

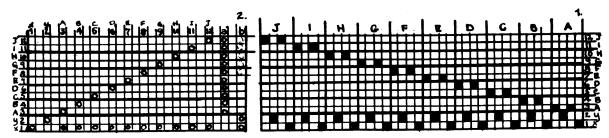
January 1951 Volume XXVIII, Number 1 Virginia City, Montana Subject:
The Summer and Winter Weave
Drafts and Tie-Ups

The puzzle of the Summer and Winter drafts, tie-ups and treadling is logical when the technique is new to the weaver. It is like meeting algebra for the first time. Most weavers start working in simple Twills and Overshot drafts, on 4 harnesses, weaves which have variations, but simple mechanics. Progressing to Summer and Winter Weave is graduating into the weaver's high school; it is taking up a more advanced and specialized subject, and one which broadens the creative horizon almost without limit. The simple rules which have been learned are broadened to a complicated set of principles, as the new weave is one which must be reasoned and understood if its potentialities are to be realized. The weaver graduates from the use of a simple thread-by-thread draft notation, to a Profile, or short-form draft. Rather than the 6-treadle limitation of the simpler weave, he has at his command many treadle combinations. Instead of the simplicity of the single-shuttle weave, or the easy alternation of two shuttles, he has numerous but rigidly defined weaving arrangements. But as with all other technical subjects, the greater the discipline, the wider becomes the scope and usefulness.

Summer and Winter is one of the most disciplined of techniques. The systems of weaving were taken up in the Bulletin for November 1950. The composition of designs and patterns will be taken up in the Bulletin for February 1951. But between these two elements of the actual weaving, the weaver must learn to understand the drafts and know how to make the harness-treadle tie-ups.

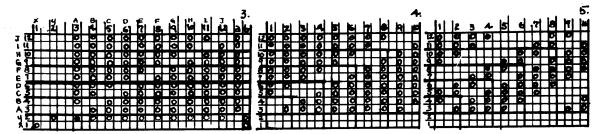
The Profile draft, a short form in which each square on the draft line indicates a group or unit of threads rather than a single thread, is practical for Summer and Winter because of the absolute regularity of the structure of the weave. Each pattern block is composed of repeats of a never varying 4-thread unit, the first thread of which is always on harness 1, the third always on harness 2, and the second and fourth on one of the pattern harnesses. Harnesses 1 and 2 provide the background and are known as the tie-downs, x and y; all other harnesses, regardless of the number employed, are pattern harnesses. Since harnesses 1 and 2 occur in the threading with unbroken regularity, and have no actual control over the pattern, they are not indicated on the Profile, and only the pattern harnesses are drafted. Thus, a Profile with 4 horizontal space divisions indicates a 6-harness, not a 4-harness weave, as harnesses 1 and 2 are implied.

At figure 1 is given the basic thread-by-thread draft for interpreting any Summer and Winter Profile for from 4 to 12 harnesses. Each one of the 4-thread units (A, B, C, D, etc) is indicated on a Profile draft by one square drawn on the corresponding pattern space of the draft. If one square appears on line A of the Profile, it indicates four warp ends threaded 1,3,2,3; if it appears on line B, the threading is 1,4,2,4; for line C it is 1,5,2,5. If these units are repeated as in figure 1, the Profile draft will be identical



Skeleton Tie-Up (with x tiedown) for Summer and Winter threadings. Four to Twelve Harnesses.

Basic Threading Units for Summer and Winter Profile drafting. Four to Twelve Harnesses.

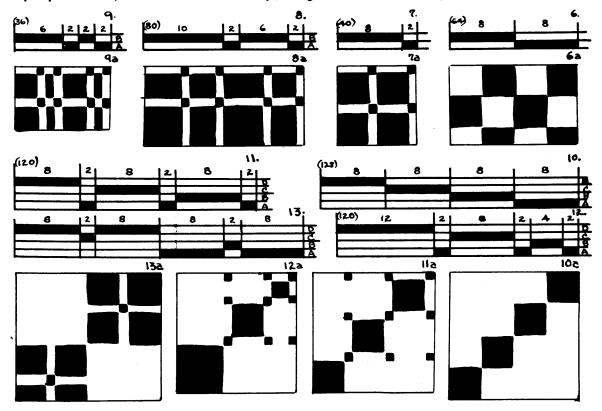


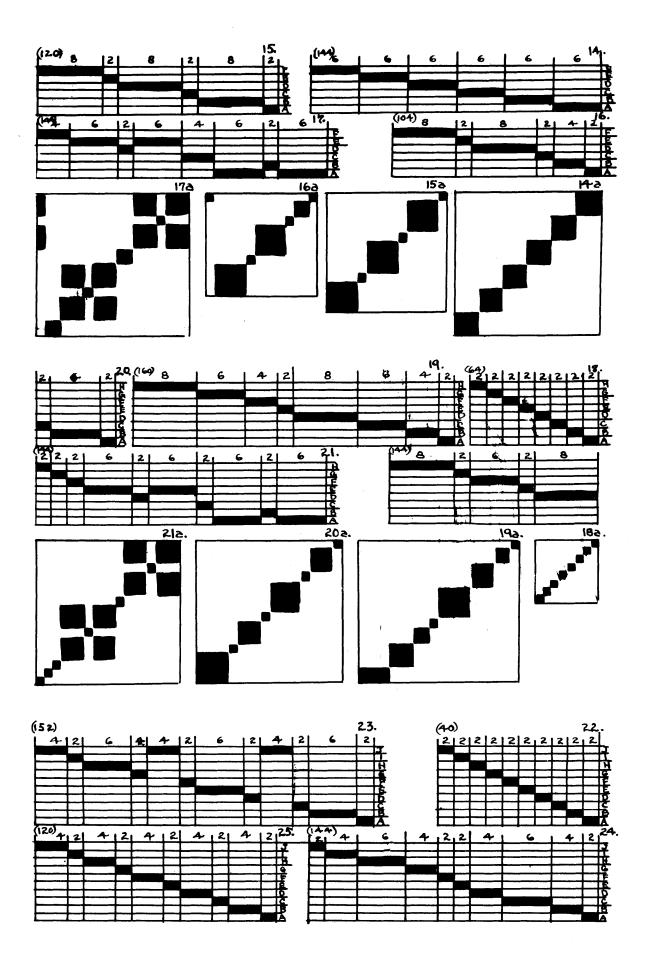
Reverse of Skeleton Tie-Up for Summer and Winter, fo weaving single blocks

Example Tie-Up. For combining two adjacent blocks.

Example Tie-Up. For combining three blocks, plus one.

Developments of drafts given below show merely block arrangements and proportions, as woven on Tie-up, figure 3, blocks squared in order.





to that of a 10-harness Twill draft, and the pattern will be merely a twill succession of threading units. To compose patterns for the weave, it is necessary to repeat the threading units (or some of them) to form pattern blocks. The blocks are indicated on the Profile by repeating squares the desired number of times along the draft space. Profile drafts may be written with each square indicated, or with merely a horizontal line of the correct proportion, with the number of squares in the block indicated by a figure above it, and vertical divisions shown only where the blocks change. This system is used here. For the draft at figure 8, for instance, the first block is 2 repeats of 1,3,2,3; then 6 repeats of 1,4,2,4; 2 repeats of 1,3,2,3; 10 repeats of 1,4,2,4, requiring a total of 80 warp ends. As with other handweaving drafts, the Profile is read and threaded from right to left.

Too often Summer and Winter is woven without variation; a threading is made from a book, the treadles tied as directed, and a symmetrical pattern woven according to directions. The lack of variety in the weaveing is due to a lack of understanding of the tie-up system. For a 4-harness, 2-block Summer and Winter pattern, the situation is little different from the Overshot 6-treadle Standard tie-up. Block A is woven by tying harness 4 to the first treadle, and since a tie-down must be woven along with every pattern shot, harness 1 (x) is also tied with 4; since harness 2 provides the alternate tie-down (y), this is combined with harness 4 on the second treadle, giving two possible ways to weave Block A. Block B is woven by raising pattern harness 3, so treadle 3 combines harnesses 1 and 3, and treadle 4 combines harnesses 2 and 3. This is for the rising-shed loom; invert 3 and 4 for a sinking shed. Tabby a which is on treadle 5 is tied to both of the pattern harnesses, and tabby b on treadle 6 combines the two tie-down harnesses. All tie-ups are read from left to right. But as more harnesses are added to the threading, the number of possible treadle tie-ups grows in geometric, rather than arithemetic proportion. Thus, the complete pattern tie-up, using both x and y tie-downs, for 6-harness Summer and Winter requires 30 pattern treadles, plus the tabbys. This might be considered the Standard Tie-up for 6-harness Summer and Winter, but it is obviously impractical, so it is used only theoretically, and treadles are selected from it for any particular pattern. Beyond 6 harnesses the tie-ups are multitudinous.

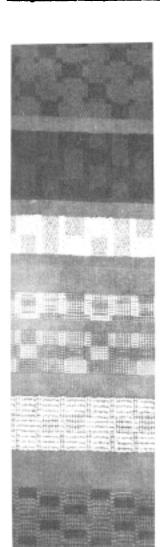
There are three different ways the tie-up problem is handled in multiple-harness Summer and Winter Weaves. If the tie-ups require only a few treadles, like many of those for Colonial patterns as given in the Shuttle-Craft Book, each pattern combination may be tied twice, the first with the x tie-down and the second with the y tie-down. If there are not enough treadles for this, one treadle is allowed for each pattern combination, as in the theoretical tie-up given at figures 4 and 5, and harnesses 1 and 2 (x and Y) are tied to treadles 1 and 2; to weave, the right foot depresses the pattern treadle while the left foot depresses the correct tie-down. On these multiple-harness tie-ups the two left hand treadles which control the x and y harnesses, and the two right hand treadles which control the tabbys are commonly omitted, because they are always the same. If the pattern requires a complex tie-up, with more combinations than there are available treadles, the Skeleton Tie-up as shown at figure 2 is used. This weaves background texture for the areas controlled by the raised harness, pattern texture across the rest of the warp. Larger areas of background texture are woven by depressing several treadles at one time. Because of the complicated foot work, it is desirable to weave by one of the single-tie-down methods and tie each pattern treadle to either x or y (x is illustrated in figure 2). An example of this kind of pattern is Mrs Atwater's famous Botanical Garden, in the Recipe Book, which would require over 50 treadles if the complete tie-up were made. The tie-up at figure 3 is the opposite of the Skeleton Tie-up, and weaves pattern in one block with the balance of the warp in background. It is used for Polychrome weaving, which will be taken up in a later Bulletin.

Notice that in the example tie-ups (figures 4 and 5) heavy horizontal and vertical lines divide the spaces after each pair. These mark off the treadles and harnesses used for 4, 6, 8, and 10-harness drafts. Thus, these tie-ups may be referred to for weaving any of the 20 drafts given, whether for 4, 6, 8, 10, or 12 harnesses.

Harrist Douglas Tidball



February 1951 Volume XXVIII, Number 2 <u>Virginia City, Montana</u> Subject:
The Summer and Winter Weave
Patterns and Polychrome Weaving



SAMPLER

This is the fourth Bulletin on the Summer and Winter Weave, the last in the current series. November gave the various methods for weaving threadings in the Summer and Winter technique, December gave schemes for weaving texture effects, January gave draft and tie-up analysis, with 20 drafts for from 4 to 12 harnesses. The subject which remains, although touched upon in all of these, is the weaving of patterns.

Patterns of two broad types may be produced: the single pattern weft type which produces a uniform pattern in two-texture, two-color effect; and the multiple pattern weft, in more than one color, known as Polychrome weaving, which produces multiple, interlocking color patterns in either single texture or two-texture effects. The accompanying photograph of a Summer and Winter Sampler illustrates both types; the top three borders are in single-weft technique, and the lower four borders are in polychrome. Within each of these methods the patterns produced may be either formal, stylized and symmetrical, or they may be free and interpretative, according to the inclinations of the weaver or the dictate of the problem.

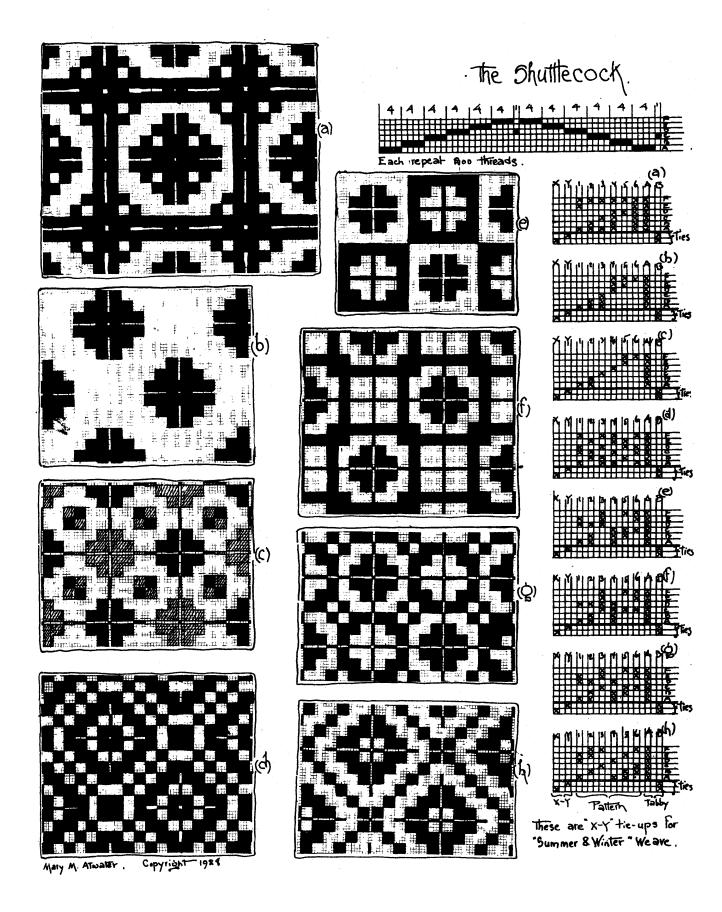
The Sampler was woven on a 6-harness threading, Draft 11 of the January Bulletin. The problem was one in free weaving, using a skeleton tie-up similar to the first six harnesses and first six treadles of tie-up 2, but with pattern harnesses tied alone and no tie-downs attached. To anyone desiring to master the Summer and Winter Weave, the weaving of such a sampler, at least two yards in length, is recommended, as it is only through actually weaving in the various methods, and experimenting with texture effects, color combinations and arrangements, proportions, block movements, and pattern development, that a true understanding and control can be achieved. For even the most experienced weaver it is well to allow a couple of extra yards on any Summer and Winter threading for weaving such a sampler. The texture, color, and pattern variations in the weave are so unlimited that fresh ideas and effects turn up in any experiment. And these samplers, if carefully worked out as to color and proportion, make beautiful wall hangings.

The first step in weaving a sampler is to weave each block alone, and in order, by weaving first on treadle 3 (Block A), then on treadle 4 (Block B), followed by 5 (Block C), and 6 (Block D), if the threading is on 6 harnesses, and a return may be made if symmetry is desired. Weave a generous block on each, in any one of the six weaving methods, to fix firmly in mind the spatial occurrence of each block. (This part of the sampler is not shown on the photograph.) Next, weave a border combining two blocks throughout by depressing two treadles simultaneously: 3-4, 4-5, 5-6, 6-3, and also 3-5 and 4-6. Then combine three treadles in a border: 3-4-5, 4-5-6, 5-6-3, 6-3-4. The first method will weave mainly pattern texture with spots of background, the second will balance pattern and background evenly, and the third will weave mainly background, with pattern blocks. In weaving these and the following borders it is well to broaden one's experience as much as possible by using different weaving methods, different types of tabby and pattern weft materials, and different colors. One method which has not been mentioned before is the weaving of shadow patterns by using a pattern weft the same weight as the warp, and a tabby which is much heavier. Stunning effects are achieved this way, but unfortunately they are too subtle to photograph well so none are included in the small portion of the sampler shown. Next, weave the pattern as-drawn-in, by squaring each adjacent block in order along a 45 degree diagonal line, as illustrated at the top of the sampler. These steps give the weaver the ground-work of familiarity with the block arrangement of the pattern, which is the basis for original designing.

For designing patterns to be used as all-over designs or as borders, some weavers have developed the ability to visualize an idea in advance, and they usually design directly at the loom. This ability to visualize a pattern before it is created, and work from a mental picture, is not a special "gift" but is the result of hard work and concentration; one way to develop it is to weave many samplers, always concentrating on what is happening to the textile and not being satisfied until one knows why it happens. The person to whom the technique is new, and any weaver who wishes to create a special or a complicated effect, will find it advisable to work out designs on paper before trying them on the loom. Set down the Profile draft at the top of a piece of drafting paper, with a partial draft repeat. Below this, using the draft as a guide to block limitations, develop a design idea.

An illustration of patterns developed on paper from a Profile draft is given on the opposite page. This drawing is the work of Mrs Atwater and was given in the Shuttle Craft Bulletin for May 1928, Bulletin Number 44. The simple, 8-harness threading gives endless pattern arrangements of which these eight are only suggestions. Mrs Atwater gives the tie-up which will produce each one of these patterns, and in most instances the treadles are arranged in the order in which they occur in the pattern. In pattern (a) the solid lines across the entire warp are made by weaving the tie-downs alone. The tie-ups as given are for a sinking shed. To convert for the usual rising-shed, multiple-harness loom, simply make the ties to the blank spaces of the pattern harnesses. Pattern (c) is in polychrome weaving, which will be discussed below.

To return to the illustrated sampler, the second border is a block-movement arrangement suitable for border or for all-over pattern. It is woven by combining two blocks throughout in the order: B-C (treadles 4-5), C-D (treadles 5-6) D-B (treadles 4-6), and B-C repeated. Notice that block A is omitted throughout so the small A blocks weave continuously as vertical stripes. One of the design advantages of the Summer and Winter Weave is that unbroken stripes, both vertical and horizontal, may be woven. The first two borders were woven by Method 3 (November 1950 Bulletin), the first with Lily Art 714 as pattern weft, and the second with Fabri pattern weft, to give a balanced weave. Warp was 24/2 red, set at 36 per inch -- a "Long Warp" project. The third border achieves its unusual effect through the use of the Lily Novelby cotton, Art 105 size I, as pattern weft. It is a simple 2-block combination (B-C, and C-D) which illustrates the effectiveness of simple, geometric designs.



Polychrome, meaning many colored, is, in weaving, the simultaneous carrying of more than one color of pattern weft, each color forming an individual pattern area. The method of weaving is to open the shed which will weave pattern in the main pattern area of the design, and throw a shot of the first weft color; then open another pattern shed, which controls the secondary pattern area desired, and throw a shot of the second weft color; follow both of these shots with a tabby. Four-harness Summer and Winter threadings which have only two pattern blocks permit only two-color polychrome; between each tabby the A block is woven with color 1 and the b block with color 2, or this order is reversed. The effect is a uniform fabric with pattern texture covering the entire surface, the pattern appearing only in color. The fabric is handsome and is particularly suited to upholsteries, cushions, bags, and is especially desirable for rugs.

On multiple-harness threadings greater complication of design is possible, and

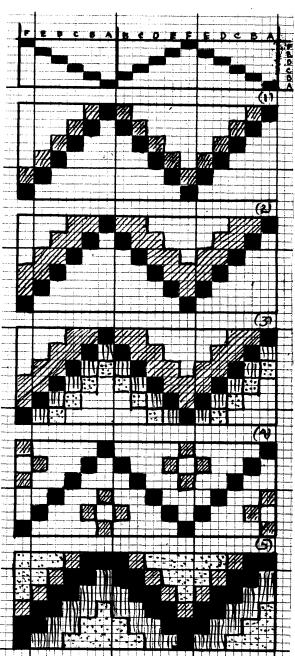
more colors.

The accompanying diagram shows the kind of simple sketch which it is advisable to make before weaving Polychrome. For clarity, a simple twill arrangement of blocks for 8 harnesses is used, with the same simple border pattern throughout. If single pattern blocks are to be woven, as at (1), it is advisable to use the full tie-up, No 3 in the January Bulletin. For (1) weave 1 shot on treadle 3 with color 1 and follow with 1 shot on treadle 4 with color 2, then tabby. The single tie-down by Methods 1 or 5 for weaving is desirable as the other methods are too complicated for Polychrome. For 2 and 3-color Polychrome, Method 1 is advised, and for 4 or more colors use Method 5, though this is partly determined by the weight of the pattern weft. Border (2) shows the second color enlarged to two blocks to give a continuous outline. Border (3) shows a third color added to shadow the main pattern underneath, and a fourth color outlining this one. Border (4) shows the second color added as an independant design. The last border shows 4-color Polychrome woven to give complete coverage,

The photographed sampler shows the lower four borders woven in polychrome. The lowest border has narrow, continuous vertical stripes in one color, which do not show clearly in the photograph.

