

Basin, Montana

#### January, 1944

I dare say there are members of our Guild who have never given themselves the pleasure of weaving a coverlet. This is really something no handweaver should miss, and I'd like to suggest that January is an ideal time for it. It does not take a great deal of time to make a coverlet. Even a beginner can make a simple one in a week, from warping to sewing up the seam, And when it is done one "has something."

Of course these are war times. I have often wondered, when admiring an old coverlet, what it may have meant to the weaver -- as an escape from the trials and heartache of life. I have no doubt that many a woman sat at her loom in the days of the Revolution, beating up her loneliness and anxiety into a fine new coverlet against the day when her man would be at home again from the war. We can't all be WACs or welders, and for those of us who must stay at home for one reason or another, weaving is a comfort and a refuge.

Just how shall we make our war-time coverlets? I think we should make them bold and gay, and of course we'll have to make them of the materials we have on hand or are able to get. That may mean using cotton instead of wool. In one way that does not greatly matter. In the old day the coverlet was expected to supply warmth as well as beauty, but in these times the coverlet need not be a blanket, and indeed many people prefer not to use wool on account of moths.

To be sure for a strictly "period" Colonial piece we should use wool for pattern weft. And of course for a pattern in overshot weaving -- especially a pattern that includes large blocks with long skips -- nothing but wool is satisfactory. Cotton threads do not cling together as wools do, and even though it may look very attractive at first a pattern of this type when woven in cotton will soon develop a stringy and tired appearance that is far from handsome. My suggestion then would be not to attempt a classic piece at this time, unless suitable wool yarns are on hand or can be procured, but instead to do something more in the spirit of our own day.

I have been asked to suggest simple four-harness patterns that may be developed in a modern manner. I take it this does not mean suggestions for pieces in the ultra modernistic style, but something to set off the light, airy, colorful type of unstylized bed-room most of us prefer to live in. What is wanted, I fancy, is something that lends itself to the use of several colors; something in which the design is not complicated, or too conventional to permit an individual treatment. And also something that might be worked out in cottons.

Of course we have a number of patterns that meet these requirements. Here are a few suggestions: Suppose the room is small with a high bed, in single or three-quarters size, and that in spite of drawbacks we want a pattern in the overshot weave -- Colonial but not too formal, and something that might be woven in two colors. To fit this particular set of requirements I suggest pattern No. 108, page 190, in my SHUTTLE-CRAFT BOOK. For a high bed in a small room it is the overhang rather than the top of the bed that is chiefly in evidence. This pattern consists of a wide border that covers the first 420 ends of the draft. Thread this border as shown and repeat from thread 421 to the end of the draft as may be required for the width, ending at thread 432 or thread 454 for the center seam. This pattern was taken from an ancient piece woven in green and tan. Though strictly Colonial, of course, it has a gay and pleasing effect. As none of the skips are very long it might be woven in one of the new soft cottons with good effect, though of course would be handsomer if done in wool.

Another of the old patterns that works out very satisfactorily in two colors is draft No. 137, page 200 in the Shuttle-Craft Book. Use the colors alternately. The other patterns on the page are somewhat similar, but with longer skips. No. 137 may be woven satisfactorily in cottons, -- for the other patterns in the group wool or worsted yarns would be better. These patterns do not require an elaborate border. For any of them a few repeats of the first 12 threads of draft 137 would serve very well.

If I wanted to make a war-time coverlet to be handed down as a family heirloom I should probably do something in the double weave -- with a map. planes, tanks, jeeps and so on for borders and decorations, and in the corner I should put the date and my name. A great-great-granddaughter might then some day get it out of the moth-balls and exhibit it and people would say "how quaint." That would all be very interesting, and worth doing, -- if one has the time. If, though, I wanted to make something pretty and gay, for use in that corner bed-boom, I'd make something like the coverlet arrangement shown on the diagram. This may be woven in many different ways, and though not definitely war-like in effect, if we are fanciful we may see in the steady upward movement of the design the steady march toward victory and peace. It is a pattern in crackle weave and so is suitable for cottons as well as wool and worsted yarns. This pattern was given in the Bulletin for October, 1936, but as this number is now out of print and as this pattern seems to me of special interest at this time, I am repeating it in this arrangement for coverlets. One useful quality of this pattern is that it weaves exactly the same on both sides, so both sides are "right" sides.

A rather narrow border is shown on the diagram. For a single-bed coverlet this will be found wide enough. If a wider border is desired, repeat twice from A to B, and then to C. This gives a border threading of 168 ends.

The main figure as written covers 124 warp-ends, or about five inches in the reed if a warp set at 24 ends to the inch is used. If a larger figure is desired thread each of the sections marked "X" twice over, this will give a repeat of 212 ends. Or the four-thread "unit" of each block may be repeated. As there are twelve pattern blocks in the figure, increasing each block by four threads would give a total repeat of 172 ends. The figure may be made larger in this manner as may be desired, in units of 48 threads. However the pattern as written will prove satisfactory for most purposes.

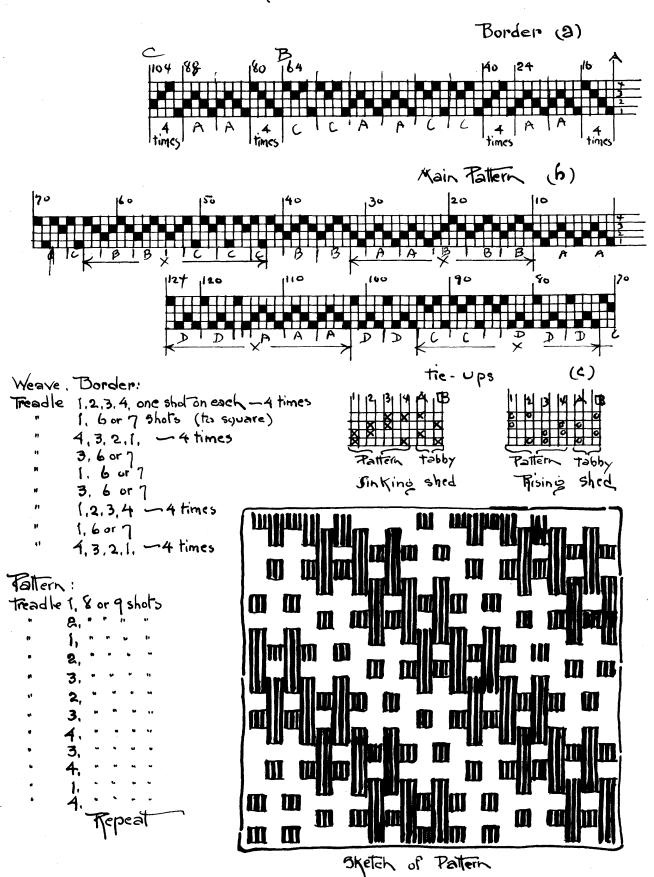
I suggest a warp of 10/2 cotton set at 24 ends to the inch, with pattern weft in coarse wool, if available, or in a rather heavy soft cotton such as the "thrifty-knit" strand cotton supplied by the Lily Mills, Shelby, N.C.. Tabby like the warp or in a material of similar grist. The pattern may also be woven in the Italian manner, in three colors, without a tabby.

I wove this pattern once in a manner that seemed to me very nice indeed. I used a coarse knitting yarn, in a dark cream color or light tan for the pattern shots and used a large number of colors in the tabby, arranged to produce a shaded effect. To be explicit, the colors were: yellow, rose, a dark rose, a purplish red, a reddish purple, a bluish purple, blue, bluish green, a yellowish green, and so back to yellow. I wove each color for all tabby shots behind five blocks of the pattern, then alternately with the next color for one block of the pattern, then the second color for all shots behind the next five blocks, and so on. The effect was really delightful. The color numbers, from Lily's color card would be the following: (1) 1432 or 406; (2) 908, (3) 458; (4) 617; (5) 1447 (6) 407; (7) 920; (8) 429; (9) 1451, and repeat. These color numbers are supplied in the perle cottons. I believe all or most of them may also be had in the new soft-twist cotton, which I should prefer, myself, for this project.

A shaded effect in the pattern weft, over a plain background, is also effective. Make all the pattern shots for four or five blocks of the pattern in color No. 1. Then alternate colors 1 and 2 for the next block and weave the following five blocks in color 2, and so on.

The treadeling may also be varied in a number of interesting ways, but for a coverlet it is perhaps most effective to weave the pattern as written. If it is desired to make the diagonal bands slant in the opposite direction, read the treadeling in reverse.

#### Page three



If the coverlet is made in two strips, one strip may be woven as written and the second strip treadeled in reverse. When the strips are sewed together the pattern will make large V figures. If the second strip is woven in the same direction as the first strip be careful when beginning the pattern for the second strip to continue where you left off, so that the diagonal bands will come together correctly.

A coverlet made in three strips is somewhat more work than one in two strips. However there is the advantage that the seam does not run through the center. Two side-seams are less noticeable than a single seam through the center. An interesting way to make a three strip coverlet on this month's pattern would be as follows: For the center strip, thread the main pattern all across. For the side strips re-thread the first and last 104 threads to the border threading, and weave the two side strips. This gives a paneled effect -a wide panel in pattern through the center, and a narrow panel on each side. End borders should be woven to match this arrangement, if the panel effect is desired all around. However, in my opinion it would be better to weave a single border at the top and bottom of each section. With this arrangement there would be no problem of matching the figures, and the seam, coming against a border figure, would not show at all. As the figure is not a balanced figure, but a one-way repeat of blocks, it makes no particular difference where the pattern begins and ends.

The Italian method of weaving, without a tabby, referred to above, has been given repeatedly in the Bulletin, but for the benefit of new members I will repeat it: A pattern color (p) and a single back-ground color (b) may be used, but a livelier effect is obtained by using two back-ground colors, (b-1) and (b-2). The color used for the pattern should be the strongest, and usually the darkest, of the three colors. The two background colors may be entirely different but should not be too far apart in "value." I made an extremely gorgeous piece once, using a rich purple shade for the pattern and a brilliant red and a strong yellow for the background. It sounds distressing, but was very nice indeed. The same material may be used for all the weft shots, or a somewhat heavier and softer material may be used for the pattern than for the background.

Block One	Block Two	Block Three	Block Four
Treadle 1, (p)	Treadle 2, (p)	treadle 3, (p)	treadle 4, (p)
" 2, (b-1)	" 3, (b-1)	" 4, (b-1)	" 1, (b-1)
" 1, (p)	" 2, (p)	" 3, (p)	" 4, (p)
" 4, (b-2)	" 1, (b-2)	" 2, (b-2)	" 3, (b-2
Repeat as required	Repeat as required.	Repeat as required.	Repeat as require
End: treadle 1, (p)	End: treadle 2, (p)	End: treadle 3, (p)	End:treadle 4,(p)

This manner of weaving produces a softer, thicker and heavier fabric than the conventional weave with a tabby background.

The pattern may, of course, be carried out in finer materials than those suggested. A fine warp set at 30 or 32 to the inch might be woven using a double strand of Lily's "soft twist" for pattern weft, for instance. And the pattern will be found useful for other things than coverlets -- for bags, pillowtops and table runners, for instance. And done in coarse material it is suitable for rugs.

Some of our members who live in cities where zoning is in force have failed to send me their zone numbers. Please note whether or not the zone number is on the address of this Bulletin, and if not kindly let me have it so that I may correct my address-file.

nay n. atvali.

#### 16:01 P.D. M. B. M

for

Basin, Montana

#### February, 1944

For over eighteen years I have been on the trail of the ancient Canadian "ceinture flechée" and it is with the greatest satisfaction that I am finally able to offer the Guild the following notes -- prepared by one of our Candian members, Mrs. Ethel M. Henderson of Winnipeg, and generously contributed by her to the Bulletin.

I shall not attempt to give the history of this ancient craft, interesting as this is, because the story is fully told -- with many handsome illustrations, in a pamphlet entitled "ASSOMPTION SASH," by Marius Barbeau, published as Bulletin 93, by the National Museum of Canada at Ottawa, and to be had for 25%. This pamphlet should, I think, be in the library of every hand-weaver. Suffice it to say that the craft flourished as a community industry in certain Franch Canadian settlements early in the eighteen hundreds, and was later almost completely lost on the introduction of a machine woven fabric somewhat similar in effect and of course much cheaper. Some years ago an effort was made to revive the craft, and a few old people were found who still recalled how the work was done.

Many of the ancient pieces are to be found in museums. I recall one -- not a very good example -- in the Peabody Museum in Cambridge, Massachusetts. I have a fine though rather ragged old piece in my own collection, dug up for me by one of our Canadian correspondents. The best pieces are made of very fine hard-twisted wool yarns, and are from eight to ten inches wide and as much as three yards long, with very long fringes finished in small braids. Such a piece involves several hundred threads and requires time and skill in the making.

The craft is definitely of Indian origin and is properly a form of braiding rather than weaving as ordinarily understood. No loom of any kind is required. The technique is similar to the Indian braiding usually known as "Osage" braiding, though practised by many Indian tripes. It is also similar to an ancient Peruvian form of braiding. A similar braid is also used by Swedish craftsmen for the making of narrow pieces. This is sometimes called "Swedish weaving," which seems a rather silly name. Some people also call the technique "Finger weaving," but as this term is vague and is sometimes used for pick-up weaving of various kinds, it seems an unsatisfactory name also. In order to be specific and say exactly what we mean, I think perhaps it is best to use the French Canadian name for the work.

I will give Mrs. Henderson's notes as she wrote them, and will follow with a few comments of my own that may be found useful:

"CEINTURE FLÉCHÉE"

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Warping: Material two-ply hard-spun wool yarn
Warp singly, five yards long, making the cross at the center of the warp.
For a wide belt:
12 threads, 1 white and 1 red alternately
             yell0w
12
12
             dark blue
      11
                                                 For a wider belt use 16 threads
12
             pale blue
             bright red
12
                                                 instead of 12, with 60 for the
      11
12
             yellow
                                                 center
      11
12
12
             olive green
      11
             red
      11
12
12
           pale blue
      n
             dark blue
      77
12
             white
40 red -- center
Reverse, --12 threads white, etc.
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For a small sash: Warp three yards 12 threads, 1 white, 1 red, alternately

12 dark blue 11

12 white

11 24 red -- center

Reverse: 12 threads white, etc.

Put in lease rods at the cross and tie firmly. Cut both ends of the warp. Make a firm knot at each end. Attach the ends firmly to two supports. Have the tension fairly tight.

#### Weaving:

Start the work at the lease, on the side toward you. Cross the two threads at the center and use the right hand thread as a weaver, taking it through the shed toward the left. Hold the shed on the left hand and pick up a new shed over the weaver with the fingers of the right hand. Weave in this way across the red threads of the center and across eight threads of the next color. The 9th thread must always be a "down" thread and care must be taken in making the original set-up to insure this. Take the weaver over the 9th thread. Twist the weaver with the 9th thread, and continue -- using the 9th thread as a weaver and bringing the original weaver down with the warp. Carry the new weaver -- white -- through the shed across the 9th thread of the next color, picking up the new shed as before. Twist the weaver with the 9th thread and continue with the new weaver as far as the 9th thread of the following color, and so on till the edge is reached.

Turn the work over. Cross the center threads and work as above from the center toward the left. Turn back to the original first side.

Using the thread to the right of the first cross at the center as a weaver, work again toward the left, making the twist on the eighth thread of each color. Turn the work over and repeat. Continue in this manner making the twist at the seventh, sixth, fifth, fourth, third, second and first threads in succession. Work the two sides alternately.

It will be noted at this point that the sides are deeper than the center. To (X) fill in the center: Work the center once, as far as the change of color. Next work the center and the first change of color. At the point where the color changes, change the weaver to the new color, making a simple twist. Do not carry the odd color weaver along. Work the center and the first and second colors in this manner. Next the center and the next three colors, and continue till the weaving reaches the edge. Work the other side to match.

This completes one entire operation. Continue till the woven length is sufficient.

Never lose the shed. Straighten the ends from time to time as necessary.

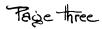
Leave the fringes very long and braid in three strand braids or in the Indian four-strand braid.

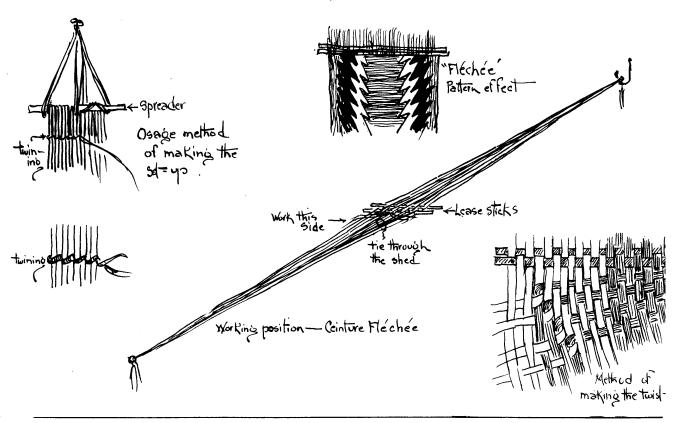
The second half of the sash is worked from the edges toward the center. Take out the lease rods, so that the join can be made smoothly. Keep the shed.

