# SHUTTLE CRAFT

NOVEMBER

**PORTFOLIO** 

1958

# SHUTTLE CRAFT

THE MONTHLY BULLETIN OF THE SHUTTLE CRAFT GUILD
VOLUME XXXV, Number 11 Bedford, Nova Scotia November, 1958

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Annual subscr	iption to the regul	ar edition of SHUTTLE	CRAFT\$ 7.50

Annual subscription to the regular edition of SHUTTLE CRAFT...\$ 7.50 Annual subscription to the Portfolio edition of SHUTTLE CRAFT..\$17.50 (The Portfolio edition is the same as the regular edition but includes woven samples of some of the textiles for which directions are given in the text.)

SHUTTLE CRAFT is printed in Kentville, Nova Scotia, Canada by Kentville Publishing Company Limited The regular edition is mailed from Kentville, Nova Scotia and the portfolio edition from Bedford, Nova Scotia.

Authorized as Second Class Mail, Post Office Department, Ottawa.

# From Weaver 70 Weaver

Dear Guild Members,

Here is the "members' issue" we promised in the August-September "Weaver to Weaver". By "members' issue" we mean, that the articles and ideas are, for the most part, contributed by Guild members.

For example, Miss Margaret Newman, Clearwater, Florida wrote us awhile ago and told us that she had "found a way to bind SHUTTLE CRAFT in a loose-leaf binder. They are too thick to punch and the holes sometimes cut into the printing; and, the magazines will not open easily. The 'gadget' shown in the sketch, is the big end of a clip known here as a 'gem clip'. It has been wrapped around a big nail or anything that it fits, and cut off with a pair of wire cutters.

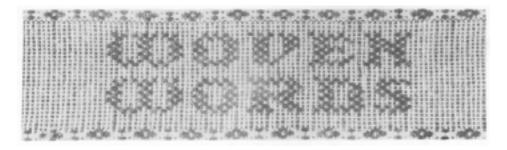
"Now, open the magazine to the center, and with a knife, cut slots at the proper places for the note-book rings---I use a two-ring book for this size and rings are just 6" apart. Push the ring of the 'gadget' through the slot, and hang on the rings of the book. The book opens flat and moves easily on the rings. I believe any weaver who binds her bulletins would like to try it."

The Summer and Winter article by Mrs. Tidball-the last in this series-prefaces an article by Mrs. Deru of Ogden, Utah, and an idea for Summer and Winter, in the modern manner, by Mrs. Arnold of Ft. Wayne, Indiana. The sampler on the cover introduces "Woven Words" by Miss Minnie Simpson of Ilkley in Yorkshire, England. And you'll find contributions too from Iowa, Connecticut, California and Manitoba. We are most grateful to all these members—and hope you will be too.

Sincerely, page Chaun

P.S. for portfolio subscribers. If you are wondering what the linen samples were doing in the October issue, it's just that we completely forgot to put them in the August-September issue. We suggest you put them in their right place.

If you're curious as to what the second tartan is in your portfolio Annual announcement, it is the Hunting MacMillan-woven as per the sett #160 from THE SETTS OF THE SCOTTISH TARTANS by Donald Calder Stewart.



By Minnie Simpson

In the spring of this year Miss Black gave me considerable help in making contacts with transatlantic weavers while I was on a visit to the United States, and the offer of my "Woven Words" to anyone over there who may be interested is in the nature of a quid pro quo.

Some Christmases ago, when I was plying a lone shuttle, I had the urge to add personal names to a series of gift towels. My friends, being non-weavers, were pleased with the idea but were not in the least interested in how it worked out, so, for lack of encouragement and of further purpose, it fell into abeyance. This earlier cool reception left me unprepared for the enthusiasm which greeted a renewed effort less than a year ago. Meantime I had become a member of the Hallamshire and District Guild of Weavers, Spinners and Dyers, and a batch of face-cloths and children's feeders inspired the Guild to invite the give a demonstration, and me to evolve a more systematic technique and to improve the design and finish. Another result is that the Guild now has a banner, woven with our full and rather formidable title.

Construction of Fabric.
Part of "I" showing 3 picks in 2 tabby sheds.

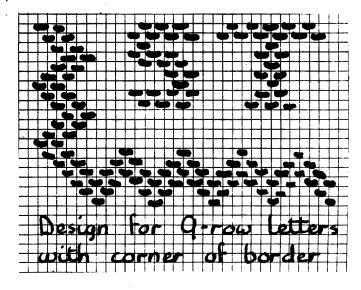
There are, of course, several ways for weaving initials, to be found in wellknown weaving text-books, but I think this method is simpler and quicker, (contrary to custom, usually when we invent something we find we are a generation too late) so far I have seen nothing similar in any book or exhibition. This is the more surprising when we consider its simplicity, for it is nothing more than an inlay in alternate rows of tabby.

As an example of this simplicity, let me quote the case of Philip, then aged twelve, who, at the end of the demonstration aforementioned, came to the loom and wove several letters, then went home and wove a whole alphabet without either using my chart or creating one of his own. In addition to the comparative speed of working, there is the advantage of a neat reverse side; there are no mirrorwise letters in as strong contrast as on the front, and no floats. Until recent weeks there was an indistinct "negative", but now even that has disappeared.

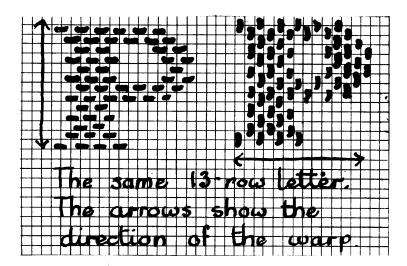
I commend Philip's skill but deprecate his impatience. Let us design our words before we weave them. You can design your own, not words alone, but symbols and pictorial devices, corner patterns, borders and what you will. I am no artist, and you will probably achieve much better results than mine, but here are my thoughts for your guidance if you need them.

The inspiration for the style of lettering was a double one: the cross-stitch samplers of our great-grandmothers, and the inscription on the base of the Trajan Column in Rome! The attempt to reconcile these two, together with the limitation of a four-shaft loom, has necessarily caused some modifications. Often the proportions of the letters, and the relative thickness of the strokes, have fallen far short of the aim. Some letters have had to be radically altered. A straight stroke is parallel to either warp or weft, or it leans at an angel of 45°. This made A and V so wide that large blank triangles appeared in the words. W was out-and-out impossible, so it was recast in the Uncial style, with A and V to correspond. You can have an Uncial M if you like, by inverting W, but that demands N in the same style and I find it unsatisfactory. The more pattern picks you have in your letters, the more scope you have for shaping them. My favorite size has nine rows of stitches:

though our Guild banner has thirteen, and I have once used nineteen. Note the way in which the stitches alternate row by row. You can aim at weaving from the bottom upwards (or, for that matter, from the top downwards) or, for example, on a belt or "stole of office", from side to side.



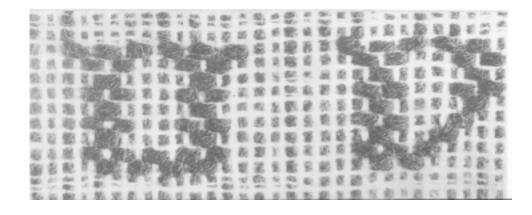
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You will be well advised not to rely solely on an alphabet chart, but to draw out the complete inscription and to contemplate it from the opposite side of the room. Some strange effects are met with if the spacing is slightly faulty. The motto of the old Weavers' Guild: WEAVE TRUTH WITH TRUST, was read by a certain irreverent humorist as: WE AVE TRUTH WITH TRUST, which prompted the question: "Ave we?" In England we often forget our aitches. A useful system for planning spaces is to leave two vertical lines between the outermost stitches of adjoining letters. But when a word contains any combination of L, A, T, J, Y or V this system tends to break down and the spacing should have special consideration. It is convenient, when using squared paper, to draw the stitches across the lines, rather than in the squares. Important! The vertical lines represent alternate ends; it is necessary to warp twice as many ends as appear on your chart.

