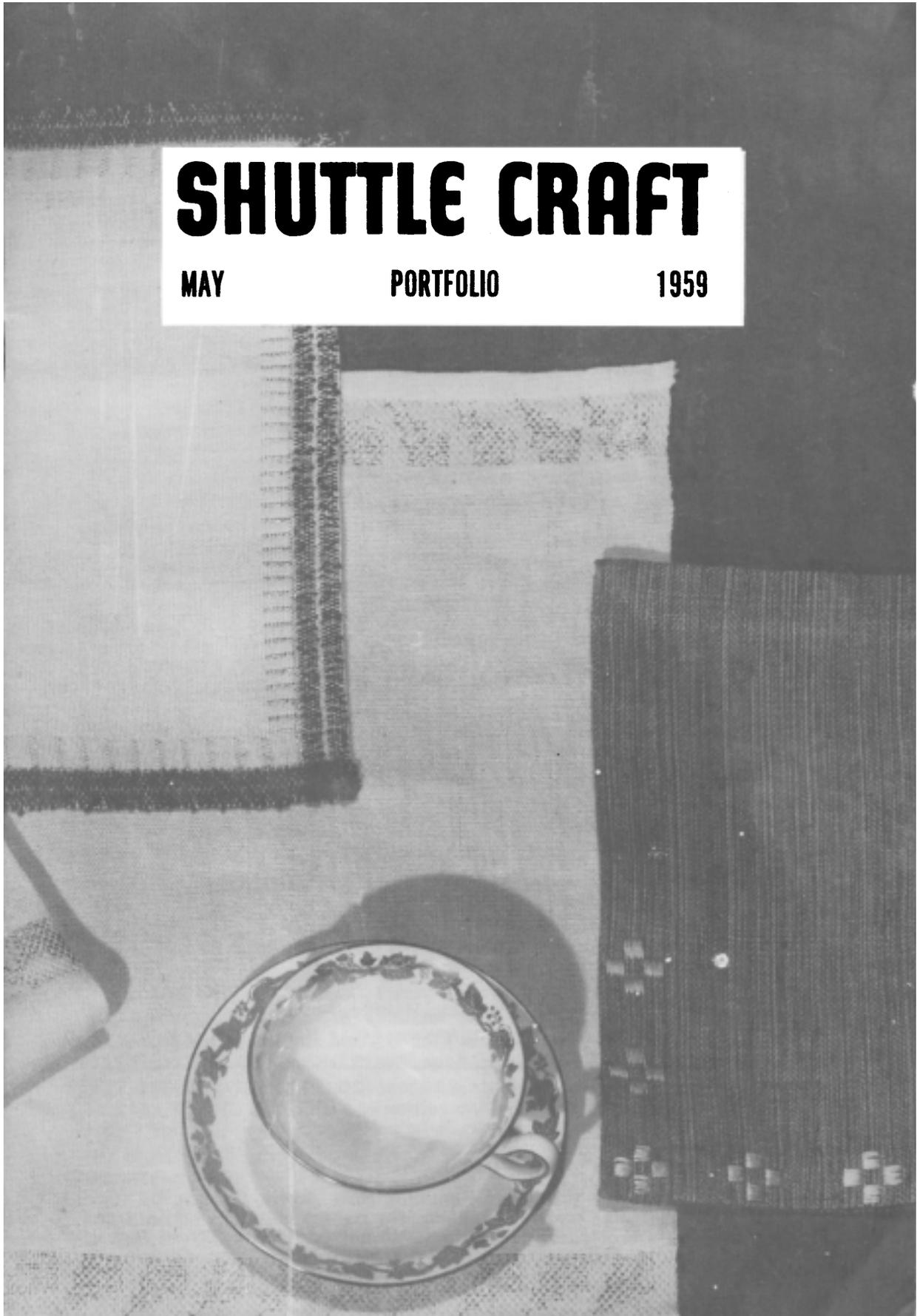


SHUTTLE CRAFT

MAY

PORTFOLIO

1959



SHUTTLE CRAFT

THE MONTHLY BULLETIN OF THE SHUTTLE CRAFT GUILD

VOLUME XXXVI, Number 5

Bedford, Nova Scotia

May 1959

Table of Contents

French Gobelins, Part III , by Joyce Chown	1
Silk , by Mary E. Black	10
Tensolite	19
Loom Language	20
Place Mats , by Evelyn N. Longard	22
And More Place Mats , by Joyce Chown	29
Party Strips	30
The Loom-Side Market	31