When the work is finished the edges will need building up. Weave the edge to the first color; weave the edge and the first color, changing the weaver with (X-24 simple twist at the change of color. Continue, weaving one more color each time till the center is reached. Weave the other side to match.

Well, there's the story. And here are a few suggestions from my own experiments with this form of weaving. First, the material. There is no commercial yarn of the correct twist to be had. People who have spinning wheels can re-spin the yarn to the proper stiffness. For my own experiments I used some of the "Chimayo" yarn we used to be able to get from New Mexico, but this has not been available for some time. I mention it as other Guild members may be fortunate enough to have some of this splendid yarn on hand. But for first efforts I suggest using cotton, and something a good deal coarser than the yarn used in the ancient pieces. The Lily Company's "thrifty-knit" cotton serves the purpose nicely.

I find the lease sticks rather a nuisance, and in my opinion a better way





Geeret Writing

Basis of the "Pio-Pen" Alphabet

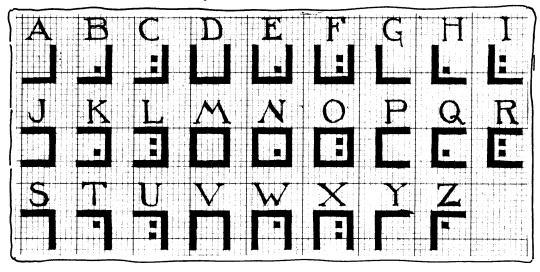
	DEF	
JKL	MNO	PQR
STU	YWX	YZ

100-130-6730 20-130-130-130-1 20-130-6230-1

Inscription - used as design

Initials -scarf
or towe

The "Pig-Pan" Alphabet.



to start the work is the method used in Osage braiding: Make a twining tie across the center of the warp, enclosing two warp-endsin each twist. Loop the part of the warp that will be woven second around a stick, to serve as spreader. This holds the warp more firmly than the lease sticks. When starting the second half of the weaving the tie may be taken out if one chooses, but it may be left in, as is the Osage practise, and the work may then be done from the center toward the edges, exactly like the first part. This makes a reverse in the pattern at the center, but this is not unhandsome, and many of the ancient pieces illustrated in the pamphlet show such a reverse.

The importance of keeping the shed all the way cannot be over-emphasized. In making a narrow piece it is easy enough to hold the entire shed on the hand, but this is difficult for a wide piece. The illustrations in the pamphlet showing weavers at work seem to indicate that the usual practise is to hold only half the shed -- the shed on the side being worked, of course. It is a simple matter to tie a loop of cord through the shed on each side.

Note the paragraph marked (X) under "Weaving:" this appears to me to be in error. I fancy the process described is not required till the end of the weaving is reached, as indicated in the paragraph marked (X-2)

One of our Guild members, Mrs. W.F.McNulty, who has done much weaving of this type, says that for narrow pieces it is a help to wind the warp-ends on small bobbins such as are used in lace-making. For a wide piece with several hundred warp-ends this would be rather impractical, however.

Here is something I found amusing, and that may appeal to some of our members: in an article on "secret writing" I found a description of what goes by the name -- rather unromatic -- of the "pig-pen cypher." The interesting feature, to me, is the fact that the alphabet has a definitely decorative effect and would be easy to weave in several familiar techniques, -- the double weave, the Spanish open-work weave, the Russian linen weave and so on. For those who like to weave names, initials or mottoes, and who do not wish to be too obvious, this cypher should fill a long-felt need. The fact that this form of writing is used chiefly by criminals and prisoners need not disturb us. The diagram on which the cypher is based, and also a complete alphabet, are given on the diagram. The frame indicating the space on the diagram, without an enclosed dot, represents the first letter in that frame; the second letter is indicated by one enclosed dot and the third letter by two enclosed dots.

I have received a sample copy of a new monthly leaflet on hand-weaving called "Loom Music," issued by Mrs. Ethel Henderson, No. 20, Ritz Apartments, Winnipeg, Manitoba, Canada, and her associate Mrs.R.B.Sandin, University of Alberta, Edmonton, Alberta, Canada. This publication is planned to meet the needs of beginners and the material is simple and is presented in very clear and complete form. Both Mrs. Henderson and Mrs. Sandin are skilled weavers and teachers of hand-weaving, and their leaflet will, I am sure, prove very useful. There is too little technically correct material printed on the subject of our craft, and it gives me pleasure to recommend this new weaving Bulletin. The subscription price is \$3.00 a year.

I am asked to state in the Bulletin that Mrs. Pearl C. White, Findlay, Ohio, mhas for sale "a nearly new steel Dean Fly-shuttle loom, two-harness, 45" reed." This type of loom is, of course, shop equipment rather than craft equipment and is useful chiefly for weaving plain rag rugs. However some Guild member may be interested in obtaining a loom of this type.

May n. atwale.

#### 19:0100 THE REPORT OF THE PARTY OF THE PARTY

for

Basin, Montana

#### March, 1944

A number of interesting letters have been received from Guild members in response to the request for suggestions. Some of these suggestions have been followed in the preparation of the Bulletins for January and February, and two that seemed to me of special interest will be considered this month and next.

One of our correspondents feels that we spend too much time on small weaving and are missing our best opportunities -- that instead of little table mats and bags and scarves and such things we should weave fabrics for drapery and upholstery, dress fabrics and the like. So next month we shall have a Bulletin on drapery, with special consideration of cotton as a material. We usually have a drapery Bulletin in the spring. There will be an issue devoted to upholstery fabrics also some time this year.

Our other correspondent -- as well as several others -- asks for a Bulletin on bags. Though it is true in my opinion that our finest opportunities lie in the larger weaving, many of us <u>like</u> to make the small personal things, and some of us are limited to small looms and are unable to undertake large projects. So this month's Bulletin will be about bags.

The subject is a rather harrowing one. Some of the bags we make are handsome and practical, but many alas! are neither. The reason for this appears to me a matter of design and finish. Any of us can weave a satisfactory fabric for a bag, but this is the smallest part of the problem. No matter how perfect the weaving may be, or how well-chosen the weave, pattern, color scheme and materials, the bag will not be anything to boast of unless it is "smart" and up-to-date in shape and expert in make-up. These are not really textile problems at all, but are problems of style and stitchery. However as the success of a hand-woven bag depends on them it seems suitable to consider them in the Bulletin. It goes without saying that the weaving must be well done, that the fabric must be agreeable and practical -- neither too flimsey to stand hard wear nor so heavy that it appears clumsey -- that the color or colors must be agreeable or interesting, and that the pattern must be attractive and suitably arranged.

But the thing of chief importance is the shape of the bag. This is a question of the style of the moment. In a year when the preferred bags are very wide and very shallow it is useless to make bags that are deep and narrow — unless one is deliberately trying for something eccentric. Utility has nothing to do with the matter. Hand-woven bags are not primarily intended for utility. There are plenty of useful, cheap, and not too hideous bags to be had in the shops. The chief object of a hand-woven bag is decoration. Unless it serves to set off the costume or the personality of the one who carries it, it is a waste of effort.

I do not set myself up as an authority on style, but anybody can study the bag-shapes of the moment by visiting the smart "specialty" shops or by studying the illustrations in the fashion magazines. I have been making such an inquiry for this Bulletin, and though there appear to be many shapes to choose from this year a few general characteristics of the bags of the moment emerge clearly enough. No doubt due to the fact that so many men and women are in uniform, the general effect is definitely stiff and "tailored." Gone are the floppy, shapeless bags of softer times. Out also are elaborate metal wountings, or mountings of any kind for that matter. Many of the cheap bags

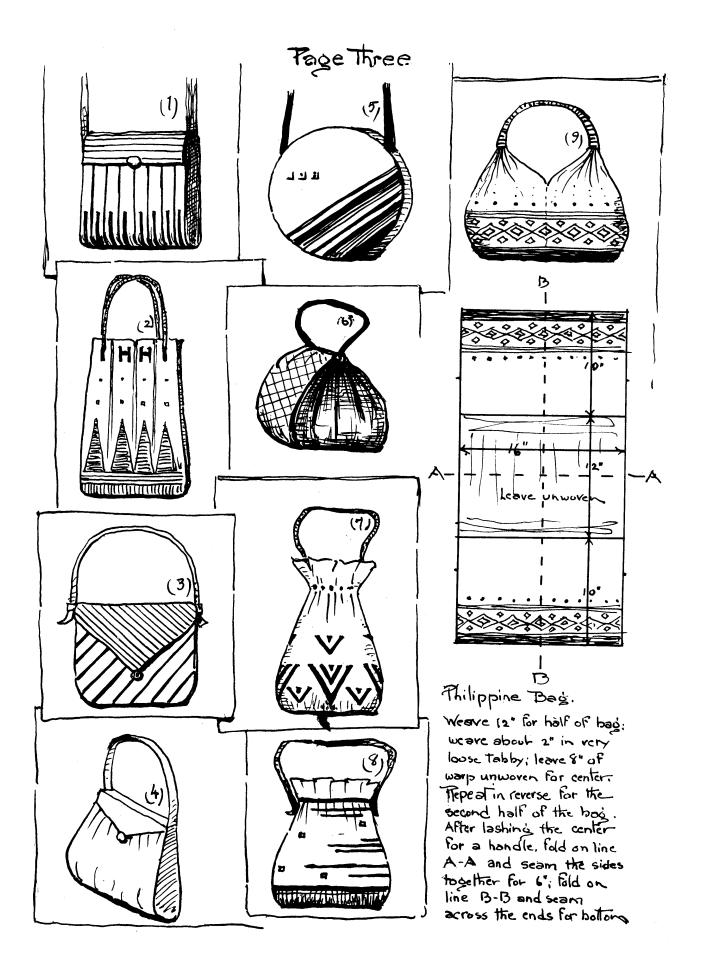
in the shops, to be sure, are still made on wooden mountings -- some quite heavy and exaggerated in shape. But the high class bags have no handles at all. Unexpectedly, the draw-string is back again, -- though a flat band, either short to be carried by the hand or long to go over the shoulder, -- is perhaps the most favored carrying device. This is quite delightful from the hand-weaver's point of view; draw-strings and flat woven bands are "right up our alley."

On the diagram I have sketched some of the more popular shapes, and I have suggested types of decoration that seem suitable. This is a year of stripes and dots, which it is well to keep in mind. The patterns indicated could be carried out in a variety of weaves -- double weaving, some of the Guatamalan weaves, and so on.

Numbers 1 and 5 on the diagram are bags of definite military inspiration. They are carried by a flat band over the shoulder. The finish of pieces like this must be perfect. A somewhat lop-sided shape or a bit of hesitation in the stitching would make these things pathetic rather than smart. If I had the urge to make bags of this type I should have them made up by a professional leather-worker; 4 and 6 would also be difficult to make up properly. No. 6 suggests a miniature of the old-time "carpet bag," and it might be amusing to develop it along that line. It may be provided with a carrying strap to go over the shoulder or with a handle as sketched. No. 2 seems to me a very interesting shape, and distinctly "new." The very wide, very shallow bags that were popular a year ago, are still being shown. But this is a style that appears to be going out, and this shape, -- deeper than wide -- appears to be the newest development. This bag should be made up with a narrow flat bottom, and the fabric should be stiffened enough so that the bag will "stand alone." The pleats should be carefully arranged and firmly pressed, and the bag is carried by a round draw-sting taken through slots in the upper edge of the bag. No. 7 is similar in that it is deeper than wide and is provided within draw-string. However this bag should have a round, flat bottom. The fabric should also be stiffened enough to keep the piece in shape. No. 8 is the same type of bag, but the flat bottom should be a narrow oval instead of a round.

No. 9 shows a "Philippine bag," such as was popular a good many years ago -- but with a difference. The bags of this type that were at one time imported from the Philippines had deep fringes along the bottom. This feature is omitted on the present bags. As this is an excellent type of bag for hand-weaving, details of the unusual construction are given on the diagram. For the present style the lower part of the bag should be stiffened enough to give it shape. The pattern suggested could best be carried out in one of the Guatemalan weaves given in a previous Bulletin. These weaves are similar to the native Philippine weaves. The handle is made by lashing the middle part of the fabric with a cord or a strand of suitable material. This lasking must be very close and firm. One or another of the sailor forms of "coxcombing" may be used. It is easier to do this wrapping before sewing the bag together. When this has been completed, bring the ends of the fabric together, -- wrong side out -- and sew the selvages together as far as desired. Then fold lengthwise through the centers of each strip of weaving, bringing the sewed selvages together, and sew firmly across the bottom. Turn right side out and the bag is finished. If lined and stiffened as suggested, the lining should extend only as high as the seamed selvages. This type of bag is excellent as a knitting bag or a carryall bag. It should be ample in size. Material suggested: a fine cotton warp and tabby, with decorations in a coarser soft cotton in colors. The decoration may, of course, be in any weave or pattern desired, but in my opinion a classic Colonial overshot pattern would be very inappropriate. A series of little borders in variations of a small threading such as a small "diamond" figure, "bird-eye", Series V, No. 6 in the Recipe Book, etc., might all the used. But in my opinion the Guatemalan weaves would give the most interesting effects.

It is one of the laws of design that to be satisfactory a decoration should conform to the shape and use of the object or surface to which it is applied. It is important that any decoration used for a bag should enhance



the "baggy" purpose and shape of the article. A hand-woven bag should not look just like a piece of frabric attached to a handle. A bag is normally something that hangs down, and encloses something more or less heavy. It follows that the bottom of the bag should appear heavier and stronger than the top. If horizonatal bands of decoration are used, they should be wider and more elaborate toward the bottom. Or the bottom may be in solid color with the decoration in a lighter effect above. The darker colors, if a variety of colors is used, should be used for the lower part of the bag, with the lighter colors above. A bag in which this effect is reversed has an unpleasant upside-down effect. This might be the test: if the piece you are planning to use for a bag could just as well be used for a table mat, a pillow-top or something else you may be sure it will not make a distinctive or interesting bag.

As draw-strings are again in fashion, here are two knotted cords that are excellent for the purpose, and a flat braid that is suitable for a bag-

handle. Of course flat bands for handles may be made in card-weaving or on the inkle loom, or braided in the Peruvian braid or Osage braiding, and many good braids for draw-strings have been given previously in the Bulletin and in an article I once prepared for Bernat's "Weaver" magazine. For a colorful cord, for instance, the Egyptian braid from the "Girdle of Rameses" is excellent, and the four-strand "Indian" braid if made of coarse enough material is also good. The "crown" braid may be made around a foundation cord and is then strong enough for the purpose.

Cord No. 1, illustrated here, was sent me by one of our Guild members. It is excellent for raffia or celophane "straw twist" or other stiff material. It can be used for seine twine and macrame cord, but not for soft materials. No. 2 is a six-strand cord knotted in the familiar "Solomon Knot." This may be made in such materials as Lily's "thrifty-knit" cotton if made around a foundation cord for strength. It may be made in a solid color, or in five colors -- two strands of each color. It is very simple to make: tie a Solomon knot with the first four strands. Drop these and make a second knot with the next four strands. Now

These braids are shown in exaggerated form — as actually made the knots should be drawn close.

make a knot with the remaining two strands and the first two strands of the first knot. Make the next knot with the remaining strands of the first knot and the two first strands of the second knot, and so continue. The flat band at No. 3 is also made with the Solomon knot. Use 14 strands for this. The two center strands are foundation cords and should be a strong material. The remaining twelve strands may be in coarse, soft cottons and in colors as desired. The illustration will show how the braiding is done. A Solomon knot is tied over the foundation strands using each time a strand from either side of the braid. These strands are interlaced in a simple over and under braid. An interesting effect is produced by making one pair of strands in a much coarger material than the others and in a contrasting color.

As usual, samples may be obtained from Mrs. Maybelle Gano, 2016 Castillo St., Santa Barbara, California.

I have just contracted to be at the Montana State University again for a weaving "institute" next summer. Those planning a mountain vacation may wish to keep the date in mind -- June 19 - July 1, -- at Missoula, Montana.

May M. atvale

### BODDENDIN

for

Basin, Montana

#### April, 1944

It was planned to make the April Bulletin a "curtain" number, and devote the May issue to fabrics for upholstery. However something unusual and interesting has come up so that this order will be reversed -- upholstery fabrics this month and window drapery in May.

One of our Guild members, Mr. C.G.White, of Redlands, California, has devised a new weave that will, I think, prove of special value to those interested in upholstery. He has generously agreed to pass along his discovery to the Guild through the Bulletin, and here it is.