Polychrome gives a two-sided fabric, as on the under side the colors mix in the same area. If a very subtle color effect with blended colors and a mere shadow of a pattern is desired, this under side is very handsome. Stunning effects may be achieved in 3 and 4 color all-over polychrome by using 7/s linen on a fine cotton warp. This is particularly good for upholstery.

The table-loom weaver has a particular advantage in weaving polychrome because of individual harness control. The treadle weaver must use intricate foot work.



Harrist Daglas Tidball



March 1951 Volume XXVIII, Number 3 Virginia City. Montana Subject:
"Thirsty" Linen Towels
Brooks Bouquet Open-Work

"Thirsty" linen, an innovation in materials for handweavers, is a linen for luxury towels. The material is so prepared by the mill that from the outset an article woven from it has the soft, highly absorbant quality which comes ordinarily only after many years of use, and countless launderings. One peculiarity of the linen fiber is that it improves with age and washings. The ordinary linen towel, as it comes from the handweaver's loom, is harsh, wiry, and only partially absorbant. The weaver corrects this condition as far as possible by soaking and hard washings and ironings, before putting the towel to its intended use. But it is only with many years of actual use that the ordinary linen towel takes on the soft, lustrous, highly absorbant quality of the linen towels made by our ancestors. The linen mills in Oregon have now found a way to pre-finish towel linen before it is woven, so that a towel made from it is at the peak of its usefulness as soon as it comes from the handloom.

The new towel linen comes in only bleached white, at this time, and in two sizes, 10/2 and 7/2. Both of these sizes are suitable for both warp and weft, though the recommended use is 10/2, set at 15 ends per inch for warp, and 7/2, woven at 15 shots per inch, for weft. A setting of 14 to the inch, using either a 7 or a 14-dent reed, is equally good for the 10/2 warp, but since most weavers have a 15-dent reed, the 15 to the inch setting is recommended. The towels from this linen are not the dainty finger-tip towels with delicate or gay colored borders, but large, heavy, bathroom towels -- the ultimate in bathroom luxury. They have an absorbancy and a massaging quality which no cotton terry-cloth towel can approach, and the long-wearing quality of linen which would make one linen towel outlast many ordinary towels.

Towels are customarily proportioned twice the length of the width. A practical hand-towel size is 16 by 32 inches, woven on an 18-inch wide warp, 36 inches long to allow for take-up and hems. Shrinkage is negligable if this material is correctly set, so this need not be considered. A 270-end warp of 10/2 towel linen, set 15 ends per inch, 18 inches wide, and 5 yards long, will require about 15 ounces of 10/2 for warp, and a similar amount of 7/2 linen for weft. The "Thirsty" linen comes on 1-pound tubes at \$3.50 per pound for the 7/2, \$3.75 per pound for the 10/2. It is available from the Shuttle Craft Guild, and from other distributors who carry the Davis Cordage Company linens. The 5-yard long warp will weave four hand-towels. Note that only four yards of fabric may be woven on a 5-yard warp, as there is a warp take-up of about five inches per yard, which must be taken into consideration in all warp planning. For hand-towels, a slighter lighter weight fabric may be desired, so these may be woven with 10/2 for weft, instead of 7/2. A luxury-size bath towel (and since it costs so little more in time and materials, why not make luxury towels of these?) is 27 by 54 inches. Use a 450-end warp, which will set 30 inches wide, and weave 58 inches per towel. An 8-yard warp will make four such towels, generously, and requires about 2½ pounds of 10/2 linen for warp, and about the same amount of 7/2 for weft.

The suggested weave is a plain tabby, meticulously balanced in the weaving so that there are exactly as many weft shots per inch as there are warp ends, whether the 7/2 or 10/2 is used for weft. Thus, this is a feasible project for the weaver with a 2-harness loom, though the little table looms are hardly strong enough for this warp, and the beaters are not heavy enough to balance the weave. The 2-harness rug loom, however, is thoroughly practical here.

The 4-harness weaver will thread all four harnesses, even though only tabby is to be woven. The common Twill threading may be used (1,2,3,4, repeated), though the Point Twill draft (1,2,3,4,3,2, repeated) is suggested if the weaver wishes to make colored borders on the towels. As the towels woven in tabby are very plain, the weaver will wish to add some decorative or individualizing touch. Suggestions for decoration will be taken up below.

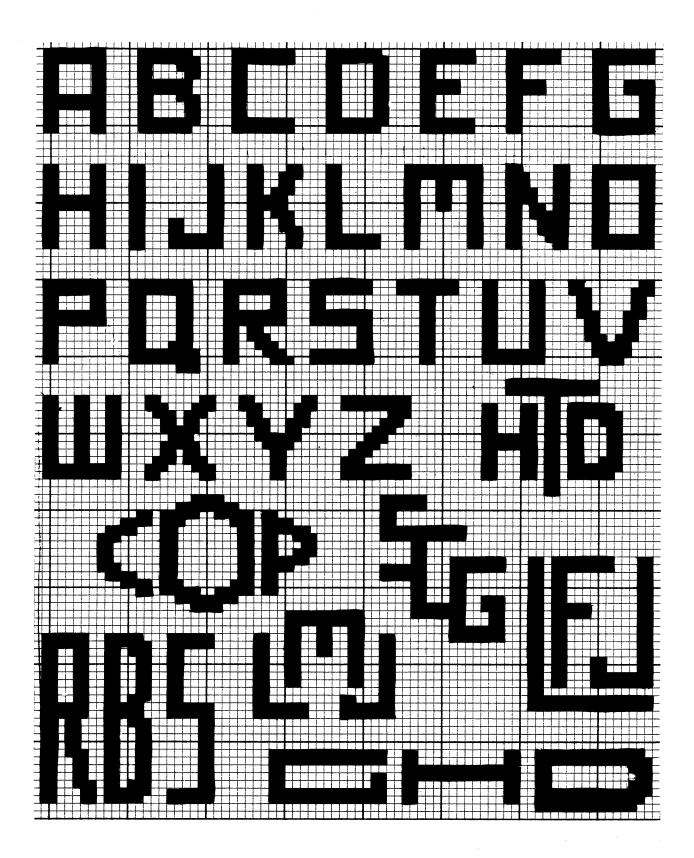
In weaving these towels, use extreme caution not to narrow-in at the selvages unduly, as the linen has no elasticity and if too much strain is placed on the edge warp threads, they will snap. But be equally sure not to leave weft loops at the edges, for these, in addition to being unsightly, will weaken the towel and cause the welvages to wear out quickly. Try to weave a firm, even edge, which pulls the three edge threads only slightly closer together than the body of the warp. As the linen weft has no elasticity, it is important that each weft shot should lie loosely in the shed before it is beaten into position, as the slightest tension on the weft will cause a drawing-in across the entire warp width, which will eventually cause more serious trouble than narrowing-in at the selvages.

A good design is made by weaving about 2½ inches to 3 inches of tabby, weave a decorative band 1½ to 3 inches wide, weave the body of the towel in tabby, weave a narrow decorative band, and finish with tabby hem to correspond to the first hem. The weaver should be reminded that linen thread of this type does not make good fringe (after one or two washings fringe becomes ragged, and it wears out quickly). Therefore leave sufficient allowance on each end of a towel for a hem about an inch deep with a generous turn-under. Before hemming, overcast the edge firmly, or run two or three rows of machine stitching along the edge. Since these towels will last many years, it is of utmost importance that the hems be very firm and strong. Common sewing cotton is not strong enough for hemming, but a double strand of 40/2 linen is excellent.

A wide range of decorative details may be used to ornament the towels. If colored borders are desired, they should be plain and strong. Use 7/1 linen for borders, weaving this material on "opposite" sheds (1-2, and 3-4, alternately) and beating the weft to make a complete warp coverage. On the Point Twill threading, the "opposite" treadling will raise three and lower three warp ends all across the warp. A group of these strong stripes makes an effective border. Several colors, in blending order, may be used in a single stripe, such as Mellow Yellow, Chartreuse, and Meadow Green. Since a weft-faced weave has a strong narrowing-in tendency, use great care in weaving such stripes, or the edges of the towel will be unpleasantly scalloped.

Another form of decoration is a band of one of the open-work pick-up weaves, just above the hems. Use several rows of Spanish Eyelet, or two-over-two pick-up leno, or Brooks Bouquet. These may be woven with 7/2 as weft, or with a double strand of 7/2, to add strength.

Perhaps the most effective and appropriate way to handle the decoration of a towel is to personalize it with a large, bold monogram, worked in one of the pick-up open-work weaves. The two-over-two leno is good, though much practice is necessary before this may be woven evenly for pattern work. A simple and effective technique is Brooks Bouquet, the open-work weave popularized by the noted Bobbin Lace teacher, Marguerite Brooks, and appropriately named for her. The open effect is strong, and the weave is so simple that the beginner can produce a perfect effect the first time it is woven.



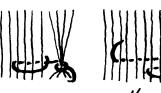
<u>Directions for Weaving Brooks Bouquet</u>. Weave the desired tabby heading, ending with the shuttle at the right hand side of the warp. Open the next shed. Carry the shuttle into the shed, under the first four warp ends, and bring the shuttle through the warp, to the top. Carry the shuttle to the right, and back into the shed, under these same four warp ends, plus four more, and bring it out of the shed between the eighth and ninth warp ends of the top warp. Pull the weft so that the wrap around the first four threads of the top shed gathers the four warp ends into a small knot. Carry the shuttle over the four warp ends to the right, and insert it into the shed, carrying it again from right to left under eight top warp ends. Continue these simple movements across the entire warp, with the same shed kept open throughout the entire process. The succession is: shuttle from right to left, under 8 threads of the top warp; from left to right on top of the warp, over four threads of the top warp; pull the weft each time so the threads of the top warp are gathered together into a small knot, or bouquet. When the row is completed, change the shed, beat, and carry the shuttle in the second shed across the entire warp to the right hand side. All knots are woven from right to left. The beginner will find it well to practice a little in the eight left, four right combination, though actually more or less threads may be used, as desired. For the towel monograms, use groups of two warp ends, carrying the shuttle in the shed under four top warp ends, and on top of the shed over two.

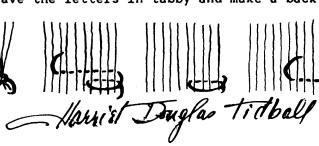
If Brooks Bouquets are to be used in a restricted area instead of all the way across the warp, it is necessary to build up the edges (and all parts which appear in the design as tabby) to compensate for the extra warp length required by the knots. To do this, open the shed and carry the shuttle from right to left, removing it from the shed at the point where the open-work is to begin; change the shed and insert the shuttle at the point where it was withdrawn, carrying it back to the right hand edge; change the shed again and repeat the first shot; then start the open work. If tabby areas are to appear in the open-work, as in weaving monograms, each tabby area must be built up in this same way, as it occurs when working the design from right to left. It is obvious that in weaving open-work alternated with tabby, the line of the weaving is irregular, and it is impossible to beat until the entire row has been completed. To place the weft correctly in the tabby areas, insert a flat stick in the shed over the tabby area, and beat against this; or use a small belt shuttle for beating the tabby into position. The diagram below shows the steps used in weaving Brooks Bouquet. The first five diagrams indicate only the warp ends of the top warp, with the shed open. The last diagram shows the closedshed effect, with the bottom warp ends indicated lightly. It will be noted that the weave produces small "four-paned windows" similar to those made by the Bronson Lace technique.

Since the towel linen thread is coarse, ornamental monograms are neither appropriate, nor effective. The simplest block letters should be used. The accompanying alphabet gives the best monogram designing basis. All letters are given as 11 squares high, but these may be elongated or shortened, according to the desire of the weaver. Each square in the letter indicates one bouquet. The horizontal spaces indicate bouquets made by carrying the shuttle forward four and backward two (four warp ends are thus involved in each bouquet) and each of the vertical spaces is one row of bouquets, or four tabby shots. Thus each square on the squarred paper represents four warp and four weft ends. Below the alphabet are given several suggestions for combining these block letters into simple monograms. Be sure to work out any monogram carefully on squarred paper before starting the weaving, and to count the warp ends for centering the monogram on the warp. In weaving the monograms, one may either pick out the letters with the bouquet stitch, or weave the letters in tabby and make a background frame of open work.













April 1951 Volume XXVIII, Number 4 <u>Virginia City, Montana</u> Subject: Rug Weaving Two-Harness Weft Faced

Rugs, in the field of handweaving, have had a longer and more varied, a disreputable and more honored history than any other loom product. Simple mats of interlaced fibers to cover the dirt floor of a cave were probably the first weavings ever devised by early man, and the weaving of floor coverings has continued without interruption until the present day. Rugs, for hundreds of years, have run the entire scale of art and craftsmanship from the breathlessly beautiful Orientals to the lowly hit-and-miss old-rag carpets. They seem to be the first interest of the budding weaver, and the ultimate achievement of the artist-craftsman who has spent years his floom techniques and designing. They are woven on crude log frames, on two-shed vertical frames, on two-harness "rug" looms, and on the finest of modern multiple-harness looms. Techniques for weaving rugs vary from fine tapestry and knotted pile, through warp-faced and weft-faced simple weaves, double warp multiple-harness weaves, stuffer weaves, four-harness pattern and bound weaves, and others, to rag-carpet weave. It is interesting to note that the finest and most elaborately designed rugs are commonly woven on the simplest of equipment.

The average handweaver is apt to consider the making of a fine tapestry rug or a Ghiordes knotted pile rug as the work of a professional — a European or Oriental rug weaver, or a Navajo Indian. There is good basis for this. Although the techniques used for the finest rugs are simple enough to be learned in a few hours, few present-day handweavers have either the time or the patience to tie several hundred rug knots per square inch, and few weavers who are interested in producing textiles of many types can develop the proficiency of the rug weaver who devotes a lifetime to weaving rugs. An ever-present barrier to the common weaving of fine rugs is that the important feature is neither the technique of the weave nor the actual production, but the basic designing of the rug, and this is work for an artist. That a present day, non-professional weaver can produce a knotted rug of the oriental type which is as well designed and as fine in quality and craftsmanship as an oriental-made rug, was evidenced to me recently in a 4 by 6 foot rug woven by Mrs Gertrude Greer, author of the forthcoming ADVENTURES IN WEAVING. Mrs Greer's rug (she sent the Guild a generous sample) was woven on a heavy 5/ply linen warp, with 8 rows of 12 Ghiordes knots per inch, a total of 96 knots per square inch. The design was original and the knots were tied of Oriental rug yarn, rich in color. Congratulations to the handweaver whose persistance will carry her through such a worth while project, one which will reward every hour spent. To the weaver who wishes to weave a "Navajo" rug my usual reply is, "Leave the Navajo rugs to the Navajo." Unless one has a means of obtaining the handspun, hard-twisted yarn of proper weight used by the Navajos, the results will not be successful; and I have never seen a copy of a Navajo which approaches in quality the best of the originals. Actually, genuine Navajos can usually be purchased less expensively than they can be copied; and why copy unless one can improve. Kelims are a type of

tapestry rug which handweavers seem able to produce successfully, and fine examples of this type are produced, especially in the Scandinavian countries.

Rag rugs are always with us. They have been the starting point, or the interest stimulator for many fine weavers; but for the serious handweaver they are usually something to outgrow. In Sweden the rag rug attains a high degree of beauty, durability and craftsmanship, but linen or a hard twisted cotton is used for warp, and rags are torn from new bolts of cloth. It is only in specialized circumstances that there is any economy in cutting up old clothes and worn household textiles for re-weaving into rag carpeting. To eliminate the labor of cutting and sewing rags, some weavers make rag-type rugs of heavy cotton roving, but such rugs are of dubious quality, beauty and usefulness.

However, many handweavers wish to weave a few intermediate rugs, suitable for use in modern homes -- rugs which are neither as demanding and costly as fine knotted or tapestry types, nor as "cottagy" as cotton or wool rag rugs. A barrier to the weaving of such rugs has always been the difficulty in securing suitable materials. Wool and linen are the most desirable materials for good quality rugs because of their resistance to wear and soil and because of the soft, harmonizing quality of their colors; also because the body of a correctly woven linen and wool rug permits the rug to cling flatly to the floor. Mrs Sandin and Mrs Henderson, in a recent issue of LOOM MUSIC devoted to Swedish rugs, stress the point of difficulty in securing proper materials in Canada and the U S. The Shuttle Craft Guild, after a considerable amount of searching and experimenting, has located some excellent rug materials which are in stock in considerable quantity, though there is no guarantee of how long they will last. The wool weft is a 4/ply yarn, actually four strands of tightly twisted 12-cut tweed yarn. (Four strands of similar weight tweed could be substituted.) This comes in about a dozen colors, including natural, at \$2.50 per pound, and samples are available on request. There are about 800 yards per pound. The recommended warp is 7/3 grey linen, which has 700 yards per pound and is \$3.00 for a pound tube. A good alternate warp, though more difficult to handle, is 2/ply natural jute, which has about 550 yards per pound, and is \$1.20 per pound on half-pound balls.

Several Bulletins on different rug techniques are planned, but the rugs for this month are skatter rugs, 30 by 45 inches, in simple weft-face weave, with color stripes. Whether the rug is to be simple in technique, or complex, small, or room size, there are certain basic considerations in planning and designing. First of all is warp strength, which is determined by the type of warp material used, and the setting in the reed. The 2/ply jute, set at 6 ends per inch, gives a strong warp which makes a well bodied rug. The 7/3 linen set at 6 to the inch gives adequate strength, but makes a rug with a lighter body. This material warped at 12 to the inch and threaded double, produces a thicker, firmer rug of excellent body, and requires more weft material than the former. Common cotton carpet warp (8/4 cotton) may be beamed at 24 ends per inch and threaded with four ends per heddle and reed dent; this gives a strong, adequate rug, but it requires heavier beating and the general texture of the rug is softer. Of course the use of common carpet warp would make the rug less expensive than the use of double linen, but cotton carpet warp would be more expensive than jute.

With a setting of 6 warp ends per inch, the threading, if the weaving is to be done on two harnesses, is 1, 1, 2, 2, repeated. If four harnesses are available, thread to twill (1, 2, 3, 4, repeated) and weave on the 1-2 and 3-4 harnesses alternately. This means threading jute at one end per heddle, 7/3 linen at either one or two ends per heddle according to the weight of rug desired, and cotton carpet warp at 4 ends per heddle. A 6-dent reed is the best for rug weaving, but a 12-dent reed may be used by sleying one end (or group of ends) in alternate dents. The use of the 12-dent reed creates greater friction on the warp, which may cause fraying and breaking of warp ends.

Weave on the plain-weave sheds with pairs of warp ends up and down. Use a single strand of wool rug weft, which must be beaten very firmly to give a

complete warp coverage. The rug must have a firm, stiff quality, so that it does not resemble a blanket. Use extreme caution not to narrow-in at the edges, as linen and jute have no elasticity and will fray and break under severe tension. Also, narrowing-in makes the edges of the warp pull toward the cloth-beam which leades to V-shaped gaps when the warp position is changed, and to a curvature in the rug which is difficult to straighten. Weave with about 30 shots of weft per inch.