Portfolio Samples: Summer and winter place mat, silk and wool suit or dress sample.

Cover: Placemats by Evelyn N. Longard,

Wedgewood China courtesy Cooley Bros. Ltd., Halifax, N. S.

The Shuttle Craft Guild was founded in 1922 by Mrs. Mary M. Atwater and operated by her until 1946. Mrs. Martin (Harriet) Tidball was owner-director from 1946 to 1957. It is now owned and operated by

Miss Mary E. Black and **Miss Joyce Chown**
Bedford, Nova Scotia, Canada

Associates

Harriet Tidball—1002 Washtenaw Ave., Ypsilanti, Michigan.

Boris Veren—Book reviews—Coast Route, Monterey, California.

Evelyn Longard—7 Seldon Street, Halifax, Nova Scotia.

Photography

Cover, page 18 and 29 by Cliff Wright, Halifax, Nova Scotia.

Pages 3 and 5 courtesy Nova Scotia Film Bureau, Halifax, Nova Scotia.

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.

Member of the Nova Scotia Arts Council

FRENCH GOBELIN, PART III

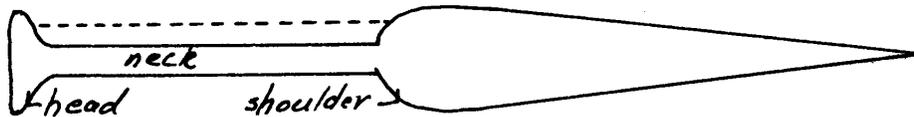
by Joyce Chown

(This is the third article in a series on French Gobelin tapestry weaving. The first and second parts appeared in the November 1958 and December 1958 issues respectively.)

Bobbins

You will recall that with the Swedish Knot technique, the weft was wound around the fingers to make a small hand bobbin.

For the Gobelin tapestry, wooden bobbins are used such as shown in the sketch.



They should be made of hardwood, with a smooth finish so they are comfortable to handle, and more important so that the warp and weft will not catch or pull when rubbed against the bobbin.

You should have several bobbins on hand, not only because you will be working with several colors of weft, but because slight differences in the shape of the bobbins are a necessity in the weaving process. For example if you are weaving a wide area you will want a bobbin with a thick shoulder; and, if you are weaving a narrow area--of say, 2 or 4 threads--you will want a bobbin with a fairly fine point.

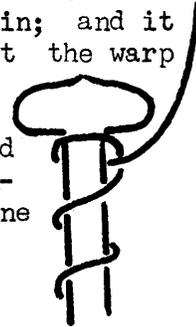
You will also need some "extra fine" sand paper to keep the points of the bobbins smooth--they do get nicked and rough from time to time. For this purpose we use the little pads of "extra fine" sand paper that draftsmen use for keeping their pencil points sharp.

The bobbin is used to carry the weft thread--and also, to beat the weft into place. No other comb or beater is required.

Winding the Bobbin

Hold the bobbin in one hand and the weft in the other. Hold the weft still and wind the bobbin around the weft -- not the weft around the bobbin. Do not stretch or pull the wool when winding the bobbin. Wind only enough wool to fill up to the dotted lines shown on the foregoing sketch. If would too full, the weft will slip off the bobbin; and it will also become fuzzy from rubbing against the warp threads.

