be produced in some of these weaves. The Scandinavian "Dukagang" technique is somewhat similar, but the Guatemalan pick-ups are much freer in design and effect, and may also be done right side up -- which is a good deal

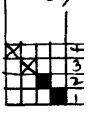
Rising Shed (c)



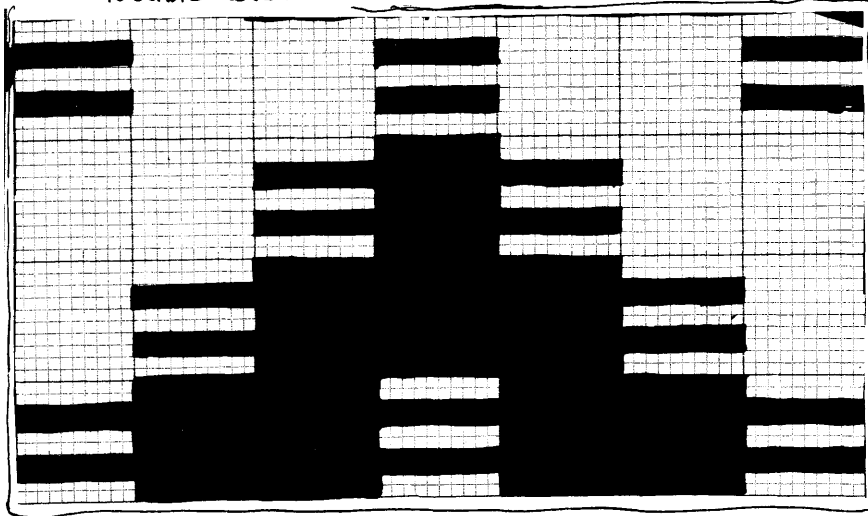
Sinking Shed (b)



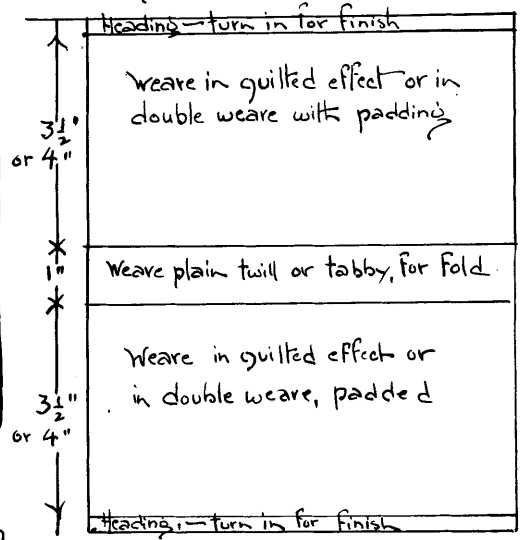
(a)



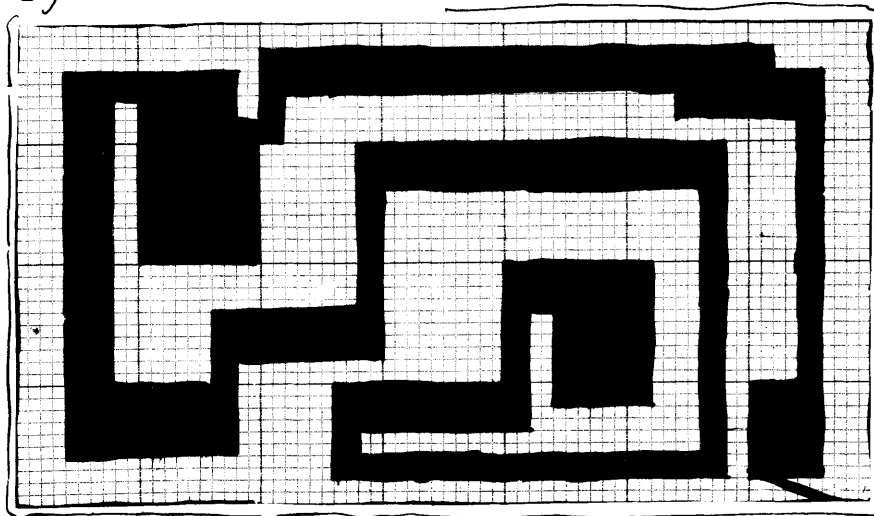
(d) Pattern for Pot-Holder in Padded Double weave