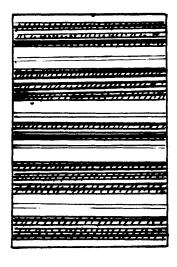
The life of a rug is no longer than the life of its end finish, so finishing is one of the rug weavers greatest problems. Hems are apt to be bulky and unsightly, though if the threading is on four harnesses the hems may be woven on the plain-weave sheds (1-3 and 2-4) to reduce the bulk. But in shifting the texture in this manner it is difficult to avoid severe weft take-up in the hems, which bows the rug. Knotted fringes are a common rug finish, but this finish too is generally undesirable because fringe soon becomes ragged looking, and knots are bumpy and wear out. If fringe is desired, one should weave a heavy fringe and sew it on like a braid. An excellent rug finish, which gives a neat, strong rug end, is a binding of heavy linen. To make such a binding, warp 20 ends of 7/3 linen carpet warp, thread for tabby, and sley in a 6-dent reed at 4 ends per dent, followed by two skipped dents. If a 12-dent reed is used, sley 2 per dent for 2 dents, and skip four dents. Weave in tabby with the same 7/3 linen. The weaving may be done with rug yarn to match the body of the rug, but this does not make as strong a binding. It may be woven with two shots of linen and one of rug wool, or with two shots of rug wool and one of linen. But avoid alternating linen and wool shots, as this puts all of the weaker material on one shed, which causes the binding to wear out quickly. If a wider binding is desired, warp 24 ends. Be sure to weave neat, even selvages. If weaving with two shuttles, be sure to lock the weft at the edges by always placing the shuttle which is laid down, toward the weaver. In weaving a rug which is to be bound, it is advisable to weave a heading of material like the warp, or to beat the yarn lightly for an inch at each end. The part to be covered by the binding will not have a weft coverage, but it will be less bulky. Whip the ends of the rug firmly before binding, perhaps several times, to give greater strength. One further hint which will prolong the life of any rug hem — in cleaning, never pick up a hand

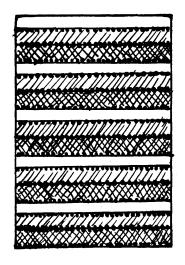
A rug design, even when it is a simple stripe arrangement, should be worked out carefully on paper before the weaving is started. The three designs given on the following page are examples of the three basic design types. The first is a symmetrical design, developed like many primitive rugs from five major stripes or groups of stripes. The second is a series of asymmetrical stripes which is repeated, preferably an uneven number of times, for the entire length. The third shows a group of stripes at each end, symmetrically arranged from a plain center. The use of three or four colors makes a more interesting rug than two colors, particularly if the proportions of each vary, and seldom should more than four be used. Guides to designing rugs may be found in the interior decorating magazines and books, and in many handweaving books. Below is a list of books for weavers which contain good rug weaving material.

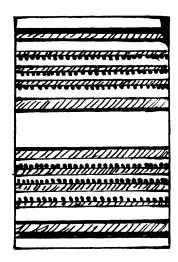
RUG WEAVING, by Mary M Atwater, Shuttle Craft Guild, 1948. Out of print!

YOUR RUG MAKING, by Klares Lewes and Helen Hutton, London, 1941,

YOUR RUG MAKING, by Klares Lewes and Helen Hutton, London, 1941,
MONSTERBLAD, Kartong 1, and Kartong 6, Stockholm.
WEBEN, by Ernst A Kallmann, Germany.
KUTOMAMALLEJA. Helsinki.
DE HANDWEEFKUNST, by Elisabeth de Saedeleer, Netherlands, 1947.
SWEDISH TEXTILES, Nordiska Museet, Stockholm, 1925.
SCANDINAVIAN ART WEAVING, by Elmer Hickman, 1949.
INDIAN BLANKETS AND THEIR MAKERS, by George Wharton James, Tudor, 1937.
NAVAHO WEAVING, by Charles Avery Amsden, U of New Mexico Press, 1949.
VAVSTOLEN, Del II, by Skeri-Mattsson and Osvald, Stockholm, 1945.
VAVBOKEN, by Aina Montell, Stockholm, 1925.
LOOM MUSIC, Vol VII, No 10, Dec 1950, by Mary Sandin and Ethel Henderson.
HANDBOK I VAVNING, by Ulla Cyrus, Stockholm, 1949
HANDWEBEN FUR ANFANGER, by Petersen and Moberg, Munich, 1949







Rug l is of Natural white, tan, heather brown, and jade green, woven: $2\frac{1}{4}$ " white, $\frac{1}{2}$ " heather, 4 shots white, 1 3/4" tan, $\frac{1}{4}$ " heather; 3/4" white, 3/4" tan, 1 shot white and 1 shot jade repeated 5 times, 8 shots white, 3/4" tan, 1 shot white and 1 shot jade repeated 5 times, 1" white, 1" tan, 1 shot white and 1 shot jade repeated 5 times, $2\frac{1}{4}$ " heather, 4 shots tan, 2" white, 3/4" tan, 1 shot white 1 shot jade repeated 5 times, 8" white; repeat the color stripes in reverse.

Rug 2 is of turquoise, chartreuse, yellow, dark green and dark red, woven: I shot dark red and one shot turquoise alternated 6 times, 3" turquoise, I shot turquoise and one shot dark green alternated 6 times, I shot chartreuse and I shot dark green alternated 6 times, 3" chartreuse, I shot chartreuse and I shot dark red alternated 6 times, 2" yellow. This stripe arrangement is repeated 5 times, but the dark red and the dark green are alternated throughout.

Rug 3 is of natural white, black, and blue. The major stripes are arranged: 1" white, 4" stripe, 5" white,5" stripe, 5" white, 3" stripe, 5" white, 5" stripe, 5" white, 4" stripe, 1" white. The stripes are variations of: 1/3" blue, 1/3" black, 1/3" black, 1/3" blue, 1/3" blue, 1/3" blue, 1/3" blue, 1/3" blue, 1/3" blue, 1/3" blue. A pair of 2-shot black lines occurs in each wide white stripe.

Like everyone else these days, the Shuttle-Craft Guild is not immune from rising prices and costs. Every month our expenses increase, but since we have not raised any of the Guild basic prices, the squeeze continues to become more accute. For 28 years, since its founding, Guild membership and Bulletin subscription has been \$5.00. As this price has weathered the inflation of the 20's, the depression, World War II, and the tremendous price level rise since then, we hesitate to follow the trend of the times by increasing this price. Therefore, as an economy measure, we have decided to discontinue the feature which was added in January 1950 without cost to the subscriber, the THREADBENDER sheet. We are, for the time being, resuming the old system of issuing a 4-page BULLETIN, with special notices given on the last page.

A London Guild member writes that she and her husband have pleasant accommodations for a couple interested in weaving who plan to attend the FESTIVAL OF BRITAIN this coming summer. Write me immediately for details.

Fabri is now \$8.00 per pound. Linens are up 20¢ per pound. No Metallics. Sorry!

- Narrie/Touglas Tidbalf



May 1951 Volume XXVII, Number 5 Virginia City, Montana Subject: Flossa Rugs Designing and Color Selection

There is good reason for the dominance of Flossa Rugs in the weaving done by students in Art Schools. The Flossa technique is a relatively rapid method for weaving a high quality, deep pile rug. The method of weaving is simple, requiring only slight knowledge of the techniques of weaving, but it requires skill in the use of one's hands, and perfection of craftsmanship. But the basic demand is of good designing. At its best, the making of a Flossa rug is actually painting with yarns. Time, effort, and study must go into the designing of a Flossa Rug.

The cost of materials for a good Floss rug is of necessity high. The quality of the rug is such that with respectful treatment it will last for generations. These two factors should lead the weaver to good, serious designing effort. What weaver could be happy to weave a fine rug with expensive materials and find when it is on the floor that it is unpleasant to look at A rug may have poor color harmony, or colors which do not blend with the rest of a room. The basic color harmony may be good, but the proportions of colors may be bad, or the associations may be in the wrong order. The design may be of such a nature that it seems to lift the rug off the floor; or it may give the impression of the pattern running off at the edges instead of being contained within the area of the rug; or it may have a directional flow which makes the rug appear to be a parallelogram instead of a rectangle. These are all points which may not be noticed until the rug is completed and on the floor. The novice may approach designing gradually, as suggested on page three.

But one does not need to be a practicing artist in order to design a good rug. Every weaver is a studying artist, and every project undertaken on a loom should be a designing problem through which one learns and progresses. Here are some suggestions for approaching the problem of designing a rug. The first matter is the selection of colors. These should harmonize with the general decorating scheme of the room in which the rug is to be used. It is best to limit onesself to two, three, or four colors, one of which should be predominate and used in greater quantity. The safest color harmony is an analagous harmony, colors which lie side by side on the color wheel, or a monochromatic color harmony, different values -- shades and tints -- of a single color. In the use of a monochromatic color harmony many more colors may be safely combined than with other harmonies. A practice which will add vitality to a design is the use of small amounts of a contrasting color; but the designer must keep in mind that contrasting colors act on each other to increase the brilliance of each, if they are used in large areas, and if they are associated in very small areas they tend to grey each other. An interesting color harmony is the use of a large amount of one color, with a small amount of its contrast, and as intermediary colors use the tones which are made by mixing the two, the greyed tones. The decorator-designer must keep in mind that a brilliant color may not be used to make a dull color scheme look gayer; the use of brilliant colors in small areas

will merely make a dull room look duller. Cool colors, blues and greens, make an object seem to retreat and appear larger, which makes them good floor covering colors. Warm colors, reds and yellows, are advancing colors. Light colors, tints, make space look larger. Dark colors, shades, make space look smaller. Shades of warm colors give the impression of vitality, stability, dignity. Shades of cool colors give the impression of somberness, sobriety, age. Tints give the impression of delicacy, femininity, youth. Full, strong colors give the impression of vigor, restlessness, activity.

The actual space to be filled by the design is the next consideration. The proportion of length to width is extremely important in a small rug, as the rug must not look unpleasantly squarish or unpleasantly runnerish. A good proportion is length 50% greater than the width, a proportion of 4 to 6, or for slightly more length, a proportion of 3 to 5. The designer must keep in mind that a dominance of lengthwise stripes will make a rug appear longer than it actually is, so the 4 to 6 proportion is good for this type. Cross stripes make a rug appear shorter, so the 3 to 5 proportion is better for weft stripes.

Simplicity is one of the first rules of good designing, so work for simple rather than complex or highly ornamental effects. A rug should have a soothing, retreating quality, so avoid a complexity of strong lines, either diagonals or curves. Though an artist may be able to pull a design out of his head, the amateur needs a starting point, an idea with which to start. Herein lies the value of studying pictures. Popular magazines and interior decorating magazines are treasure houses of ideas. Do not copy, but select ideas, expand them, apply them, develop them to fit your own particular needs and reactions.

Take a large sheet of squared paper and mark off a dozen or more 3 by 5 and 4 by 6 inch rectangles. Then start sketching -- filling in the rectangles with design experiments. Start with an idea; it may be a motif or simply an arrangement of lines suggested by a design seen in a picture, it may be an object or an arrangement taken from nature, It may be a group of triangles, or rectangles, or simple curved lines. The design must be made to fit the space, adequately held in by the edges of the space. It must not have directional orientation -- that is, it must be equally pleasant when viewed from any direction or angle. Make many small sketches, changing, reorganizing, eliminating or adding, from one to another. Study each one for its faults and correct these faults in a new sketch. When several good designs have been made, paint these in the selected colors with tempora, water colors or colored crayons. Mixed tempora, to match the selected yarn shades, will give the most satisfactory results. The addition of color to the design may suggest further design changes. When a thoroughly satisfactory design has finally been arrived at, it is a good idea to make a full size cartoon on wrapping paper, and lay it on the floor to be sure that the design does what it is supposed to. The next step is converting this design to a suitable working design for the weaver. Use squared paper and allow one square for representing one knot. Flossa is woven with three knots to the inch in both directions, nine knots to the square inch, so there may be no lines in a design narrower than one third inch. If a 30 by 45 inch rug is planned, it will require 90 knots across the warp width, though it is advisable to allow a selvage of two or three squares at each edge. Colored pencils for indicating different colors of yarn are helpful in making the working design.

Flossa is woven on a heavy linen warp, set at 6 ends per inch. The 7/3 carpet warp linen is ideal for Flossa. Headings and background weft may be of linen like the warp, but are more commonly wool, the same as used for the knots. The finest weft yarn for the pile knots is the Persian Rug Yarn, available in a magnificent color range from Paternayan Brothers, Inc, 10 West 33rd Street, New York 1, N Y. About four strands of this yarn are used together. Several strands of knitting yarn may be used, or three strands of the Shuttle Craft four-ply rug yarn, but these do not have the luster or the color range of the Persian yarns. Special equipment required for the weaving of Flossa are a gauge bar a little longer than the width of the warp and as wide as the desired length of the pile, and a Flossa knife. Special guage bars and knives are

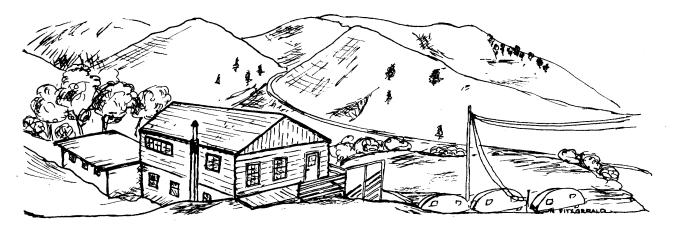
manufactured in Sweden, but improvised equipment serves as well. Mr Elmer Hickman, an American authority on the Swedish weaves, uses two standard heddle bars, spot welded together at the ends, and a carton opener for a knife. Actually, a leash stick or straight pick-up stick may be used for the gauge bar, and a razor blade in a holder, or even a pair of scissors for the knife.

Flossa is woven by tieing rows of knots on a flat tapestry background. Weave a heading on tabby sheds, beating the weft so it completely covers the warp. Then close the shed, lay the gauge bar along the weaving edge, and take a long strand of the knotting yarn. With the end of this strand make a Ghiordes knot around the two edge warp ends, leaving the short end at the selvage. Carry the long strand around the gauge bar, and make the second knot. The knot is made by carrying the long end of weft through the warp between the two warp ends; take it to the left, around the left thread, over both warp ends, and down at the right of the two; bring

it up between the two warp ends, directly beside the entering strand, and pull tight. Then carry the yarn around the gauge bar and start the next knot. New strands or new colors are simply started, and the long dangling ends are later clipped. When a row of knots is completed, run a razor blade along the top of the gauge bar, or simply withdraw the bar if uncut loops are desired. Weave two, four or six shots of tabby, as required for spacing the rows of knots three to the inch, and beat the weft firmly to give a complete warp coverage, as in tapestry. Then tie the next row of knots. It is advisable to weave a flat tapestry selvage by carrying an extra strand of weft yarn at each edge, weaving it back and forth over four or six warp ends to fill the space taken by the knots, The warp ends for the selvage may be doubled to give added strength.

The Flossa technique offers a splendid medium for making a sculptured rug or one with strong texture contrasts. There are four different textures possible: long cut pile, short sheered pile, uncut pile, and tapestry no-pile. A rug may be designed in only one color but be given a four-tone design by combining all of these, or a combination of two or three of the textures may be used. Rugs which use the Flossa pile for only part of the rug, and the flat tapestry background for part, are called Half-Flossa.

For the weaver who approaches Flossa for the first time, a rather casual rug in Malf-flossa, using the inexpensive four-ply rug yarn instead of the imported Persian yarn, is recommended. Although jute may be substituted for the linen warp, this economy is not recommended as the jute warp is more difficult to handle, and cotton carpet warp will under no circumstances give satisfactory results. For practicing the technique, and approaching the matter of designing gradually, a handsome rug may be woven by alternating bands of Flossa with bands of flat background, and using one color throughout. Weave seven rows of Flossa knots and then three inches in plain tapestry, continuing thus for the entire length of the rug. Results are more satisfactory if the weft-face background is woven over two, under two, through treadling the 1-2 and 3-4 sheds if the threading is Twill, or threading 1,1, 2,2, if only a 2-harness loom is available. In the last case, be sure to tie the knots so that each knot splits a threaded pair. On a twill threading, weave the shots between knots on the 1-3 and 2-4 sheds. Variations of this simple design may be made by weaving background of one color and Flossa of another, or weaving all the Flossa of one color but changing colors for the background stripes. Real designing may start with adjusting and varying the width of stripes to suit one's fancy, carrying some of the Flossa rows only part way across the warp and filling the remaining space with tapestry, or changing color within the Flossa stripes. Weaving a few casual rugs of this type will lead the weaver naturally toward the designing and weaving of fine rugs of the best materials.



Here is the Shuttle Craft Studio beside historic Alder Gulch. There will be a big welcome mat at the door for all Guild members who can visit us this summer, either as students or as callers. We prefer a written or telephoned appointment in advance, as our time is not always free. Telephone 29.

If you can't come to Virginia City, you may find that summer is a fine time for a systematized study of handweaving at home. The Shuttle Craft Course of Instruction — twenty lessons and thesis problem in creative designing, with all necessary instruction material and supplementary reference material — is now complete. The course packet costs only \$25.00, without criticism of lessons and this includes a year's membership in the Shuttle Craft Guild. As a special offer to all current Guild members, any Guild member purchasing the course during May and June will receive a free subscription or renewal to Shuttle Craft STYLES. Also, if your current Guild renewal is dated January 1951 or later, the cost of the Course during these two month will be only \$20.00, but will not include a Guild renewal. If your Guild subscription date is 1950, the cost of the course will be \$25.00 but it will carry an automatic renewal for one year.

All renewals for Shuttle Craft STYLES (the second 12 monthly Recipe sheets) are due by July first. These renewals will be accepted any time up to that date. Renewal rate to Guild members is \$1.50. To non-members, \$2.50.

We are sorry that with the current high price of Fabri (\$1.00 per skein) we are unable to maintain our full stock. We aim to keep a full stock of Tartan colors, black and white, but the other colors we shall not replace when stocks are exhausted, as long as the price stays up. Our linen stock is complete and prices are up only 20¢ a pound from the sample-card list: 7/s and 1½/s in 18 colors, 14/s, 14/2 in 5 colors, 40/2 in natural and bleached, 12/s boiled, 6/s natural grey, also natural and bleached jute. Thirsty linen available, 10/2 at \$3.75 per pound, 7/2 at \$3.50. Linen carpet warp, 7/3, \$3.00 per pound. Wool rug yarn is \$2.50 per pound, and we must bill for postage on this item. In all justice we must mention that excellent 40/2 linen, both natural and bleached, is available through L Lane, Conway Thread Co, Box 355, Garden City, Michigan, at \$1.25 less a pound than our prices. We have had satisfactory thin wooden strips for weaving window blinds (sometimes used for table mats and lamp shades) from Woodcrest, P O Box 675, Bellevue, Washington. These are put up expecially for handweavers. In these days when manufacturers and distributors of wools are doubling their prices or removing their products from the market, it was a satisfying discovery to learn that the Paton and Baldwin yarns are still available, and are still sold at the two year old prices, by Royal Society Inc, 230 Fifth Avenue, New York 1, N Y. We have had excellent samples of novelty drapery yarns, some with metallics, from the Home Yarn Corp, 42 Lexington Ave, New York 10, N Y.

Mrs Atwater will teach again at the University of British Columbia, Vancouver, July 9 to 27. For full listing of summer weaving courses, see the spring issue of HANDWEAVER AND CRAFTSMAN.



June 1951 Volume XXVIII, Number 6 Virginia City, Montana Subject: Handweaving vs Machine Weaving The Casual Decorative Weaves

June is our Miscellany month, the month for our Threadbender issue devoted to talking over problems. Recently there have been a number of questions and statements from Guild members which all together present a challenging problem which we cannot overlook. Therefore our subject comes from the following statements and questions. "I don't want my weaving to be perfect because if there are not irregularities or mistakes my things look machine woven." "I know there are many things woven on a machine which can't be handwoven, but I want to know if there is anything I can do on my handloom which can't be done on a machine." "Is it correct to weave large pieces in strips and sew them together?" The ever-recurring question, "Is fly-shuttle weaving handweaving?" "Our local tailor tells me that he will not make up handwoven materials because they are so difficult to work with." Many other similar questions are on tile, the answers to which lie in the question of whether or not there is any difference between a handwoven textile and a machine woven one.

The obvious point of difference between a handwoven and a machine woven textile is the difference between the machines used to create them. A powerloomed textile is one which is woven on a machine which performs mechanically the three operations of weaving, shed changing, shuttle throwing and beating. No machine can produce a textile unassisted, however. The textile must be designed, threads selected, the loom dressed, and the machine tended, by some person or persons, so there is the generous touch of man in any textile. The persons who perform these operations are not weavers but are loom attendants, mill workers, and textile designers. Man's touch becomes stronger in the handloomed textile, made on a loom which mechanically performs one or two of the operations of shed changing, shuttle throwing and beating, but requires a person to operate the loom. These semi-mechanical looms are often little more complicated than a handloom -- in fact the simple fly-shuttle loom which is usually four-harness counter-balanced with two shuttle-boxes attached to the beater, and a cord arrangement for snapping the shuttle across the shuttle-race, is simpler than many multiple-harness jack-type looms. Heavy, mechanical looms intended primarily for rag rug type weaving, often work on a system of cams which change a shed automatically, and snap the shuttle, when the beater is pulled. And there are some electrically controlled looms for which the main operation is button pushing. The person who operates such a loom may be a textile designer, but he is a loom operator rather than a handweaver. The argument which was in high heat about twenty years ago as to whether fly-shuttle weaving could be considered handweaving is now pretty well resolved. The OPA and government standards division some years ago adequately defined the two fields by specifying that in a handwoven fabric the shuttle is thrown by hand. A fly-shuttle woven fabric can be as good and as honest as a handwoven fabric, and the fly-shuttle loom may often be advantageously employed. For instance, a commercial weaver of tweeds can weave the required simple twills and tabby on

a fly-shuttle loom, making economies in time and energy which enable him to sell more cheaply in a market which will not pay the price for a true handwoven fabric. Such affabric can have the advantages over a power-loomed one in that its materials may be better and it may be custom-designed instead of mass produced. But the designing potentialities for the fly-shuttle are limited to the simple weaves, to color and material selection, and to warp designing, which is only half the textile story.to the handweaver.