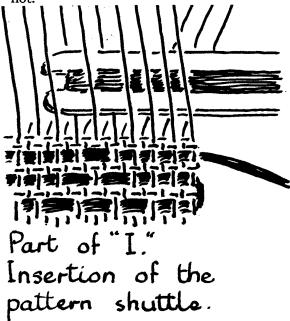
Now to the loom! Any weaving pattern that will give a tabby shed will do, so you can combine bands of lettering with a large choice of textures. One word of warning: as the background of the letters is in halftone, it does not accord well with the sharp contrast of areas of overshot weave worked in the same colours, though a very few rows of overshot make a pleasing narrow border to outline a band. (See title "Woven Words").

Use any warp you fancy, but choose your weft carefully. Formerly I used only two wefts, one similar to the warp for the background tabby, and a thicker contrasting one for the pattern. But sometimes a plain pick had an annoying way of appearing on top of the pattern pick. See photo.



Now I realise that one tabby pick should be the same colour as the pattern weft. So you need three shuttles: No. 1 with weft similar in colour to the warp, but preferably somewhat finer in count; No. 2 with a fine weft that will be insignificant in the same shed as the pattern; and No. 3 (this should be a stick shuttle) with the pattern weft, which must be thicker, or, better still, could be of several fine threads wound together. Choose a definite colour contrast; the half-tone background mellows this considerably. If your pattern weft has a sheen all the better.

If your preparations are adequate you will soon weave words with good results. Let us call the tabby sheds A and B; which is which matters not.



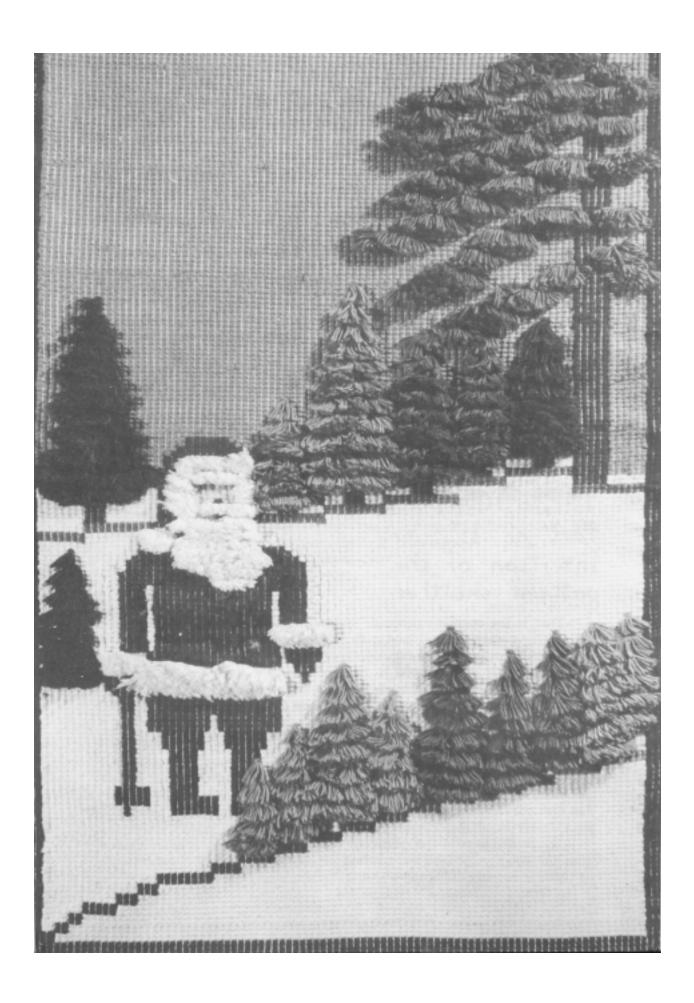
In Shed A throw Shuttle No. 1; in Shed B throw Shuttle No. 2. Beat, but do change shed. not Shuttle No. 3 into the same shed, from right or left as you please. For each stitch, pass over one end of the upper set: otherwise pass the shuttle through in the normal way. When the shed changed, this one end takes as partners its immediate neighbours in the lower set and thus makes a float over three ends.

That is the complete process! You will find it easier to work with a fully tight warp tension, and a firm beat is advisable.

There is still room for further experiment, and I shall welcome your co-operation. It will be good to hear of ideas for improvement in the technique, of other ways of applying it, and, above all, of better designs. Please—will some kind weaver make me a better A?

We would like to add a postscript to Miss Simpson's article. She mentions that No. 3 shuttle should be a stick shuttle. We have tried this inlay, and as an alternative to the stick shuttle we wound our pattern thread on an ordinary shuttle and then used a fairly wide pick-up stick to pick up the pattern; turned the stick on its edge to hold the shed open; and then put the pattern shuttle through the shed. This is only a personal preference matter since I seem to have a personal aversion to stick shuttles.

The second part of this postscript concerns sleying. In a letter to us Miss Simpson says: "I did not mention the dentage; but it is not important as there is nothing abnormal about it."



#### SANTA CLAUS PANEL

Here is a gift which will delight the whole family and its hanging each year with appropriate ceremony will soon become traditional.

The panel shown in the photograph on the opposite page was designed and woven by Miss Violet M. Black of Bedford, Nova Scotia and we are indebted to her for the following information.

The design for the panel was drawn on squared paper and colored. The size of the squares is immaterial as each one represents three warp threads. The finished panel is approximately 20" x 30". A warp of 416 threads, 3 yards long of 2/8 natural cotton was required. This was threaded on a twill threading and sleyed 18 threads per inch. The panel could just as well have been set on two harnesses as four as the design is finger-manipulated. All threads used were from Lily Mills. The weft cotton was 2/8 and Lily 4/4 cotton article 1014 was used for the dukagang and the flossa. (Searle Grain 4/12 cotton would be equally satisfactory). Colors used were background white snow and pale blue sky; border dark green; Santa's suit red, with black boots and belt; his face pink with blue eyes, red nose and mouth, all in dukagang. Santa's beard, hair and fur are white and the flossa trees are in three shades of green; with the tree trunks in brown dukagang.

Pattern techniques used were whole dukagang and half-flossa. Contrary to the usual practice the dukagang areas were woven with the right side up. It is more difficult to make neat turns weaving this way but it was necessary because of the flossa areas. The dukagang threads were carried upon the warp where the flossa areas occur otherwise the surface would be bumpy. Two tabby shots of 2/8 cotton were thrown between each 4/4 dukagang pattern thread.

If you wish a lining for the panel, and it will hang better if lined, weave it, before you start the panel design, in 4/8 natural cotton in plain weave. Suggest weaving this 36'' long.