■ Dark
⊠ Light

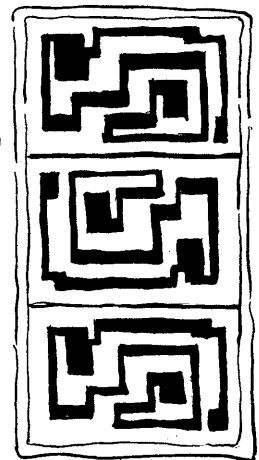


(e) Pattern for Pot-Holder



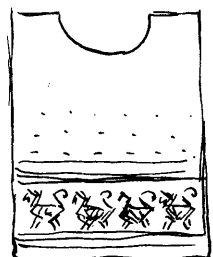
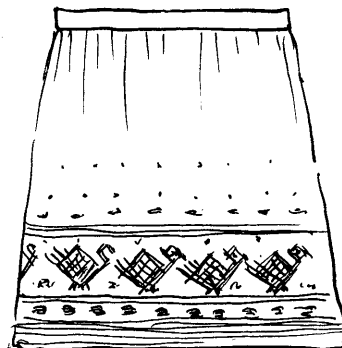
← 7" →
Plan of Pot-Holder

Sketch of table-mat - Pattern (e)



These patterns may also be used for table-mats, bags and purses.

For patterns in Guatemalan pick-up techniques, suitable for bibs and aprons, see the Bulletins for May, June, and September, 1942



easier than working wrong side up with a mirror under the work. At least I find it so. These Guatemalan weaves are also delightful for the bright little "tea-aprons" that make such charming gifts.

My correspondence has brought me a number of questions and interesting items that seem to deserve mention. One of our members writes that she has recently finished her "exhibition piece" for the year -- a coverlet on the "Fifteen Hundred Snow-Ball" pattern given in one of our January Bulletins. She encloses a sample, done in white, green and blue, that is altogether charming. The material used is mercerized cotton which, as a rule, I rather deplore for a coverlet. But nothing could be nicer than this piece.

I have received a very beautiful large shuttle from Mr. L.C. Wilderman, of "Missouri Looms," 7731 Sappington Ave., Clayton 5, Mo.. This shuttle though large and equipped with a long bobbin capable of taking far more material than the ordinary bobbin, is light and pleasant to the hand. For those who weave "yardage" it would be a boon. Missouri Looms supplies a variety of weaving equipment. As I have not seen and used the looms offered I am unable to give an opinion on these, but possibly here is a new source of supply, and at a time when it is greatly needed.

I have been asked where seine twine, for knotted belts, may be obtained. The Lily Mills Company supplies this in sizes from 6 to 24, listed as Art 77. The finest is No. 6 which runs 275 feet to the ball. This is the best size for nice knotted work in my opinion. The material comes packed 12 balls to the box at \$1.05 per box. I have also purchased colored macrame cord through the Lily Company, though I understand that this is not their own product.

Miss Bertha Hayes asks me to give her new address in the Bulletin. She has moved to 163 Princeton Ave., Providence, R.I.

Mrs. George Slider of Detroit writes: "For bathroom and kitchen rugs in the no-tabby technique I thought candlewicking might wash better than the light-weight cotton rug-filler. I made eight of these rugs and like them very much. They are very heavy and sturdy, taking about a pound of material to the foot in 32" width, -- which, of course, shrinks down to about 26". For the bathroom rugs I used white for the background, and they come out of the washer looking like new. They hug the floor, and lie flat, too. I finished them with hems woven of a double strand of carpet warp, which stands repeated washing better than fringe. I also set the warp a little closer than you recommended -- six groups of three to the inch instead of five groups."