A handwoven fabric is a textile woven on the type of loom requiring that all three operations of shed changing, shuttle throwing, and beating are performed by the operator. Therefore the operator is a handloom weaver or a handweaver. As long as the three operations are made by the weaver, there is no necessity that they all be manual, and a loom with foot treadles for changing sheds makes a fabric which is none-the-less handwoven. The individual's control over the weft, that is, the hand throwing of the shuttle, is the definitive act.

Now we come to the matter of the textile itself, which means first of all craftsmanship. The textile conscious person (and all handweavers become textile conscious) realizes that there are good and bad machine woven textiles as well as good and bad handwoven ones, and that good quality is always preferable to poor quality. There is no intrinsic superiority to a handwoven fabric and good taste will prefer a good machine woven textile to a poor handwoven one. The "home made" stamp, in fact, is something which the good craftsman puts great effort into avoiding. The mark of the "hand crafted" however, is a different matter, and should indicate superiority of materials, designing and workmanship. The first requirement for hand crafting, regardless of the field, is perfection of technique and workmanship, and therefore perfecting craftsmanship is the first point of mastery for the handweaver. Good craftsmanship in weaving involves accuracy of threading and sleying, smooth regularity of beat, perfect adjustment of beat to give the type of fabric called for (balanced, warp-emphasis, weft-emphasis, warp-face, weft-face), and the absolute elimination of errors. Craftsmanship also involves such points as the correct entering of weft ends so that they hold firmly but do not leave the slightest irregularity in the fabric, the elimination of knots in warp and weft, the weaving of a firm, strong, straight selvage which does not mar the effect of the fabric, perfect matching and joining of edges if the article is made of more than one strip, perfection of finish. A well crafted handwoven fabric has no greater raveling.tendency than a comparable machine woven fabric, and it holds its shape as well. It presents no special handling problems to the tailor, so if a tailor protests working on handwoven fabrics it probably means that in the past he has met poor ones which have not done justice to his own craft.

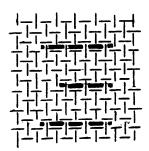
But craftsmanship is only the starting point in judging any fabric, whether machine woven or handwoven. Further points of judgement are suitability to function, judgement in the selection and combination of materials and colors, in the choice of technique, and in the over-all designing. It is in these matters of designing that handwoven fabrics should take a place above commercial fabrics. Even though textile mills employ the finest designers in the world to plan mass-produced fabrics, there is an intimate charm about the textile which is thoughtfully and lovingly designed to fit a particular need and to reflect an individual personality. After craftsmanship, suitability to purpose is the handweaver's first consideration, and here the handweaver has the great advantage because he can select his own materials, colors, textures, pattern, technique and design and blend all of these into a truly functional fabric, suited to the specific purpose for which it is intended.

Good judgement in the selection of suitable projects for the handloom is important. A handweaver should realize that there is no weave done by a power loom which cannot be, and has not been, done on a handloom. The contribution of the machine lies not in the product, but in the means for achieving the product. There is the supremacy of efficiency in the machine which cannot be questioned. And the sensible person keyed to our present day mode of living will not permit himself to compete with the machine. He will recognize the efficiency of the machine and leave to the machine those utilitarian fabrics which have no artistic merit or provide the weaver little creative outlet. Who would challenge

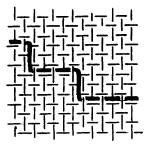
the idea that a handweaver can weave bed sheets? But why should a handweaver waste time and energy producing something which can be done better and with more efficiency, to say little of more cheaply, by a machine?

Granting the superiority of the machine for certain fabrics, what then is the advantage of the handloom beyond its usefulness in custom designing and the pleasure which the weaver has in operating it? A handwoven fabric can surpass a machine woven fabric in the quality of the thread used, and it usually does so if for no other reason than that poor quality or weak threads are too difficult to handle on the loom. Also, the handweaver puts so much effort and time into his work that he does not wish to use materials which are unworthy. The superior quality of the yarns used in handweaving gives the fabrics greater durability. The loosely thrown weft of the handwoven textile gives greater depth, elasticity and resiliency and consequently greater beauty. Another point which makes for superior quality and durability in handwoven fabrics is that they are not mechanically or chemically processed after weaving to bring out special effects or to compensate for poor quality materials, so all fibers retain their original strength and special qualities.

There is one further consideration which is interesting handweavers more and more -- the weaves which may be done on a handloom that the power loom is incapable of copying. These weaves, the exclusive property of the handweaver, are many, and are growing in popularity. The generality may be made that the power loom or the fly-shuttle loom can weave any technique for which the shuttle travels from selvage to selvage, but the weaves which require shuttle control, the weaves in which each individual weft thread does not pass without interruption across the entire warp, belong to the handloom. These exclusive handweaves include the entire range of tapestry weaves, knotted pile weaves, the twined weaves, many of the innumerable brocade weaves, a number of shag and loop weaves, the open-work bouquet weaves, the Spanish eyelet weave, and the little "special effect" techniques. Weavers are turning more and more to these individually expressive mediae for interpreting ideas in a way which only handweavers can. This does not necessarily mean the weaving of large tapestries, brocades and pile rugs, as these weaves have been the property of handweavers throughout the ages, but the employment of the techniques of these weaves to add restrained decorative element to handweaving.



DASHES



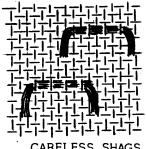
CONNECTED DASHES

CASUAL DECORATIVE WEAVES

Dashes. The simplest of the means for adding personalized decorative touches is merely laying into a tabby shed short lengths of colored thread to add color, design and texture interest to a plain fabric. Since such threads are not locked into the shed, it is important that threads for dashes be selected carefully for their rough, clinging quality so they cannot pull or wash out. Dashes will not hold in a loose tabby fabric, so they should be used only with a firm tabby base.

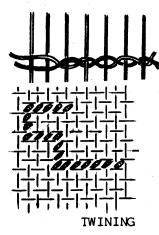
Connected Dashes. These are made by setting one end of a strand of decorative weft into a tabby shed, weaving several shots, then carrying the long end of the decorative weft on top of the fabric and a short distance into a new shed. Both the uncut weft which is carried on the surface and the dash lying in the shed make decoration.

Careless Shags is the name we give to short lengths of yarn which are placed in a tabby shed for a short distance and both ends are left dangling on the surface of the cloth. An effective technique for draperies of some types, particularly if the shags are of soft thick yarn, or a group of strands. The shags may be cut short to give little puffs at each end. Such shags must be beaten in very snugly, as they are a decorative detriment if they have any tendency to pull out. Tassels are made by tieing a group of yarns in the Ghiordes knot. The method of making the knot was given in the May 1951 Bulletin.



CARELESS SHAGS





Twining is done with two ends (may be two colors) of soft thick yarn which are carried one on top of the warp and the other underneath, but are twisted between each warp end so the positions are reversed. This decoration is best for a coarse, rather widely set warp. The twining may be made either horizontally or vertically. More widely spaced twists are made by twining on an open shed.

<u>Inlay Loops.</u> Lay a soft, thick thread in a tabby shed and pick up loops on a wire or a knitting needle, as desired. Throw several tabby shots, carry the inlay weft either on the top or on the underside of the fabric, and make another inlay and loop row.

Dots, Spots and French Knots may be made in a wide variety of ways by inserting short ends of yarn under one or more warp ends in a tabby shed, and carrying them in three or four successive sheds. A number of these spot types are given by Mrs Atwater in GUATEMALA VISITED and on page 312 of the new Shuttle Craft Book.

Serious handweavers who like to understand their weaves will rejoice at the recent limited edition republication of HANDBOOK OF WEAVES by Oelsner, translated by Dale. Though written for the textile designer, the presentation is so clear and simple that the analytically-minded handweaver will have no difficulty understanding either the text or the diagrams and drafts. The emphasis is on weaves adaptable to from four to twelve harnesses, and unlike most technical books, it does not go into the technicalities of Jacquard weaving. The subject matter organization is excellent. We are proud that this book has been made available again through the efforts of two Shuttle Craft Guild members, Mr P L Swisher, who supplied the original copy for reproduction, and Boris Veren of the Craft and Hobby Book Service, Box 1931, Carmel, Calif, who now has it for sale at \$7.50. As only 1125 copies were printed, the supply will not last long.

An invitation from Guild member Mrs Ivy King, "Should any Guild members be visiting England for the Festival, we would welcome them at our address, 22 Palace Street, Canterbury, which is adjacent to the Cathedral. The property dates back to 1609. We will have surplus guest accomodation for a few friends and can assure them of a good welcome."

A few days ago when we received word that delivery of a Bulletin to Virginia required 30 days from Virginia City, Miss Fitzgerald remarked that the post office department must have gone back to sailing vessels and the Cape Horn route.
We notice that Bernard DeVoto, from his Harper's Easy Chair ton post office or the one at Harvard Square. But it seems they route mail from the South Station to my house through .Portland and by ox cart."

Next month we plan to give directions for some articles woven of scraps and odds and ends. Summer is a good time \mathbf{H} for cleaning up the shelves of materials left over from the winter's major projects. And if you are economy minded these days, don't forget that the Guild has rug wool yarn at \$2.50 - Harris Douglas Tidbell

INLAY LOOPS a pound.



July 1951 Volume XXVIII, Number 7 <u>Virginia City, Montana</u> Subject: Salvage projects Rag Rugs and False-Flossa

The use of materials which are at hand, or which can be readily secured at little or no cost, is often a necessity for the handweaver, and always a challenge. Challenging to the weaver's ingenuity is the creation of a good and beautiful textile from salvaged materials.

Probably the first salvage-material which comes to mind is carpet rags, cut from discarded household and clothing textiles, and woven into small rugs. Rag carpeting may be considered an anachronism in modern life, as it is an outgrowth of pioneer days when all textiles were woven at home and retained an intrinsic value to the very end of their existance. Today our rags are not so good, and our need is not so great, but an occasional rag rug still has its place. Guild member Janæ Glander recently wrote, "In writing about Rug Weaving in the Bulletin, don't overlook the humble rag rug. There is hardly a home in which a small, washable rug is not needed someplace, and rag rugs can be handsome, or gay as a summer garden, if woven carefully."

Preparing rags for a rag carpet is the first consideration, and the highest hurdle, as the weaving presents tew problems. Cottons and wools should be separated and never used together, but silks, nylons, rayons may be combined. Cottons should be cut warpwise, and in a tew cases may be torn, whereas wools and most other materials must be cut with sissors, and many weavers find that wool rags are best if cut on the bias. The suitable width for the rag strips must be determined by the weight of the material; on the average, the size of a rolled strip should correspond to the thickness of a heavy yarn, which means one half to three fourths inches for the average cottons and one fourth inch for the average wools. Cut the ends of strips on a diagonal, overlap two ends about one eighth inch, and sew together, either by hand or on the machine. Making slits and looping the ends together is not advisable as it makes lumps and ragged tails which work loose in the rug. Simply overlapping ends in the sned should never be done, as the ends will work through the warp when the rug is swept or washed. For hit-and-miss rugs, rags may be sewed together in any color order, but most weavers prefer to design rugs a bit, which requires that different colors be associated and wrapped together in balls. Winding balls progresses with the sewing, and inserting a pin in the ball when winding is temporarily discontinued will will keep it tirm. The careful preparer of cotton rags will fold them down the center and turn the edges in, as in bias binding, while wrapping. This proceedure is advisable for silks and synthetics, but is not necessary for wools. Discarded textiles of all kinds are used for making carpet rags, but the most desirable are old blankets, sheets, and draperies. I once made some splendid rag carpeting on a linen warp, using faded and discarded velvet draperies, with old curdory for pattern accents. Discarded overalls and jeans, in their many soft tones of faded blues are particularly good carpet rags. Salvage material from various types of mills and factories can be used to great advantage, as the material is new, and can often be purchased very cheaply. Source references

cannot be given, but most blanket mills, hosiery mills, and upholstery factories sell remnant ends very cheaply. The handsomest rag carpeting I ever saw was made of strips of wool frizzee upholstery remnants purchased from an upholstery factory for \$2.00 per 40 pounds. Drapery making establishments (department stores, for instance) usually have bolt-length torn selvage edges which may be had for the asking.

Here are some suggestions for the rag rug weaver. The usual warp material for rag carpeting is common cotton carpet warp (8/4), which, to give adequate warp strength, should be set no wider than 12 ends per inch. If a setting of 6 ends per inch is desired, beam the warp at 12 and thread double $(1,1,\ 2,2,\ repeated)$ with each end through a separate heddle but the pairs sleyed through a single reed dent. An all-wool rag rug can be very high quality and deserves a linen warp. The 7/3 carpet warp linen may be beamed and sleyed at 6 ends per inch. Never double the warp ends at the selvages, as this makes unsightly edges.

The most common weave for rag carpeting is plain weave, done on a two-harness threading. Log Cabin, on a two-color warp to make a warp-color pattern is popular when the rags are plain or uninteresting. Plain Log Cabin is threaded with alternating colors across the entire warp, usually a light and a dark color, with all the light threads on one harness and all the dark threads on the other harness. Patterned Log Cabin (two-block color patterns) is made by shifting the dark warp from one harness to another, at any desired point, this being accomplished by threading two successive ends of one of the colors. Since the emphasis in Log Cabin is on the warp, the warp setting should be closer than for plain weave -- 15 to 24 ends per inch. A four-harness threading is advisable if the set is 20 per inch or closer, which means threading for the first block with the dark ends on harnesses 1 and 3, the light ends on harnesses 2 and 4, and for the second block with the light ends on harnesses 1 and 3 and the dark ends on harnesses 2 and 4. Weave Log Cabin most effectively with alternate shots of heavy and fine weft, usually a shot of rags alternated with a shot of carpet warp. Shift the color emphasis from one block to the next by throwing two successive shots of rags.

A thicker rug may be made by threading double to Twill or Rosepath (for Twill 1,1,2,2,3,3,4,4, repeated, and for Rosepath 1,1,2,2,3,3,4,4,1,1,4,4,3,3,2,2, repeated) and weaving the standard pattern sheds in rotation (1-2,2-3,3-4,4-1). Any number of rotation variations may be used to give texture and pattern variations. Or no-tabby color patterns on opposite sheds may be woven, by alternating shots on the 1-2 and 3-4 sheds, and on the 2-3 and 4-1 sheds. If very fine-cut wool rags are used, these treadlings may be beaten to give a full warp coverage, for a thick, high quality rug.

For those who wish to weave rag carpeting for sale, the common charge these days for a 28 inch width seems to be \$1.00 per yard, plus the cost of the warp, if the customer provides the rags cut, sewed, and rolled into balls. If prepared rags are not provided, the price must be adjusted according to the amount of labor involved, and the commercial rug weaver will usually find it more economical to purchase cotton roving than to prepare rags.

False Flossa. There is another type of rug, quite out of the ordinary, which can be made of wool rags of any length, without sewing. Known in Sweden as Sniljeflossamattor, or Sniljeflossa, which may be interpreted as False-Flossa, this technique has been descriptively called by Mrs Atwater Twice Woven. The rug is actually made of chenille, which must first be woven. Illustrations of False-Flossa rugs may be found in most of the Swedish weaving books, and Mr Hickman has described the technique in his Packet on Flossa and Rya. To weave the chanelle for making the False-Flossa rugs, prepare a warp of 24/3 or 16/2 cotton, or of some other cotton not heavier than 10/2. Eight warp ends are required for each strand of chenille, all eight being threaded individually but sleyed through a single reed dent with several dents omitted between each group. For instance, if a 6-dent reed is used, draw the eight ends through a single dent and skip 5 dents, to give a one-inch chenille; skip 3 dents to give a 2/3 inch chanille. The warp may be threaded to plain tabby, on two harnesses, though the usual Swedish threading is: 1, 2, 1,1, 2,2, 1, 2, repeated for each

group of warp ends. As for the weaving, this is probably the only handweaving project which may be done quite carelessly. The weaving is done on the two tabby sheds, and shorts strands of rags may be inserted in the sheds without further securing, even scraps as short as one or two inches. The quality of the chinelle depends upon only two factors: the fineness of the rags, the narrower the rags the better the quality; and the firmness of the beat, which should pack the weft as strongly as possible. Mr Hickman says that a rug of about 1000 square inches (about 26 by 38 inches) requires approximately 100 yards of chenille, but the yardage requirements will vary considerably with the thickness of the chenille, the width of the rags used, and the firmness of the

beat in both the chenille and the rug. When the chenille warp is woven, remove it from the loom and tie the groups of warps at each end so the rags cannot ravel. Then cut, midway between each warp group, the entire length of the warp. The result is long ropes of chenille which are the weft for the rug.

weft for the rug.

For weaving the rug, cotton carpet warp
may be used at 12 ends per inch, threaded double,
but 7/3 linen set at 6 ends per inch is much more
satisfactory. The chenille may be woven like yarn, or it may be creased down
the center and placed carefully in the sheds so that both pile edges are up,
and a plain-backed, single pile surface results. Rather wide chenille, from
warp groups set an inch or more apart, is advisable for this method. The
weaver will find that this is an excellent technique for salvaging the warp
ends left on the loom after a wool yardage is woven, as yarn makes better chenille than rags.

Most rugs in this technique are woven hit and miss, as it is a bit tricky to weave the chenille so that color patterns result. However, simple borders and stripe patterns may be woven if planned in advance. For instance, if one wishes a 30 inch wide rug with six-inch dark border at each side and a light center, weave the entire length of chenille with 12 inches of dark and 18 of light alternated. On weaving the rug, insert the center of the first 12-inch dark area at the selvage, and then weave regularly, which will give 6 inches of dark at each side with 18 inches of light center. To weave a dark border across each end, it is necessary to have a sufficient yardage of plain dark chenille. If making chenille of short rags, the dark ones may be inserted at one side of the warp and the light ones at the other, to make long strands of a single color. Further arrangements may be made. For instance, five colors could be woven on the first warp, six inches of each in the same rotation throughout. Woven on a 30 inch wide rug warp, the result will be 5 lengthwise color stripes. If woven on a 29 or a 31 inch wide warp, the color stripes will be in diagonal arrangement. Both of these stripe arrangements may be made by reversing the ends when a new length of chenille is woven. Many variations will occur to the weaver who wishes to explore the technique.

Further Salvage Projects. Scraps or salvage material may be used for various other purposes than rugs. Nylon hose are a practical salvage material, and if cut fine enough can be woven into excellent shopping bags. A good bag material is made on a 24/3 warp, set at 15 ends per inch, threaded to Rosepath or Honeysuckle. Weave the body of the material firmly, on the tabby sheds, and make borders of no-tabby weave on the four pattern sheds in variations of rotation order. Guild member Ruth Mackenzie, who helped salvage untold quantities of silk hose for Red Cross during the war, sends some hints on the best way to cut. "Cutting 'round and 'round a stocking was interminable and the wrong side turned out, which was not so good. I split the stockings down the back seam and cut away the foot. I then rolled, beginning at the toe, around a knitting needle, rolling the sock tightly around the needle. Rolling the long way makes the knitted material come out right side out. I cut the rolls whatever width suited my use, like cutting taffy candy. It dulled the sassors fast, sprung the screw, and very nearly gave me bunions on my hands. Perhaps tin-snips or a photographer's paper cutter knife would be better. Cutting -- any fashion -- is the hurdle. I also rolled sweater sections, but over a small dowel."