But first a few words on the general subject of hand-woven fabrics for upholstery. I have always held that in the making of fabrics of this class hand-weavers find their best opportunities, -- either for pleasure or profit. This type of weaving may be developed into a well-paying full-time business. The public has already been educated to pay good prices for chair-coverings, portieres and heavy hangings, so one of our most difficult merchandizing problems is already solved. Of course suitable sales-nutlets must be arranged, but that is true for any kind of weaving for profit. One of our Guild members, for instance, has worked for years with architects and interior decorators in her community. They supply her with sketches showing the general effect desired and she works out the weaves, patterns and color arrangements to produce the effect. This seems to me an ideal occupation. But of course it is not a line of work for a beginner. One should be an expert weaver and also something of a designer to make a success of this.

Of course it would not suit everybody. Some weavers get the most satisfaction out of "yardage," -- weaving yards and yards of twill or tabby for dress-fabrics, for instance. They enjoy the ordered monotony of a good solid "job of work" like this. Others love the feel of fine linens and still others like the fussy small pieces. In preparing the Bulletins I try to keep all groups in mind so that each number will find something specially useful in the course of a year.

In planning a fabric for upholstery the three factors of the textile problem -- texture, color and pattern -- are combined in a very special way. A fabric intended for use as furniture covering should be firm and strong, fairly heavy, and ard rather than soft, as it must withstand friction and hard wear for a long time. The materials used should be hard-twisted and may be quite harsh, and the weave must be one in which warp and weft are closely interwoven. This at the outset rules out the popular overshot weave, and also the attractive soft, fluffy yarns that we like best to use. To have the fabric pull apart here and there would be embarrassing, and to have fuzz from the chair-seat come off upon the persons of ones visitors would also be disconcerting. The plain weave is of course the closest possible meave, and plain rep -- which is plain weave with the warp set very close, woven to produce a ridged effect -- is one of the most popular fabrics for upholstery because of its enduring qualities. It is, however, not a decorative fabric and if used in large quantities it gives a monotonous effect. There is a figured rep that may be produced on a modified "Bronson" threading that produces a more interesting surface than plain rep -- it was given in a Bulletin of some time ago -- and for a room in which there is already much decorative detail a good rep in a solid color might give just the sustaining effect desired, but in a fairly large, plain room wide areas of upholstery in a solid color would be depressing.

There are a number of other weaves that give excellent results when used for upholstery. The summer-and-winter weave, for instance, and the somewhat similar "crackle" weave; our "shadow" weave -- if one wishes to use coarse material -- variations of the Bronson weave, and others.

Color is extremely important in planning upholstery, as one may have to live with the chosen color-scheme for a long time. People do not always realize the more or less unconscious nervous and mental reactions to color. The brilliant reds are definitely exciting and stimulating and the dull reds warming; the blues are calm and cold -- and may be very irritating; -- the greens give a sense of comfort and amiability; the yellows and the tawny colors stimulate social intercourse and the play of ideas. If your familt life seems to fall into too "set" a pattern, try a spot or two of brilliant red or orange in your living room. If there is a bit too much conflict and emotion about you, turn to the greens.

A cold grey is a very hard color to live with, but a warm grey makes a delightful background for gay colors. Soft tans and taupes are charming in a room full of light and air, but a "hot" tan or the unpleasant "oatmeal" color that was at one time "the thing" for walls, are extremely irritating. It is hardly surprising that the people of the "oatmeal" period suffered a lot with nervous indigestion, though probably few of them realized the cause.

I once moved into a house in which most of the walls were done in a heavy bluish maroon. I could not rest till I got them covered with something different. My husband, who was not an artist, rather resented the time and trouble involved at a time when many things needed to be done, but after the change of color he was less tense and more amiable and was surprised to realize that the elimination of the liver-colored walls had made the change. He no longer felt the anxiety sensations, of a Jonah in the belly of the whale.

So be careful, but not timid, in the selection of a color or colors for the new upholstery. Consider the size, lighting and use of the room, and of course the style and colors of the articles in it. A breakfast boom and a sunroom should be as brilliant as possible. A room for study should be quiet in color but not drab. A formal room may be cold and severe. A room for conversation should be amiable and warm.

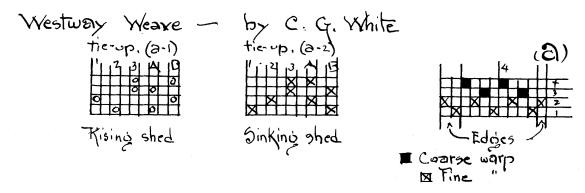
The choice of pattern depends on the weave, color scheme and size and lighting of the room as well as on the style, shape and size of the pieces of furniture to be covered. If a large figure is chosen it is usually undesirable to work it out in violently contrasting colors. Also it is important to choose a figure that will follow the contours of the piece of furniture. For single "occasional" chairs the pattern may be something quite fantastic if one chooses, but for an expanse of upholstery a somewhat restrained pattern effect is desirable. Nothing is more tiresome than a "patterny" effect in a room. But a total lack of pattern in a room is also very unpleasant. Much more pattern may be used in the upholstery and hangings if the room is otherwise severely plain than would be at all endurable in a room full of this and that.

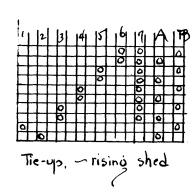
Mr. White's new weave makes a firm and handsome fabric that will prove excellent for upholstery and also for hangings. It works out very well in the cotton materials we are still able to obtain. It would also, I believe, make very nice rugs, though I have not tried this on the loom.

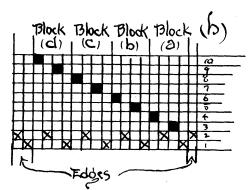
A study of the threading drafts will show that the weave is similar in construction to the summer-and-winter weave, and also to the two-warp weave for rugs given in the Bulletin some time ago. It has a very different effect from summer-and-winter weave, however, due to the use of two weights of material in the warp and to the close setting in the reed.

correct setting in the reed is essential. For a heavy cotton fabric, suitable for table mats under hot dishes and for porch cushions and such things, use candle-wicking and carpet-warp in combination. Instead of carpet warp a #5 perle cotton may be used. Sley two warp-ends, -- one coarse and one fine -- through each dent of a 12-dent reed. For a lighter weight fabric use Lily's "thrifty-knit" strand cotton, which is like candle-wicking but not as coarse, together with a 16/3 cotton at the same setting, or set two end to the dent in a 14-dent or 15-dent reed. For a fine fabric use Lily's "soft-twist" 20/6 cotton (Art. 914) for the coarse colored material and 24/3 Egyptian for the fine part. This should be sleyed four to the dent through a 12-dent reed, or two to the dent through a 24-dent reed.

#### Tage three





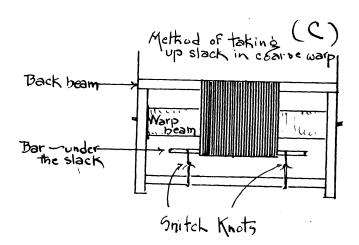


The four-harness threading at (a) May be woven to give a warp-face fabric on top and a weft-face fabric below, or the opposite. This is effective when done in a series of stripes of different colors. To produce pattern figures on this threading recourse must be had to the pick-up stick. The system of pick-up is, however, easy and rapid.

To weave warp-face on top treadle: (on tie-up a-2) 1, coarse; 2, "
A, fine

Repeat.
To weave weft-face on top, treadle
1-3 coarse

A, fine B, fine



Repeat.
On tie-up 2-1 the treadeling as given above should be reversed -- the first set of four shots will produce weft-face on top and the second set of four shots will make warp-face on top.

For a pick-up pattern treadle 1-2 on tie-up 2-2 or treadle 3 on tie-up a-1 -- raising all the coarse warp. Take up on a pick-up stick the part to be woven in warp-face -- either the background or the figure as preferred. Use a light stick in front of the reed. With the pick-up stick in position, treadle on 1 and weave a shot of coarse weft. Treadle 2 and weave coarse. Tabby A in fine weft; tabby B in fine weft. A coarse shot and a tabby shot may be woven alternately if one chooses, but this involves making the pick-up twice, as the pick-up stick must be withdrawn before weaving a tabby shot. The method described is easier and faster and gives the same effect. In weaving a pattern on the ten-harness threading, treadle 1-3, coarse, and 2-3 coarse for the first block; tabby A, fine; tabby B, fine. The pattern blocks on treadles 3,4,5, and 6 may be used in any combination desired, of course/. For a pick-up pattern on this threading, use treadle 7 for the pick up. A three-block pattern may be woven on

eight harnesses -- simply omit block (d). The blocks may be made any size desired by repeating the four-thread unit as many times as may be necessary. Any four-block summer-and-winter pattern may be produced in this weave, of course, and any pattern suitable for the double weave may be produced by the pick-up method.

In making the warp for a piece in this weave, warp three more ends of fine material than the number of coarse ends. This is to provide two fine ends on each edge as shown on the diagram.

The take-up of the two warp-materials is different in this weave and as the work proceeds the coarse warp tends to become slack. If a large project is planned it would be necessary to use two warp-beams, one for the fine warp and one for the coarse. For a very short warp this is not necessary, and for a narrow piece one may resort to a corrective we used successfully for pieces in the Mexican and Peruvian warp pick-up weaves once described in the Bulletin. Raise the harnesses that carry the coarse part of the warp and put a rod under the raised threads, behind the heddles. Carry this rod across the back beam and down till it hangs in the slack of the coarse warp. Attach the rod to the bottom bar of the loom by cords and a snitch-knot at each side, and draw the knots as tight as required to give the warp the desired tension. This rigging is sketched at (c) on the diagram. The rod used should be a stout bit of hard wood or it will not stand the strain. If necessary a third snitch-knot may be used at the center of the rod. I do not advise this method, however, for a wide warp or for a long one. A wide warp would require a number of knots, and these require a fresh adjustment each time the finished work is rolled on the cloth beam and fresh warp is released. It would take a lot of time to make these adjustments.

I have not yet experimented with the Westway weave for rugs, but I think the following would work out in a satisfactory manner: For the coarse warp and weft use a medium weight wool rug-yarn or a medium weight cotton rug-yarn -- such as Lily's Art. 814 -- with ordinary carpet warp for fine material. Sley two warp-ends to the dent through an 8-dent reed.

The weave will prove useful also for portieres and heavy draperies, and as either side may be condidered the "right" side, will not require lining.

An interesting effect is to make the coarse part of the warp in a series of stripes of different colors, and to weave cross-wise stripes or a pick-up figure in the same or other colors or in a single contrasting color. This can be done on the four-harness threading. For instance make the warp in stripes of light tan, light grey, pale yellow and orange. The stripes may be all the same width or may be of different widths and in a set or a casual arrangement. Weave in black. For a simple figure, pick up two ends and skip sixteen all across. Weave two shots in coarse black and two shots in fine tabby as described. Next pick up four and skip fourteen all across and weave as before. Next pick up six and skip twelve, and so on till a complete triangle results.

Figures in different colors of weft may be woven against a background in a solid warp-color. When this is done, however, one side of the fabric will be less handsome in effect than the other. For chair-covering and the like this will not matter, of course, but for hangings it might be undesirable.

The mercerized cottons may be used in this weave but do not give as pleasant an effect as the softer cottons named. Wool and worsted yarns, if available, may be used for the coarse warp and weft with cotton for the fine warp and tabby. To arrive at a suitable setting in the reed for a special material, take a number of strands of the material and lay them side by side and as close together as possible without overlapping. See how many strands are required to cover an inch. This will be the number of coarse ends to the inch, and there will be an equal number of fine ends.

This is as far as my experiments with the new weave have gone to date. I shall be much interested to hear from Guild members as to what uses they make of the weave and what further suggestions they may have. Meanwhile I wish to extend to Mr. White my thanks, and the thanks of the Guild, for his interesting contribution to our art.

May M. atvalus

#### BUIDESTON



#### for May, 1944

Basin Montana

The subject for this month is a good spring-time subject -- window drapery. Nothing enlivens a winter-weary room as quickly and easily as a set of bright new durtains at the windows.

Of course a set of curtains is like a new dress-- it must be not only interesting and attractive, durable and comfortable, but it must be "becoming" to the room. And this last consideration is the most important consideration of all. To hang bold, modernistic curtains at the windows of a frilly, dainty, "girly" room would be a frightful thing to do. Almost as bad as tricking out the library windows in something fine and ultra-feminine. So in planning a new set of curtains think first of the style of the room; think next of the color scheme to suit the room and set it off for summer; think next of the texture desirable for the proposed draperies; and think last of the pattern, if any, that you wish to use.

Window draperies may be divided into two general catagories: the rather heavy and entirely non-transparant side draperies that serve to frame the window or -- when drawn across the window -- to insure privacy. And the light, transparant glass-curtains designed to let in as much light as possible.

As our space is limited it is not possible to consider both types of drapery in the same number of the Bulletin, so the discussion this month will be limited to the latter class. It was planned to discuss side draperies of the heavier class next month, but I have received requests for information about the weaving of cotton dress fabrics and shall give this material in the June number, with the drapery fabrics in July.

There are a number of weaves suitable for light-weight fabrics for glass curtains, and a number of these have been given in the Bulletin from time to time. Among these the lace-weave produced on a special version of the "Bronson" weave is often used. Patterns in this weave will be found in the Guild Recipe Book and also in several back-numbers of the Bulletin which are available to Guild members. Single patterns from the Recipe Book are 25¢, or six for \$1.00. Single back-numbers of the Bulletin are 35¢, or 12 cop ies -- a complete year -- for \$2.50. In addition to the patterns in lace-weave there are a number of special weaves that give an open effect.

However undoubtedly the best weave for very light weight fabrics is the "leno" or cross-weave in one or another of its many forms. As I receive many questions about this weave, and as the back-numbers of the Bulletin in which it was described are now out of print, it seems desirable to have another leno Bulletin at this time.

The cross-weave requires a special set-up, and it is unfortunately true that some hand-looms are so constructed that they balk at weaving leno. The looms that produce this weave without difficulty include the Gilmore looms, the Reed-Macomber "Add-A-Harness" loom, the Bernat treadle loom, and the Structo looms. These are all looms of the "jack" type. But a four-harness counter-balanced loom will also weave leno, provided the loom makes a wide, even shed. Before undertaking a large project in leno it would be wise -- if the loom to be used is not among those listed -- to try a small sample to make certain that the loom will behave properly.

The steel Heddle Mfg. Co., 2100 West Allegheny Ave., Philadelphia, Pa., supplies a special leno heddle. However this type of heddle requires a special set of heddle frames as it will not work properly on the ordinary frames used on most of our looms, and the set-up is quite expensive. It would pay to get this equipment if one phanned to weave leno commercially for sale, but for those of us who wish to weave a few sets of curtains only, the more practical method is the one described below. The cost is negligeable and the time involved is not great. This is one of the methods used in the old time before the introduction of weaving machinery.

On a four-harness loom the only leno possible is the simple "marquisetts" twist. The warp is threaded: 3,4,3,4,3,4, through the two back harnesses and the two front harnesses are used to make the twist. The heddles on the front harness are called the "standards," and the second harness is provided with half-heddles made of string, called the "doupes."

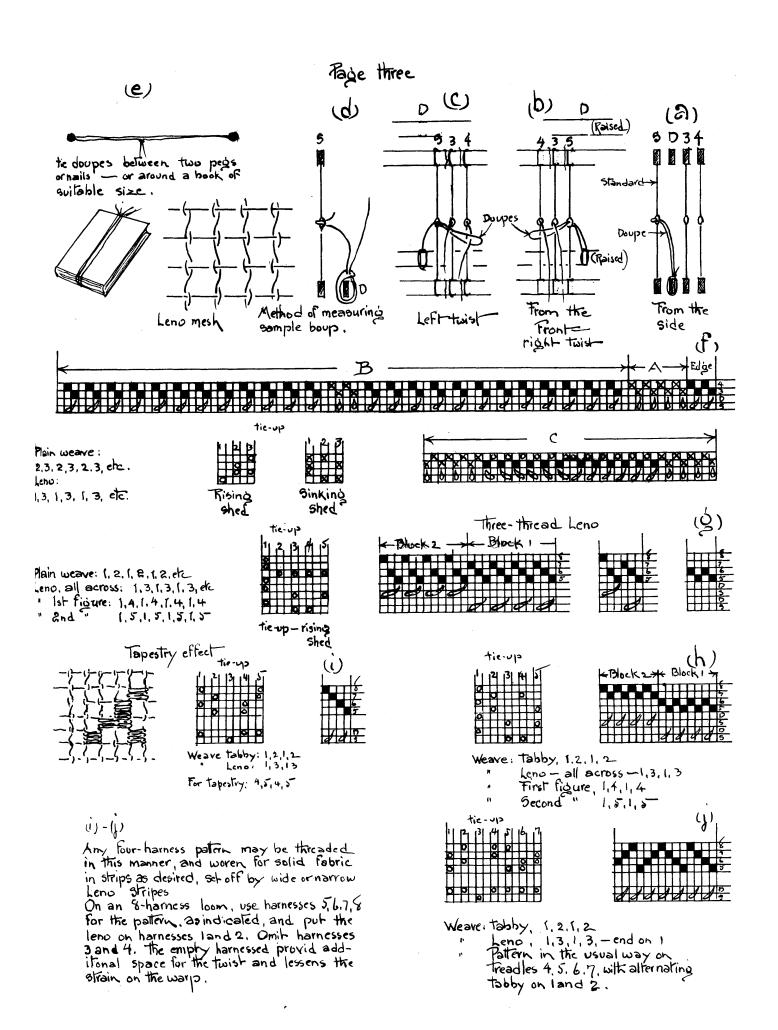
To make the doupes, first tie a sample on the loom in order to get the exact length. Attach the cord to the bottom bar of the harness as sketched at (d) on the diagram, and take a loop through the eye of the standard heddle on narness No. 1, as shown. Tie the ends, taking great care to make the loop exactly the right length to come just through the heddle on the standard and no further. Take this sample doupe off the loom and use it as a measure for making the number of doupes required. The doupes may be made over two pegs or two nails set the correct distance apart, as indicated on the diagram, -- or one may find a book of exactly the right size, around which the doupes may be tied. Use ordinary carpet warp or any good material of similar size and strength. A very stretchy material us undesirable. Linen, of course, is best, but this is too precious at present to be used in this manner.