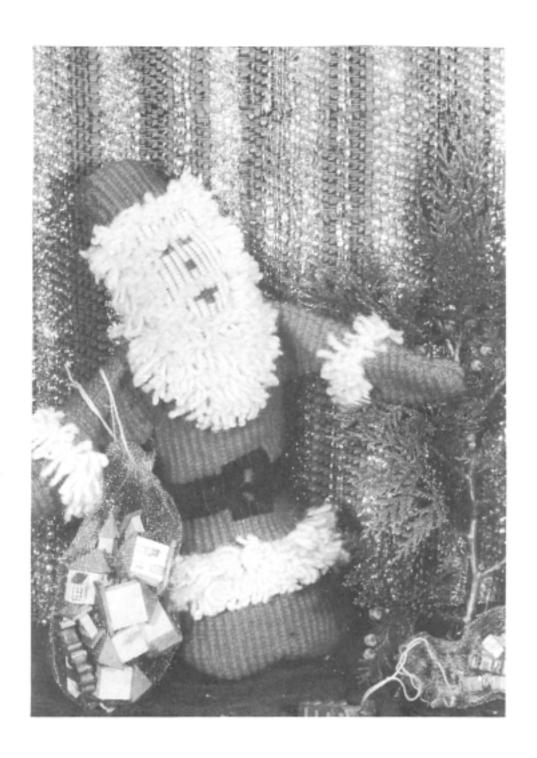
To see what happened to Santa, turn the page.

### BATH TOWELS

Weave a guest set, one small, one medium, one large, in white with a touch of gold for the bride's first Christmas or for a 50th wedding anniversary. For the member of the family who is away at school or college weave a set or a pair in their favorite color.

For warp use Lily article 108, soft twist, unmercerized cotton size 8/2; for weft use Lily article 105 novelty yarn. It comes in natural, natural shot with gold, pure white and in 17 delicious colors.

Double sley the 8/2 warp in a 12 dent reed (24 threads to the inch).



### FULL OF BEANS SANTA

When questioned about Santa a three year old would commit himself no further than to sing "Santa Claus is full of beans, full of beans, full of beans," and so on ad infinitum.

Acting on the above we plucked Santa out of his panel and filled him "full of beans".

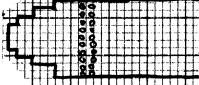
Again we are indebted to Miss Black for the design and the sample shown in the photograph.

As with the panel the design for the Santa doll was sketched on squared paper. A few changes were necessary because of the different requirements of the finished material.

2/8 red cotton was used for warp, sleyed 18 threads to the inch. Knitting wool was used for the dukagang and flossa

and white 2/8 cotton for the face.

The material was woven with the right side up, but it is not necessary to turn the



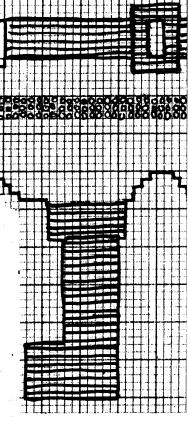
dukagang pattern thread as successive rows are woven, it can be cut off just beyond the edge of the design. This leaves less bulk to be turned in. Two identical pieces must be woven and in the interests of accuracy, it is best to weave them side by side.

When finished, remove from the loom, and press well under a damp cloth. Fold the two pieces together carefully with the edges matching perfectly and pin securely. Stitch around close to the pattern edges, either by hand, taking a back-stitch every few stitches, or on the sewing machine. Leave one side open under the arm for turning and stuffing. After stitching carefully, cut off the surplus material about ½" out-

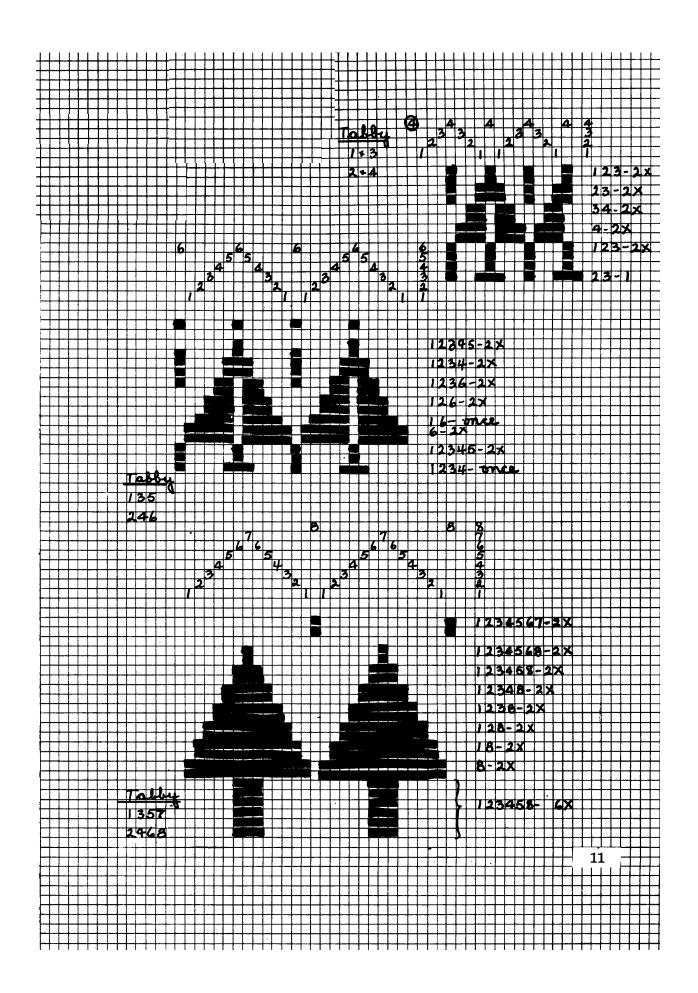
side the stitching. Cut a diagonal slit up into all right angle corners so the turning will be smooth. Fill with small white beans but not too full as Santa is more interesting if not stuffed.

Finish the cap with a tassle.

If you do not wish to make a "Full of Beans Santa", design a character doll. Stuff the doll with soft cotton or kapock leaving the sleeves unstuffed. Run a row of hand stitching across the top of the sleeve and just above the hands, which should be stuffed. This leaves the sleeves loose giving the doll more character as does the addition of yellow wool braids which will hang down over her shoulders.



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### Tapestry Through The Ages — French Gobelin, Part 1

#### By Joyce Chown

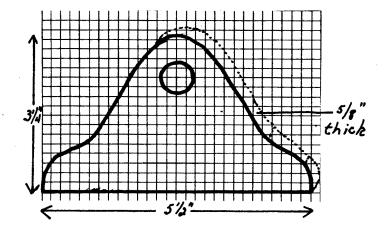
When we say "French Gobelin", we are referring to the weaving technique employed in weaving tapestries at the Gobelin workshops in Paris where *haute-lisse* or high looms are used for tapestry weaving—as opposed to *basse-lisse* or the low loom as used at some other French workshops, such as at Aubusson.

As far as we have been able to find out, except for the type of loom used, the type of bobbin used, and the manner of beating the weft into place, there is no difference in the weaving process. Why then the two ways of weaving? We are told that the basse-lisse method is the quicker of the two—but that the haute-lisse method produces a better fabric, that is, one that will stand up to decades and centuries of hanging, without sagging or bagging or straining. It would seem to us too, that it would be much easier for the craftsmen to work day after day at an upright loom than the horizontal loom.

However that may be, this article begins a short series on French Gobelin. It will explain how to set up a practice loom and weave a piece in this technique. Many of the processes—setting up the loom, inking the dot on to the warp, and blocking the finished piece—are the same or similar as those for the Swedish Knot. These were fully explained in the February, May and June-July 1958 SHUTTLE CRAFTS and will be referred to from time to time in this series.

#### The Loom

The loom for the French Gobelin technique is an *haute-lisse* or vertical loom. However, for our purposes we shall use a frame very similar to the one used for the Swedish Knot (see page 8, SHUTTLE CRAFT, February 1958). We used a slightly larger size for the French tapestry—18" wide by 25" high. In addition you will need two brackets about  $5\frac{1}{2}$ " long,  $3\frac{1}{4}$ " high and  $3\frac{4}{4}$ " thick, with a  $5\frac{1}{8}$ " round hole in the middle of each one,



and you will also need a dowel ½" in diameter and 18" long.