It is an especial pleasure to call to the attention of Shuttle Craft Guild members a book written by a fellow Guild member. ADVENTURES IN WEAVING, by Mrs Gertrude Greer of Seattle, was issued this month at \$12.00, by the Chas A Bennett Co, Publishers, Peoria, Illinois. "Adventures in Weaving"is a particularly appropriate title, as this is a personal type of book, almost a weaver's notebook, which brings to all weavers Mrs Greer's own account of pleasant adventures in our fascinating craft. There are notes on the technical side of weaving, with references and many useful hints to the weaver. Mrs Greer shares with weavers her own personal drafts (and this should be stimulating to all handweavers to learn to write their own pattern drafts instead of depending upon the work of others) and emphasizes the techniques which particularly interest her. Noteworthy in this connection, because of the dirth of published information on the technique, is the large section devoted to Blended Overshot Drafts. A Blended Overshot draft is an 8-harness threading which combines two 4-harness Overshot patterns in such a way that either one of the two patterns may be woven, or a whole range of new patterns may be devised from the combination. Mrs Greer gives 50 of her own Blendings, as well as directions for making further blendings, for the weaver who is interested in enlarging the scope of Overshot pattern-border weaving. In this book Mrs Greer has honored her own weaving teachers, and also her many weaving friends in the Northwest, through including photographs of their fine work and directions for weaving the photographed textiles. Many will be glad to see the never-before-published technique devised by the late Margaret Bergman. The Summer and Winter addict (which seems to include most multiple-harness weavers) will be fascinated by this ingenious weave based on 3 (instead of 2) tie-downs, with the tie-downs arranged in units of 8 (instead of 2) in the order of the classical Summer and Winter treadling. The effect is of an elaborate brocade in two textures. The only draft given is for 16 harnesses, but the weaver who understands Summer and Winter should be able to write drafts in this technique from any profile. We are happy to find, and to congratulate, the many Shuttle Craft Guild members whose textiles are included, and we are particularly happy to see illustrated the Inkle Loom designed (and sold) by Miss Hannah Jones of Langley, Washington, which we have previously recommended. This book is notable for its many full-page illustrations, many of them in color. In respect to the illustrations, the fine printing, lay-out and paper, and the beautiful binding in white, light blue and gold, this book can be compared only to the more magnificent of the European books on handweaving. Nothing like it has previously appeared among weaving books published in this country.

Another recent Guild-member publication is Folio 2, NEW WEAVES FROM OLD, by Elmer Hickman, Rt 2, Emlenton, Penna. Mr Hickman's second Folio (12 samples of modern-spirit weaves, with directions, \$6.95) is even more exciting that the first one. Glowing improvisations in textures, unusual threads, and vibrant colors, these samples show true texture-weaving at its best, most of them suggesting further creations which the weaver might make on Mr Hickman's basic arrangements. Mr Hickman tells me that most of this new edition was sold before publication date to purchasers of the first Folio, but there are a few copies left. Anyone interested in having this stimulating collection of samples and directions should not delay in writing Mr Hickman, enclosing \$6.95.

Here is news for the linen weaver. It is the word which should send the weaver who has wished to work in linen but hesitated at the idea of the tender warps, straight to her sample cards to order a linen warp. Guild member Madge Fulleylove shares this, "I am working successfully on a 50/l bleached linen warp. I made a chain and then immersed it in a 50/50 solution of Plastic Starch, obtainable at all grocery stores. I beamed this when dry." Our experiments too indicate that the plastic starch works a miracle. We wove a 30-inch wide dress length of colored 14/singles, without a single warp breakage. Try this for dress material at 20 to 24 ends per inch according to the weight desired. Dyed or bleached singles are weak because of the processing, and we have had difficulty with this warp before. If your untreated singles linen warp has a tendency to fuzz in weaving, try sponging a 3 to 1 solution of the plastic starch directly onto the tensioned warp.



August 1951 Volume XXVIII, Number 8 Virginia City, Montana Subject: Notes on Textile Designing The Weaver's Bookshelf

Every handweaver is a textile designer. But since most handweavers enter this area of creative activity with little or no training in the arts or design, it is sometimes difficult to accept the full role of the designer, and easy to escape into the shadows of copying. The weaver who masters the technical aspects of the craft will often feel a great inadequacy in handling color and all-over design. But design is not an academic subject, something which must be learned in school or taught by a teacher, nor is it an innate gift such as one may feel an artist is endowed with. A knowledge of design is the education of the mind through reading and observing, to see pleasing arrangements of material into functional and beautiful articles. The first step toward becoming a good designer is the development of an awareness of the basic principles of design, and this may be acquired through reading good books on the subject.

An excellent philosophy for the designer is presented in the little book, TEXTILE DESIGNING, by Antony Hunt. Mr Hunt says, "General knowledge, a broad cultural outlook, a sense of freedom and education in the wider than purely academic sense, are more important to the creation of sound, imaginative design than ability to paint pictures or to operate a handloom. Only so long as a designer finds design exciting is he alive in relation to designing. If he is dull and repetitive, so is his output. Alive art can come only from live men, men whose sensitivity is undimmed and therefore fully receptive to those stimuli that will set in motion the process of recombining new with previous experience so as to create a fresh expression and hence a fresh design. Good design is much more likely to emanate from those who are really enthusiastic upon it, than from those who are mainly oncerned with it as a mechanical means of earning a livelihood. Ability to create good textile designs is not based solely on technical training, nor is it necessarily inherent in artists. Textiles present their designers with the same two major problems that confront creators of pictures, the technical and the aesthetic. Designing involves the will and ability to master sufficient technicalities. Sensitivity to good proportion and to subtleties in color and texture are among the best psychological assets. (The textile creator) must develop the faculty for visualising designs when processed and in their ultimate environment."

While Mr Hunt tells us what is required for the designing of good textiles, Harriet E Knapp (Instructor in Design and Crafts, Columbia University) in DESIGN APPROACH TO CRAFTS, tells us how to acquire this. In a practical way, she shows what the elements of good design are, and teaches how to go about acquiring and applying this knowledge. "In the full, true sense a craftsman designs. He designs in material. Crafts, then, are not merely handwork. Crafts are art." She continues, "Design is organization. It is the putting together of various elements in the finest possible way. Choosing and arranging constitute the process of designing. No matter what the medium, the designer deals with lines, shapes, forms, colors, textures. Design, therefore, is everybody's business. It is not something special that concerns only artists. A feeling for design does

not just happen. Most people must strive consciously, and with sustained interest, to establish design intelligence." "Miss Knapp gives the following program for improving one's understanding of design, "(1) Observe. Observe consciously. See. Merely looking is not enough. (2) Analyze. Appraise what you see. (3' Create. Produce new and freshly conceived forms. Use any medium, but stress design, not technique alone. (4) Read from the best sources. Reading will broaden your point of view and will supplement the other activities."

In this book and others may be found sound guidance on the matters of observing, analyzing and creating, with respect to the elements of color, proportion, texture, space and line. But the problem of selecting reading matter is often puzzling and the craftsman needs to know what books will help him. A classified bibliography of books for the weaver is presented here to help the weaver select books which will be helpful. Although most handweavers collect a small library of books on the weaver's craft, few are able to own a comprehensive collection, so the fewer the books one owns, the more carefully should they be selected. Having books accessible for reference is most helpful, and it is in this matter that the local Guilds make one of their greatest services. The group purchasing and circulating of a library can often serve the individual as well as personal ownership. Public libraries are usually cooperative. Most librarians will make a sincere effort, as far as the library budget will permit, to purchase specialized books which are helpful to any special activity group (such as handweavers) in a community.

The weaver must learn the best use of books related to his craft. For the beginner in the field, actual instruction books are fundamental, books which teach the use of equipment, give information on materials, and which can give the reader basic understanding of the techniques of weaving. It is taken for granted that any craftsman is a technician, and therefore technical books are important to him during the period when he is learning technique. But books should be studied to give the craftsman understanding, and not to provide models for copying, except in the initial stages of learning the tools of the craft. Miss Knapp says, "Crafts should be sound art expression. Mistakenly, they are often looked upon merely as skills and techniques. While it is true that a good craftsman is master of his tools, and must have technical ability, it is equally true that he should be a master of design. -- Everybody has creative ability -- has visual ideas, or can muster one up if need be. Creative power can be developed. Don't copy. If you simply can not break away from the idea that you must have tangible help, then select a picture or an actual object and study it. Use it as a thought-starter. Then change, modify, adapt; invent for it a new guise, a color scheme, pattern, form. In no other way can you attain increased imaginative power or the power to express ideas in concrete form." Thus, books should be used as required to supply the weaver with the technical information he needs, and beyond this, the illustrations in books may be used as a foundation for ideas, ideas which the weaver adapts and interprets to suit his own purpose, but does not copy.

This bibliography is arranged in the following categories, to help the weaver select the books which will be most useful to him:

(1) Books on Designing in general, and pattern and motif books.

2) Books written especially for the beginning handweaver.

(3) Foreign publications of a non-specialized nature, including methods.

(4) Technical books on textiles.

(5) Specialized books on individual weaves or textile subjects.

(6) Books on historic textiles.

(7) Books on subjects related to textiles and handweaving.

Books on the related crafts.

(9) Periodicals.

The first three lists are the guide books for the learner. The next two are for the specialist and for broadening general knowledge. Others are the stimulators, the idea sources, the means of growing and keeping up to date in the field.

Amrist Douglas Tidbell

BOOKS ON DESIGNING AND PATTERNS

These books are not written for the handweaver, but are intended for the craftsman, the artist, the person who would consciously incorporate the elements of good design into all phases of living.

THE DESIGN APPROACH TO CRAFTS, A Philosophy of Appreciation, by Harriet E Knapp, (Prang Company Publishers, Sandusky, Ohio, 1945). A vital, instructive book on the elements of design as applied to handcrafts.

TEXTILE DESIGN, by Antony Hunt, (The Studio Publications, London, new edition 1951, \$4.50). A small book on designing upholstery and draperies, intended for the professional designer. Excellent photographic illustrations.

for the professional designer. Excellent photographic illustrations.

ART IN EVERYDAY LIFE, by Harriet and Vetta Goldstein, University of Minnesota,
(The Macmillan Company, New York, 3rd edition, 1940). A general textbook
on the principles of designing as applied to home decoration and clothing.
Simple and practical. An excellent every-day reference book.

COLOR AND DESIGN IN THE DECORATIVE ARTS, by Elizabeth Burris-Meyer, (Prentice Hall, New York). "A good book on general uses of design with emphasis on daily living."

COLOR IN HOME DECORATION, by Effa Brown, (Wilcox and Follett Co. New York, 1951). The problems of home decoration presented chiefly through illustration.

THE COMPLETE BOOK OF TABLE SETTING, by Amelia Leavitt Hill, (The Greystone Press, New York, 1949, \$2.98).

THE INDEX OF AMERICAN DESIGN, by Erwin O Christensen, National Gallery of Art, Smithsonian Institution, Washington (Macmillan Company, New York, 1950,

\$15.00). The American heritage in design.

SYMBOLS, SIGNS AND SIGNETS, by Ernst Lehner (The World Publishing Co, Cleveland, 1950, \$3.50). "A pictorial treasury of symbolic designs for everyone interested in the Graphic Arts."

A HANDBOOK OF DESIGNS AND MOTIFS, (Tudor Publishing Co, New York, 1950, \$4.50).
"Nearly 7,000 designs, motifs, patterns, forms and symbols based on Japanese family crests. An idea and reference handbook for artists, designers, craftsmen and hobbyists in all fields."

MANUAL DE ARTE ORNAMENTAL AMERICANA AUTOCTONO, by Vicente Nadal Mora (Buenos

Aires, 1948). The South American heritage in design.

DMC LIBRARY, (Th de Dilmot, Mulhouse, France). There are two Series of paper covered pamphlets, four pamphlets on Marking Stitch, and six on Cross Stitch New Designs. All of these designs are on squared paper, intended for embroidery, but useful for many types of inlay, brocade and pick-up weaving.

BOOKS FOR THE BEGINNING HANDWEAVER

One of the first questions asked by the beginning handweaver is, "What books shall I buy to help me learn to weave?" The beginner in the craft is dependant upon books for instruction in loom and weaving techniques, to varying degrees for drafts and patterns, and in some cases for detailed weaving directions. The serious student of handweaving will use books to help gain a basic understanding of techniques, but will free himself as soon as possible from the use of shot-by-shot directions compiled by another weaver. Most of the books listed here have basic instruction in loom methods, though each one of them presents an individual point of view -- that of the author. The beginning weaver, in following any book, must keep in mind that the only dogma in handweaving is the production of a fine and technically perfect fabric. This may be arrived at from many paths and each handweaver is apt to develop his own; the more methods one can command, the more versatile will be the weaving. The standard books in the list could probably be considered Atwater, Beriau, Black, Gallinger, and Worst. A beginner should have one of these, and two if possible, to give a broader approach to the craft. Each of the other books or pamphlets listed has something to give the weaver, and a selection of them is useful, though too much use of the elementary weaving books is apt to lead to stereotyped weaving, as the drafts and weaving directions when followed by rote leave little to the weaver's imagination.

Allen, Helen Louise, AMERICAN AND EUROPEAN HANDWEAVING (Revised 1939, out of

print). Valuable on techniques, if available.

Atwater, Mary M, THE SHUTTLE CRAFT BOOK OF AMERICAN HANDWEAVING (Revised edition 1951, original edition 1928, The Macmillan Company, New York, \$5.50). This book has been known for a quarter of a century as the handweaver's "bible". Emphasis on colonial American weaving, though the revised edition introduces indiginous American techniques. Includes multiple-harness and some pick-up

weaves. Probably the most thorough and comprehensive of the weaving books. Beriau, O, HOME WEAVING, English translation from French Canadian, (revised 1947, Institute of Industrial Arts, Gardenvale, Quebec, \$6.00). Excellent fundamentals including dyeing and spinning. Four-harness weaves with shot

by shot directions and easily read drafts.

black, Mary E, KEY TO WEAVING, (Revised in 1949, The Bruce Publishing Co, Milwaukee, Wisconsin, \$6.50). Good but very elementary fundamentals. Well organized text. Four-harness and some multiple-harness weaves include shot-by-shot directions.

Davenport, Elsie G, YOUR HAND WEAVING, (Sylvan Press, London, 1950, \$2.75).

A brief handbook. Good on fundamentals. A few four-harness drafts.

- Davison, Marguerite P, A HANDWEAVER'S PATTERN BOOK, (Revised 1950, published by author, Swarthmore, Pa, \$7.50). Drafts and treadling directions for fourharness weaves. Excellent for the weaver who must rely on complete threadby-thread, shot-by-shot directions. Many drafts, but in non-standard form.
- Douglas -- see Tidball, Harriet Douglas. Frey, Berta, SEVEN PROJECTS IN ROSEPATH, (published by the author, 210 E 22nd St, New York, 1948, paper covered pamphlet, \$1.50). Subject matter much broader than toe name implies. Includes some weaver-controled weaves. A good "starter" for the adventuresome weaver. Standard draft forms.

Gallinger, Osma Couch, THE JOY OF HANDWEAVING, (International Textbook Co. Scranton, Pa, 1950, \$5.50). Elementary book, subject matter from darning through simple frame weaving, to loom weaving. Good diagrams. Non-standard drafts.

Grasset, K, WEAVING AND PATTERN DRAFTING, (The London School of Weaving, small paper covered handbook, \$1.75). Fundamentals for the beginner and a few drafts. Greer, Gertrude, ADVENTURES IN WEAVING, (Chas A Bennett Co, Peoria, Ill, 1951,

\$12.00). A weaver's notebook type book with four and multiple-harness weaves.

Personal notation draft forms. Magnificent photographs. A luxury book. Hooper, Luther, HAND-LOOM WEAVING, PLAIN AND ORNAMENTAL (Reprinted by Pitman Publishing Corp, London, from 1920 edition, \$3.75). This English classic carries the weaver from 4-harness to Jacquard weaving. Is good on historic loom types.

House, Florence E, NOTES ON WEAVING TECHNIQUES, (Industrial Arts Cooperative Service, 210 W 76th St, New York, Revised 1947, mimeographed, \$3.00). A sylabus on weaving techniques with thorough referencing. Includes four-harness and weaver-controlled weaves. Excellent reference book.

Orman, P, HANDLOOM WEAVING, (Pitman Publishing Corp, London, \$1.50). Weaving

on frames and small equipment. No drafts.
Simpson, L E, and Weir, M, THE WEAVER'S CRAFT, (The Dryad Press, Leicester, and Manual Arts Press, Peoria, Ill, 1944, \$5.00). Weaving on home-made frames through simple four-harness weaving.

Snow, Edith Huntington, and Peasley, Laura L, WEAVING LESSONS FOR HAND LOOMS, (Marguerite P Davison, Publisher, Swarthmore, Pa, pamphlet, \$2.00). Loom

methods and some four-harness weaving.

Tate, Lou, WEAVING AT THE LITTLE LOOMHOUSE, (published by author, Louisville, Ky, \$1.00, pamphlet). Simple colonial weaves. Drafts in early American forms. Tidball, Harriet Douglas, HANDWEAVER'S INSTRUCTION MANUAL, (The Shuttle Craft

Guila, Virginia City, Montana, 1949, \$3.00). Fundamental loom methods and four-harness weaves, and drafting. Intended as basic information to make the weaver independent of thread-by-thread and shot-by-shot directions.

Thurstan, Violetta, WEAVING PATTERNS OF YESTERDAY AND TODAY, (Dryad Press, London, brief pamphlet, \$1.15).

Van Cleve, Kate, HAND LOOM WEAVING FOR AMATEURS, (Charles Branford Inc. Boston, 1943, \$1.50). Clear and simple. Two-harness weaving. Excellent diagrams. Worst, Edward F, FOOT-POWER LOOM WEAVING, (Bruce Publishing Co, Milwaukee, 1918, \$6.00). A classic. Four and multiple-harness weaving. Excellent variety. (To be continued.)



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Subject The Weaver's Bookshelf Cont'd Color Styles for 1951-52

FOREIGN ON NON-SPECIALIZED HANDWEAVING

Denmark: VAEV SELV, Jespersen and Jornung, Kopenhaven, 1950, \$2.75. Illustrations of woven articles, designs for inlay, no drafts; paper cover.

VAEVBOG FOR HJEMMENE, La Cour and Siegumfeldt, Kopenhaven, 1916, \$3.25.

Handbook size; drafts and illustrations for 4 and multiple-harnesses.

VAEVEBOG FOR VAEVERAMME, Meta Rosenberg, Tonder, 1948. Photographs of articles, squared paper designs, no drafts; paper cover, handbook size.

FOLKELIG VAEVNING I DANMARK, Anderson and Budde-Lund, Copenhagen, 1941, \$2.00.

Weaving for 6 to 16 harnesses, excellent illustrations; paper cover. Finland: KUTOKAA KUVIOLLISIA KANKAITA, Ester Perheentupa, Helsinki, Reprint 1950. \$2.45. The Finnish classic; excellent diagrams and photographs, some in colof;drafts for 4 to 12 harnesses. Paper cover. Advanced weaving.

KUTOKAA ITSE KANKAANNEE, Ester Perheentupa, Helsinki, 1946. \$2.00. Handbook. Not as useful as the above without translation.

KUTOMAMALLEJA, Kaytannollisia and Tarpeelisia, Finland, 1946, \$2.10. Paper cover, diagrams, drafts, graphic treadlings and illustrations for 3 to 8-harness weaves; unusual weaves.

Germany: HANDWEBEN FUR ANFANGER, by Elly Petersen and Greta Moberg, Munich, 1949, \$2.50. Excellent illustrations, diagrams and drafts of 2 and 4

harness weaves, including rug weaving.

HANDBOK I VEVING, Caroline Halvorsen, Oslo, revised 1950, \$4.25. The Norwegian classic; excellent photographs and drafts up to 8 harnesses;

wide variety of weaves and textures.

DEN STORA VAVBOKEN, Mary Block, Stockholm, 1939, \$12.50. The Swedish Sweden: classic; a magnificent book generously illustrated in full color with

good drafts, chiefly for four harnesses.

TEXTIL BILDERBOK, Sampe-Hultberg and Diurson, Stockholm, 1948, \$5.00. A charming book of splendid photographs of weaving and related crafts.

VAV BOK, Sigrid Palmgrens, Norrkoping, 1939, \$3.60. Paper cover; a wide variety of weaves, mainly 4-harness, illustrated in full color, with

clear drafts and tie-ups; most useful.
HEMMETS VAVBOK, Waern-Bugge, Uppsala, 1949, \$1.10. Paper cover; handbook size. Many drafts with textiles illustrated by small photographs.

VAV SJALV DIN VAV, Wallmark, 1948, \$1.25. Paper cover; drafts and diagrams, no photographs.