To make the plain leno set-up first thread the warp on the two back harnesses. Then raise harness 2, -- the doupe harness -- which should be cleared of heddles. hang one of the doupes on this harness and draw the loop through the heddle of the first standard, -- from right to left. Take the thread from harness three over the loop and draw the thread from harness 4 through the loop, as sketched at (b) on the diagram. Or if preferred, thread the doupes as shown at (c) on the diagram, which produces the opposite twist. It will be seen that one doupe is required for each two threads of the warp.

The tie-up and treadeling are given on the diagram. It will be found that the twist shed will be quite shallow, and weaving must be done with a flat "poke-shuttle," though if one prefers a shed-stick may be put through the shed between the heddles and the reed, and when set on edge will give a wider shed.

The material used for warp in the leno weave should be a material with plenty of stretch, as there is a strain put on the warp in making the twist. It is possible to equip the loom with a "jumper" mechanism that relieves the stretch and permits weaving leno in linen and other materials without the stretchy quality, but this is unnecessary if such a warp as Egyptian cotton 24/3, or a spun silk or a worsted material such as Bernat's "fabri" yarn is used.

Though only the simplest twist may be woven on four harnesses, the weave permits a great variety of effects. Plain leno all the way is not very interesting, but alternating stripes of plain weave and leno, with the introduction of a number of colors if desired, may be made very spirited and charming. The weft material may, if desired, be entirely different from the warp. For instance a "frill" material is charming in this weave. One may weave the bottom of the curtain in plain weave for 12" or so, then a single leno shot, followed by a narrower stripe of plain weave; then two or three shots in leno; and so on, in graduated stripes, with the top of the curtain in plain leno to permit the passage of all the light possible. Lengthwise stripes in plain weave, in a coarser material than the leno, may be introduced as shown on draft (f). The effect of this seemed to me extremely attractive. I used Egyptian 24/3 in natural for the fine threads, and Lily's "soft-twist" (Art 914) in tan and green for the plain stripes. This was sleyed through an 18-dent reed, --the coarse threads one to the dent and the fine threads two to the dent, skipping a dent between pairs, as indicated on the draft. One might repeat the first two parts of the draft -- A,B,A,B, and so on -- without the little pattern stripe at C. However this is rather attractive.



#### Page Four

The little pattern effect is produced by twisting a fine thread with a coarse colored thread, and reversing the twist at the center of the figure as indicated. Of course in sleying the two threads that twist together must be sleyed through the same dent of the reed.

For the plain stripes, take thread 3 through the loop of the doupe and bring thread 4 through plain. As these threads do not twist they need not be taken through the same dent of the reed.

This pattern may be woven in leno all the way and will produce an effect of lengthwise stripes in leno and plain weave, or may be woven in squares as threaded.

Another way to use plain leno is after the manner of some of the Quatamalan weavings: alternating stripes of plain weave and leno, with the plain weave stripes ornamented as desired with little figures in one or another of the pick-up weaves given in previous Bulletins. Or the leno may be decorated with figures in tapestry technique, after the ancient Peruvian manner. These figures may be put in with small shuttles or with a tape-needle. If more than four harnesses are available the set-up at (i) will facilitate the process as it permits raising alternate pairs of the leno.

The three-thread leno, given on the diagram, makes a somewhat firmer fabric than the plain two-thread twist, and also permits a pattern of alternating squares in plain and open. A two-block pattern in tabby and two-thread leno may be woven on draft (h).

On a loom with six harnesses the four back harnesses may be threaded to any four-harness weave or pattern -- plain twill or herringbone, for instance, or a pattern in overshot weave -- with the two front harnesses used for leno. On eight harnesses one may use the six back harnesses for a pattern in summer and winter weave, with leno on the two front harnesses.

The leno set-up is extremely useful if one wishes to use such materials as celophane or some of the odd weft materials people like to experiment with. The twist holds the material in place far more firmly than the ordinary tabby weave. The leno twist -- especially the three-thread leno -- is desirable for the first weaving in the making of "twice-woven" rugs, as it holds the weft so firmly.

Though the leno weave is used more for curtains than for other things, it is a delightful weave for light-weight scarves. A warp of fabri yarn or of spun silk may be woven in "novelty" yarns and in color effects of great variety, with charming results. If one wishes, initials or small figures may be introduced in the tapestry effect. As these scarves require very little material, and may be woven extremely rapidly, they make an attractive specialty for those who weave for profit as well as pleasure.

Coarse materials may be used for draft (f) if desired. I tried this pattern with carpet warp for the fine threads, and Lily's "thrifty-knit" (Art. 614) for the coarse colored threads. A 12-dent reed may be used for this, sleyed as indicated for the fine material through the 18-dent reed. The effect was good, and for large windows, or for the windows on a sun-porch, would be very nice indeed.

In short, the leno weave is useful in many ways and for a number of purposes. There are, of course, many other forms of leno than the simple forms presented here.

At the University of Montana, in June, I shall give a short course on the theory and practise of Occupational Therapy, consisting of lectures and laboratory work. University credits will be given for this course. I shall also give instruction in weaving on the loom, but no credits will be given for this work. Anyone interested in attending these sessions should write Mrs. Belle Bateman, University of Montana, Missoula, Montana, for terms and further information.

May M. atwalin



Basin, Mont.

June, 1944

In this country hand-weavers have done very little in hand-weven dress-fabrics of cotton. Attractive machine-weaven cottons are so plentiful in the shops, and are so low in price, that the making of such fabrics on our hand-looms has had little appeal.

However, it is true that hand-woven cottons differ from the machine-made product in texture, much as hand-woven wool tweeds differ from the fabric woven by machine. And many of us enjoy the ordered monotony of a big job of "yard-age" in simple weaving. There is relief to strained nerves and an anxious heart in such work.

No one need think that plain tabby weaving is "easy" weaving. It is far more difficult to produce a really good tabby fabric than to weave elaborate patterns, as anyone will find out by trying it. The warp must be absolutely perfect, and the beat absolutely correct for the setting and perfectly even. Slight variations in beat, that often occur each time the warp is released in order to roll the woven fabric on the cloth beam, produce unsightly cross-wise streaks. There is noble discipline in this type of weaving, and there is a certain grim pleasure in seeing the fabric build up, thread by thread.

Tabby is undoubtedly the best weave for cotton dress-fabrics. The tabby interlacing produces the firmest, lightest fabric possible with the material im question. And to make the fabric light enough for clothing the material should be -- as a rule -- a good deal finer than the cottons we are accustomed to use for other types of weaving in cotton.

For a study of hand-woven cotton dress-fabrics we naturally turn to the fabrics of this type produced in two countries where much of this weaving is found -- Guatemala and Sweden.

Readers of the Bulletin may recall an article that appeared in HARPER'S BAZAR for January 1944, showing Guatemalan hand-woven fabrics used in various ways for clothing. The special weaving techniques involved have been described in detail in the Bulletins for May, June and Spetember 1942, and the tied-dyed, "jaspe" or "ikat" technique in the Bulletin for March 1943. Copies of most of these backnumbers are still available. Notes have also been given on the fabric for blouses made in Guatemala with bands of leno weaving between bands of tabby, decorated with little figures in colored pick-up. The blouse illustrated in the Bulletin for June 1942 might be carried out in this manner, with fewer bands of pattern weaving and leno bands introduced. The effect is lacy and gay. The foundation of the Guatemalan weaves is always a close, plain tabby in very fine cotton.

The leno in the Guatemalan pieces is probably picked up instead of being woven with doupes, and those who use looms that refuse to make leno in the more convenient manner could produce the effect easily enough in the pick-up manner. A useful tool for this is a coarse crochet-hook with a very long handle.

Plain tabby done in fine threads is also the weave chiefly used in the Swedish hand-woven cottons for clothing. These are often done in plaids. This is something I should not, myself, care to make -- unless the need for very severe discipline seemed urgent. To make a good plaid, with all the figures exactly

square, is difficult enough in fine wool as those of us who have attempted the Scotch tartans are fully aware. In cotton the thing is a good deal more difficult. Striped fabrics are fashionable at the moment and are, of course, easier to weave. For anyone who wishes to try this I suggest 20/2 cottons at a setting of 40 ends to the inch. Finer material, if available, might be used.

Threading (a) on the diagram, carried out in the material suggested, makes an attractive cross-barred fabric, sturdy enough for children's play clothes and also for a beach costume. Alternating treadles 1 and 2 all the way makes a striped effect. This might be used for a skirt or wide pajamas, with a jacket woven in the cross-barred manner. This is a pattern of the Swedish type.

Draft (e) on the diagram is also a Swedish pattern. Woven: 1,2,3,4 and repeat it produces plain weave and herringbone in lengthwise stripes. This might be used for a suiting, made with Lily's "soft twist" -- Art 914 -- at a warp setting of 24 ends to the inch. In a recent leaflet issued by the Lily Company it was stated that this cotton is not suitable for warp, but this was an error. It makes an excellent warp unless destroyed in the warping by being beamed in the "drawing through" method.

At the weaving institute held in Berkeley two years ago one of the weavers were a cotton suit she had weven in one of our "shadow" patterns. The pattern used was pattern (a) in the Bulletin for February 1942. It was made in brown and tan. The effect was excellent. As this weave is actually a tabby weave it is well adapted we to weaving in cotton. I am therefor giving three new "shadow" threadings, especially designed for cotton suiting. I experimented with these threadings in two different kinds of material. One warp I made using Egyptian cotton 24/3 for the light threads and Lily's soft-twist in a color for the dark threads. I set this at 30 ends to the inch. It made a nice, form fabric that should give excellent wear. I also tried it with all material in Lily's soft-twist at a setting of 24 to the inch. This gave a somewhat "sportier" effect.

This weave depends on color for it's pattern effect. The two colors used should be in sufficient contrast to bring out the pattern, though for a suiting the effect should be somewhat subdued or it may appear too striking. I found that cream and light tan did not give enough contrast. Brown and tan, as noted above, gives an agreeable effect. One may also use a different weft color from the color used in the warp. This must be done with caution, however. It is wise to make samples before setting up the loom for a long warp.

```
Each of these treadings may be treadled in several different ways.
A good treadeling for (b) is as follows:
Treadle 1, dark; treadle 3, light -- repeat three times
                          3, dark --
        1, light;
                                        22
                                                      .
                          2,
        4,
   Ħ
                          2, light
        4, dark;
                                                *
                                                      .
        3, light
                             dark
```

" 2, dark; " 4, light Repeat from the beginning.

```
Or the pattern may be woven:
treadle 1, dark; treadle 3, light -- repeat six times

" 2, " 4, " " "

" 3, " 1, " " "

" 4, " " " "

" 1, " " " "

" 1, " " " "

" 1, " " " "

" 1, " " " "

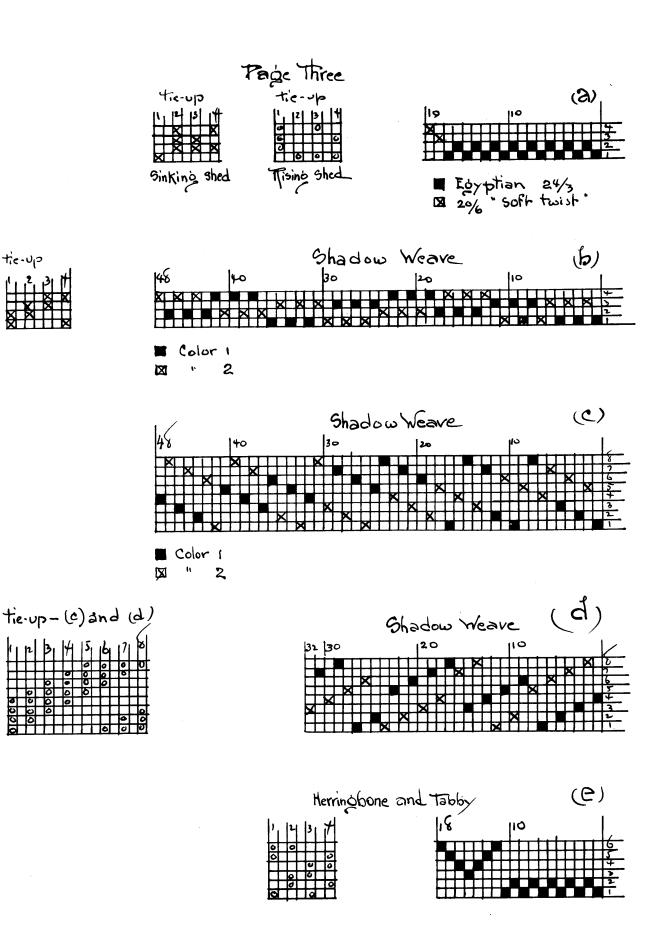
" 1, " " " " "

" 1, " " " " " "
```

Lengthwise stripes may be woven by repeating any pair of shots continuously.

```
Both pattern (c) and pattern (d) may be woven as follows:
treadle 1, light; treadle 5, dark
                            6,
        2,
                            7,
              .
                        17
        3,
                                   11
                             8,
              11
   11
        4,
                        .
                                  11
              Ħ
                            ı,
        5,
                             2,
   *
        6,
              Ħ
                             3,
        7,
```

Repeat from the beginning.



tie-up

Another interesting treadeling for pattern (c) goes like this: treadle 3, dark; treadle 7, light 2, 6, Ħ 11 11 1, 5, Ħ 8, 4, light dark 89 7, tt 3, 2, 11 Ħ 6,

1, 5, dark light Ħ 8, 4, 17 # 11 7, 3, Ħ 6, dark light 5, Ħ 11 8, \*\* 11 4, Ħ 7., dark 3, light Ħ 6, 2, Ħ 11 5, 1, Ħ 8, 4, light dark n 17 7, 3, 11 2, 11 6, ## 5, light ı, dark 11 8, 4, 11 7, 3, Ħ Ħ Ħ 2, 6, light dark \*\* n ı, 5, n 11 8, Ħ

4, Repeat from the beginning

Patterns (c) and (d) may also be woven as follows, for a somewhat heavier fabric suitable for a coat or jacket. The effect is more interesting is a weft color is used different and somewhat darker than the darker color used in the warp. All weft shots in one color. Treadle: 1,2,3,4,5,6,7,8, and repeat.

Though these threadings were designed especially for use in weaving cotton suitings, they may, of course, be found interesting for other purposes. They might be used for drapery if a fabric with a rather subtle pattern effect is desired, and might also be used for chair-covering. Or, done in fine wool, for scarves and neckties. Or in coarse wool for light blankets of the "afghan" type. The correct warp-setting, for any material, would be the setting for a tabby fabric.

As the weaving of cotton dress-fabrics is a somewhat new and unfamiliar "line" for most of us, I shall be interested to hear from Guild members about their experience with this type of weaving.

One of our members, Mrs. Louis Deru, writes of an interesting experiment she made with the set-up for Mr. White's "Westway" weave. She had the two kinds of warp on separate beams and it occurred to her that this would be a practical set-up for a looped "terry" fabric. She writes that it gave excellent results. I pass the hint along as others may wish to try it. Of course if the set-up is made especially for terry the colored warp should be about four times as long as the foundation warp, -- or longer if a deep pile is desired.

\_ \_ - - -

Next month, by request, we shall have some notes on window drapery of the opaque type -- for side drapery. To me this is a particularly interesting subject. Attractive drapery adds so much to the charm of a room, and there is probably no other weaving project that offers as much variety.

Mayon. atvalin



for

Basin, Mont.