The rug-technique Mrs. Slider refers to was given in a Bulletin of some months ago, and also in a leaflet I prepared for the Lily Mills Co.. Most of our Guild members have received this leaflet, I believe, but I have a few copies left that I shall be glad to send to anyone who requests it, and who sends a large self-addressed stamped envelope. This has proved to be one of the most satisfactory techniques for cotton rugs, and could of course also be used for rugs in wool yarn -- when wool is again to be had for the purpose.

In previous years a good many of our members have sent in Christmas-gift subscriptions to the Bulletin for friends, and as in previous years we shall make a special rate of \$4.00 instead of \$5.00 for these subscriptions. These subscriptions may begin with either the December or the January number as preferred. Kindly send a note or card to be enclosed with the first issue sent. We also offer the Guild Recipe Book at a special Christmas-gift price of \$7.00 at this season. Kindly let me have Christmas orders in ample time so that they can be mailed to be received on Christmas Day.

May M. Atwater

THE SHUTTLE-CRAFT GUILD

BULLETIN

for

Basin, Montana

December, 1943



Our December Bulletin is of custom devoted to technical problems of our craft, and I wish for this month to answer for the Guild some of the technical questions that have come to me from Guild members.

A good many of us are beginners and are confused over the meaning of some of the technical terms used by hand-weavers. Weaving, like any other skilled trade, has its own language. Unfortunately, too, many of our weaving terms are used rather loosely -- perhaps because not clearly understood -- and some people mean one thing and some another by the same word. This is very unfortunate, and we can all help out in the matter by being careful to use these technical words for the exact thing they stand for, and by avoiding words that through careless use have lost all exact meaning. There is, for instance, the term "finger weaving." I confess I do not know what this means, as it means different things to different people, and until we get some more or less accepted definition the word is practically useless.

Some people are uncertain of the distinction between "pattern" and "weave." This is a useful distinction and perhaps a definition will help. By "weave" we mean -- or should mean -- the plan of interweaving between warp and weft on which the texture of a woven fabric chiefly depends. By "pattern" we mean the design or decorative figure -- if any. A "pattern" may be carried out in a number of different "weaves," and of course each weave has its own set of patterns. The so-called "texture" weaves are simply weaves that show no definite design or pattern. People sometimes refer to a threading draft as a "pattern" and this, it seems to me, is a misuse of the term. When we mean "draft" it is just as well to say draft.

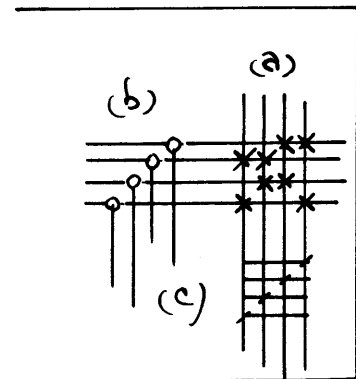
One Guild member writes that she does not understand what is meant by a "block" of a pattern. The term means, of course, a group of threads arranged to weave together to produce a single element of the pattern. In four-harness overshot weaving, for instance, we have six possible sheds made by sinking two harnesses and raising two: 1-2, 2-3, 3-4, 1-4, 1-3 and 2-4. Two of these sheds must be reserved for the tabby foundation of the weave, and the other four may be used to produce four different sets of "skips" on which the pattern is designed. We speak of these patterns, therefore, as "four-block" patterns. Perhaps the confusion results from the fact that most patterns consist of a good many blocks on each of the four pattern combinations. Each group of threads included in a single skip is a separate "block" of course, and it would probably be more exact to say "four-change" instead of "four-block" patterns.

Some people do not know just what is meant by a "return" block in a pattern draft. This is a term I introduced myself as there did not appear to be a ready-made one to fit the idea. The term means a block that is followed by a block on the same shed as the one that precedes it. The block at the centers of symmetrically designed patterns are "return" blocks, but also the two alternating blocks of which a square "table" figure are composed are "return" blocks -- all, that is, except the first and last blocks of the series. The "return" blocks in a four-harness overshot pattern always cover an odd number of threads, while blocks that follow each other in succession always cover an even number of threads, so the return blocks must be either one thread larger or one thread smaller than the similar blocks in the succession. This is necessary to preserve the regular tabby alternation and whether to make them larger or smaller is a matter of choice.