PRAKTISK VAVBOK, Svensson, 1922, Katrineholm. Drafts illustrated by small photographs; good for Matta technique for rugs; paper cover.

VAVBOK, Hulda Peters, Skovde, 1937. Paper cover; an excellent handbook; standard drafts with good illustrations for up to 10 harnesses.

VAVBOKEN, Montell-Glantzberg, Stockholm, 1925. Paper cover; excellent illustrations and standard drafts in wode variety of textiles and weaves.

I VAVSTOLEN, Skeri-Mattsson and Osvald, in two handbook volumes, \$2.25, Stockholm. 1945. Useful little books with many drafts and photographs. VAVBOK, Eva Odlund, Norrkoping, 1939, \$2.00. Many standard drafts with good photographs, in wide variety including rugs.

PRAKTISK VAVBOK, Nina von Engestrom, Stockholm, 1913. Particularly good on

multiple-harness point and extended twills.

HANDBOK I VAVNING, Ulla Cyrus, Stockholm, 1941. Diagrams, photographs and drafts excellent; a highly recommended book.

2500 ARMATURE-INTRECCIÓ, Eugenio Poma, Milano, 1947. Diagrams for weaves based on twills. Recommended for 12 and 16-harness weavers.

TECHNICAL BOOKS FOR THE WEAVER.

These are books written primarily for the designer for power-loomed fabrics, who must have a thorough technical understanding of the structure of weaves. Most of them treat the three basic commercial weaves in detail: plaine, weave, twills and satin weave, and then progress into Jacquard weaving. The books are useful, in varying degrees, to the handweaver who wishes to understand the technical side of his craft

A HANDBOOK OF WEAVES, by G H Oelsner, translated by Dale from the German, reprinted in limited edition in 1951, Dover Publications, New York 19, N Y, \$7.50. Of the technical books, this is the most helpful to the handweaver.

Does not go into Jacquard details. Well organized, clear text, 1875 diagrams.

FABRIC STRUCTURE, John H Strong, Chemical Publishing Co, N Y, 1947, \$6.00.

Clear and understandable as far as the simple weaves are concerned, but much of the book is devoted to weaves beyond the scope of the handweaver.

TEXTILE DESIGN AND COLOUR, Wm Watson, Longmans Green and Co, London, 1946, \$6.00. Very thorough, highly technical, much attention to Jacquard weaving. Particularly good on the two-color twills.

ADVANCED TEXTILE DESIGN, Wm Watson, same as above, \$6.00. Even more advanced. WEAVE CONSTRUCTION AND CLOTH ANALYSIS, By ICS Staff, International Textbook Co, Scranton, Pa, \$4.25. The Textile Designing Textbook used by the International Correspondence School. Clear and well organized.

WEAVE CONSTRUCTION AND COLOR EFFECTS, by same as above, \$4.25. More advanced

weaves than the above, largely Jacquard.

A MANUAL OF WEAVE CONSTRUCTION, by Ivo Kastanek, translated from the German by Dale, 1903, out of print. Excellent information on a wide variety of weaves. A PRACTICAL TREATISE ON WEAVING AND DESIGNING OF TEXTILE FABRICS, by Thos Ashen-

hurst, London, 1880, out of print. Particularly interesting on the history of textiles and looms.

THE THEORY AND PRACTICE OF THE ART OF WEAVING BY HAND AND POWER, by John Watson,

Glasgow 1888, out of print. Interesting and soundly informative.
BINDINGSLAERE, A Geismar, Copenhagen, 1950, \$6.00. Highly technical, with much
Jacquard weaving, but said to be very helpful if translated.

AN ALBUM OF TEXTILE DESIGNS, by Thos R Ashenhurst, England, 1881, out of print. Practically an encyclopaedea of the twills. A DICTIONARY OF WEAVES, Posselot, out of print. Exhaustive treatment of twills.

BOOKS ON SPECIALIZED SUBJECTS

Most weavers develop their weaving to some extent along specialized lines, and wish to go more deeply into certain techniques than into others. The following books are special-subject references. Tapestry Weaving

EMBROIDERY AND TAPESTRY WEAVING, A Practical Text Book of Design and Workmanship, by Mrs Archibald H Christie, John Hogg, London, 1915. Excellent on tapestry methods and techniques. Full instructions.

DESIGNING TAPESTRY, by Jean Lurcat, Rockliff, Salisbury Square, London, 1950, \$4.50. Delightful book. Excellent philosophy and practical information on designing tapestry..

THE TAPESTRY BOOK, by Helen Churchill Candee, Tudor Publishing Co, New York, 1912, revised 1935, out of print but occasionally available. Basic on

the history of tapestry weaving and generously illustrated. DE HANDWEEFKUNST, Elisabeth de Saedeleer, Germany, 1947, \$8.50. illustrated book on general weaving but with emphasis on modern tapestry weaving.

FLAMSKVAV OCH FINNVAV, by Maria Collin, Stockholm, 1927, \$1.25. Brief, but good illustrations on tapestry and the Finnweave.

Navajo Weaving INDIAN BLANKETS AND THEIR MAKERS, George Wharton James, Tudor Publishing Co, New York, 1914, reprinted 1937, \$5.00. Besic authority on Navajo. NAVAHO WEAVING, Charles Avery Amsden, reprinted in limited edition in 1949

by The University of New Mexico Press, Albuquerque, \$10.00. Classic

on the subject; well illustrated, and exhaustive text.
NAVAJO SHEPHERD AND WEAVER, G Reichard, 1936, out of print, \$5.00. Inter-

esting text but more limited than James and Amsden.
THE ALFRED I BARTON COLLECTION OF SOUTHWESTERN TEXTILES, by H P Mera, San Vicente Foundation, Santa Fe, N M, 1949, \$3.50. Small but elegant, with some silk-screen color illustrations of Navajo, Pueblo, Rio Grande.

BULLETINS of the Laboratory of Anthropology, Sante Fe, N M, by H P Mera.

Bulls No 2, 3, 5, 6, 12, 13, 14, 15, 16 on Navajo blanket types.

THE SETTS OF THE SCOTTISH TARTANS, by Donald Calder Stewart, Oliver and Boyd, Edinburgh, 1950, \$12.00. The final authority on the Tartans, with 261 separate setts given. Illustrations mainly in diagramatic "grid" form.

THE TARTANS OF THE CLANS AND FAMILIES OF SCOTLAND, by Innes of Learney, W & A K Johnston, Edinburgh, 1948, \$4.25. Full-page, full color diagrams of 112 Tartans. No setts, but the best design reference.

THE CLANS AND TARTANS OF SCOTLAND, by Robert Baine, Collins, Glasgow, \$3.50.
A small handbook with over 100 Tartans illustrated; no setts.

SCOTCH TARTAN SETTS, by Harriet Douglas Tidball, The Shuttle Craft Guild, Virginia City, Montana, \$1.35. Setts for weaving the 132 tartans illustrated in the Innes and Bain books. Paper cover.

SIMPLE TARTAN WEAVING, by Agnes MacDonald, Dryad Press, Leicester, 1950,

\$1.25. Directions for 30 tartans on two-harness weaving frames.

Tweeds and Wools WEAVE YOUR OWN TWEEDS, by Roger Millen, Marguerite P Davison, Swarthmore, Pa, 1948, paper cover, \$4.00. Also contains drawings for constructing a 4-harness, counter--balanced loom.
TWILLS, TWEEDS AND ALL WOOL FABRICS, by Harriet Douglas Tidball, The Shuttle

Craft Guild, Virginia City, Montana, paper cover, \$2.00. A Guide for

weaving woolen and worsted yardages.

Special Loom Techniques THE DOUBLE WEAVE, by Harriet Douglas Tidball, The Shuttle Craft Guild, 1950, paper cover, \$1.65. Designs for pick-up weaves, and 12 methods for 4-harness double weave, including double width, seamless tubing, etc.

JAMTLANDSDRALL, by Maria Moden-Olson, Stockholm, 1929, \$2.10. Crackle Weave.

SCANDINAVIAN ART WEAVE PACKETS, Elmer Hickman, Emlenton, Pa, out of print.

Separate packets on Aklae, Flossa and Rya, Dukagang, Rosengang, Arrow and Lightening, Monk's Belt, Krabba. Were \$14 for the set.

THE SUMMER AND WINTER WEAVE, THEN AND NOW, by Mary Atwater, 1947, out of print.

THE SPOT OR BRONSON WEAVE, by Mary Atwater, 1947, out of print.

THE CRACKLE WEAVE, by Mary M Atwager, 1930, out of print.
THE FINNWEAVE AND MEXICAN DOUBLE WEAVE, by Mary M Atwater, 1935, out of print. THEORY AND PRACTICE OF DAMASK WEAVING by Kinzer and Walter, London 1903, oop.

MONSTERBLAD, Volumes 3 and 4, Stockholm, \$2.50 each. Folios of full color illustrations with drafts, for modern weaves from traditional drafts.

NEW WEAVES FROM OLD, Vols I and II, by Elmer Hickman, \$6.95 each. Notebooks of directions and actual samples for modern weaves from old drafts.

THREAD TECHNIQUES, Series 2, by Marguerite Brooks, \$5.00. A group of leaflets on 2-harness techniques. (Published by author, Darien, Conn.)

YOUR RUG MAKING, by Lewes and Hutton, Sylvan Press, London, 1949, \$1.50. RUGMAKING CRAFT, by Edith Allen, 1946, \$2.25.

HANDWOVEN RUGS, by Mary M Atwater, 1945, \$2.25.

HANDWOVEN RUGS, by Mary M Atwater, 1947, out of print.

MCNSTERBLAD, Volumes 1, 2, and 6, Stockholm, \$2.50 each.

ITALIAN PEASANT RUGS, by Albert Sautier, Milan, 1923, out of print.

SOUMALAISIA RYIJYMALLEJA, Finland, 1938, Volumes 1 and 2, \$1.60 each. Modern Finnish Rugs in Flossa and Rya. All illustrations in color.

SVERIGES TOLKLIGA TEXTILKONST, ROLAKAN, by Lilli Zickerman, Stockholm, 1937, \$20.00. Magnificent full color plates of Rolakan rugs. Black and white diagrams of typical Swedish motifs are particularly useful.

Weaving

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Guatemalan Weaving
     TEXTILES OF HIGHLAND GUATEMALA, by Lila O'neale and Lucretia Nelson, Carnegie Institute of Washington, D C, pub. 567, 1945, $5.50. Monumental, complete and authoritative, 137 pages of text, 130 of photographs and drawings.

GUATEMALA VISITED, by Mary M Atwater, The Shuttle Craft Guild, 1946, $10.00, paper cover. The major techniques of Guatemala interpreted for the
      modern handweaver, with many characteristic patterns.
GUATEMALAN TEXTILES OF THE PRENTISS N GRAY COLLECTION, Alice Putnam Bruer,
      1942, Mills College Art Gallery, Oakland, Calif, 1942, Mimeographed. THE MACDOUGALL COLLECTION OF INDIAN TEXTILES FROM GUATEMALA AND MEXICO, Pitt
Rivers Museum, U of Oxford, Occasional Papers on Technology 2, $3.25.

Historic Handweaving. There are a great many volumes available on historic textiles, most of them published by Museums, or the publication sponsered by Foundations, Universities. Many of these are very expensive, but most
are published on a cost, or below cost basis. In addition, there are many Museum pamphlets on textile collections, which are specialized and usually inexpensive.
      LES TEXTILES ANCIENS DU PEROU, ET LEURS TECHNIQUES, Raoul D'Harcourt, Paris,
              1934, $12.50, paper bound. A monumental work on Peruvian Textiles, with
              remarkable photographs and fine diagrams.
      EXCAVATIONS AT DURA-EUROPA, Final Report IV, Part II, THE TEXTILES, Rostovtzeff, etc, Yale University Press, New Haven, 1945, $2.50. Textiles of 3rd cent. TISSUS NEGRES, Henri Clouzot, Librairie Des Arts Decoratits, Paris, $12.75.
      A portfolio of magnificent plates illustrating African weaving. PERUVIAN TEXTILES: EXAMPLES OF THE PRE-INCAIC PERIOD, P Means, 1930, $4.00.
      Collection of plates.
IBAN OR SEA DAYAK FABRICS AND THEIR PATTERNS, Altred C Haddon and Laura E
              Start, University Press, Cambridge, England, 1936, $5.00. Descriptive
              Catalogue of the Iban fabrics in the Museum of Archaeology and Ethnology.
      CONTRIBUTION TO THE EARLY HISTORY OF TEXTILE TECHNICS, E Siewertsz van Reesema,
     Amsterdam, 1926, in English. Excellent diagrams and photographs.

CATALOGUE OF EARLY MEDIEVAL WOVEN FABRICS, A F Kendrick, Victoria and Albert Museum, Dept of Textiles, 1925, $1.50. Descriptive information on Persian Higher Asian, Byzantine, Regensburg textiles, without photographs.

ANCIENT TEXTILES FROM EGYPT IN THE U OF MICHIGAN COLLECTION, Lillian Wilson,
              U of Mich Press, Ann Arbor, 1933, $3.00. Excellent plates with descrip-
              tive information and a section on ancient looms.
      DOCUMENTS OF DYING PAGANISM, Friedlander, U of Calif Press, Berkeley, 1945,
      $1.50. Textiles of late antiquity, mainly the Hestia Tapestry.

BRIEF GUIDE TO THE TURKISH WOVEN FABRICS, Smith and Wace, Victoria and Albert
      Museum, Dept of Textiles, London, 1931. Small illustrated catalogue.

TEXTILDRICK AM RHENN, Renate Jaques, Nurnberg, Germany, $3.00. Brocades.

SWEDISH TEXTILES, Emelie von Walterstorff, Nordiska Museet, Stockholm, 1925, $20.00. A magnificent volume, translated, good technical information.

Remarkable illustrations of historic Swedish weaving.
      ORNAMENTE DER VOLKSKUNTS, H Bossert, Verlag Ernst Wasmuth, Tubingen, Germany,
              1949, $7.50. A fine volume, large color illustrations of European peasant
              weaving and needlework, classified by country.
      DAS ORNAMENTWERK, H Bossert, Berlin, 1937, $30.00.
                                                                                                            Another magnificent book
     of much broader scope than the above volume.

HAND-WOVEN COVERLETS IN THE NEWARK MUSEUM, Newark, New Jersey, 1947.

COVERLETS OF THE PENNSYLVANIA GERMANS, Guy F Reinert, The Penna German Folklore Society, Allentown, Pa, 1949, $5.00. Maniby Jacquard double-woven.

PERSIAN TEXTILES AND THEIR TECHNIQUE FROM THE 6th TO THE 18th CENTURY INCLUD-
              ING A SYSTEM FOR GENERAL CLASSIFICATION, N A Reath and E Sachs, Yale U
      Press, New Haven, 1936, $10.00. Persian silk fabrics analyzed & classified. STUDIES IN PRIMITIVE LOOMS, H Ling Roth, F King and Sons, Halifax, 1918, re-
      printed 1934, out of print. Scholarly research project, many diagrams. EARLY AMERICAN TEXTILES, Frances Little, The Century Co, N Y, 1931, out of print.
      The story of America's heritage in textiles, including embroidery.

A BOOK OF HANDWOVEN COVERLETS, Eliza Calvert, Little, Brown and Co, out of print.

THE WEAVES OF HAND-LOOM FABRICS, Nancy Andrews Reath, Penna Museum, 1927 out of print. "A classification with historical notes."
      POPULAR WEAVING AND EMBROIDERY IN SPAIN, Mildred Stapley, Madrid, 1924, out of
      print, The standard work, includes Spanish Eyelet and Tufting.
THE DOMESTIC MANUFACTURER'S ASSISTANT AND FAMILY DIRECTORY In the Arts of
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THE DOMESTIC MANUFACTURER'S ASSISTANT AND FAMILY DIRECTORY In the Arts of Weaving and Dyeing, by J and R Bronson (William Williams, Utica, N Y 1817) reprinted in facsimile by Chas T Branford Co, Boston, Limited edition, 1949. \$7.50.

edition, 1949, \$7.50.

INTERPRETATION OF THE J & R BRONSON BOOK, by Harriet Douglas Tidball, Shuttle Craft Guild, 1950, \$1.00, pamphlet. The drafts, tie-ups and information on weaving in the above book, put into modern, standard form.

on weaving in the above book, put into modern, standard form.

THE ROMANCE OF FRENCH WEAVING, Paul Rodier, Tudor Publishing Co, out of print.

A History, beautifully illustrated, of European weaving.

REFERENCE BOOKS AND GENERAL BOOKS USEFUL TO THE HANDWEAVER

AMERICA'S FABRICS, by Zelma Bendure and Gladys Pfeiffer, Macmillan Co, 1947, \$10.00. Complete information on textiles and fibers, lavishly illustrated. THE STORY OF WOOL, Wm Legget, Chemical Publishing Co, N Y, 1947, \$5.00. THE STORY OF LINEN, Wm Leggett, Chem Publishing Co, N Y, 1945, \$2.75. THE HERITAGE OF COTTON, M D C Crawford, Fairchild Publishing Co, N Y, 1948, \$3.00. These three books give historical rather than technical data. MAN IS A WEAVER, E Baity, George G Harrap and Co, London, 1947, \$3.00. An interexting account of the history of weaving.
HAND WEAVING AND EDUCATION, Ethel Mariet, Faber and Faber, London, 1943, \$1.50. Excellent philosophy and general background, in small booklet form.
HAND WEAVING TODAY, Ethel Mairet, Faber and Faber, London, 1939, \$1.50. A famous British teacher reviews handweaving in this small booklet.
HANDCRAFTS OF NEW ENGLAND, Allen H Eaton, Harper and Brothers, N Y, 1949, \$5.00. An illustrated review, with names and places, of the handcraft movement today. HANDCRAFTS OF THE SOUTHERN HIGHLANDS, Eaton, Russell Sage Foundation, N Y, 1937. TWENTY CENTURIES OF MEXICAN ART, Museum of Modern Art, 1940, \$2.00, paper cover. Splendid review and photographs of Mexican arts and crafts.
DAVISON'S TEXTILE BLUE BOOK, Davison Publishing Co, Ridgewood, N J, \$5.75, annual revision. Official guide to mills, manufacturers, and dealers in textile field WHERE TO SELL HANDCRAFTS, Dorothy Glazer, Charles T Branford Co, Boston, 1951, \$1.50. Geographic list of stores which sell handcrafts in U S. WHERE TO GET WHAT, Penland School of Handicrafts, Penland N C, 1950, 25¢. "An artists and craftsman's reference list of sources of supplies and equipment." WEAVE IT YOURSELF, Flord Dee Goforth, U S Indian Service, 1947, \$5.00. A wonderfully printed unusual book, presenting detailed drawings for the construction of a 2-harness loom and equipment. This is visual education in handweaving.

BOOKS ON THE RELATED CRAFTS

CARD WEAVING, by Mary M Atwater, cut of print.
HOW TO WEAVE ON THE INKLE LOOM, by Mary M Atwater, 1941, out of print.
THE HANDICRAFT ART OF WEAVING, Thomas Woodhouse, Oxford Technical Manual, London, 1921, out of print. Weaving on primitive and home made equipment.
HAND WEAVING WITH REEDS AND FIBERS, Gallinger and Benson, Pitman Publishing Corp, 1948. Basketry and related crafts.
CARD WEAVING, Lois I Clifford, Manual Arts Press, Peoria, III, 1947, \$1.50, paper cover. Elementary Card Weaving.
BRINVAEVNING, Margarethe Hald, Kobenhaven, 1932, \$1.50. Detailed work on Card Weaving, text in Swedish, but excellent illustrations.
WEBEN, Ernst A Kallman, Germany, 1950, \$1.80. Weaving on simple frames, knotting, braiding, etc. Text in German, but excellent photographs.
THE ASSOMPTION SASH, Marius Barbeau, National Museum of Canada, Bulletin 93, Series No 24, 25¢. Braiding of the type known as Ceinteures Flechees.
COMPLETE GUIDE TO HAND SPINNING, K Grassett, London School of Weaving.
THE USE OF VEGETABLES DYES FOR BEGINNERS, V Thurstan, Dryad Press, 1946, \$1.25.
VEGETABLES DYES FROM NORTH AMERICAN PLANTS, Douglas Leechman, Webb Publishing Co St Paul, 1945, \$1.50. "How to make your own dyes" from fruits, flowers, etc.
VEGETABLE DYES, E Mairet, Faber and Faber, London, \$2.00.
USE OF NATIVE CRAFT MATERIALS, by M Shanklin, 1947, \$2.75. Basketry, braiding. KNOTTING AND SPLICING, Paul N Hasluck, David McKay Co, Philadelphia, \$1.00.