July, 1944

In my opinion the weaving of fabrics for drapery is the most interesting of our larger projects. Here, if one likes, it is possible to let oneself go -- in design, color and texture. One may be austere, prim, dainty, bold, bright and gay, dark and rich, restrained or extravagant, classic, modern, complicated, simple, fanciful or businesslike.

In planning draperies of any kind, whether for a doorway or for window openings, the place to start is with the room -- for drapery should be "becoming" to a room just as a dress should become the wearer. No matter how interesting in themselves, and no matter how well woven they may be, if they do not set off the room -- make it more comfortable and agreeable -- they are a failure. They must suit the purpose of the room as well as the style and color scheme, and fit the people who may be expected to sleep, eat, work or converse in the room. For a sun-room or morning room or informal sitting room color and pattern may run riot; for a bed-room something milder and calmer would usually be desirable. For a room in which writing or other mental work is done a "patterny" effect is apt to be distressing and should be avoided, and the choice of colors is especially important. Sensative people feel certain colors like a nagging little pain, though they may be unaware of the cause of the distress -- and a large and obvious figure, especially one that comes to a relentless center from space to space, may become extremely irritating. Colonial coverlet patterns of the "wheel" type should, I think, be avoided. The wheel patterns are agreeable when lying flat on a bed. They give one the pleasant feeling of rings on the surface of a placid pool. But when standing on edge they tend to revolve and produce an unquiet effect.

A piece of drapery should be designed as a unit, either in crosswise bands or langthwise stripes or in slanting lines, as the architecture of the room suggests, or may be a fabric in a small all-over effect with the accent on texture. But the best effects are obtained when the piece gives a definite up-and-down movement -- fefinitely designed to hang perpendicularly. If it would look just as well lying out flat on a table, couch or bed it is not well designed for drapery. This effect may be produced in many different ways: by lengthwise stripes, of course, and in cross-wise bands by making the bands at the bottom wider and heavier in color than those at the top, spacing the bands further apart toward the top, making the colors lighter at the top than the bottom, and so on.

Almost any of our familiar weaves may be used for drapery. Even the overshot weave, though it is usually best to select a small figure -- "Monk's Belt" for instance, or one of the "Diamond" figures, or even poor dear overworked "Honeysuckle." For heavy portieres the three-harness weave if done in many strong colors is extremely effective. However, for this purpose it is best to weave it with a tabby rather than in the Scandinavian manner, as this makes the fabric too thick to drape well and also produces an unsightly "wrong" side. The Italian type of no-tabby weave, given in a Bulletin of some time ago, is also an excellent weave for a varied color-effect for window drapery, done in soft cottons in the manner of the Italian cotton towelling. I am not suggesting the form of decoration that consists of long loops or "tags", as this has always seemed to me a rather unpleasant effect. Fortunately -- in my opinion -- it is not in style at the moment. For modernistic patterns we have crackle weave and summer-and-winter weave and the double weave.

Draft (a) on the diagram may be used for heavy hangings in the following manner: use a coarse warp set 15 ends to the inch -- carpet warp is suitable. For weft use a coarse yarn or a coarse soft cotton in two or more colors: a background color and a strongly contrasted pattern color, say tan and brown. For a deep band at the bottom weave alternating shots on treadles 1 and 2 in the pattern color with tabby in the background color. Then weave six or eight shots on one or the other of the pattern treadles, tabby between. Weave a band in plain tabby in the background color. Weave six or eight shots on treadle 1 in the pattern color followed by a band an inch and a half wide alternating 1 and 2; then six or eight shots on 2. Then another band in tabby, and so on. This is extremely simple and is remarkably effective. It is not suggested for fine materials as it would be uninteresting. It must be bold. Several colors might be used in the pattern stripes, but the effect is usually better if a single dark color is used.

For a more entertaining effect this same threading may be woven in the manner of the African sash, described in the Bulletin for October, 1941. This is also a simple weave but highly decorative when done in brilliant colors, and suitable for finer materials.

Draft (b) was used for some extremely rich and colorful Spanish draperies I saw once at an exhibition. The warp was set far enough apart so that it was completely covered by the weft and the weaving was done in numerous bands in plain color; -- or colors, rather, as a great many colors were used, with pattern bands at intervals. These pattern bands were woven "on opposites" in a pair of contrasting colors, in a variety of treadelings. The threading is similar to a small two-block effect in summer-and-winter weave, but done in the manner described it was not in the least like this weave in its Colonial form.

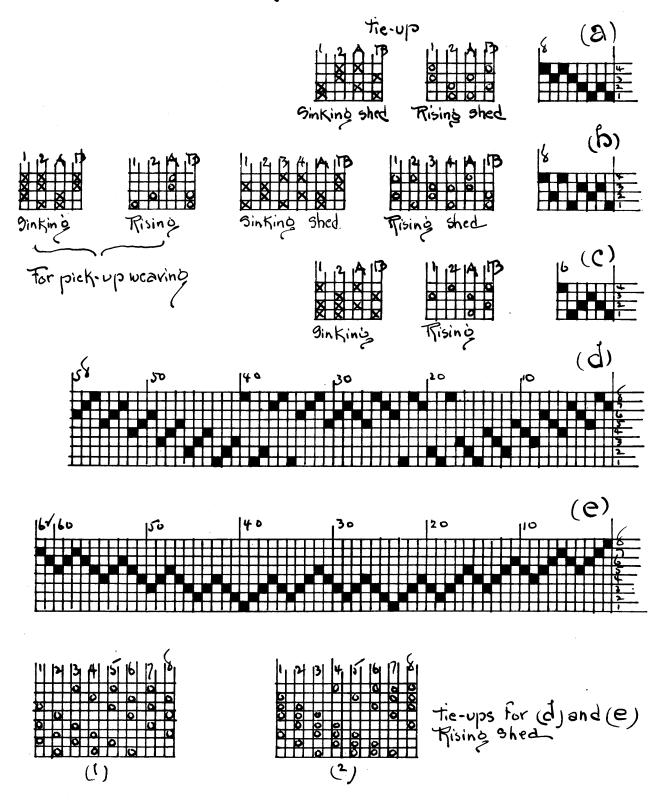
But when I weave the new curtains for my weaving room I shall not use any of the weaves suggested above. I like a great deal of color and excitement about me when I weave, and I shall use technique (b) -- Guatemalan -- in the Bulletin for May, 1942. I recently made a large bag in this weave, and enjoyed doing it and am also much pleased with the results, and making a set of curtains would be a highly amusing adventure in weaving. Done in coarse material, this weave goes very rapidly. It took me only an afternoon to weave the fabric for the bag and a long curtains should take no more than two or three days. For warp I used Egyptian cotton 24/3 at 30 ends to the inch, and threaded it double through the heddles. This is better for the purpose than a coarse warp set at 15 to the inch. I used a summer-and-winter threading, already on the loom, and the threading at (b) on the diagram might be used in the same manner. However for a bolder effect -- desirable for hangings -- The threading at (c) which gives a pattern skip of five ends instead of three, or the threading in the Bulletin which gives a skip of seven ends, would be better. For tabby I used Lily's "soft-twist" in the pinkish tan shade (Art. 914, color 1460) and also in yellow and in cream for some of the pattern stripes. For pattern weft I used Lily's "thrifty-knit" (Art. 614) in all the bright colors. Nothing could be gayer, brighter, or more amusing.

Technique (a) in the same number of the Bulletin also holds delightful possibilities for drapery -- somewhat less wild than the effects in technique (b). The other Guatemalan techniques, in the Bulletins for June and September 1942 also have possibilities, but cannot be woven as rapidly as the two in the May Bulletin and are rather less effective, unless carried out in very coarse materials and in an extremely bold manner.

Other suggestions are the Peruvian tapestry weave in the Bulletin for September 194, and the Peruvian and Mexican techniques in the Bulletin for March 1942.

For something a bit more formal, the "shadow" weave, in one or another of the larger figures, may be used with excellent results for draperies.

#### Page Three



The drafts at (d) and (e) are from Caroline Halvorsen's "Haandbok i Vaevning,"-- written according to our more familiar system for drafts. These patterns were, I believe, intended for dress-fabrics, and in preparation for the Bulletin of last month I experimented with them a bit. I did not like them for dress-fabrics, but thought them excellent for draperies of the "all-over" style. For this purpose I used Egyptian cotton 24/3 at a setting of 30 ends to the inch, and wove in Lily's "thrifty-knit." I thought the result handsome. White, or any light color gives good results over the Egyptian warp. If desired for dark-colored hangings a dark warp should be used. Either of the two tie-ups given may be used with either draft, and different tie-ups might also be used, and the treadeling may be varied in a great many ways. A few good treadelings are given below. These patterns are not woven with a tabby, but if desired for tabby headings and the like two additional treadles may be tied -- with either tie-up -- 1,3,5,7 and 2,4,6,8, for the tabby sheds.

Draft (d), tie-up (1), treadle: 1,2,3,4,5,6,7,8,7,6,5,4,3,2, Repeat.

" ", either tie-up, " 1,2,3,4,5,6,7,8 --twice. 7,6,5,4,3,2,1,8.7.6,5,4,3,2.

" ", tie-up (1). " 1,2,3,4,3,2,3,4,5,4,3,4,5,6,5,4,5,6,7,6,5,6,7,8,

7,6,5,6,7,6,5,4,5,6,5,4,3,4,5,4,3,2,3,4,3,2, Repeat.

For these weaves a single weft-color should be used. The effects are strictly of the "texture" type.

A coarse mercerized cottom might be used for weft if one preferred, or coarse silks if available.

Of course there are many other interesting and delightful ways to weave fabrics for drapery. So many that it is difficult to make a choice. The weaves given in this Bulletin were chosen to present a wide variety -- a suitable and interesting weave for almost any drapery purpose.

A good many people have written me recently asking where a good table loom might be obtained. Since Structo discontinued manufacture of table looms this has been a problem. Recently however, a new manufacturer in the firld, L.C.Wilderman, MISSOURI LOOMS, 7731 Sappington Ave., Clayton 5, Missouri, has sent me a table loom that seems to me very satisfactory for a loom of this type. A table loom does not take the place of a treadle loom, of course, but is often useful and desirable. -for making small pieces, experimental work, samples and so on. I am happy to be able to supply this address. Mr. Wilderman also builds treadle looms, but these I have not yet seen and used, so I can give no opinion on their merits. I have made it a rule never to recommend any loom I have not myself woven upon and found satisfactory. As I do not sell looms I feel entirely free to state my opinions. I hope to be able to try out one of the Walderman treadle looms before long and shall then give my findings in the Bulletin. I admit I am definitely "fussy" about looms. It is true that by "main strength and awkwardness" one can sometimes produce satisfactory textiles on a poorly constructed loom, but this seems to me a waste of time and effort. We want to weave -- not to fight a balky loom for each shed. It is a pity that there are so many undesirable looms being sold, and in use. My advice to the unfortunate possessor of such a loom is to have the thing rebuilt if the frame is solid and well constructed, and if rebuilding is impossible to scrap the thing or use it for kindling.

Sometimes, of course, the difficulty is not with the loom but with the weaver, who neglects to keep the loom in correct adjustment. This is "something else again." A loom should make a wide, even shed. It should not wobble. It should have a proper shuttle-race and a batten heavy enough to deliver a good solid thump. It should be light to operate, and it should be long enough from front to back to provide sufficient leverage for the treadles and to provide ample weaving space in front of the reed and enough space behind the heddles to prevent undue strain on the warp when the sheds are opened. It should also be easy to keep in adjustment.

May m. atrali

## BOOGSTON

Basin Mont.



#### August, 1944

It is a long time since we have had a Bulletin on the subject of linens. Little or no linen was to be had and it seemed better to take other lines. Now, however, some good linens are again available and questions about linen weaving have been coming in. Many of these questions have been answered before in the Bulletin but for the convenience of our new members it seems desirable to go over the ground again, briefly.

Certain of our standard weaves are poorly suited to linen weaving and should be avoided. The overshot weave, for instance. Linen threads do not cling together like woolen yarns and when woven in skips of any length they have a stringy effect that is far from pleasing. Small overshot patterns in which there are no long skips are sometimes woven in colored linens as borders across the ends of towels and table mats, with fairly good results, but there are many more suitable weaves, so it as as well to avoid the overshot weave. In my opinion the summer and winter weave is also a poor weave for linens, and the somewhat similar "crackle" weave is not ideal for the pupose either.

Other weaves it is unwise to use for linens are the "Finnweave" and the "leno" weaves; for the reason that these weaves put a special strain on the warp, and a linen warp having no elasticity there are likely to be many broken warp-ends.

The best weaves for linen are those in the "Fifty-fifty" group -weaves in which warp and weft materials are the same or similar, woven with the
same number of weft shots to the inch as there are warp-ends in the setting.
These weaves include Herringbone or Bird-eye, "Huck", "Ms and 0s", the "Bronson"
weave and so on. For more elaborate weaving in linen on eight or ten harnesses,
double-faced twill and damask are the best weaves. But of course only simple
two-block patterns can be produced with this equipment in these weaves. For
elaborate patterns in damask it is necessary to use a draw-loom.

People sometimes find a linen warp difficult to manage, but it need not be. It simply requires special handling. The plied or "round" linens are smooth and strong, and give little or no trouble in warping and weaving if they are kept damp. A "singles" or "line" linen warp should always be treated with a warp-dressing and should also be kept damp. It is unwise to attempt warping a singles weft linen as no amount of dressing will keep it from beaking badly, but a good warp linen gives no trouble when properly treated.

There are commercial warp-dressings on the market, but these are not always obtainable in small quantities. A simple dressing, always available, may be made by boiling flax-seed in water. The resulting starch-like solution should be strained off and diluted with water if it is too heavy. If the warp-linen is in skeins, or in the form of a chained warp, it should be soaked in this solution and permitted to dry. If beamed while still slightly damp, or dampened before beaming, it will go on the beam more smoothly than if beamed dry. If the warp is beamed from spools, the dressing may be applied from time to time to the stretched part of the warp, by dabbing it on with a cloth or sponge.

Round linen warps do not require dressing, but should be kept damp during the weaving. This gives the material some elasticity. Water may be sprayed on the warp, or dabbed on with a cloth. The warp close to the edge of the web should not be wet, but the part of the warp between the heddles and the back-beam should be dampened down as the work progresses.

Always release the tension when leaving the loom for any length of time or overnight. It is my own practise to keep a wet bath-towel wrapped around the warp-beam and brought up over the stretched part of the warp at the back of the loom.

Linen pieces should always be washed and ironed when taken from the loom. This gives the fabric the necessary finish, and makes an amazing difference in the texture. Soak the linens for several hours or overnight in a mild scap-and-water bath, rub them out thoroughly and rinse. Iron while still quite wet passing the iron several times over each side of the fabric, till it is dry. Linens are more beautiful with each washing, so the first washing cannot be overdone.

A "union" fabric, -- half cotton and half linen -- is sometimes woven; but in my opinion this is undesirable. The special beauty of the linen is almost entirely lost, and a good all-cotton fabric is really handsomer.

Favorite linen yarns are 40/2 and 40/3 round linens and #20 singles. For most linen weaves the best setting for 40/2 and #20 singles is 36 or 38 ends to the inch; for the 40/3 warp, 24 or 26 ends to the inch.

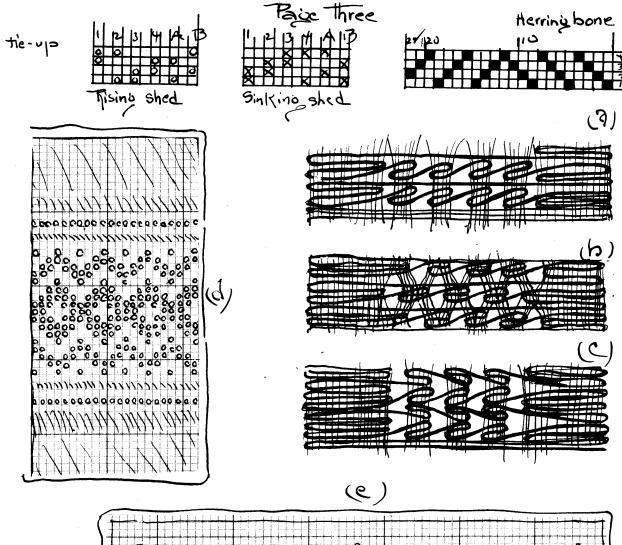
One of the most beautiful weaves for linen is the Spanish open-work weave, which has somewhat the effect of a woven filet, though sturdier. Many questions about this weave have come in recently, and as previous Bulletins with the directions are now out of print this seems a good time for further notes on this interesting weave.

The openwork weave is handsomest when carried out in white or natural or if in colored linen, a plain color throughout. The warp should be finer than the weft and set somewhat further apart than for other linen weaves. For instance a 40/2 warp may be set at 30 to the inch. A heavy linen floss may be used for weft. The foundation of the weave is plain tabby, and a two-harness loom may be used; however it is rather better to use four harnesses and thread a twill or herringbone, using the two tabby sheds for the openwork and weaving bands in twill or herringbone between the openwork bands to add variety to the texture.