Cut off the wool and tie a half hitch around the bobbin. This is to keep the bobbin from unwinding when not in use. The half hitch is undone when the bobbin is in use.



Weaving

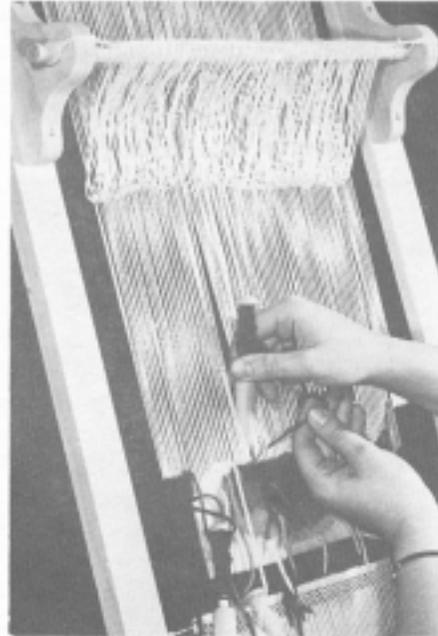
We will suppose that you are weaving a plain border around this first tapestry, or if not a plain border, then a plain background. In other words, you will be weaving with one color from selvage to selvage for several shots.

To weave a wide area such as this, use one of your bobbins with a fairly wide shoulder.

(1) Starting at the left selvage, insert the fingers of the left hand, palm up, in the open shed and under three or four threads. Keep the third, fourth and fifth fingers flat against the warp threads and use the index finger to lift the upper threads to widen the shed opening.

Hold the bobbin in the right hand. The bobbin should be held at the shoulder, between the thumb and index finger with the point up.

Now pass the bobbin from left to right, through the shed opening and to the surface of the warp. There are no knots or turn ins when beginning a new thread in this technique, so merely leave a short end 1" to 1½" long hanging. When entering the bobbin, the head goes through first, then the shoulder and lastly the point. (Note: In photograph 1, next page, the bobbin should be held by the shoulder, not by the neck as shown).



Remove the left hand from the warp threads and use it to hold the weft thread in the correct position for beating, that is at a slight tension and at a slight angle to the fell. See second photograph.

Beat the weft back against the fell with the bobbin. To beat, the bobbin is held by the shoulder, between the thumb and index fingers and inserted into the warp almost up to the shoulder, and so that the bobbin is almost parallel with the warp threads. It is then brought out of the warp with a quick upward motion, again with the bobbin almost parallel to the warp, pushing slightly against the under side of the fell as it is brought up and out of the warp. The bobbin is put in and brought out of the warp in several quick motions until the weft is in place. Remember that this is to be a weft face fabric, so the weft should cover every alternate warp thread.

Pick up the next three or four warp threads with the left hand; hold the bobbin in the right hand; pass the bobbin from left to right through this second group of threads; drop the warp threads and with the left hand hold the weft out of the way and at an angle to the fell; beat the weft into position, with the bobbin held in the right hand--and