I think it would be useful to get up a glossary of weaving terms, and I wish during the coming months Guild members would send me words for this glossary, and would include their own definitions. By next December we should have a good collection.

But though the technical terms of the craft are often puzzling, it is the various forms of notation used for threading drafts and weaving directions that give new weavers the most troublesome headaches. In my Shuttle-Craft Book, page 147, are given some of the forms of notation used by the old-time American weavers for writing drafts for overshot weaving -- at (a), (b), (c), (d) and (e). The form at (a) seems to me the clearest and simplest, and I followed it for all the drafts for this weave as given in my book. The reasons are given for finding the forms at (d) and (e) unsatisfactory. As also noted, on page 149, drafts may be written with the 1-3 and 2-4 sheds for tabby, or with 1-2 and 3-4, or even 1-4 and 2-3 for tabby. There is no advantage in these alternate tabby arrangements and patterns written with the 1-3 and 2-4 tabby are clearer to the eye than those written differently, so I used this system throughout. I simply wish to make it clear that a four-harness pattern draft does not necessarily tabby on 1-3 and 2-4. Some of the drafts in Worst's book, for instance, tabby on 1-2 and 3-4. The choice of tabby sheds does not alter the pattern at all, of course -- or should not -- though the draft looks entirely different to the eye; and without being aware of this peculiarity one might thread the loom to what looked like a new and "different" pattern and get the same old Honeysuckle. Also, in weaving a draft written on an unfamiliar tabby combination it is necessary either to change the tie-up to the treadles or to teach the feet a new rhythm.

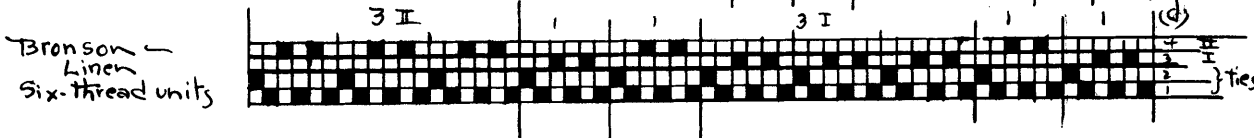
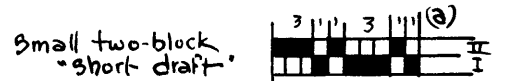
There are many excellent Swedish weaving books -- unfortunately not procurable at present due to the war, but to be found in libraries and also in the possession of many American weavers. To most of us the language is a dark mystery, but the diagrams and illustrations are so clear that weavers find them entirely useable. The system used in writing the drafts is the same as ours, though the form is somewhat different and might prove puzzling to a beginner. The little draft to the right is a twill pattern from one of the Swedish books. Section (a) is the tie-up draft, section (b) the threading, and section (c) the treadeling. It will be noted that in this draft the horizontal lines indicate the harnesses, -- and not as with us the spaces between the lines. The threads of the warp are indicated by perpendicular lines and the heddles through which the threads are to be threaded are shown as little circles on the harness line. The perpendicular lines in the tie-up draft indicate the treadles, and the crosses where the perpendiculars cross the horizontal lines of the harnesses show the knots of the tie-up. If one numbers the treadles from left to right as most of us do, treadle 1 is tied to sink harnesses 1 and 3, treadle 2 to sink harnesses 2 and 3, and so on. The treadeling at (c) indicates weaving the treadles in succession from right to left.