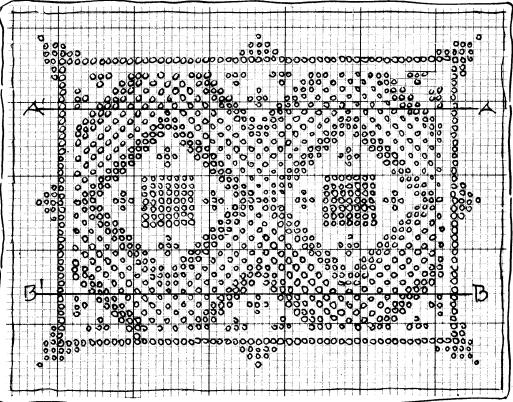
The weave is produced as follows: Open a tabby shed and take the shuttle from left to right to the spot where you wish the first open-work hole to be -- not too close to the edge. Bring the shuttle up through the shed at this point. Open the opposite tabby shed and take the shuttle from left to right back to the edge. Change the shed and take the shuttle from right to left to the place where the first hole was started and under four additional warp-ends. Change the shed and weave back under four to the hole. After this, weave from right to left under eight and back under four, to a spot the same distance from the left hand edge as the first hole is distant from the right hand edge. Weave back under four, then from right to left out to the edge. Then from left to right back to the last hole and then out again to the left hand edge. Weave a shot from left to right all across. Repeat as desired. This methos is illustrated at (a) on the diagram. If preferred the second row of holes may be made as shown at (b) on the diagram, each hole in the second row between two holes in the first row. For a very open effect weave as shown at (c) on the diagram: instead of making the plain shot from left to right reverse the openwork method as indicated.

Patterns in this weave may be developed either by weaving the figure in holes as above, or by weaving the figure in plain tabby over an openwork background. Most of the ancient Spanish pieces are made in this manner, method (c) being used for the background. As most of these old pieces are alter-cloths and the like, the figures used are scenes from the Bible or are composed of eccliastical symbols. However valences in eimple geometric patterns are also seen. Such a pattern, suitable for the end-borders of towels, is shown at (d) on the diagram. The body of the piece should be woven in twill or herringbone or "Goose-eye" (on the herringbone threading.) An arrangement of a similar pattern, suitable for table mats, is sketched at (e). If a narrower mat is desired, begin and end the pattern along the lines A-A' and B-E'.

Cross-stitch patterns may be used for this weave, or figures designed for double weaving. The pattern chosen, however, should be simple and fairly compact or the result will be confusing. It must also be borne in mind that eight warpends must be allowed for each "hole" or unit of the weave, so that very small patterns cannot be produced in this weave.



Tor (e) as
sketched,
warp 520 ends,
At 30 ends to
the inch this
will give a
"finished" width
of about 17".
Or, if to be
woren the
narrow way
warp to ends,
for a runner,
repeat the
figure as
desired



A common error is to omit the back and forth between the last hole and the left hand edge. If these shots are omitted a loose spot in the plain hem will result, with very unfortunate results. If method (c) is used the weft must be taken back and forth twice over the plain hem before starting the reverse weave.

To make the course of the weft as clear as possible the weave as sketched as quite open, but it should be solidly beaten up as actually woven. This is a very simple weave and when executed with care and precision is extremely handsome. It is a weave for linens and for no other materials.

A book, "Popular Weaving and Embroidery in Spain," by Mildred Stapley, shows illustrations of a number of ancient pieces in this weave. Somebody who attended the weaving "workshop" in Berkeley two years ago has a copy of this book with my name on the fly-leaf. Fortunately I was able to obtain another copy. The book is out of print, but dealers in art books still list it occasionally. Guild members who are interested in linens will find this book a valuable addition to the weaving library.

A leaflet showing the new table loom supplied by MISSOURI LOOMS was sent out last month with the Bulletin. A number of people have recently inquired about table looms and have had difficulty in finding what they wished, now that the Structo is off the market. We used two of the new little looms at the recent weaving class at the Montana State University, and found them very satisfactory. It gives me pleasure to recommend them. They are solidly constructed and nicely finished, and they open a much wider shed than most table looms -- wide enough for the use of a throw-shuttle. I am informed that a recent order issued by OPA limits the use of lumber, and may result in taking all hand-looms off the market within the next few months, so that anyone interested in procuring a table loom would be well advised to get the order in promptly.

I have received from Mrs. Frances Cohn, 2235 Jefferson Ave., Berkeley, California, an interesting new Swedish book on weaving: "I Vavstolen, Vol. I," by Anna Skeri-Mattson and Ingrid Osvald. Mrs. Cohn is able to supply this book, -- for as long as the supply lasts -- and expects to be able to supply Vol.II before long. This will be of interest to many as the Swedish books are excellent and have been hard to procure for a long time.

Mrs. Cohn also writes that she has in preparation -- to be issued about September 1, -- a book that will be of much value to those who use the Swedish books and are unfamiliar with the language. The book will contain a glossary of Swedish technical terms, a color vocabulary, a bibliography, conversion tables for lengths and weights, grammatical aides and so on, making it possible to interpret the weaving notes given in the Swedish books. Pre-publication price is \$1.50. After September 1 the price will be \$1.75.

Canadian members of the Guild will be interested to learn that Lily Mills now has a Canadian agent from whom the Lily cottons may be obtained. The address is Ed.R.Lewis Leather Co., Toronto.

The weaving session at the Montana State University at Missoula brought together many enthusiastic weavers. It is planned to make weaving an annual feature of the University summer school and possibly the session will be held for four weeks next year instead of for two. Keep this in mind for next summer. There was much interestedshown in the Guatemalan weaves, and a bag made in the weave given at (b) in the Bulletin for May 1942, and made up in the manner of the Philippine bag in the Bulletin for March 1944, made a great hit and started a vogue. Unfortunately the Bulletin for May 1942 is now out of print so this backnumber can no longer be supplied.

may n. atwalin.



for

Basin Mont.

#### September, 1944

A story that came to my desk the other day -- the story of a tragedy -set the subject for this month's Bulletin. My correspondent wrote that she wished
to make a heavy wool rug, and to that end had set up a large eight-harness loom
with a warp of coarse wool threaded to a pattern in double weave. For double
weaving, of course, the warp must be set twice as close as for plain weave. But
alas! when an attempt was made to open a shed it was found impossible to do so,
or to beat, because of the close-set warp. What to do?

Unfortunately nothing much could be done except to start over on a different plan. When one thinks of the time and trouble involved in warping and threading for a large piece of work, such a happening is very bitter, as most of us know by sad experience.

There are a number of excellent ways to make a thick, heavy rug, --but the double weave does not happen to be one of them. A rug must be not only thick but also firm, or it will not lie properly on the floor or keep it's shape under wear. If our unfortunate weaver were to find some way to weave her set-up she would not have a good rug, but something like a coarse and rather clumsey blanket. In the double weave the two fabrics simply lie one over the other and are not interwoven. A block of any size would soon become baggy, which would be not merely unsightly but also a menace to careless feet.

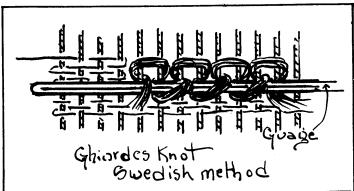
There are other weaves sometimes used for rugs that -- though not as impractical as the double weave -- seem to me poorly suited to the purpose for one reason or another. The popular four-harness overshot weave is one of the poorest weaves for rugs, especially when carried out in coarse cotton "roving." Such a rug is often quite attractive in appearance when first made, but is lumpy under foot and quite pathetic after the first washing. There are, to be sure, some rugs of this type shown in illustrations in my Shuttle-Craft Book, and it is true that a good many people make these rugs, -- though not as many as formerly. Rugs of this type are not even properly "Colonial", as the old-time weavers never used the overshot weave for floor-coverings. As there are so many better ways to make rugs I feel that this type might as well be avoided.

Summer-and-Winter weave, and the somewhat similar "crackle" weave are better weaves for rugs than overshot, because they produce a firmer and more closely combined fabric, without loose skips or floats. These weaves, however, do not produce a thick fabric such as my correspondent had in mind. For her purpose I think the best weave would have been the "two-warp" weave described in a Bulletin of some time ago. In this weave a rug may be made as thick as one chooses through the use of a heavy "stuffer" warp. Two-block patterns may be made in this weave on four harnesses, and quite elaborate patterns on eight or ten harnesses. By using the pick-up technique, which is very simple in this weave, any of the patterns suitable for double weaving may be produced on four harnesses. The result is a closely combined double-faced fabric of excellent wearing qualities. The only draw-back to the use of this weave is that the loom must be equipped with two warp-beams. In an emergency I once used two looms, set back to back, with the stuffer warp on one loom and the weaving warp on the other. The back-number of the Bulletin containing the directions for this method of rug-making is still available.

The "no-tabby" weave, described in a Bulletin of some time ago and also in a leaflet I prepared for the Lily Mills Co., is a good weave for cotton rugs. These rugs are thick and heavy. The Bulletin is out of print but copies of the leaflet may still be had.

The Navajo saddle-blanket weaves are also excellent for rugs, either in wool or cotton. The Bulletin containing the directions is still available.

All the above weaves, as well as the various forms of coarse tapestry sometimes used for rugs, produce a heavy fabric with a flat surface. The various forms of tufted and pile rugs form another class. Rugs in tied pile, after the manner of Oriental rugs and the so-called Swedish "flossa" are the most durable rugs of this type. Several methods of tying the pile are used in different countries, but the "Ghiordes Knot" used in the best Orientals and in the Swedish rugs is the best. The chief differences between the Oriental and Swedish versions of the weave are in the material used and in the method of making the knots. The Oriental rug-makers use short lengths of of pile-yarn and make each knot separately; the yarns in the better rugs is quite fine, and in some of the best rugs there nay be as many as 600 knots to the square inch. Naturally this is a very slow process and few of us would care to embark on such a project. The Swedish flossa rugs are very much coarser, with 18 or 20 knots to the square inch. The pile-weft is used in a fairly long strand and the atrand is taken around a guage-bar between knots. This guage bar may be as wide or as narrow as desired. It measures



the lenth of the pile. There is a groove along one edge of the bar and when a row of knots is complete a sharp knife is run along this slot to cut the pile. A special knife is used, with a guard to protect the fingers. However the pile may be tied over a heavy wire or a small lease stick and the pile cut with a razor blade or with scissors, if the special equipment is not available.

The warp used should be a coarse, strong material. Ordinary carpet warp is not strong enough. A rough, heavy linen material is best A light weight jute yarn may be used at a setting of 10 or 12 ends to the inch.

To tie the knot, proceed as follows. working from left to right across the loom. Omit the first three or four warp-ends, then pass the strand of pile-yarn from right to left under the next thread; take it from left to right over two threads and from right to left under the second of these threads. Now carry the strand under and over the guage bar as shown on the sketch above, and make the next knot in the same way over the next pair of warp-threads. Changes of color may be introduced as desired to make a pattern.

After the row of knots, all across the warp, is complete, put in three shots of tabby in material like the warp, and beat as close as possible. But before putting in the tabby first weave a number of tabby shots back and forth across the three or four warp-ends left unknotted at the edge. Weave across and tabby back and forth across the unknotted warp-ends on the other side. Then weave the other two tabby shots all across. After weaving these tabby shots the pile may be cut and the guage-bar released. The second row of knots should be made in the same manner, the knots of the second row directly above those in the first row -- not staggered.

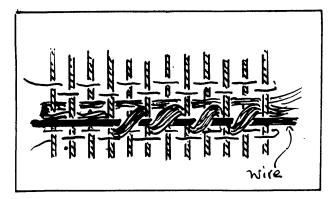
The pile-yarn should not be a single coarse yarn but instead a strand of several ends in a fairly fine yarn. If too coarse a strand is used the knots will not hold and if too skimpy a strand is used the pile will not be dense enough. A bit of experimenting will solve this problem.

Some Swedish pieces are made with extremely long pile and an inch or two of plain weaving between the rows of knots. These things are intended as wall-hangings rather than for floor-covering, with the pile hanging down fringe-fashion. These things seem to me fairly hideous and not particularly useful.

For "full flossa" the entire surface of the rug is in tied pile. There is also a "half-flossa" in which only the design is in pile against a plain weave background. The pattern on the opposite page would be suitable for half-flossa.

An interesting variation in tied pile was the Argentine saddle-blanket described in a back-number of the Bulletin. In this the warp is set much closer and the pile is tied on an open shed. As a result the back of the rug is smooth and solid and the knots do not show on the wrong side.

Tied pile rugs are handsome and extremely durable, but much time and a lot of high grade material is used in their production. Because of the time involved it is hardly worth while to make a rug of this kind in cotton materials.



A form of tufted rug that does lend itself well to the use of cotton materials has proved of much interest at our weaving "institutes." My small sample rug has been copied many times. It makes a nice bath-mat. Here is the "prescription:"warp 206 ends of carpet warp set at 12 to the inch and threaded double. A two-harness loom may be used, threaded 1,2,3,4, the 1-2 and 3-4 sheds being used for the weaving. For pattern weft use a double strand of Lily's "Rug-Weave" cotton (Art.814) in white or a color. For tabby use Lily's 4-strand "filler", (Art. 1014) in white or a color. Weave a heading in the filler,

then, after a shot in filler from right to left, weave a double strand of pattern weft through the same shed. With the shed open, pick up the pattern material on a wire or small stick, according to the pattern. For the pattern shown -- the pattern of my sample rug -- starting at the bottom, skip the first four spaces, which should be left untifted all then way to make a good edge. Take up tufts in the next seven spaces, skip five spaces, take up one, skip one, take up seven, skip three, take up one, skip five, take up seven, skip three, take up one. Now take the strand of pattern weft around a thread on the left hand selvage, and weave back to the right, through the same shed as the tufting shot. There will be one shot of filler and two double strands of tufting material through this one shed. Now change the shed and weave a shot of filler, left to right. Change the shed and weave right to left with filler. Leave the shed open and weave the next tufting shot, and pick up according to pattern, and so continue. Care must be taken to pick up all tufts the same. Do not cut the pile but simply draw out the wire after the two tabby shots have been woven and beaten close.

All the above weaves have been described in the Bulletin at various times. The directions are repeated for the convenience of new members of the Guild. I also have something new to suggest. I have been experimenting with the Spanish openwork weave for rugs. As far as I know this has not been done before. At first thought this might seem a very unsuitable weave for the purpose, but my results seem to me interesting. I used a light weight jute for warp, at a setting of 12 ends to the inch, threaded double. A coarse jute might be used, set at 6 ends to the inch, but the affect would not be as good. For weft I used an eight-end strand of jute like the warp. Method (a) as described in the Bulletin for last month seems to me to give the best results, though method (b) is also entirely satisfactory. Method (c) appeared to me too open. The fabric should be very firmly beaten up and the result is a handsome and durable coarse fabric.

I also experimented with other weft materials. A heavy strand of the linen-like fibre obtainable from hardware stores, mentioned in a previous Bulletin, produced excellent results. I also tried using a light clothes-line for weft. This made a good rug, too. Coarse cotton roving proved entirely unsuitable, being much too soft. I tried rags, but this, too, seemed to me a very poor weft material for the weave. Mexican maguey in a four-end strand made an extramely handsome rug. This and all jute seemed to me the best. In all-jute about  $2\frac{1}{2}$  lbs. of material is required for a rug 30" X 50".

I also tried a warp of No.12 seine-twine at a setting of 6 ends to the inch. This made a good warp for a heavy rug woven with sash-cord for weft. This is entirely practical but the material is extremely stiff and hard to beat up.

As the weave as described is very coarse, the pattern used should be a simple one for best results. An openwork border around a plain center is handsome, or large diamond figures, etc.. The pattern given for the tufted mat might be used, but only for a large rug. For the tufted effect four warp-ends are required for each unit of the weave, -- for the coarse Spanish weave sixteen warp-ends must be allowed for each unit of the weave.

The jute and maguey used in my experiments came from WEAVERS' ALLEY, 2640 Ashby Ave., Berkeley 5, California. I have tried a good many experiments with this material but never before have found a weave that seemed to me ideally suited to their use. This Spanish weave seems to me to be "it." I hope Guild members who are planning some rug-making will try it. The weave, to be sure, does not lend itself to color-combinations, but should be done all on one color. This need not be the natural jute color, of course, though this is handsome. Colored jute and colored maguey are to be had. However I suggest testing colored materials for color fastness. It has been my experience that these coarse materials are sometimes very poorly dyed and that the colors run when wet.