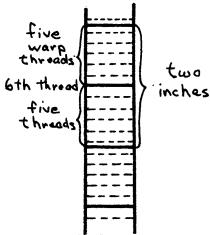
Warp and Weft

The same as for the Swedish Knot

Peparing the Frame for Weaving

The steps to follow here are almost exactly the same as for the Swedish Knot—here are the few exceptions.

Using the 6-ply cotton warp and the tapestry yarn weft, the warp for French tapestry is set at 11 threads per inch. (It was 13 threads per inch for the Swedish Knot). This means there will be 11 threads between the two--inch pencil marks at the top and bottom of the tapestry frame—5 threads in the first inch, the 6th thread on the 1 inch mark and 5 threads in the second inch. K—(Diagram 2 to go here)

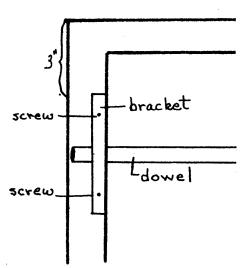


Finish winding the warp as described for the Swedish Knot up to and including step 7. This warp will be 12" wide.

As was mentioned in the February article, there is no similarity between the Swedish Knot and Gobelin techniques—the former "knots the weft around the warp and other *interlaces* the weft through the warp". Thus for the Swedish Knot, there was no necessity for a shed and the knotting was done with the warp "in neutral".

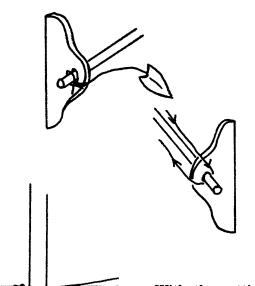
However, the French Gobelin technique is a weft face plain weave and therefore requires 2 sheds. When you wove your cotton tabby heading, you will remember that one shed was open and it was quite easy to put the shuttle through the opening, while for the second shed, you had to pick up the alternate threads with your fingers.

To facilitate the opening of this second shed, a series of string heddles are made around these alternate threads as follows:

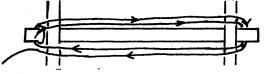


1. Using  $1\frac{1}{2}$ " screws, screw the brackets securely to the upper sides of the frame placing the top of the bracket 3" from the top of the frame and the inside of the bracket flush with the inside of the frame. Slide the dowel through the holes in the brackets so that the ends of the dowel protrude about  $\frac{3}{4}$ " outside the brackets on each side.

- 2. Pad the jaws of the vice with felt and centre the bottom of the frame in the vice.
- 3. Tie a flat stick approximately  $2'' \times \frac{1}{2}'' \times 24''$  securely behind the warp threads so that the lower edge of the stick is parallel to the top of the dowel.
- 4. Wind a netting shuttle with warp cotton. This is a good place to use up some of your smaller balls of cotton which perhaps are too small to wind a full warp.



5. Tie the thread securely around the dowel outside the left Carry the thread across the front of the loom to the outside of the right bracket; around the dowel; back across to the outside of the left bracket and around the dowel; to the right and around the dowel; and, back to the left. There are now four threads lying across For convenience we the dowel. to these as "dowel shall refer threads".



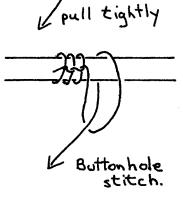
With the netting shuttle, make 2 buttonhole stitches around these four threads outside the left bracket.

Carry the shuttle to the right, over the bracket, over the back of the dowel, under and to the front of the dowel, making a buttonhole stitch at the dowel threads about 1" to the right of the bracket. Pull the knots tightly. Note that the dowel threads do not yet lie tightly against the dowel.

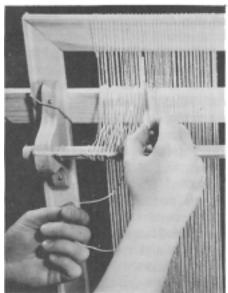
#### K-Diagaram 6 here

Make 2 buttonhole stitches around the dowel threads, pulling each tightly and close against the preceding stitch.

Continue thus (once around the bar, twice around the four threads) until the dowel threads are tight against the dowel and the shuttle is lined up straight with the first back warp thread.



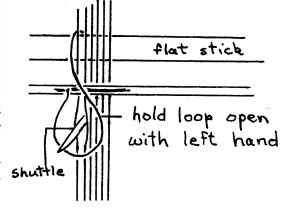
6. Let the shuttle lie on top of the dowel and flat stick; insert it in the warp to the left of the first *back* thread.



The thread has now gone around the first back thread and you have made one heddle.

Make two more stitches around the dowel threads. Make a second heddle in the same way as the first, around the second back warp thread.

With the right hand, separate this back thread from the next front thread—working below the flat stick. Pass the shuttle behind the flat stick; to the right of the back thread; and, forward through the warp to the dowel. Pull the thread tight at the dowel making a buttonhole stitch at the dowel threads beside the last stitch.

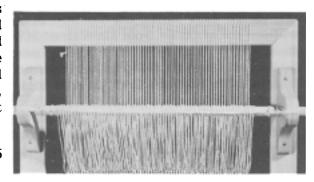


Make 2 stitches around the dowel thread. Continue in this way across the width of the warp. If your shuttle is not directly in line with the *back* warp thread at any time, make an extra buttonhole stitch around the dowel threads.

Also, every inch or so, make a stitch around the dowel to hold the dowel threads tightly against the bar.

Should the shuttle run out of thread and it becomes necessary to join a new thread, always make the join at the dowel. Make the join by tieing the ends together in a non-slip knot.

After the last heddle is made, make 2 stitches around the dowel threads, two around the dowel, three around the dowel threads, two around the dowel close to the bracket, and tie a firm knot so that the stitches cannot slip.



You have now finished making the heddles. Remove the flat stick from the back of the loom, and remove the frame from the vice.

#### Mistakes

Of course there should be none, but they can happen and they're easy to find. Insert your hand in the open shed and slide it down the warp to the tabby heading. If you made any mistakes in making your heddles, they will appear as twisted warp threads just above the heading.

If a mistake appears near the left side of the warp, it will probably mean that the rest of the heddles are wrong, in which case you must cut off all the heddles and start again. If a mistake occurs near the right side of the warp, you can cut the wrong heddles out, or rip back to them, tie on a new thread and restring the heddles. If a mistake occurs involving only one or two threads, cut the wrong heddles out, tie in a new thread and make the required number of new heddles. Remember to make all thread joins at the heddle bar.

Tie a piece of cotton warp securely around the upper right frame just below the bracket. Weave the long end across the wrap to put the shed "in neutral". Pull this thread taut and tie it in a bow knot around the left frame just below the left bracket.

The next step is to ink the design on to the warp threads—which we will discuss in the next article in this series.

#### BACK BULLETINS

Here is the pertinent information on what back issues of SHUTTLE CRAFT are still available, where to get them and how much they cost.

Orders for issues prior to 1956 should be sent to Mrs. Mary Hense, 738 S. Maryland Ave., Glendale 5, California. Mrs. Hense, chairman of the Atwater Memorial Committee, advises us that they have complete sets for 1955 @ \$4.50, individual issues for 1954 and 1955 @ 45c each, and individual issues prior to 1954 @ 35c each. She also adds, that there are only a few of the early bulletins—1949 to 1954—and therefore they will be sent out on a "first come, first served' basis".

There are still some of 1956 issues available—though only two or three. These should be orderd from Mrs. Harriet Tidball, 1002 Washtenaw Avenue, Ypsilanti, Michigan.