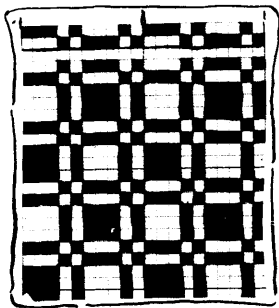
Weavers who are familiar with four-harness drafts sometimes have trouble with the special notation used for patterns in Summer and Winter weave when using this weave for the first time. I tried to make this notation clear in my Shuttle-Craft Book but do not seem to have succeeded altogether -- though sometimes I am led to suspect that those who write me about this have simply failed to read the directions. Drafts for overshot weaving are usually written thread by thread. When I began working with the Summer and Winter weave I found this method of writing the threadings unnecessarily cumbersome and so resorted to the "short draft" method in which each square of the draft indicates not a single thread but a "unit" of the weave, -- in the Summer and winter weave a unit of four threads. This method is not an invention of my own -- except as applied to the summer and winter weave -- as it is used in some of the Swedish books for patterns in double weave and damask. In all my research I never came upon a draft for a pattern in Summer and Winter weave except once, in a manuscript note-book in the collection of the Pennsylvania Museum of Art. It gave me much pleasure to find this draft written in the "short" form, which I was already using. The short draft has many advantages. As the weave is entirely regular and logical, with each four-thread unit threaded in exactly the same manner, the short draft indicates the position of each thread in the threading as clearly as the expanded draft. The expanded draft is confusing to the eye, and it is far easier to thread by the short draft. Also it takes much less time, ink and paper to develop a pattern from the short draft than from a thread by thread draft which is, of course, four times as long. A development made from the short draft is just as exact as if made from the expanded draft except that it does not show the texture of the weave. This is not particularly important as the pattern blocks all have the same texture and so does the background.

December, 1943

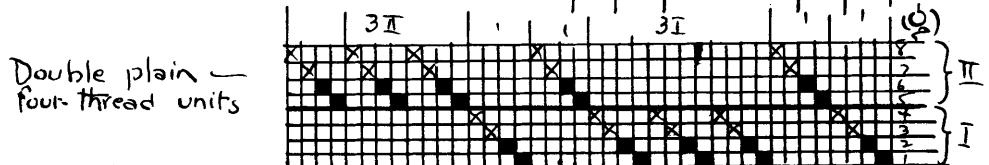
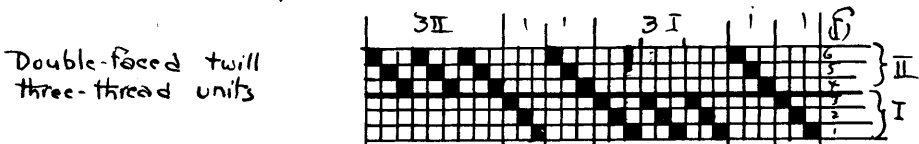
The expanded drafts (b)-(h) show how short draft (a) would be threaded for several different weaves. Larger and more elaborate patterns are produced in the same manner. All these weaves should be threaded from the short draft.



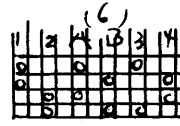
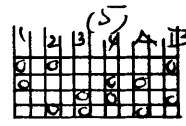
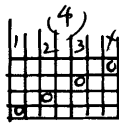
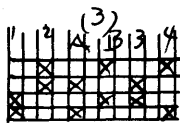
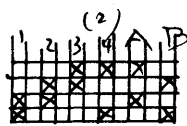
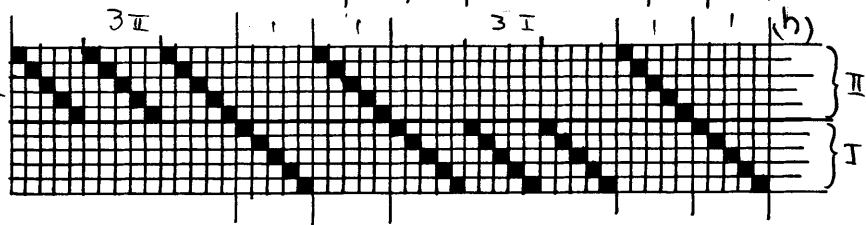
For lace-Bronson, repeat each six threads, making units of twelve ends.



Development - two repeats

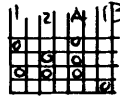
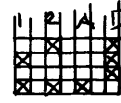
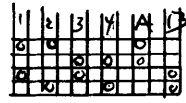
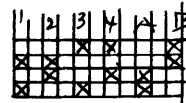
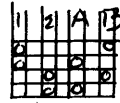
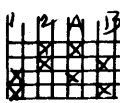