ENCYCLOPEDIA OF KNOTS AND FANCY ROPE WORK, Raoul Graumont and John Hensel, Cornell Maritime Press, N Y, 1945, \$5.00. This book has everything in knots. BOBBIN LACE, Elsie H Gubser, published by author, 647 N Denver, Tulsa, Okla, \$1.50. PILLOW LACE, reprint of the 1907 classic, in a limited edition, 1950, by Chas T Branford Co, Boston, \$7.50. Bobbin Lace, Making Correspondence Course, by Margamrite Brooks, Darien, Conn.

The Shuttle Craft Guild does not sell general weaving books, except for Shuttle Craft Guild publications. Local book stores are usually cooperative in ordering any books not kept in stock. A full stock of books for the handweaver is carried by the mail-order book shop, The Craft and Hobby Book Service, Box 1931, Carmel, California. Craft and Hobby is cooperative in trying to locate copies of any out of print books.

Have you missed your SHUTTLE CRAFT STYLES this summer? Perhaps you have forgotten to renew, as all subscriptions were due in June. The special Guild member subscription is \$1.50 for 12 issues, July through June. The July issue gave a successful "Dirndl" blouse, August was a window blind, with directions for hanging and raising, September is transparent window curtains. The first 12 issues (for last year) are available to Guild members at \$1.50 for the set.

COLOR STYLES FOR 1951-52

COLOR is the theme for the coming seasons -- in home decoration, table settings, and clothing fabrics. Rapidly disappearing from the scene are the so-called "textured" fabrics of mixed threads. Replacing these are smooth tabrics in sophisticated weaves, with strong colors, and unusual color effects achieved by combining threads of two or more colors in close association. In clothing fabrics the Scotch Tartans and the small checks (see S-C Bulletin for November 1949) still predominate, with a new tendency toward off-balance plaids in non-traditional colors. Design your own plaids. Borders of the peasant variety seem to have completely disappeared from the home and costume, replaced by horizontal or vertical stripes, checks, plaids, and restrained all-over figures. Table setting fabrics are colorful, linen the predominating material, but in plain colors and woven textures. Color accents are made by using napkins of a different color from table cloths or mats. Separate sets of napkins are becoming popular, several sets in different colors often accompanying a table cloth or a set of mats. Make napkins of 24/2 cotton set at 36 per inch, or of 14/singles linen set at 20 to 24 per inch. (Dip chains of singles linen in a solution of plastic starch for easy beaming and weaving.) Weave in flat colors or cross one color with another. Weave them perfectly plain, as yardage, and make a narrow hem, or add no more decoration than a row of pick-up leno (to be given in Nov 1951 Bulletin) at the hem line. The Shuttle Craft Guild can supply 14/1 linen (\$4.30 per pound) in peach, aqua, grey, chartreuse, It blue, yellow, rose. In weaving cottons use colored warps, and the tiner the material, the better the color effects and mixtures. All weavers should have a Weaver's Color Palate, technically called a "Gamp" of as many warp colors as possible, arranged in 2 to 4 inch stripes (narrower stripes are ineffective for reference) and woven in squares to indicate each color woven with itself, and each one woven with each of the others. Such a square is invaluable in indicating how colors look when woven (often different from yarn samples or even tubes or skeins of yarn) and what different colors may be produced by weaving one with another (a more sophisticated manner of color designing than dyeing). A Gamp is a basic reference chart for designing plaids and checks, and for planning all kinds of color effects. If you do not wish the trouble of setting up and weaving a color Gamp, a square containing 11 2-inch stripes (bright blue, navy, red, light green, dark jade, yellow, orange, grey, egg plant, rust, tan) may be purchased from the Shuttle Craft Guild for \$3.50. This is woven of Lily Mills 24/2 cotton, set at 36 ends per inch, and it contains 121 separate squares.

- Narrist Douglas Tidball

THE SHUTTLE-CRAFT GUILD



October 1951 Volume XXVIII, Number 10 Virginia City, Montana

Subject: Bags of All Kinds Bag Fabrics

Front

Bags, bags, bags, always useful, always welcome; tailored bags for general wear, glittery bags for parties, exotic bags for accessory touches, sturdy bags for parties, roomy bags for fancy work, pouchette bags for make-up. There is no limit to the types of bags which can be made from handwoven fabrics, and no end to the number of these one can use. What handweaver is there who has not woven some unexpectedly beautiful fabric, tagged it "for a bag." All too seldom is such a bag actually made up, or if it is, how often is it made up into the amorphous square with a draw string, or an envelope with a zipper, and ends its life in a drawer because the finished product is inferior to the fabric. But here we are giving a pattern for a tailored bag which is so simple in construction that even the inexperienced needle worker can make a bag to be proud of.

A wide variety in widths, and type of warp, in weave, and in type of fabric may be used for this bag. These should be planned according to the type of bag desired. If the warp is narrow, the long dimension of the fabric will be warp-wise, if it is wide, the long dimension will be weft-wise. The lining may be woven in one piece with the bag, or it may be woven on a different warp or cut from a piece of commercial fabric. The bag, regardless of style, requires one large oblong piece of fabric, one long narrow piece, and two identical pieces for lining. Two pieces of buckram about 3/4 inch narrower and

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shorter than each bag piece are required for stiffening. Nothing else is needed but a fastener to hold down the bag flap. A handsome clip, sewed to the bag, to snap over the flap, is excellent for a dressy bag; a large button sewed to the bag, with a loop on the flap, may be used. Make the bag by folding the large oblong of material to make the front, bottom, back, top, and flap, then sewing the ends of the long strip to the bottom, at

each side, and then sewing each side of both pieces as far as the top. The loop which remains between these two end pieces forms the bag handle. Before the bag is sewed together, however, the bag fabric and lining must be put together, with the stiffening between. This may be done by holding the two fabrics, right sides together, and seaming down the two long sides and the flap

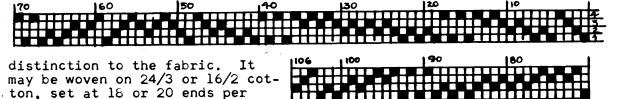
end, and then turning right side out, slipping in the buckram, and whipping the open end. In most cases, it is more satisfactory to tack the buckram to the bag

baste the fabric edges back over this, all the way around, baste a small hem all around the lining, so it is identical in size to the bag fabric, and then whip the two pieces together. The handle is made in this same way.

Lining material should be as smooth as possible, woven preferably in tabby or satin weave, of a smooth, glossy material such as fine silk or rayon, fine supported metallic, or mercerized cotton. The bag handle may be varied in several ways. Although the simplest is the use of a single, continuous strip, forming both bag sides and handle, even this may be made wide or narrow, short enough for the hand to grip, or long enough for a shoulder strap. If a handle narrower than the sides is desired, the two edges of the handle may be whipped together to within two inches of the bag top at either side, and then pressed flat, to taper out toward the bag top. Instead of the continuous sides and handles, two short strips for the sides may be made, and a handle of a different material attached. For some styles of bag, a handle strip of Inkle Weaving may be used.

BAG FABRICS

The first requirement of a bag fabric is that it be beautiful; the handsomest products from the loom go into bags. Next, any bag fabric must be very
firm and very strong. It should have no long warp or weft floats, and the weave
must be a very close one. Symmetrical patterns, unless they are extremely simple,
are well avoided, and the designing emphasis should be on the use of fine color
harmonies, handsome and unusual threads, and subtle combinations of line, block
and color. There are many techniques well suited to bag fabrics; in fact, almost
any threading may be adapted to an appropriate fabric. If the threading is Overshot, weave it in one of the several no-tabby methods given in the Bulletin for
July 1946 (still available): the Italian method, Opposites weaving, the No-Tabby
Bound weave, or Honeycomb. Bound weaving is particularly suitable for formal
bags of highest quality. Although Bound Weaving is quite commonly done on the
little Rosepath threading, the following draft will be found to give an extra



inch, with weft of Fabri in several colors, beaten to completely cover the warp.

If the threading is Crackle Weave, use the 3-color Italian Method of weaving. Summer and Winter Polychrome (see Bulletin for February 1951) makes one of the handsomest bag fabrics. Twills and Point Twills, particularly the multiple-harness Fancy Twills are always good. And costume bags of tweed to match a suit or coat, are very popular.

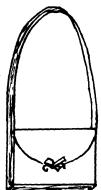
The No-Tabby Summer and Winter Weave gives an out-of-the-ordinary handsome fabric, and one which is particularly appropriate for the incorporation of heavy metallics and unusual materials. Regardless of the Summer and Winter pattern threaded, or the number of harnesses involved, this weave is practical. For a 4-harness threading, use the following tie-up, the "x" tie-up for a sinking-shed loom, or the "o" tie-up for a rising-shed. Simply treadle one shot tie-up for a rising-shed. Simply treadle one shot threading has more than two pattern blocks (more than four harnesses) it is necessary to make a combination tie-up so that blocks will weave on combined harnesses as though there were only two blocks threaded. This tie-up gives one method for making the combinations, on an 8-harness threading, though others may be devised. The "x" treadle on all of the tie-ups may be substituted for treadle 2 or 4 in the rota-

tion of shots, wherever a continuous instead of a broken line is desired. For the use of two colors, throw two shots of one color on treadles 1 and 2, and throw 2 shots of the second color on the 3 and 4 sheds. The relative positions of the two colors may be changed at any time by throwing four shots of one color. Color blendings may be made by discontinuing one color and entering a new one. This is not a weave in which warp is covered by the weft, so it is woven for the best effects on a colored warp, unless a dominantly white and light-toned fabric is desired. Any standard warp material may be used -- fine perle cottons, plain or mercerized cottons from 10/2 to 24/2 in weight.

BAG STYLES



The Costume Bag. This was woven 8 by 8 inches, with two inch wide sides and handle. It was made on a 30 inch wide warp of rust 24/2 cotton, set at 35 ends per inch, in the 2-block no-tabby Summer and Winter weave. Weft materials were bronze plasticbeads on pairs of shots throughout, with heavy novelty rayon in green, blue-green and rose for the alternate pairs of shots, and bands of wide gold metallic braid. Any of the metallic guimps could have been used instead of the plasticbeads. The lining was woven on the same piece, of fine gold supported metallic, woven in tabby. The flap was left square, seeming to harmonize better with the square style, but it could have been tapered. The wide handle could have been tapered, as in the adjacent diagram.



The Shoulder Pouch. The suggested size for this bag is 6 by 10 inches, with the sides 1/2 inches wide, and a long shoulder strap. This bag should be conservative in fabric and color, to harmonize with coat or suit, and the material should be very firm. Bound Weaving, on the draft given above, in two, three or four closely related colors of wool, would be excellent. Or, this would be an excellent style made in tweed, to match a suit or coat, with the sides and handle made of a strip of leather (how about a narrow leather belt?), or of a belt of conservative Inkle weaving.

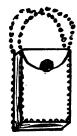
The Utility Bag. This is a generous sized bag for shopping or general use. The size and proportion may be as desired, but the one suggested is 14 by 14 by 4 inches. As this should be an unlined bag, the material should be very rugged, and the combination of carpet warp and jute is suggested. The 2-harness Log Cabin Weave is excellent for this purpose, and the following draft will be found pleasant. The black squares in the draft indicate dark colored carpet warp, and the circles indicate light colored or white. Warp 138 ends of light and 152 ends of dark carpet warp, 290 warp ends in all. Thread the complete draft, A to C,

twice, and end with the 30 threads, A to B. Sley 2 per dent in a 10-dent reed for 20 ends per inch. Weave with heavy and fine jute alternating. We used standard 2-ply jute for the fine, and four strands of the same for the heavy. Weave as follows: raise harness 1 for one shot of heavy, harness 2 for one shot of fine, for five shots (end with heavy on shed 1), heavy on shed 2 and fine on shed 1 for 5 shots (end with heavy on shed 2), heavy on shed 1 and fine on shed 2 for 5 shots (end with heavy on shed 1), heavy on shed 2 and fine on shed 1 for 13 shots (end with heavy on shed 2), and repeat for the entire length. Of course there are many treadling variations possible.

The Knitting Baq. This is a variation for which we suggest the same draft and materials as for the Utility Bag. Cotton rug yarn may be substituted for the heavy jute. The bag should be about 15 inches deep, 6 to 8 inches wide, and all four sides the same. This requires two 36 inch strips of 6 inch material, or 38 inch strips of 8 inch material, and the lining is optional. Put the two strips together in a cross, and sew up the four sides to make a square, tubular bag. Handles may be of braid, of Inkle weaving, or of a narrow strip of woven material. An interesting variation of this bag may be made of a 32 inch strip of 20 inch wide heavy material. Seam the two ends to make a tube, with the selvages at top and bottom; then fold and stitch the bottom in exactly the same manner that a paper bag is folded and glued. If desired, the four sides may be stitched from top to bottom like a narrow French seam, to box the sides.



The Make-Up Pouch. A good size is about 4 by 6 inches, with sides and handle no wider than an inch. Almost any gay fabric may be used, bright Roman stripes in weft-emphasis plain-weave being particularly nice. A gay Inkle band is good for the sides and handle. Oiled silk or one of the yardage plastics makes appropriate lining.



The Evening Bag. This should be small and glittery, in any proportion desired. Use silks, rayons and metallics. Honeycomb in fine metallic with the outline threads of perle cotton #3 the same color as the warp, is handsome. Suggested trim is a string of small pearls tacked around the edges of the bag, and carried up to make the handles, with a pearl clip for the fastener. The edges may be covered with metallic guimp, or silk braid.

TOWELS FOR CHRISTMAS. Thirsty Linen Towels, new to the handweaver in 1951, should make a fine Christmas headline for a man, a woman, or a family gift. Set 10/2 Thirsty linen at 15 ends per inch and weave in tabby, with 10/2 weft for hand towels and 7/2 weft for bath towels. One pound of 10/2 will make a 5 yard long warp, 18 inches wide, 270 warp ends, for weaving four 36 inch long towels with generous hems. Four 27 by 54 inch bath towels require a 450 end warp, 8 yards long, of $2\frac{1}{2}$ pounds of 10/2. Weft requirements slightly less than warp. Decorate towels with open-work borders or monograms. The Open-Work Weaves will be the subject of the November Bulletin.

It is good news for Fabri users that "Prices subject to change without notice" means this time that the price is down. Fabri is now 95¢ per skein or \$7.50 per pound.

The first 12 STYLES sheets are available in a packet for \$1.50, to Guild members.

MRS ATWATER'S RECIPES NCW \$3.50. Some sheets missing, though there are 120 or more of the original 130, now. Sold for \$10.00 for 130 sheets for 15 years. Now rapidly going out of print. \$3.50 is the bottom price we shall make, and the sooner your order comes in, the more sheets you will receive. This price will hold until there are only 100 different sheets left, and will then be discontinued.

Party Aprons for the Holiday Season is the subject of the October STYLES. Anyone subscribing to STYLES now will receive the July through October issues immediately and further sheets will accompany the Bulletin. Subscription rate for Guild members is \$1.50 a year, for non-members, \$2.50.

Special services to local Guilds is one of the Shuttle Craft Guild features. Write for details.

THE SHUTTLE-CRAFT GUILD



November 1951 Volume XXVIII, Number 11 Virginia City, Montana Subject: Open Work Weaves --The Eyelet Linen Table <u>Mats</u>

The Open Work Weaves provide almost infinite design possibilities, useful in many types of materials and for many different projects, but particularly appealing when used for table linens. Open Work techniques are woven on a balanced tabby base, with warp identical to weft in type, size and color. The weaves require a strong warp, and a warp with a little elasticity is easier to work on, at least for the beginner, so a two or three ply cotton is often used. However, the effects are so beautiful that Open Work articles are worthy of a handsomer material and are more commonly done on linen. The practice of weaving with linen weft on a cotton warp should be strongly discouraged, as the result is a fabric of questionable quality and beauty regardless of the craftsmanship involved. Single ply linen warps are not suitable for the more elaborate work because they are somewhat weak, and have a tendency to develop an unsightly fuzz. Therefore two or three ply linens should be selected for both warp and weft, and these may be any weight from very heavy to extremely fine, though linen finer than 40/2 involves considerable eye strain and requires great patience.

For the weaver who has not yet tried linen table mats in Open Work and equally delightful for the experienced Open Work weaver -- the suggested table mat warp is 280 ends of 14/2 linen, set at 20 ends per inch to give a 14 inch wide warp. A seven yard warp will require two pounds of 14/2 linen for both warp and weft, will weave eight mats (total length 22 inches to give $1\frac{1}{2}$ inch hems) and will allow slightly over one yard of warp for experimenting and practice. Before starting any mats, weave a sampler with a variety of Open Work stitches in bands across the entire warp; in bands with tabby selvages: with with square, triangular, diamond shaped medallions: monograms and simple designs. This sampler weaving is very important: it will indicate the effects which different types of Open Work Weaves give, and it provides the necessary practice in producing smooth, even weaving. A second suggestion for very heavy mats is the use of the $1\frac{1}{2}/1$ linen. A six yard warp will make eight or nine mats and will require three pounds of $1\frac{1}{2}/1$ linen for warp and weft, if 90 ends are wound and set at 6 ends per inch. This linen is too heavy to hem well, so we use a $\frac{1}{2}$ to 3/4 inch fringe, whipped directly on the loom in the manner given in the HANDWEAVER'S INSTRUCTION MANUAL, and in the Bulletin for August 1946. Group three warp ends together in the whipping. The simpler Open Work weaves are best for this extremely heavy linen, and a sampler is hardly necessary, because the work is so coarse that it is done practically in diagram.

For napkins to use with table mats of either 14/2 or $1\frac{1}{2}/1$ linen, use 14/1 linen set at 20 or 24 ends per inch and woven in tabby. A single line of Open Work at the hem edges is sufficient decoration. If you wish to be very up to date, make napkins of a different color from the mats; for instance, Cattail Brown mats with Chartreuse napkins, Persian Blue mats with Muted Rose napkins,

Grey mats with Mellow Yellow napkins. Dip the 14/1 warp chains in a dilute solution of plastic starch before beaming, and be sure to soak the napkins over night, or over several nights, before using.

The Open Work Weaves are those weaves, worked on a tabby basis, in which the weaver distorts the position of warp or weft threads so that small holes or eyelets are formed in the fabric. They are often mistakenly called Lace Weaves, but this term is a misconception as these weaves, though open and often lacy in appearance, are not true lace. Lace is woven by different methods, and on an untensioned warp. There are three main groups of Open Work Weaves: the Eyelet Weaves, the Bouquet Weaves, and the Leno Weaves. The Eyelet Weaves are those in which the web is built up one small area at a time across the warp width, by carrying the shuttle back and forth in tabby sheds, to form connected splits in the fabric. The best know of the Eyelet Weaves is Spanish Eyelet, which has the Spanish name "red de telar" or loom net. The Bouquet Weaves are weaves in which a weft thread is wrapped around a group of warp threads, or a group of previously woven weft threads, to draw these threads together into a tight Bouquet. The Leno Weaves, also known as Marquisette, Gauze, or the Twist Weaves, are those in which two or more warp threads are actually twisted around each other, the twists held in position by weft, spreading weft and grouping warp so that open, lacy effects are achieved. Each one of these weaves has many variations which give different open work effects, and there are also many combination techniques which use two or more types of Open Work together.

The Eyelet weaves, though not the simplest or fastest to weave, logically come first because the Eyelet technique is used not only as an individual weave, but also to build up selvages, plain borders, and plain areas for the Bouquet and Leno weaves. Start with a tabby threading, or any technique threading which will produce a tabby. The warp setting should be that which will give a satisfactory tabby -- not so close that the weft must be packed to give a warp-weft balance, or so wide that the balanced tabby fabric is sleazy. The weaving should be done with a flat stick shuttle rather than a boat shuttle, as the shuttle is continuously carried in and out of the shed through the top warp, and the stick shuttle will slip into the warp without distorting or straining the warp threads. The beater may not be used as the weaving progresses across a single weaving line so a sword or knife stick must be placed in the shed and beaten sharply against the weaving surface. Therefore the most convenient type of shuttle to use is the little Norwegian Belt Shuttle, commonly used for Inkle Weaving, and sold by Lily Mills Co, Shelby, N C, and by E E Gilmore, 330 S Commerce, Stockton, California.