Of the 1957 issues, the January to June-July regular and portfolio editions are available from Mr. Varen @ 75c each and \$1.25 each respectively. The January to December regular editions may be purchased @ 75c and the August-September to December portfolio editions @ \$1.75 from the Shuttle Craft Craft Guild, Bedford, Nova Scotia.

All 1958 issues—regular edition 75c each, portfolio edition \$1.75 each—may be purchased from the Shuttle Craft Guild. File boxes to hold back issues—see outside back cover of this issue—may also be purchased from the Guild.

## Shags, Piles and Fringes on Summer and Winter

By Harriet Tidball

Several years ago Mrs. Louis Deru of Ogden, Utah wrote me that she had found a Summer and Winter texture which as far as she could discover had not been done by anyone else. She had happened on this new textile quite by chance. Being interested in a corduroy-like pile weave on an Overshot threading given in the Shuttle Craft Bulletin for April 1953, but having a Summer and Winter threading on her loom, she began experimenting to see if a similar pile fabric (this was a light-weight pile for a stole) could be managed. She found that by weaving pattern blocks with neither the x nor y tie-down harness lifted, long floats which would be cut for pile resulted. Mrs. Deru was challenged by the possibilities of the weave and continued experiments until she had achieved textures and designs suitable for saddle blankets, rugs and bath mats of high quality and unusual interest.

And it would seem that Mrs. Deru's weave could have further applications if finer materials were used, threaded to very large pattern blocks. In this manner interesting fringes could be woven, even the popular skirt design of tiered fringes, if the warp were wide enough that the skirt could be made up cross-wise of the conventional manner.

Following are Mrs. Deru's directions for Summer and Winter Shag rugs, along with her drafts, tie-ups and a detail photograph of one of her rugs.

There is one point regarding this technique which should be pointed out. Although the draft given here is Summer and Winter, there is another threading system which would produce identical results and save one harness, so a four-harness weaver could draft in 3 blocks, a six-harness weaver in 5 blocks, etc. This system is the Spot or Spot Bronson System which places each alternate thread of the entire warp on harness 1. Since the x and y tie-downs are never used except when combined for the tabby, there is no actual need to thread both. So one could draft the A block as repeats of 1, 2; the B block as 1, 3; the D block as 1, 4 and so on.

## SUMMER AND WINTER SHAGS

By Crescent Deru

Modern weavers have successfully used simple summer and winter arrangements for contemporary weaving using non-traditional treadlings. Here is a further use for the weave using unconventional tie-ups that will produce the very popular long shag rug, velvety bangtail upholstery fabrics, and chenille-like tufted bedspreads. Weaving in this manner is no more complicated, though somewhat different, than any other method of weaving summer and winter patterns.

The theory of the method is that by eliminating the x and y ties in classical summer and winter tie-ups, blocks weave as floats or overshot on top of the fabric and these can be cut to produce pile. There must be sufficient woven space between the floats so that the material used for tufting will not pull out after being cut. There are several ways to weave and group the skips that will assure a well-constructed fabric.

- 1. A single block may be woven alone or several blocks may be combined, such as blocks A and D, or blocks B and F. Any combinations may be chosen as long as there is a woven block separating the float blocks. Before making the tie-up each pattern will require individual analysis to determine the blocks that may be woven with the same shot. Two "opposite" shots are required to weave all-over pile on alternating blocks.
- 2. Pattern elements in any row may be composed of more than one block, or woven as one long float, for very lengthy shag.
  - 3. There are two methods of weaving long shag:

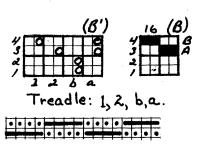
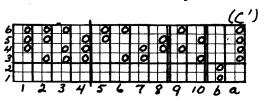
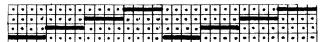


Diagram 1

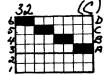
(a) floats may alternate on two "opposite" blocks in orderly fashion (Diagram 1) or may progress in twill order on four-block threading (Diagram 2). Fabric will resemble corduroy when cut.

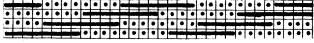




Treadle: 1,2,3,4, b,a

Diagram 2.





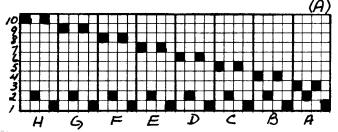
Treadle: 5,6,7,8,b,a. Diagram 3.

(b) floats may be overlapped (Diagram 3). Shag will cover the surface more thickly than the first method, but cutting requires more care.

Long and short skips combine to make effective patterns in high and low pile textures.

Besides these plain and sculptured effects seen in commercial rugs, it is possible for the handweaver to weave polychrome patterns in pile. I have seen no shag rugs in the stores woven in colored patterns.

Two block color arrangements are possible on four harnesses but multiple-harness threadings offer more design and color possibilities.

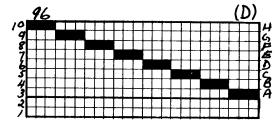


Bulk may be increased or decreased by regulating the number of shots used to weave one row. This is an important designing element. If one plans to weave a rug that must withstand much hard wear and friction, floats should be spaced far apart and woven with three or four shots to each pattern row to give the desired weight. Rugs must be heavy enough to lie on the floor and behave. On the other hand, bedspreads and drapery look best and have better draping qualities if they are woven with a minimum of shots to each row, and the pile in this case might be an ornamental rather than a structural element of the fabric itself. The functional demands of the fabric must determine the choice of pattern, the kind of yarns used and the tie-up.

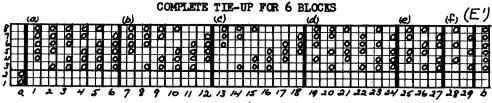
Experiment proved that the most satisfactory block arrangement was twill or a simple variation. Warp setting and number of units to each block determine the length of a single block skip. Two-unit blocks at ordinary warp settings worked well for most fabrics, but three-unit blocks were better for rugs set 15 threads per inch instead of 12 threads per inch. 16/4 and 10/2 cotton set 20 threads per inch were satisfactory for upholstery fabrics.

Suitable tufting materials that gave good "burst" were several strands of wool, Lily 814 cotton, candlewicking and similar heavy yarns. Four to six strands of carpet warp thrums made a successful long shag rug, and even high quality, well-cut rags were tried for a bold design in one-color texture contrasts. Wool is the handsomest material and makes attractive, saleable rugs far less costly in materials and labor than knotted rugs.

To weave short pile in a single color using draft (c), tie-up (c'), weave one shot on each of treadles 1, 2, 3, 4 with tufting material. Go around a selvage thread when re-entering the shed. Tabby b, tabby a with thread like the warp. To make longer pile, weave one shot on each of treadles 5, 6, 7 and 8. Tabby as above. A different color may be woven on any or each shed in the row for polychrome pattern weaving.



As an example to show the versatility of the weave, the pattern in Diagram 1 may be woven in four different ways. Thread Draft D and tie-up as at E').



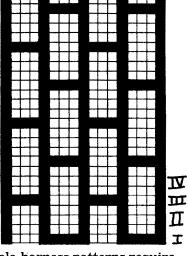
WEAVING SEQUENCE AND SPACE VARIATIONS

The (a) portion of the tie-up weaves the dark alone in pile, the light only, or all-over tufting. The (b) part weaves smooth background if the x-tie is added and dark tufting yarn is used. Weave a shot of tufting material on each of the treadles indicated, for every pattern row, going around an edge thread when re-entering the shed with the same color. Follow each pattern row with tabby b and tabby a using material like the warp.