I have a letter from one of our Guild members, Mrs.Nils Johannessen, who tells about taking the civil service examination for occupational therapists. The information in this letter will no doubt be of interest to many of our Guild members. Mrs. Johannessen writes: "A mental test was given first (Otis) and about  $1\frac{1}{2}$  hours was alotted for the rest. The work is graded: worker, B,A,A', I and II. I and II are supervisory. The salary ranges from \$132.00 for class B to \$230.00 for Class II. You are on probation for six months, and there is a raise in salary of \$5.00 a month every six months till the top for each class is reached -- \$155.00 for worker B to \$276.00 for class II. You accumulate a vacation of one day for each month you work, also one day each month for sick leave. A deduction of 5% is made for the pension retiring fund which begins paying off in 1945. You can retire at 60 if you wish or work until 70 is health is good. The B workers have to live in the institution. Other classes do not."

The above refers to the civil service rulings for the State of Michigan. Mrs. Johannessen suggests that anyone interested may write for further information to the Civil Service Commission, Lansing, Michigan.

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## THE SHUTTLE - CRAFT GUILD

## BODDESON

THE STATE OF THE S

for

Basin, Montana

#### October, 1944 Christmas Weaving

Again the time has come to think about Christmas -- another war-time Christmas. Perhaps the last war-time Christmas for a long, long time to come. With that hope in our hearts it will be a good Christmas.

But peace, when it comes, may bring more wide-spread misery to us in this country than even the war itself. At the risk of appearing to speak out of turn, let me urge Guild members to think very earnestly about the problems of the future, and the issues involved in the coming election. This is probably the most important election ever to be held in this country. It may well be our last chance this side of civil war, and no campaign on the battlefields of Europe can be more important to our future than the results of the home-front campaign in November. This time it is not a question of political parties, or of personalities or of "who gets the jobs." It is a question of continuing in our course toward communism and bureaucratic dictatorship, or a return to the free democracy of pre-"new-deal" days. Perhaps the majority of Americand want communism, but those who do not should say so at the polls in November.

But Christmas will come, no matter how we decide our national future in November, and we must be thinking of the gifts we wish to make for our friends. I think we should not try too hard to be clever at Christmas time. The things we make at this season should be gay and as beautiful as possible -- useful, too, as there is little excuse for the practise of exchanging useless dust-cathers at this or any other time. In a general way, the type of gift that has given pleasure to our friends in other years will give pleasure again. Towels, table sets, pillowtops, scarves, bags, small rugs, the little "tea-aprens" that are so popular at the moment -- most of our friends will be pleased with something from this list.

Towels: We have had many patterns for linen towels, from the some-what useless but decorative "finger-tip" trifles to larger and more practical pieces. Small towels may be done in plain weave with pattern borders in colors. The material should be linen, as a cotton towel of this type is not satisfactory. For larger towels in linen one of the linen weaves is better than plain tabby -- "Huck", "Ms and Os", the "Bronson" weave, "Goose-Eye." These are perhaps handsomest in white or white and natural, but may also be done in colors if desired.

Cotton towels done in the "no-tabby" weave in the Italian or Swedish manner are attractive, and give an opportunity for a lavish use of color. Heavy cotton towelling, for bath-towels, may be made on the two Swedish drafts given at (a) and (b) on the diagram. For material in my samples I used Lily's "soft-twist" cotton, (Art. 914) for both warp and weft. Warp set at 30 ends to the inch and threaded double. For weft a double strand of the same material. I combined a strand of white with a strand in "linen" color, and liked the effect very much. These weaves in this material may also be carried out at a warp-setting of 24 to the inch, threaded double. A softer and more open fabric results.

A table set makes a delightful Christmas gift. There are a thousand and one ways to make such a set. A popular way is to make place-mats -- four, six or eight in a set -- with a square center-piece or a runner for the center of the table. The mats may be any convenient size, and square or oblong. Mats 9" X 12" are good. For a formal set nothing is handsomer than heavy linen done in the Spanish openwork weave. Such a set, of course, makes an "important" gift. The Bronson lace weave in finer linen is also very handsome for an all-white set.

For a gay, colorful set, the "no-tabby" weave in cotton would be an excellent choice. But for the sets I hope to make I believe I shall make a warp in broad stripes of brilliant color and add gay little motifs of birds, animals, and what-have-you in one or another of the fascinating Guatemalan techniques. -- as fancyful as possible.

A fashion in table pieces that used to be popular and that might be revived to advantage consisted of crossed runners -- two runners for a set-up for four -- with small square mats in the angles, as sketched at (c) on the diagram. For a long table and a setup for six, there should be a wide runner the length of the table crossed by two shorter and narrower runners. This is a hand-some, practical, and eminently "weavable" type of table set.

A weave sometimes used for table pieces is the double weave. This does not seem to me a desirable weave for linen, and not as well adapted for runners and place-mats as the other weaves suggested. However it is an excellent weave for mats to put under hot dishes as it may be padded -- either in the quilted effect described in the Bulletin some time ago or in the two-color pattern effect with the figures padded. A set of two or three mats of this type would make a useful and interesting Christmas gift.

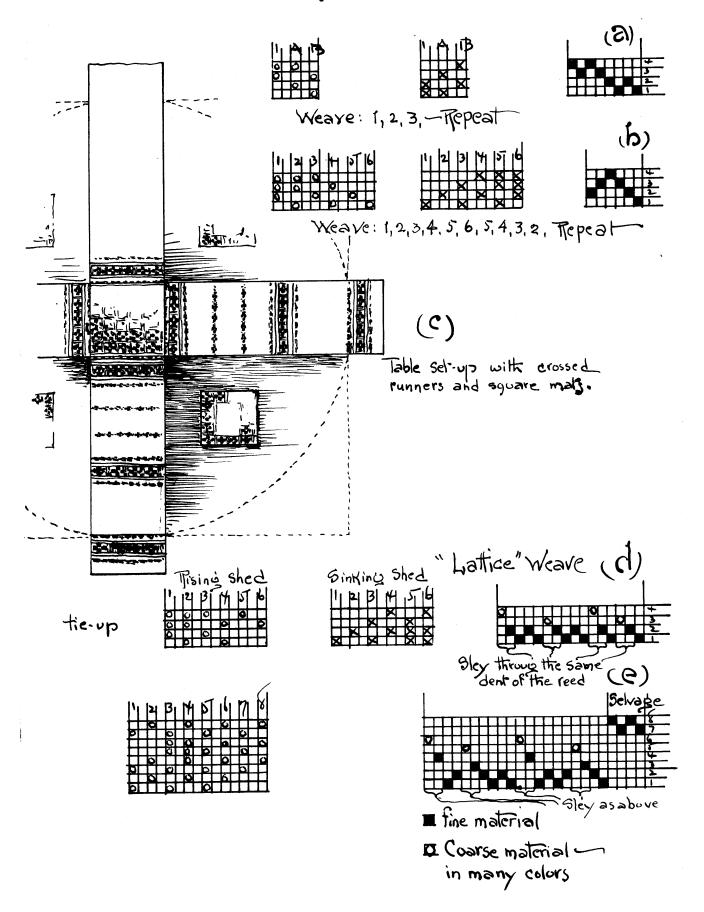
Couch-pillows and chair-cushions are always welcome, as no one ever has too many. These can be as gay and fancuful as one pleases. Among those of my own making that pleased me the most were some done in crackle-weave, on the threading given in the Recipe Book, -- Series III No. 9, -- and in the "Hesitation Twill" pattern given in the Bulletin. Crackle weave and summer-and-winter weave are better for these pieces than the overshot weave as there are no long skips to catch and pull.

For the personal type of gift a scarf or a bag are always good. One should, however, know the tastes and color-preferences of the friend for whom these things are intended. Scarves should be not too wide, not too long, not too heavy, and as soft as possible. Whether or not we shall be able to get suitable yarns for the purpose is the chief problem here. As we have had a Bulletin on bags quite recently I shall say nothing further on that subject here. And the September Bulletin carried suggestions for small rugs suitable for gifts.

There are many ways to make the popular little aprons. The fabric should be 32" to 36" wide, and woven about 24" long, to allow for a deep hem. Two narrow strips should be woven for heading and strings. If desired, pieces may be woven for a bib and pockets. The decoration may be what one chooses. A series of bright little stripes of pattern weaving in many bright colors is simple and easy to do and very effective. Any small threading capable of a number of variations is suitable. "Monk's Belt" for instance, or one of the "Diamond" threadings, or even hard-worked "Honeysuckle." Or the decorations might be in one or another of the Guatemalan techniques. These things have some practical use, but the main purpose is decoration, so they should be as fanciful as possible.

For those who like to try new things I am suggesting the "Lattice" weave, with which I have been experimenting. The weave is firmer when produced on eight harnesses, as given in the draft at (e) on the diagram, but exactly the same effect may be woven on four harnesses as at (d). The effect is an open lattice-work in coarse material over a solid foundation. The weave might be used for bags, pillow-tops, scarves and so on. The effect is lively and unusual, -- especially if a variety of colors are introduced.

For my experiments I used a foundation warp in Lily's soft-twist cotton at a setting of 30 to the inch, threaded double. For the lattice I used Lily's thrifty-knit strand cotton, (Art. 514) in a variety of colors. The foundation warp should be sleyed as for tabby weaving and the coarse threads introduced at the desired intervals and drawn through the same dent of the reed as the foundation thread preceding, as indicated on the draft. The weft used should be like the warp. The effect in the materials used for the sample is quite coarse and bold. A finer weave would result from using the same warp, threaded single, for the foundation and a double strand of the soft-twist cotton, or a #5 perle cotton for the lattice.



Treadle (d) as follows: treadle 1, once, foundation weft 4, 11 6, coarse pattern weft 11 2, once, foundation weft The colors used for the weft shots may be the same as the 5, coarse pattern weft 1,2,1,4, foundation coarse threads in the warp, or Ħ may be different. Great variety and brilliance of effect lends 6, pattern interest. 2,1,2,3, foundation 5, pattern.

Repeat.

Treadle (e): For a plain tabby effect with the coarse threads on the 

4,3,4,5,

Repeat.

For a closely combined tabby on (d) treadle 3,4,3,4 as desired. On draft (e), treadle 5,6,5,6 as desired.

The difference in the weave between the two drafts is in that in (e) both the coarse warp-threads and the coarse weft threads are caught into the foundation fabric. In draft (d) only the coarse warp-ends can be caught down in this manner. But the effect is exactly the same.

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A number of people have asked from time to time for the Crackle-Weave pamphlet we published some time ago. This has been out of print for months and I do not plan to reprint it as we have many patterns in this weave in our Guild Recipe Book and in back-issues of the Bulletin. However, I have recently prepared for the Lily Mills Co., (Hand Weaving Dept.) a leaflet on this weave containing many of the patterns and much of the information included in the pamphlet. This leaflet is being sent out by Lily Mills to the weavers on their list. Those who have not received it, and wish a copy, should write the Lily Mills, Shelby, N.C.. I believe there is no charge for the leaflet.

Mr. Charles E. Kissack, Ryan Dam, Great Falls, Montana, is making a Very neat little electric spinner that fills a long-felt need. The spinner may be used on an electric sewing machine motor, or on the moter of an electric bobbin winder. These small motors are almost impossible to obtain at present, of course, but many of us already have them. The motor is not included with the equipment supplied by Mr. Kissack. The price of the spinnerm constructed of wood, is \$7.50 -of metal construction, \$10.00, -- f.o.b. Great Falls.

Some people might feel that yarn spun on an electric spinner is not "hand-spun" but I do not concur. The wool is drawn out and controlled by the hand in exactly the same manner as in spinning on an old-fashiond wheel. No doubt the ancient wheel is the more picturesque equipment, but who would prefer to treadle a sewing-machine to sewing with a motor? I think the objection to electric spinning is a sentimental one with no foundation in fact.

As in previous years we make a Christmas offer of gift subscriptions to the Bulletin at \$4.00, and the Recipe Book for Christmas giving at \$7.00. Also this year a special rate of \$12.50 on the course in small weaving crafts for occupational therapists. May M. Otwalu

Samples of the Bulletin weaves may, as usual, be procured from Mrs. Maybelle Gano, 2016 Castillo St., Santa Barbara, California

# THE SHUTTLE-CRAFT GUILD

# BOODESTVA

for

Basin Mont.

#### November, 1944.

If anyone were to ask "What is the one most useful threading for the loom?" the answer would be "Twill." Curiously enough, however, many skilled weavers seem to be unaware of the possibilities of the twill weave.

Weavers who attend my "institutes", and those who come here to Basin to do special work with me, all seem to be greatly interested in making twill samplers, and I believe that our members in general would find this a useful and fascinating project. Perhaps as a result of this Bulletin some will give themselves this pleasure.

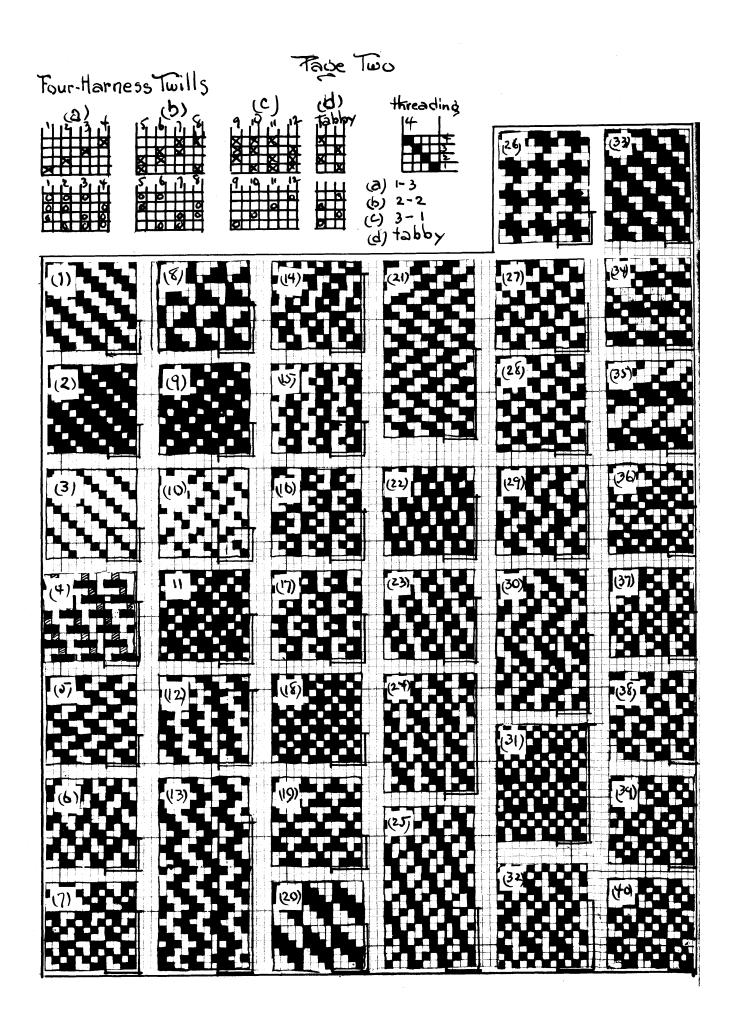
It is best to weave the samples in coarse material, and with warp and weft in strongly contrasting colors, so that the pattern will be clear. As material I suggest knitting yarn, warped at 15 ends to the inch. The weft should be of the same material, and in weaving care should be taken to weave exactly 15 weft shots to the inch. Weave each pattern for  $2^m$  or  $2^{k}$  and put in a few shots of tabby in the color of the warp between the patterns. The warp need not be over  $4^m$  wide.