Five-heddle damask five-thread units



← Sinking shed tie-ups - Overshot weave →

← Raising shed tie-ups - Overshot →



Sinking

Raising

Sinking

Raising

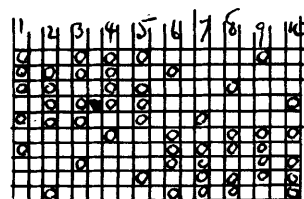
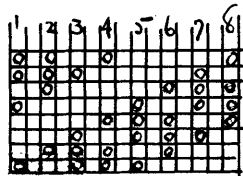
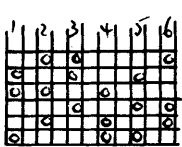
Sinking

Raising

← Tie-ups for (b) →

← Tie-ups for (c) →

← Tie-ups (d) & (e) →



(f)

(g)

(h)

Raising shed tie-ups.

Another advantage of the short draft is that the same draft may be used for any weave that is composed of regularly constituted units; the double weave, for instance, double-faced twill, five-heddle damask, and so on. Of course the "unit" for each weave is different.

The short draft method is suitable for the group of patterns in Bronson weave that consists of identical units, but this is not a matter of great importance as this weave does not lend itself well to elaborate designs and as a rule the threadings are quite simple. I should like to note here that when the drafts for this weave were written I followed the system used in the old "Bronson" book, for the group of patterns in which a small "tie-down" block is used between the main blocks of the pattern. Such drafts as 256, 257, 258, 260 and 261, page 256 in the Shuttle-Craft Book. It will be noted that this small block occurs on the 1-3 shed. In my later drafts for this weave I have put this small block on the 1-2 shed, which is more convenient -- especially when patterns with more than four harnesses are concerned.

Miss Helen Louise Allen, one of our foremost weavers, suggests in her book, and recently in an article published by the Lily Mills Co., that the short draft method may also be used for patterns in four-harness overshot weaving. I do not altogether agree with Miss Allen on this point, and as many Guild members have no doubt received the Lily leaflet it seems worth while to say here why I disagree. In the first place the "unit" of the overshot weave consists of two threads instead of four, five, six or more as for other weaves discussed above. The short draft must therefore be half as long as the complete draft, so there is no great economy of space. More important is the fact that the units of this weave are not always threaded the same way. For instance a unit of the 1-2 block may be threaded: 1,2, -- but it may also be threaded : 2,1, and there is no indication in the sort draft which way it should be threaded. The weave is not completely logical, and the extra thread required under the "return" blocks cannot be shown in a short draft. It would be extremely hazardous to thread an overshot pattern from a short draft for these reasons, and it would always be necessary to make an expanded draft for threading. It is true that a development may be made from the short draft that gives the relative positions of the pattern blocks, but such a development is extremely inaccurate as a representation of the woven effect as it ignores the overlapping of blocks that occurs in this weave and also omits the half-tone pattern. In overshot weaving the background is a two-tone affair, and the half-tone pattern affects the main figure tremendously. It is true that the method has a certain usefulness in making a quick sketch of a pattern. One may dub in the half-tone where one figures it should be. I have many times made drawings in this manner myself. But I do not advise inexperienced draft-writers to try it. One group of overshot patterns to be sure can be represented accurately by a short draft -- two-block patterns on opposites, such as "Monk's Belt," "Queen's Patch," and so on. It is accurate for these because the two threads in each unit are used the same way throughout. For patterns on opposites with four pattern blocks the method might be used, unless one has a prejudice in favor of balanced accidentals in the New England manner. For balanced patterns the method would be inaccurate.

I confess I am baffled by the draft given in the Lily leaflet under Figure II, the "3-row profile." This draft would not produce an interesting figure, I fancy, and probably few people will attempt to thread and weave it. However it would be interesting to know how it should be repeated if used. The arrows might be taken to indicate centers, with the patterns repeated back and forth between them, but the "enlarged draft" blasts this presumption as the end block shown on the dotted squares has six threads, and should have only five if it were intended to correspond with the next to the last ringed block. If the draft were repeated in the ordinary manner, from right to left each time, the figure would be lop-sided, as there would be three small blocks between the large blocks on one side and a single small block between them on the other. Of course it would be easy enough to re-design the figure to make it symmetrical.