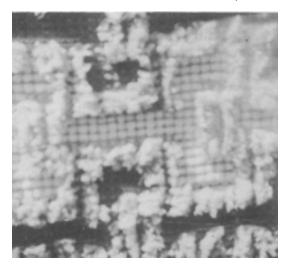
- Sculptured texture, dark tufting on plain ground:
  - Treadle 4, 5
  - II. Treadle 1, b
  - III. Treadle 2, 3
  - IV. Treadle 1, b
- 2. Sculptured texture, light tufting on plain ground:
  - Treadle 3, 9
  - II. Treadle 7, 8
  - III. Treadle 5, 6
  - IV. Treadle 7, 8
- 3. All-over tufting, two colors:
  - 3, 9 light I. Treadle 4, 5 dark
  - 7, 8 light II. Treadle 1, b dark
  - III. Treadle 2, 3 dark 5, 6 light

  - 7, 8 light IV. Treadle 1, b dark
- 4. Dark tufting combined with x-tie background: Two colors.
  - Treadle 4, 5 dark
- 12 light
- Treadle 1, b dark
- 11 light
- III. Treadle 2, 3 dark IV. Treadle 1, b dark
- 10 light





Multiple-harness patterns require a great many treadles to make a complete tie-up in most cases. For the many patterns tried in my experiments, the basic tie-ups (d') and (d") for Draft (D) were found useful as a means for finding sheds and designing texture and polychrome patterns on 10 harnesses. Two treadles are depressed at the same time to



produce the different sheds. To use this schedule, analyze a color area and find the block combinations that may be woven with a single shot. Adjacent blocks of the same color require two shots to weave. Locate the single and spaced-block groups on the schedule which gives the two treadles that must be depressed to give the proper shed. Besides single and group combinations, the drafts will weave shag two, three or four blocks in length. Either tie-up will weave numerous combinations for weaving patterns in long and short pile for high and low textures. These textures were effective for rugs woven in simple color rotations.

DRAFT (D) weaves single and double skips with various spacings:

(a) Single block skips:

#### **Block Treadles**

$$3 - (3-6)$$
 or  $(7-11)$ 

$$4 - (4-7)$$

$$6 - (6-9)$$

$$7 - (2-7)$$
 or  $(3-13)$ 

(b) Two-block skips:

#### **Blocks Treadles**

$$3-4 - (6-7)$$

$$5-6 - (8-9)$$

$$7-8 - (2-3)$$

$$9-10 - (4-5)$$

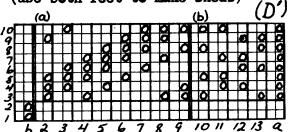
$$3-10 - (5-6)$$

(c) Single block skips spaced 3 blocks apart. Useful for allover pile, or color rotations.

#### **Blocks Treadles**

$$6-10 - (2-6)$$

BASIC 10-harness TIE-UPS (use both feet to make sheds)



For easy cutting and 4 shot successions weave: 6-7; 8-9; 2-3; 4-5 or 7-8; 2-9; 3-4; 5-6.

(d) Single block skips spaced 2 and 4 blocks apart.

#### **Blocks Treadles**

$$3-6 - (6-11)$$

$$4-9$$
 —  $(4-10)$ 

- (e) Single block skips spaced 1 and 5 blocks apart.
- (f) Single and double skip combined for high and low texture weaving.

**Blocks Treadles** 

 $3-8-9 \quad -- \quad (3-11)$ 

3-5-10 - (5-12)

4-5-7 - (7-13)

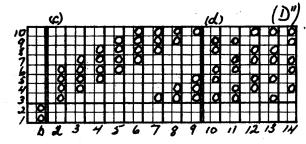
6-7-9 - (9-10)

#### **Blocks Treadles**

$$3-5 - (7-12) \text{ or } (5-7)$$

(g) Triple and single block combinations for high-low pattern weaving. Good in 2 colors.

Treadles 2, 3, 4, 5, 6, 7, 8, 9.



(a) Single block skips.

#### **Blocks Treadles**

$$3 - (3-6)$$

$$5 - (5-8)$$

$$6 - (6-9)$$

$$9 - (4-9)$$

(c) Single block skips spaced 2 and 4 blocks apart.

#### **Blocks Treadles**

- DRAFT (D") weaves single, double, triple, and quadruple skips and single and double combinations.
  - (b) Two block skips. Useful for long shag successions. Weave 4-6; 6-8; 2-8; 2-4, or 5-7; 7-9; 3-9; 3-5.

#### **Blocks Treadles**

$$3-4$$
 —  $(4-6)$ 

$$4-5$$
 —  $(5-7)$ 

$$5-6$$
 —  $(6-8)$ 

$$7-8 - (2-8)$$

$$10-3 - (3-5)$$

(d) Single block skips spaced 1 and 5 blocks apart.

#### **Blocks Treadles**

$$3-5$$
 —  $(5-14)$  or  $(6-14)$ 

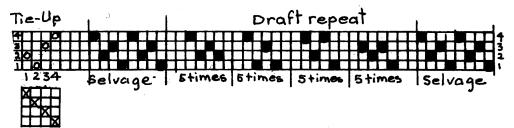
$$3-9$$
 —  $(3-12)$  or  $(4-12)$ 

### CORDUROY PILE RUGS

With the combination of the challenge of Mrs. Derus shag rug method, and the personal problem of a large rug project at hand, I have been doing some further experimenting with the system. My personal rug problem is a common one: the need for a full room covering, contemporary in spirit, monochromatic, with minimum pattern; but also the desire to make this a quick weaving project—one which will not require the months or perhaps years of work demanded by aknotted pile rug—and the wish to make the rugs as inexpensively as possible, even though using wool. A corduroy-like pile with lines extending lengthwise seemed to be an ideal design, so a simple interpretation of the Summer and Winter Pile seemed like a good potential. Samples were made in a number of different threadings, using different warp materials and sets, and different weft materials. As the experiments proceeded, I found this was a way to use left over yarns. Experiments were done with two different weights of weft, mixed (closely related) colors in the strands from left-overs of tweeds, Fabri, Lily Weaving wool and four-ply knitting worsted. The lighter weight was a double strand of 4-ply worsted, 6 strands of Lily wool or heavy tweed, or 8 strands of Fabri or light weight tweed. The heavier weight was 3 strands knitting worsted, or 8 strands Lily wool or heavy tweed, or 12 strands fine tweed or Fabri. Both weights were good quality. The heavier weight wove with 14 weft shots per inch and the finer with about 22 weft shots per inch, for a lighter weight, stiffer base.

Warp was ordinary cotton carpet warp in a dark color, set at 12 ends per inch. The draft was the four-harness, four-block Summer and Winter with blocks in A, B, D, C order, five units per block. This gave one and a half inch floats which cut to three-quarter inch pile. Four Unit blocks gave closer pile lines of shorter pile which gave a thicker appearance, and thus might be more desirable.

A single tie-up on four treadles was used in 2, 1, 3, 4 order, and the weaving was treadles 1, 2, 3, 4, repeated throughout.



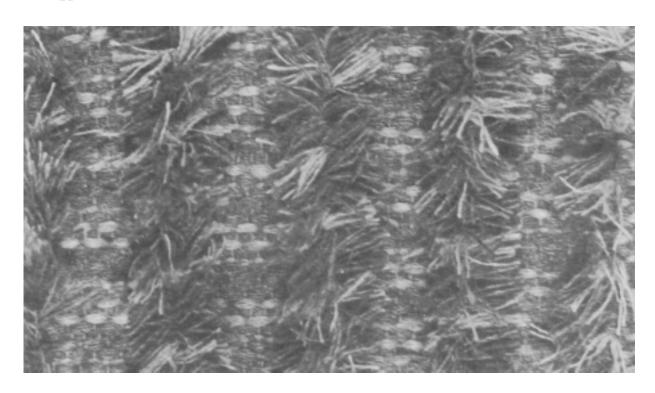
If a single-color rug is desired, the weaving may be done with a single shuttle, but two shuttles carrying similar weft are advised, so the wefts may be locked at the edges to give a strong edge finish. Two, three or four colors may be used, and the color sequences shifted at regular intervals to add a pattern interest.