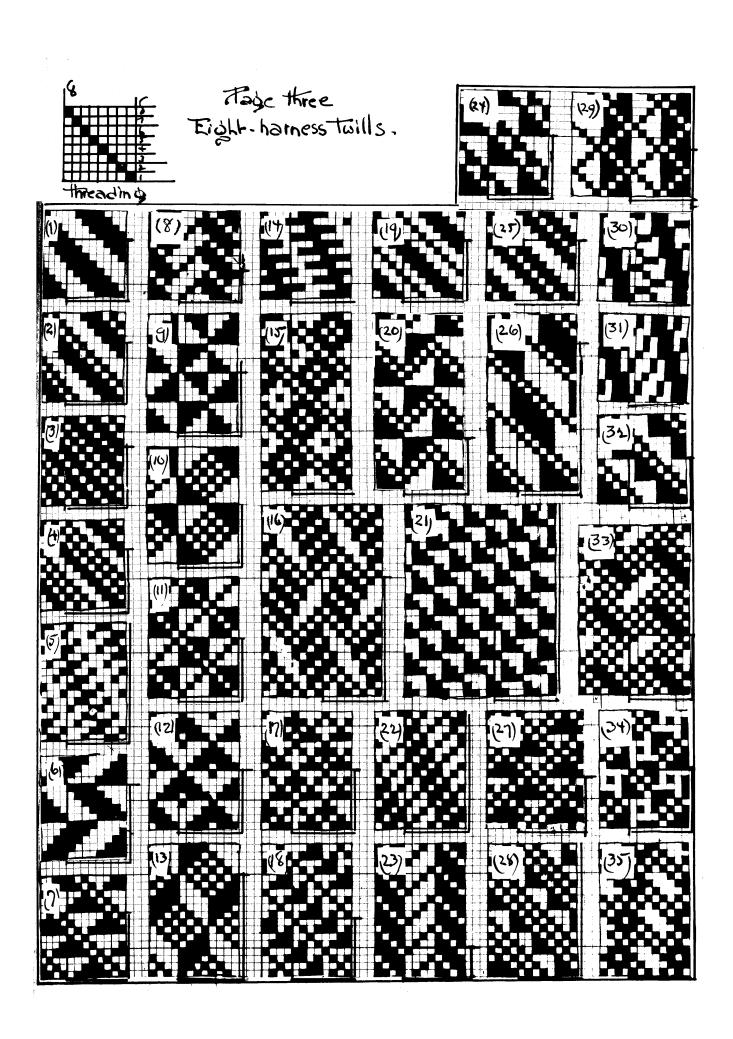
A lazy way to make a short warp for samples is to cut across a skein of yarn, sley through the reed and thread the heddles and roll on the warp in the ordinary way. For a short, narrow bit like this it is not necessary to trouble with the lease or any of the other gestures involved in correct warping. This, of course, is heresy of the worst kind, but it saves time and trouble and is entirely practical. A single skein length, however, would not make a long enough warp for all the patterns given here.

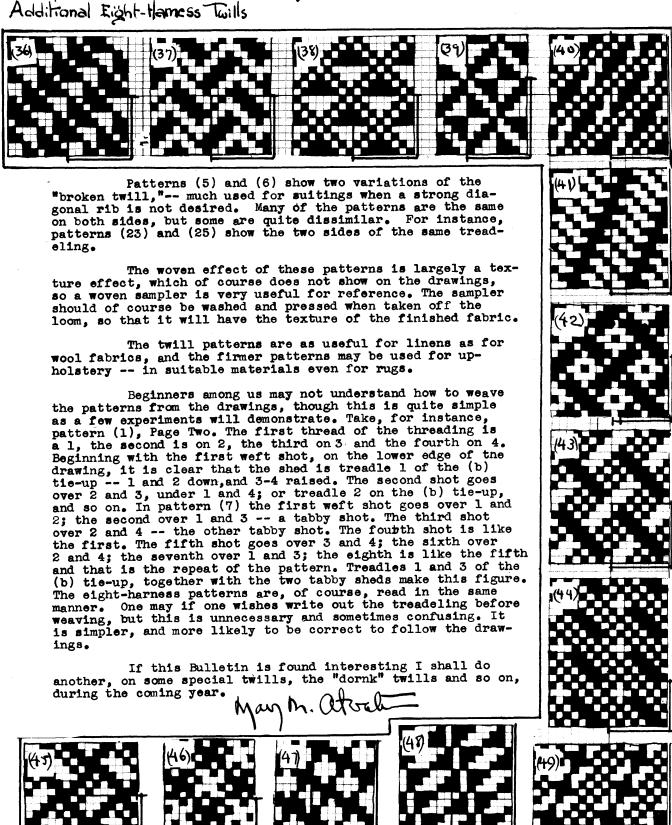
A large book might be written on the twill weaves, and it is impossible to give more than a hint of what may be done with it within the limits of our Bulletin. Guild members will no doubt enjoy planning their own twills. This should be done on cross-section paper. I have given as many patterns as possible. Most of the drawings were made to show twelve threads of the weave. This gives three repeats of the four-harness twill and one and a half repeats of the eight-harness patterns. At the lower right hand corner I have outlined the repeat, in weft as well as warp. Some of the designs do not show a complete repeat of weft, but enough is shown to make the movement of the figure clear.

The four-harness tie-ups given show all the possible sheds. No tie-ups are given for the eight-harness patterns as these are far too numerous. For the purpose of a sampler it is more convenient to use a table loom with a hand-lift rather than a treadle loom, but for a large piece of work one should make the special tie-up required by the pattern to be woven. Some patterns require as few as three or four sheds, while others require a large number.

The four-harness 2-2 twill, shown at (1), Page Two, is the weave most frequently used for tweeds and suitings, also for Scotch tartan plaids and similar fabrics; (2) and (3) illustrate the 1-3 and 3-1 twills, which of course are one the reverse of the other. Pattern (4) shows a combination of these two twills, woven in two colors, which produces a double-faced fabric with one color on one side and one on the other. In this weave 30 weft shots to the inch are required. This is an excellent weave for blankets, automobile robes, and the like. Also for a heavy coar fabric.







## THE SHUTTLE - CRAFT GUILD

# BUIDDAGIS

for

Basin, Mont.

### December, 1944

It has been the custom to devote the December Bulletin to technical and practical matters, rather than to patterns and weaves and the "art" side of our craft. We need to remember, at least once a year, that weaving is not all art, and that unless we are good workmen -- in the completely practical sense -- we cannot be good craftsmen.

I believe it may prove useful to discuss warping. To most weavers the job of warping is the least interesting and often the most troublesome part of the textile process. But it is impossible to weave a good fabric on a poor warp, so warping is a matter of prime importance. If good work is to result the warp must be as perfect as it can be made. I have seen people trying to weave on a warp full of loose threads, by putting wads of this and that under single threads and groups of threads in a vain effort to correct faulty tension. This is a hopeless effort — a pure waste of time and material. If a single thread develops looseness it may be corrected by drawing it down and fastening it to a pin inserted in the web, as we do for broken threads. But if groups of threads are loose there is no cure except re-beaming. This does not, actually, take a great deal of time. Roll the entire warp off onto the cloth-beam and then wind it back to the warp-beam having an assistant or assistants hold it to give it tension and to take out the loose threads.

Warping may be done in a number of ways. Some methods are easier and more rapid than others, but any method is correct if it produces a perfect warp on the beam.

I have always advocated sectional warping as a general practise, though one or other of the alternative methods may be better in a special case. The advantages of the sectional method are: the great saving in time and trouble -it is possible to put a long warp, full width of a large loom, without assistance, in two hours or so. To make the same warp on a warping board would take
at least a full day of anybody's time, and the beaming would take further hours,
and would require the assistance of two or three peaceple. This matter of time is
of first importance to anyone who weaves for profit; of less importance to others
If anyone enjoys warping on the board of course he should not deprive himself of
the pleasure. However, the sectional method of warping is far easier on the warpmaterial than any other method. A fine wool or worsted warp may be completely
ruined by the "pulling through" process when beamed from the front of the loom.
This is a point of great importance, for if the warp is spoiled in warping it
will be impossible to make a good fabric, no matter how well and evenly one may
weave. Another point is the fact that hard-twisted and crinkly materials may be
warped with ease by the sectional method -- interesting warps we like to use, but
that are almost impossible to handle in any other way. There is also the consideration that it is far easier to draw in and sley from back to front of the
loom than to do this work in reverse.

People may tell you that it is impossible to make a good warp by the sectional method. There seems to be an odd and unreasoning prejudice in the matter. These people are, of course, mistaken. Of course it is possible to make a poor warp by the sectional method, as by any other, so perhaps it will prove useful to beginners to explain in detail the equipment required for sectional warping and the best method of using the equipment.

In the first place the loom must be equipped with a sectional warp-beam. This should be a large open beam constructed of four (or more) lengthwise bars set with pegs at 2" intervals. The beam should be a yard in circumference. It is a fairly simple matter to have such a beam constructed to fit any large loom. For obvious reasons it is impractical for a small table loom. People sometimes attempt to fit an old loom for sectional warping by setting dowels in an ordinary

solid round beam. This is impractical. It is impossible to make a good warp on such a beam.

The warp-beam should be provided with a cord or flat tape in each section, to take the place of the "apron" used on a plain beam; or a bar may be used, attached to the warp-beam at the ends.

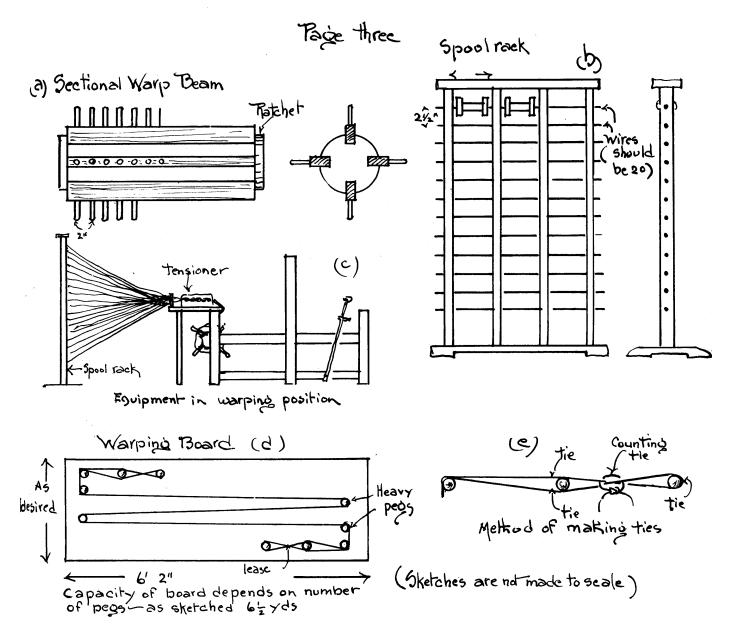
In addition to the warp-beam it is necessary to have a "creel" or spool-rack with a capacity of at least 60 spools. The simplest and commonest form of creel is sketched on the diagram at (b). A stock of warp-spools is also required. The best are large wooden spools with heads, and may aften be purchased at second hand, from dealers in textile supplies, at small cost. Paper spools with heads may also be used and cost somewhat less, but of course they wear out with use while the wooden spools are permanent equipment. Very small spools or bobbins should not be used as they do not turn evenly.

If one warps without a tensioner, the only additional piece of equipment required is a guide. This usually consists of a metal plate punched with small holes, and during warping is set upright in a slot along the top of the back beam. A tensioner, however, is a great convenience and well worth the small investment. An excellent tensioner was designed for the Guild some years ago by one of our members, Mr. A.B.Gardner. This and also the rest of the equipment for sectional warping may be obtained from Mr. E.E.Gilmore, 1200 West Harding Way, Stockton, California.

Many popular warp-materials can be purchased on spools, ready for the creel, but wool and worsted warps -- which are injured by remaining wound on spools for any length of time -- and any special material one may wish to use, require spooling. For this an ordinary bobbin winder of any kind may be used. People sometimes ask how it is possible to wind exactly the proper amount of warp on each spool, and various measuring devices have been proposed. But this matter is really of no great importance. Material left on the spools may be used for weft. The only thing to be sure of is to wind enough material so that there will be no spools running out and no knots. However if one wishes to wind an exact amount of material on each spool it may be done in this manner: Measure a thread for the desired yardage and wind it on a spool; weigh the filled spool on a postal scale and wind the rest of the spools to the same weight.

To warp, set the required number of spools in the creel. As the beam is sectioned for two inches in the reed the number of spools should equal twice the desired number of warp-ends to the inch. For a warp set at 30 ends to the inch sixty spools will be required. For a setting of 12 to the inch, twenty-four spools, and so on. Be careful to have all the spools unwind in the same direction. Do not use small spools and large spools in the same set, or very full spools with spools carring only a small amount of material. Set the spool-rack four to six feet behind the loom and thread the ends through the holes of the guide, beginning with the bottom row on the creel and taking care not to have the threads cross. If the tensioner is used, take the threads one by one over and under the pegs of the tensioner. The first thread under the first peg and over the next and so on; the second thread over the first peg and under the second, and so on. For a cotton warp use all the pegs, but for a light wool warp omit some of the pegs to give a lighter tension. Set the end of the tensioner directly above the first section you wish to warp. I find it convenient to begin at the center rather than at one or the other of the edges. Tie the strand of warp-ends into the loop at the end of the cord or tape attached in that section. Turn the beam for the number of revolutions to give the desired length of warp. When the desired yardage has been beamed, loop the strand of warp over one of the pegs in a double loop, and cut. Attach the ends to the cord in the next section and revolve the beam. This is the entire process.

When a tensioner is used the warp goes on in a flat ribbon and should not be held in the hand. If no tensioner is used it is necessary to hold the warp between the guide and the beam, and care must be taken not to permit the warp to pile up in the center as this causes uneven tension. Also, the same person must do the holding throughout the warping or some sections will go on tighter than others.



A simple caution: In warping be sure to revolve the beam in the right direction, and which direction this may be depends on the loom as some looms warp clock-wise and some counter-clock. If warped in the wrong direction the ratchets will not engage and the warp cannot be stretched.

For some reason people sometimes feel that a sectional warp cannot be correct because there is no "lease" or cross in it. Now the lease is a vital matter when warping a chained warp, but as the threads lie side by side in a sectional warp it is easy enough to thread them in correct order without a lease. If one likes, a paper paster or a strip of Scotch tape may be pasted across the flat bout of warp before it is looped over the peg and cut. Also, if one wishes, the tensioner may be had with an attachment for taking off the lease. This attachment is, in my opinion, entirely unnecessary, but if it makes the warper happier to have a lease it is worth the slight extra cost. The purpose of the lease is, of course, to keep the warp-ends in correct succession for warping. After the warp is threaded the cross is in the heddles, of course.

For a very short and narrow warp sectional warping may be a waste of time, if it involves spooling a special warp. And of course there are many looms -- table looms and looms of the Swedish type -- that are not equipped with sectional beams. A warp "chain" may be made on a board like the one shown on the diagram. For very long and elaborate warp chains a warping "drum" may be used, but for most purposes the board is satisfactory. A small warp may be made over the

bars of an "inkle" loom, which many of us possess, and may even be made over the backs of three chairs.

In making a warp of this type it is absolutely necessary to make the cross or "lease." For some kinds of warping it is convenient to have a cross at each end of the warp as shown on the sketch, but as a rule the lease is made at one end only. Those who are skilled in this type of warping sometimes warp several threads at the same time, but take them singly over and under the pegs that make the lease. Usually, however, a single thread is warped at a time. The tendency is to wind the warp too tight over the pegs and to get tighter and tighter as the work progresses. This should be avoided as of course it leads to wastage of material and difficulty in beaming. To help in keeping count of the number of threads warped, a tie should be made through the cross after each twenty threads. This is shown on the sketch. When the warp is complete, ties should also be made through the loop at the end and two ties behind the cross as shown on the sketch. Release the warp from the board by slipping it off the peg at the end away from the lease, and chain it together in the manner of a heavy crochet chain stitch.

There are several methods of beaming a chained warp. A good way to beam a short warp -- especially a wool warp -- is with the use of a raddle. This is a comblike affair, or like a coarse reed with a removable top member. It should be clamped firmly to the top of the back-beam of the loom. A stick is then put through the loop at the end of the warp and this is firmly attached to the cords or apron on the warp-beam. The warp is then arranged between the teeth of the raddle. It is a convenience to have a lease at each end of the warp for this method of beaming. The chain is then stretched full length behind the loom and held on two sticks put through on either side of the cross. And the warp may then be rolled up on the beam, while the assistant who holds the warp at a tension moves slowly forward. This is rapid and easy and works well if the warp has been carefully made.

Some weavers wind in a large number of small sticks with the warp, but in my opinion it is more practical and less messy to use paper. For a light weight warp ordinary newspaper is entirely satisfactory. For a heavy, close-set warp it is better to use heavy wrapping paper. The strips of paper should be somewhat wider than the warp and should be wound in all the way.

The commonest method of beaming a chained warp is to sley it first through the reed, from front to back. First put two sticks through the warp on either side of the lease, and attach these sticks firmly to the breast-beam of the loom. If the warp is to be sleyed two ends to the dent, do not cut the loops at the end of the warp but draw a loop through each dent, using a reed hook. When the sleying is complete, take the shed through the reeD: Holding the warp taught, set the first stick on edge so that it makes a shed and put another stick through this shed on the other side of the reed. Take out the first stick and set the second on edge and put in a stick on the other side of the reed. This will keep the threads in proper order for drawing in.

Many Swedish weavers, at this point, put a stick through the loops and attach this stick to the warp-beam and beam the warp before threading. The harness frames may have to be removed if the warp is full width of the loom, and of course the warp has to come out of the read to be taken through the heddles, which involves sleying twice. But the wear and tear on the warp is less than when the warp is threaded through the heddles before beaming.

By either method an assistant or assistants must hold the warp straight and at a tension in front of the loom during beaming, and paper or sticks must be wound in with the warp all the way.

Mrs. Frances Cohn, 2235 Jefferson, Berkeley 3, California, writes that her Swedish-English TFXTILE GLOSSARY is now out and ready for distribution. It contains much useful and informative material and hand-weavers whose weaving library includes some of the invaluable Swedish weaving books will find it valuable.

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