Single Row Eyelet

The weaving is done on the open sheds, and threads are counted on the top shed, so when a count is given, for instance 8 forward and 4 backward, this menas that actually the shuttle is progressing 16 warp ends forward and 8 backward. In weaving, first build up a tabby heading or hem, ending with the shuttle at the right hand edge of the warp. For the example weave we shall use units of evenly spaced eyelets, 8 warp threads, or 4 top warp threads apart across the entire warp. Open the first tabby shed and insert the shuttle in the shed under 4 top warp threads, and bring it through the warp. Change to the alternate tabby shed and place the shuttle into the shed at the same point where it has just emerged, and carry it from the left back to the right selvage. Change to the first shed, carry the shuttle in the shed under 8 top warp threads and bring it through the warp. Change to the alternate shed and carry the shuttle in the shed, back to the right, under four top warp ends, and bring it to the surface at the point where the first eyelet was formed. The weaving proceeds across the entire warp going forward from right to left in the first shed, under 8 top warp ends, and back from left to right, under 4 top warp ends. Between each change of shed press the weft into position with the sharp edge of the beater stick (a ruler is good) or with the belt shuttle. Beat with the beater only after the entire row has been woven.

Several different effects may be achieved from this simple weave. The weft may be pulled tightly and held under tension each time the direction is changed, to draw the group of 8 warp threads tightly together and make large eyelets: Or the weft may be simply turned, without pulling, to form vertical

slits; or an extra 4 forward and 4 backward may be woven after each 4 backward, to build the slits or eyelets higher. This weave is often worked with a weft thread much heavier than the warp, to give strong effects. In doing this, it is well to build the tabby hem of weft identical to the warp and insert the heavy weft at the left selvage, carrying it across the warp in a tabby shed for one shot before starting the eyelet weave, and then returning it to the right selvage in a tabby shed after the row of eyelets has been woven. Eyelets may be spaced differently, for instance, 6 forward and 3 back, 12 forward and 6 back, or any other distance the weaver desires. Or the Eyelets may be spaced unevenly, or grouped, for instance, 8 forward and 4 back three times, then 24 forward and 20 back, followed by three more repeats of 8 forward and 4 back. Or a row of Eyelets may start or end at any place along the warp by placing the first and last eyelets at any desired point.

Pattern or All-Over Eyelet

To weave all-over Eyelet, or wide bands of Open Work, or medallions or patterns in Open Work, row after row of eyelet must be built up, and it is in these variations that the diversity of thread-arrangement effects may be made. If the arrangement is to be a medallion (a square, diamond, triangle, etc) of Open Work on a plain tabby background, the point where the first eyelet is to occur is determined and the weft is carried in the shed, from the right to the left, to this point, the shed changed and the weft returned to the selvage, the shed changed again and the weft carried to the point of the second eyelet; then the specific unit number is worked across the area of the medallion and the weft taken to the left selvage, back to the last Eyelet, and to the left selvage. Simple patterns drawn on squared paper may be followed, each square of the design representing one eyelet. Before weaving a pattern, experiment a little to determine what number of threads per unit will give a perfect square.

Style I - Single Direction Eyelet. Weave the first row as described above. When the row is completed, return the shuttle in the second shed from left to right, and beat with the beater. Weave the second row of eyelets from right to left, in exactly the same way, and return the shuttle to the right selvage in the second shed. Repeat this until the rows of Eyelets are built up as desired.

Style II - Right and Left Eyelet. Weave the first row of Eyelets from right to left. Then, instead of carrying the shuttle to the right selvage, proceed immediately with the second row, weaving it from left to right. The first, third, fifth, seventh, etc, rows are worked from right to left, and the second, fourth, sixth, etc, rows are worked from left to right.

Style III - Diagonal Split Eyelet. For this style, be sure to select an even number of threads for the group: units of 4, 6, 8, etc, back, with double that number forward. Weave in Style II. Weave the first row as described. When starting the second row, left to right eyelets, make the first Eyelet midway between the last two Eyelets of the first row, and proceed weaving with the same units used for the first row. The third, fifth and seventh rows duplicate the first one, and the fourth, sixth and eighth rows duplicate the second one. In weaving Diagonal Split Eyelet, the best effects are gained if the weft is pulled quite tightly between each eyelet, to give a fabric with large Eyelets.

Style IV - Variation Eyelet. The variations are personal, so try making different spacings in Eyelets to give unusual effects. Try weaving 1 row with forward 16, back 8, then two rows with forward 8 back 4, and one row with forward 16 back 8. Or try wide spaced Eyelets on the first and third rows, with groups of three closely spaced Eyelets between. Use imagination for variations.

THREADBENDERS for November 1951



Have you been dissatisfied with the condition in which your Bulletin arrives? We have. Are you tired of the old form, the four large pages in which the Bulletin has been printed ever since January 1932? We are. Do you want more variety in subject matter in each Bulletin, and more freedom of presentation? We do. With all of these things in mind, we have planned a new Bulletin format. The New Shuttle Craft Bulletin will appear in January 1952. It will be handbook size, with pages stapled into a stiff cover. The New Bulletin will give us more freedom. We plan to make each single Bulletin more generally useful by giving at least three articles each month on different subjects, and including our usual "Threadbender" column for announcements and remarks and member contributions. The New Bulletin will bring you more information and more variety, so be with us in January for the New Bulletin.

A personal note on the Shuttle Craft Guild organization -- Phyllis Lobdell who was with us formerly, known to Guild members through her Threadbender Gremlins, has returned for a year. After spending most of the past month weaving Color Gamps (available for \$3.50) she has found has found a whole new branch of the family, in new antics. Miss Fitzgerald, who was the Shuttle Craft Apprentice and assistant for over a year has returned to the "outside world" and the new Shuttle Craft Apprentice, starting December 1, will be Mrs Ruth Currey. Many Guild members are already acquainted with Mrs Currey, who has had charge of the weaving project at Old Sturbridge Village, Massachusetts, for the past two years. With Mrs Currey's able studio assistance, we shall be able to handle two or three more students in our studio, after January 15, beyond those already registered.

Many inquiries come about the rayon and mohair curl yarn which we suggested a year ago for the "Sunset Cloud" stole, since this yarn is now unavailable. We have finally located a limited supply of a similar rayon and mohair yarn but without the curl, which we have for sale in approximate one-pound tubes (white only) at \$3.00 a pound. I confess that we have not been able to experiment with this yarn yet, so you may wish to wait until next month when we can give you specific advice on its use. We are planning to set it up for stoles at 12 ends per inch, to weave in tabby. It should make beautiful baby shawls. The yarn is beautiful and we feel confident that it will work up into an unusually lovely fabric. Perhaps you will wish to experiment too. The supply is not large.

If rugs are on your weaving program for the winter, don't forget the special rug wool which the Guild introduced in the spring. This is an exceptional bargain at \$2.50 per pound, and is highly satisfactory for any type of weft-faced rug, or for loop-pile rugs. We use it on 7/3 natural linen carpet warp set at 6 ends per inch. The 7/3 carpet warp is \$3.00 a pound (700 yards). The two yarns are perfect for rugs in the Navajo Saddle-blanket Weave, as illustrated on page 283 and described in Mrs Atwater's revised SHUTTLE CRAFT BOOK (\$5.50).

After this rather lengthy introduction to the Open Work Weaves, and only one of the groups of Open Works described in this Bulletin, the subject will be continued in the next Bulletin.

Here is a Christmas Gift offer for Guild members only. Anyone who wishes to send a new subscription to the NEW SHUTTLE CRAFT BULLETIN for 1952, to a friend for Christmas, may have it at the special price of \$4.00. Subscriptions must be received by December 20. We shall send a gift card announcing the subscription. Don't forget the special close-out price on Mrs Atwater's Recipes of \$3.50. These would make an ideal Gift for a weaver-friend. Or a subscription to Shuttle Craft STYLES at \$2.50, or a HANDWEAVER'S INSTRUCTION MANUAL, at \$3.00.

- Harrist Douglas Tidball

THE SHUTTLE-CRAFT GUILD



December 1951 Volume XXVIII, Number 12 Virginia City, Montana Subject:
Open Work Weaves - The Leno
Stoles

Leno, Gauze, Marquisette, are all terms which refer to an open, lacy fabric in which pairs or groups of warp threads are twisted around each other with the twists held in position by the weft. The terms, however, are not synonymous. Leno refers to the weave, and consequently to the method for doing the weave, and it also reters to the fabric which has areas of the twisted warp weave included with areas of plain weave. Marquisette refers to a fabric woven in twist or leno weave in which the twist is consistant across the entire weft width of the fabric, and it usually means a cotton mercerized, rayon, nylon, or silk material used for curtains or dresses. Gauze refers to the same type of fabric, but woven in all cotton, and has taken on the additional meaning of any wide-spaced, sleazy cotton fabric such as surgical gauze or similar linen fabric such as theatrical gauze. Consequently the term Leno, which indicates both process and fabric, is the one used by handweavers.

There are three methods for producing leno twists in weaving a warp. The power-woven leno fabrics are woven on a special leno loom which has especially made headles to produce the warp twists. The handweaver with a loom having four or more harnesses, may mechanically weave two and three-thread twist marquisette cloth through a method of double-threading, using the front harnesses for doupes (string half-heddles) and standards. By this method, plain marquisette is possible on four harnesses, and patterns of alternating leno and plain weave on eight, or twelve harnesses. Directions for these weaves have been given in Mrs Atwater's still available Bulletins for May 1944 and June 1948, and in the out-of-print Bulletin for October 1947. The Doupe Lenos may be used for elastic warps such as cotton or wool, where a very open textile is desired, as in weaving curtains, shawls, stoles, and occasionally in table mats, table cloths, and dress fabrics.

The third method for weaving Leno is to make the twist by hand, on a tabby shed, picking up the twisted threads on a pick-up stick as the work progresses across the warp. Although more time-consuming than than Doupe Leno, this method allows the weaver wide designing scope which is not possible with the mechanical method, and permits the weaving of many different types of lacy, open work. Variations of the twist are numerous, and designs, patterns and monograms of great intricacy may be woven on a tabby background, or designs in tabby may be woven on a leno background. Designs for pattern leno may be worked out on squared paper or adapted from any squared design, allowing one twist to represent one square of the design. Before starting an article in pattern leno, the weaver should practice the technique and be sure that the twists form a square arrangement in the fabric; occasionally it will be found necessary to throw three or five tabby shots between twist rows in order to make the square perfect. There are other ways for using the lenos for producing open-work designs in fabrics,

through combining two types of leno, using one for the pattern and the other for the background, or through combining leno with the eyelet weave. The techniques known as Greek Lace, Peruvian Gauze, and Mexican Lace are illustrations of the combined weaves.

Mock Leno is a term which the weaver finds occasionally, particularly in the technical weaving books. Mock Leno is any weave which through the harness threading and the treadling produces a fabric which somewhat resembles leno but which groups warp threads rather than actually twisting them together.

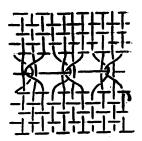
Pick-up leno may be woven on almost any type warp material, and on any threading which will produce a tabby, as all of the weaving is done on tabby sheds. On a threading which involves more than two harnesses, the tabby treadles should be tied up so that tabby be raises the right hand edge thread and is woven when the shuttle is passing from right to left. The warp may be set so as to produce a good quality tabby fabric. (A Warp Setting Guide for weaving tabby in different types and weights of materials is given in the HANDWEAVER'S INSTRUCTION MANUAL, by Harriet Douglas Tidball, \$3.00.) However, Leno need not be woven on a balanced tabby fabric, even though the best effects are commonly produced on tabby. It is a practical technique for weaving an abnormally wide-set warp, particularly if a heavy, or a rough textured yarn is used as the weft. Except for very closely weven leno, a rough weft, or a weft with a strong friction quality, is desirable. Thus, better effects are gained in linen by weaving a singles weft on a two or three-ply warp, or by weaving a soft-twist, rough, or novelty cotton on a two or three-ply cotton warp. Since all wools and worsteds have a strong friction quality, this is not a consideration when weaving leno on a wool warp.

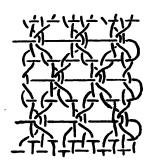
The basic method for weaving leno is to first throw a tabby shot on the \underline{a} shed, from left to right. Change to the \underline{b} tabby shed which brings the edge warp thread at the right to the top of the warp shed. With a pick-up stick, pick up the first bottom warp thread, carry it to the right under the first top warp thread, and up, so that it lies on top of the first warp thread, held in place with the stick. Then, with the point of the stick, reach down between the first and second top warp threads and pick up the second bottom warp thread, carrying it to the right under the second top warp thread, and up, to lie on the stick above the top warp. Reach with the stick between the second and third top warp threads, and pick up the third bottom warp thread, carrying it to the right under the third top warp thread, and holding it on the stick, above the top warp. Continue thus across the entire warp until all of the threads of the bottom shed are held by the stick on top of the top shed, each bottom shed thread twisted to the right, under its adjacent top warp thread. (Two changes in warp position are thus accomplished: every bottom shed thread lies to the right of the top shed thread to which in normal tabby it lies to the left, and the entire bottom shed is held by the pick-up stick on top of what is normally the top shed.) It is a good idea at this point to beat sharply with the pick-up stick, after the shed is released, as the \underline{a} tabby shot often becomes displaced during the pick-up process. Then turn the pick-up stick on edge and carry the shuttle from right to left, through the shed made by the pick-up stick. Remove the stick and beat. Raise the a tabby shed, beat, and return the weft from left to right. The row of leno should be beaten in firmly, and so the space below the weft which holds the twist is identical to the space above the weft which holds the twist. spaces should be equal to about the space required by one weft shot, so that the full width of the open-work area is

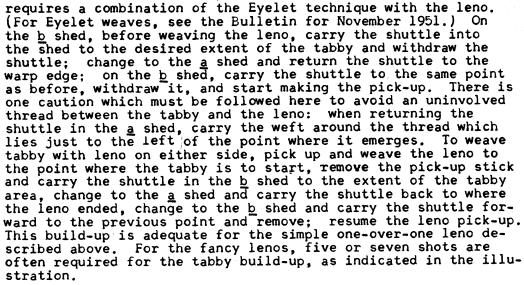
It is often desirable to weave a leno border with a tabby selvage or a broad tabby border, or with areas of leno alternated with tabby, as illustrated at the right. This

more suitable to a handwoven article.

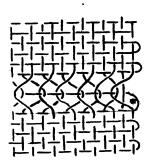
comparable to three weft shots. This single line of leno may be used alone and is excellent on towels or table mats as a consider against which the hem is laid. The effect is somewhat dike hemstitching, but it is less time consuming and also



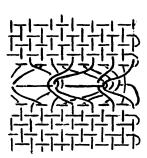




Style I --One-Over-One Leno. This is the simple leno described and illustrated on the previous page. It, like most of the other lenos, may be built up by weaving successive rows after each return of the weft in the <u>a</u> shed.



Style II - Two-Over-Two Leno. This variation picks up two threads from the bottom shed and carries them together around, and to the top of the warp shed. The second pick-up is made between the second and third top shed threads, and in each case, two threads are picked up from the bottom shed and carried around a pair of threads on the top shed. The effect is stronger and more open. This system may be carried still further, by making the leno 3-over-3, 4-over-4, 6-over-6, etc.



Style III - Two-Over-Two Split Leno. This is sometimes called Diamond Leno. The first pick-up is made as with Style II. The first pick-up of the second row is made 3-over-3, to throw the grouping of threads in the center of the previous pair, and the rest of the row is worked in 2-over-2 leno. The third row is a return to the first row, and the fourth row duplicates the second and so on as far as desired. This method may be used with larger groupings of 4-over-4, 6-over-6, 8-over-8. When very large groups are used it is often advisable to throw several tabby shots between leno rows.



<u>Style IV</u> - <u>One-Around-Two Leno</u>. A very lacy effect is achieved by this leno type, which spreads the weft wider and requires more build-up for selvages. First pick up two bottom shed warps and carry them to the right, holding them on the stick, but proceed the same as with Style I. The difference is that the bottom warp thread is carried to the right, under two top warp threads. This may also be worked 1-around-3, but is usually not satisfactory for larger groups.

Style V - Two-Around-Four Leno. This is a variant of Style IV in which four threads of the bottom warp are first carried around two of the top warp, and the weaving then proceeds as in Style II. In some instances it may be woven 3-around-6.

Style VI - Alternate Leno. This is also called Shell Weave. Place the pick-up stick in the <u>b</u> shed under four top warp ends Then pick up 3 ends from the bottom shed and carry them around 3 top warp threads. Carry stick in shed under 3 top warp ends,

and make the second pick-up of 3-over-3, and continue thus across the warp, picking up only the alternate groups of three. Turn the stick on end and weave this shed. Throw 3 tabby shots. Make the second pick-up by carrying the first three bottom warp threads around the first the top warp ones, and carrying the stick in the shed, under the next three threads of the top warp, and continuing thus. Throw the weft in this picked-up shed and follow with three tabby shots. The weave may be done in groups of 4, 5, or 6, if desired, and the number of tabby shots between pick-ups increased.

Style VII - Variations of Leno. Variations of these basic styles may be made by throwing tabby between rows, by making different spacings, or by using different weights of threads. Also, rows of l-over-l and 2-over-2 lenos may be alternated, or the other styles may be used alternately or in arrangements. One good variation, called Double Diamond Leno, is made from 2-over-2-split leno; the second, fourth, sixth, etc rows are picked up from left to right, the pairs of threads from the bottom shed being carried under the top warp threads to the left.

STOLES -- Stoles and shawls are a basic costume accessory, but sometimes in the fashion cycle, such as now, become almost a necessity for the smartly dressed woman. Styles vary broadly, from those appropriate to evening wear to those appropriate for street and sport wear, and of course always the comfortable one for house wear. Though stoles of all sizes may be seen, from very broad to not much wider than a scarf, and from several yards long to very short, the current fashion dictates incline to a length of 2 to 2½ yards with long (8 or 10 inch) tringe, and a width which when the neck side is turned over about two inches, allows the stole to reach the waist. This is an average width of about 22 inches, which may be woven on a 24 inch wide warp. Many stoles are 18 or 20 inches wide, and those which are 28 to 36 inches wide are worn folded deeply. Very smart at this time are stoles which match skirts, particularly Scotch Tartan skirts with a fringed 2½ yard length of the tartan material worn as a stole. Full-fitted skirts and wrap around skirts of soft wools, silk with wool, or novelty materials, with little ornamentation except perhaps a strong vertical stripe, lend themselves well to combining with stoles of the same material but with a little more ornamentation such as pattern borders. Cotton stoles with splashy peasant-type borders are woven on the same warps as dirndl skirts. Even tweed stoles -- a three-piece suit of skirt, jacket and stole -- are seen. Stoles for evening wear are fanciful and glittery with metallics. Stoles with deep borders of open work are very good, and the pick-up leno weaves herein described are best suited for the open effects. Make the lenos with generous thread groupings, rather than 1-over-1, to accent the lace effect. A good decorative feature may be made from Dashes, Connected Dashes, Careless Shags, and Tassels, as described in the Bulletin for June, 1951. Very heavy tassels, either near the ends or around the neck and shoulders, are amusing, and dashes of colored metallics (either supported or plain lurex) are conservatively glittery. Doupeleno tor all-over open work is extra special in stoles.

Fabri is suggested as one of the ideal materials for weaving stoles, set at from 15 to 24 ends per inch, according to the fabric weight desired. Tabby should be the weave if a wide-spaced (15 to 20 ends per inch) weight is desired, and twill, either plain or fancy, if a heavier weight is desired. The fancy 8-harness twills and point twills (see TWILL pamphlet and Bulletin for May 1950) are particularly delightful in texture for warp set at about 24. The Mesh Weaves given in the Bulletin for July 1950 are very good. It metallics are used, they are best restricted to borders wide or narrow on the ends, and thrown in tabby sheds. Use either plain or supported lurex and throw a shot of metallic in the same shed with the tabby to avoid distorting the textile. Wett may be Fabri, wool, rayon or silk boucle, novelties, mohair, or any delightful or unusual yarn one may find. But keep in mind that the fabric should have a soft, draping quality. Avoid the use of cottons or linens unless weaving a cotton stole. Stoles of black, white, or a single color, or one color warp with a second color weft, are more generally useful than those with colored borders. Be sure to allow for wide fringes. Fringe ties are given on page 332 of the revised Shuttle-Craft Book.

Remember: The NEW SHUTTLE CRAFT BULLETIN comes in January. MERRY CHRISTMAS.