It is suggested in the leaflet that overshot patterns may be threaded directly from the short draft or "profile" as Miss Allen prefers to call it. This is true in the case of the "patch pattern" as stated on page 6 of the leaflet, but certainly not true in the case of the "3-row profile" as clearly enough shown by the enlarged drafts as given. See what would happen if the directions were followed as given: The first block -- two units on the 3-4 shed -- would be threaded: 3,4,3,4,3,4,3,4. The second block would be threaded 2,3,2,3 instead of 3,2,3,2, as shown on the enlarged draft, and if threaded in this manner there would be a skip from 4 to 2 between the two blocks and

a double thread in the tabby. The same thing would happen between the second and third blocks as there would be a skip from 3 to 1, and it would happen again between the last two blocks of the draft. It is unnecessary to say that the effect would be highly unsatisfactory. But suppose reversing the order of the threads for the second block is taken as allowable -- though there is nothing in the "profile" to indicate it, the pattern will be correct as far as the end of the 3-unit block which ends on a 2. If the order of the threads is reversed for the following block we shall have 3,2,3,2, followed by a block threaded 3,4,3,4. The result will be a six-thread 2-3 block instead of a four-thread block as desired. It is obvious that the chances of error in threading are too great to make this a practical method for putting a pattern on the loom. Weaving is, after all, a technical business and exactness is the essence of technical work of any kind.

I also feel it only fair to say that in my opinion the "thread suggestions" included in the Lily Leaflet be taken with several grains of salt. In many cases they seem to me illjudged. I do not say this in a spirit of criticism but merely in the hope of saving unwary weavers disappointment and waste of time, -- and myself the necessity of answering a lot of woeful letters.

But to continue with our discussion: many people seem to be confused by the problems of tie-up. The tie-up for four-harness overshot weaving may be made in a variety of ways, and the system to choose depends on personal convenience, prejudice, and the mechanical peculiarities of the loom used. If the loom has only four treadles the tie-up must necessarily be made as at (1) on the diagram -- or reversed, with the tie-up to harness 1 on the right instead of the left. To weave it is necessary to hold down two treadles at the same time to make a shed. Table looms that operate with levers that raise the harnesses have no tie-up. They are jack-type looms and operate with a rising shed, as at (4). The tie-up at (2) is the standard tie-up I use for all my four-harness overshot drafts, and the tie-up at (5) is the same thing as for a rising shed loom. In this tie-up the four pattern sheds are arranged in succession on the left, with the two tabby treadles on the right. The tie-up at (3) and the corresponding one for the rising shed at (6) is an arrangement of treadles preferred by some weavers. The two tabby treadles are at the center with a pair of "opposite" pattern treadles on either side. Other arrangements are possible, of course, but these are the most common. The arrangement of the treadles does not affect the weave in any way, but if written treadeling directions are followed the system of tie-up to which they refer must be used, or the treadeling must be transposed to fit the tie-up system of the loom.

It will be noted that the sinking shed tie-ups are written with "X" and the rising shed tie-ups with "0". This is the accepted convention. When the material for my Shuttle-Craft Book was prepared we had no rising shed looms, so the tie-ups given show the sinking part of the shed and when used on a rising shed loom the blank spaces of the tie-up drafts should be tied, instead of the Xs. Otherwise the weave will be produced wrong side up. Counterbalanced looms are now rarely used for more than four harnesses, so the tie-ups for some of the two-block weaves are given only as for the rising shed.

In making an elaborate eight-harness tie-up to fourteen or more treadles it may be necessary to alter the logical sequence of the sheds to suit the loom. If the lamms are attached to the "cape" on the left, as is the case as a rule, the treadles on the left will not have as strong a pull as those on the right. It is therefor a good idea to tie the lightest sheds to the left hand treadles and use the treadles on the right for the heavy sheds.

The January Bulletin will, as usual, be a "coverlet" number. For February we shall have something of very special interest -- something I have been on the trail of for some fifteen years. Directions for the Canadian "ceinture flechee," no less! For this we are indebted to one of our Canadian Guild members, Mrs. Ethel M. Henderson of Winnipeg, who traced the thing to its lair and has generously offered to share with us.

May M. Atwater