The color shifts show up, of course, in the pile, but the main interest of color arrangements is in the background weave. One of the best of the simple designs is shown at Photograph 1. This used two dark wefts and one light weft in dark, light, dark order, repeated throughout.

Photograph 2 shows two weft colors, two shots of one followed by two shots of the other, but a third shot of the dark color added at intervals to shift the relationships.

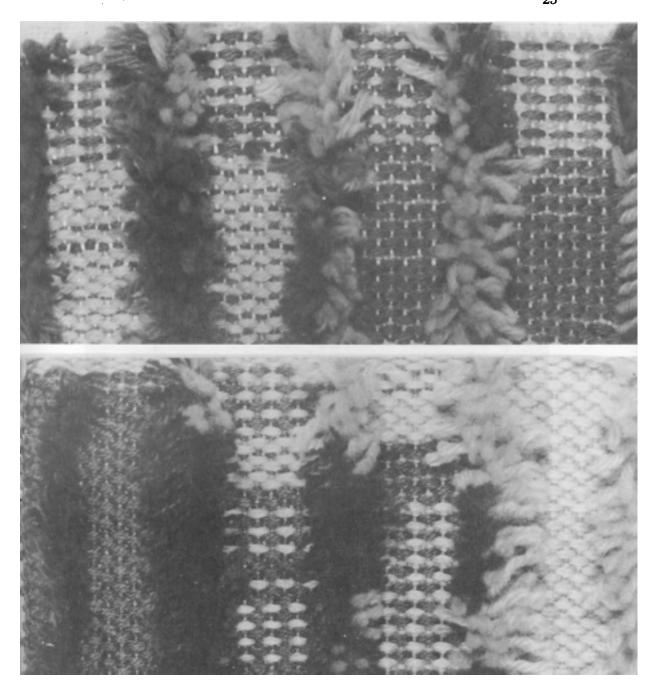
Another interesting arrangement with good potential for small rugs is shown in Photograph 3. This was woven in the Locked Weft method with a single strand of knitting worsted for each weft. One weft is wound in a ball which is placed in a bowl on the floor at the left of the treadles' and this weft end is entered at the left selvage. The other weft, wound on a shuttle, is thrown in the shed and the shuttle caught with the left hand reaching under the dangling weft. The shuttle is withdrawn and returned in the same shed, but on top of the dangling weft. The two weft colors thus interlock in a double strand, and the color joining may be placed at any desired point through pulling on the shuttle weft. The color lock may be arranged at the exact center of a float, so the two colors will seperate when the float is cut. Or if it is placed in a shed, the lock must be several warp ends outside a float area so the end when clipped will remain firmly in the shed. The photographed sample was woven in this manner.

Although the rug which this weave produces is firm and of high quality, excessive amounts of yarn are not required, and amounts are easily calculated in advance. For a 30 inch wide rug, 45 inches wide of double strand four-ply knitting worsted, for instance, there will be 22 double strands per inch of  $37\frac{1}{2}$  yards per inch. This is 1588 yards for the 45 inches, or about one and a half pounds of yarn.



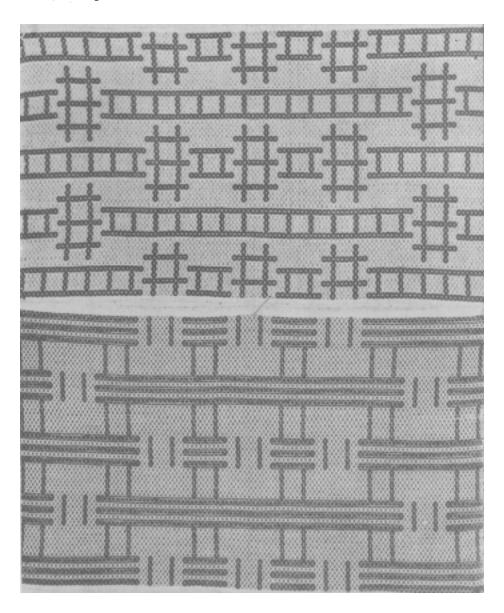
24

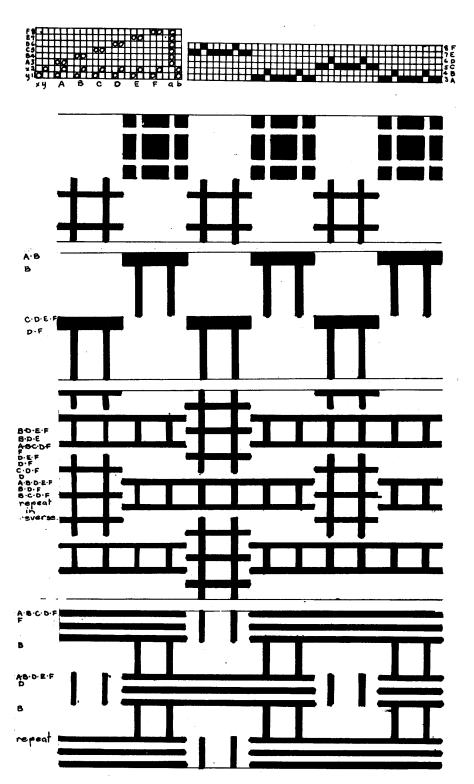
Interesting variations in the pile and background stripes may be made by alternating blocks A and B and then alternating blocks C and D, in the draft. And many interesting ways may be discovered for using two, three or four colors in the weft. Strips may be joined for a large rug, or strips may be placed side by side on the floor with an inch or two between each, in the Scandinavian manner. If the strips are to be joined, it is advisable to make a 6-thread selvage (2, 4, 1, 3, 2, 4) at one side and a 14-thread selvage at the other, so the joining will lie inconspicuously under a row of pile. A pad under such a rug, whether it be a large or a small rug or several runners, is advisable.

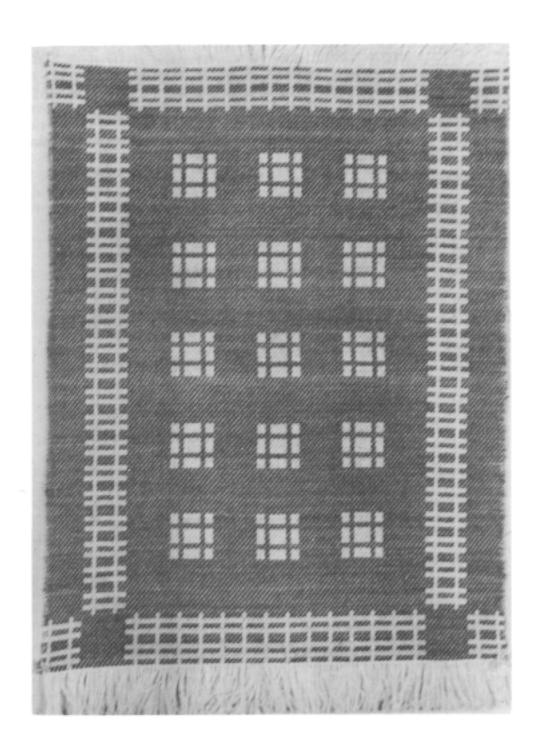


### **MODERN**

This pattern for summer and winter in the modern spirit, was designed and worn by Mrs. Dewey S. Arnold of Fort Wayne, Indiana as part of her original work in advanced weaving for the Shuttle Craft Guild Correspondence Course under Mrs. Tidball.







# THE WEAVER'S BOOK SHELF



By Boris Veren

Oh, how I envy the wild, wooly and romantic freedom of the bookreviewer of the latest novel, or biography, or war-memoir, or travel With dictionary and thesaurus in hand, these reporters can scoop out adjectives deliriously, and go silly with hyperbole. When lost for a good purple passage, they can always fall back upon: "This book kept me up all night". But we poor technical book reviewers who must month after month report to their readers on one specialized branch of literature, have a tough time. Our repertory of adjectives is limited, and must be handled with some sort of scientific accuracy and honesty, and still keep the reader up, if not for the whole night, at least for the 5 minutes or so it takes to read the column. The editors of SHUTTLE CRAFT have given me complete freedom to do with my column as I wish, only keeping in mind the journalistic laws of libel and obscenity. I have not felt hampered, but I confess that I often wish I could say of a weaving book that its writing was breath-taking, that its message was uplifting, or that the book warmed the cockles of my heart. As highly as I think of the published writings of Mesdames Atwater, Frey, Selander, Cyrus, and the brothers Bronson, I could not in full sanity claim that reading their books brought a lump to my throat, a tear to my eye, or that it provided me with eighteen chuckles. Now some, I would say, most of these things could be said of the book on weaving and on life, now on my desk this morning. And I am so glad to bring you book news of a truly heartwarming and inspiring life and enterprise, a story of a woman of great courage and indomitable spirit, that wonderful saga of Miss Lucy Morgan whose book: GIFT FROM THE HILLS has just been published. Miss Lucy Morgan means to most of my readers, Penland School of Handicrafts, a picturesque group of buildings in the Blue Ridge Mountains of North Carolina, usually crowded with students and teachers, especially of handweaving, for which this school is now world famous. Many of you have studied weaving there, and from time to time I have heard enough anecdotes to make me want to visit Penland. And I will some day. I have had delightful correspondence with Toni Ford (and you will read quite a bit about him) and his wife Bonnie Ford. I have had letters from Rupert Peters who still teaches weaving at Penland, and I have had the pleasure of meeting Col. Fishback, another of their weaving teachers (who wove the 113 yards of homespun green baize to re-cover the table where the Declaration of Independence was signed in Philadelphia). But Miss Lucy I have never met. I could easily have shaken her hand back in 1933 at the time of the Chicago Worlds Fair. Miss Lucy was here, living in Berwyn, Illinois, just across the street from my home in Oak Park. I must have passed her "booth" at the fair many times as I used to work in a hot dog concession, contributing to the mass dyspepsia of Chicago that year. I do recall hearing the banjo playing of Dock Hoppes who was brought from his Penland mountain cabin all the way to Chicago (I think his first trip out of the mountains) to greet old friends and make new friends for Penland. Do excuse me for jumping right into the middle of the book, that wonderful World's Fair-chapter, full of humor, adventure and courage, and all typical of Miss Lucy's many adventures . . . how she brought by trailer a log cabin, complete with looms, spinning wheels, and weavers and that old banjo strummer to delight the hearts of visitors, how these fair visitors purchased the entire inventory of Penland's hand weavings, and made possible the repayment of a loan to Bernat for his generous advancement of hundreds of pounds of yarn for this gambling enterprise, which succeeded.

But it was way back in 1920 that Miss Morgan came to Penland, and shortly after that, she took a course in handweaving at Berea College in Kentucky. That was her "undoing". And it was after that course that she started her life long dream, to bring about the revival of handweaving which was practically a dead art at that time in the United States and to provide her mountain neighbors with a means of adding to their meager incomes, without having to leave their homes. To quote Miss Lucy: "My mind wove fanciful visions while my tired, sore fingers were weaving tangible materials. I saw innumerable women in modest mountain homes, happily engrossed in weaving beautiful homespuns in delightful old designs, their worries vanishing, their hopes brightening for their children's futures. I saw the education of countless mountain children, even college education, being clacked out on home looms in the cover and valleys and along the slopes of the Blue Ridge and the Great Smokies."

The next 35 years saw Miss Lucy's dream realized, slowly, painfully, but above all joyously and with good humor. Besides Miss Lucy and her early associates like Bonnie and Toni Ford, there was that great visit in 1928 of Edward Worst who generously contributed the first weaving courses at Penland, and when Mr. Paul Bernat, publisher of "The Handicrafter" (later to be called "The Weaver") came to Penland to watch Mr. Worst in action, he wrote this up in his magazines, and from that time on students from all over the United States asked to come down and study. Then there was the gigantic problem of buildings, and you will read of the generous actions of Lily Mills Co., Crane Plumbing Co., and many other benefactors. Talking about plumbing I laughed at the story Miss Lucy tells when one applicant asked for a private bath, and when Miss Lucy wrote that they had no private baths, and the prospective student replied: "It is very necessary that I have a bath", Toni Ford came up with the answer: "Write her to take it before she leaves home".

Penland is also people, and in these pages, you will find loving and fascinating accounts of them . . . . on Rupert Peters, Martha Pollack, Emma Conley, the dye expert, Margaret Bergman, Irene Beaudin, Eulalia Burns,

Edward Worst, and other weavers.

This is a rambling, this is a homey book, told in the first person in Miss Lucy's words as taken down by LeGette Blythe. Each chapter made me wonder and laugh, and my wife Filippa tells me that as I related some of the wonderful happenings to her that she saw that literary lump in my throat! It made me happy to be identified so closely as I am with that wonderful crazy bunch of hand-weavers, and especially to know that so many owe their weaving beginnings directly and indirectly to Miss Lucy and Penland.

This is the season when book reviewers suggest Christmas giving. My recommendation this season is definitely Lucy Morgan's GIFT FROM THE HILLS. You can order it from me at Coast Route, Monterey, California, and five dollars will take care of the bill.

### WEAVING STANDARDS

DESIGN

A handwoven article should show some element of original work either in the pattern, the use of material or in tech-

Copies or adaptations of modern or traditional design should be so labeled and the source given.

Patterns should be suited to the size, shape and use of the article.

TECHNIQUE Threading, sleying and beat should be part of the texture and/or pattern, i.e., streaks in the warp and weft are taboo unless they are basic parts of the design.

> Hand sewn hems and stay-stitching for fringe should be used. Machine stitching is acceptable where it is needed for strength.

Fly shuttle weaving is not acceptable.

MATERIALS Materials used should be appropriate to the final use of the article.

> Some thought should be given to the problem of future upkeep of the product.

Mixtures of fibers should be proper for serviceability.

FINISHING Fabrics that change texture or shape when washed or dry cleaned should be washed or cleaned before selling.

The above are the standards for weaving as given in the completly revised HANDBOOK FOR CRAFTSMEN just published by the Society of Connecticut Craftsmen. We recommend this little booklet highly to anyone in the crafts field and especially craftsmen producing for sale or exhibit, craft groups and guilds, craft standards committees, and craft show juries or jurors. If you'd like a copy, it may be purchased from the Society of Connecticut Craftsmen, 17 South Main Street, West Hartford 7, Connecticut, at the nominal charge of \$1.00.

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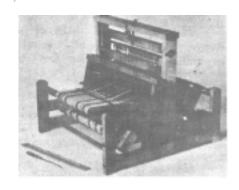
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Mary E. Black Joyce Chown Bedford, Nova Scotia, Canada

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