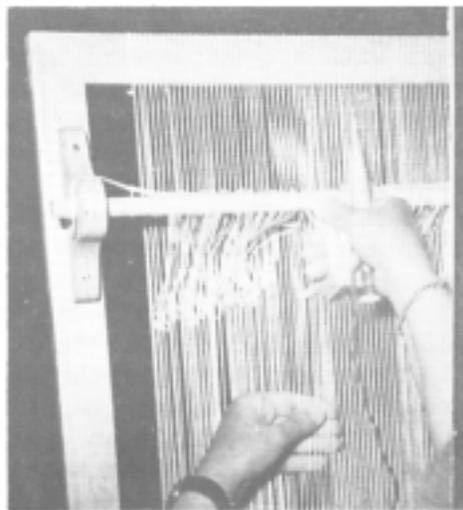
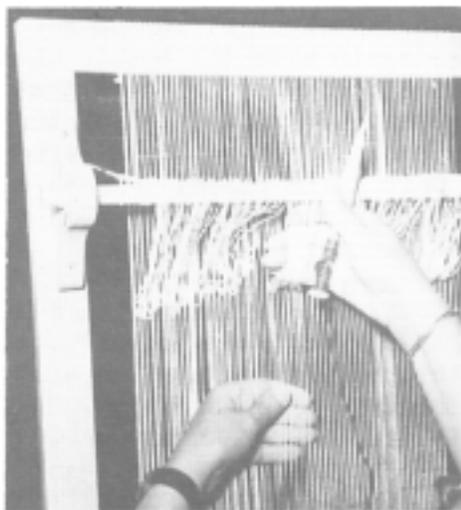
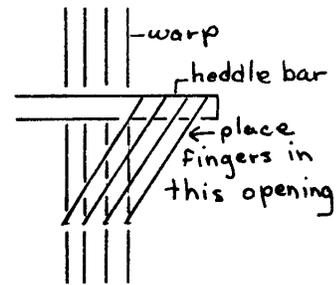
continue across the warp to the right selvage.

Do not try to pick up more than three or four warp threads at one time since this tends to make the weft tight and prevents it from beating down and covering the warp. It also tends to pull the warp threads close together. Also, when weaving a wide area of one color, be sure when beating, to insert the bobbin almost up to the shoulder in the warp. A few pecks with the point of the bobbin will not really get the weft in the right position against the fell and around the warp threads.

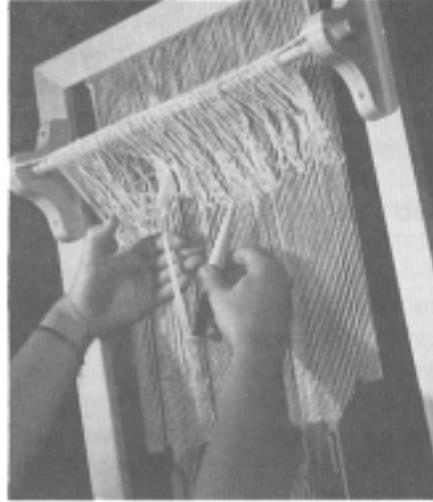
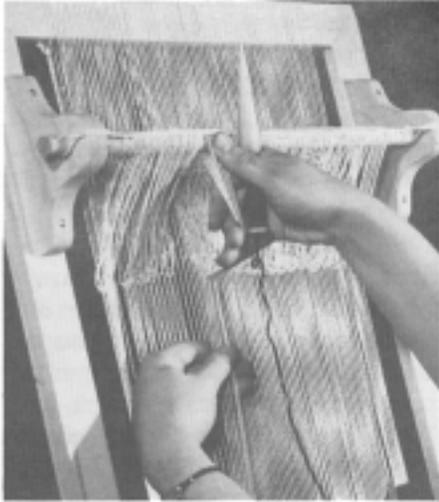
It is important to remember these two rules for there must be no widening or narrowing of the web anywhere. If there is, the only remedy is to rip out what has been woven and re-weave it correctly.

(2) You are now ready to weave from the right selvage back to the left selvage. The opposite warp threads must be picked up, to give the opposite shed.

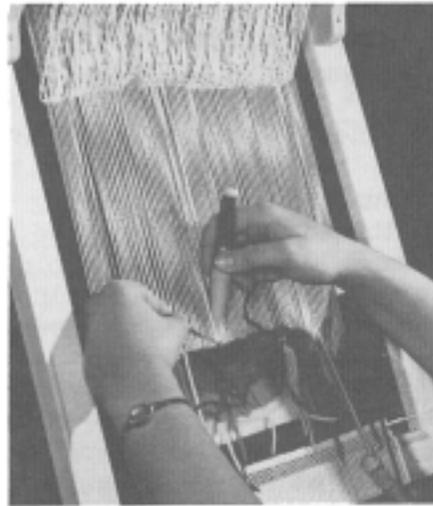
Holding the bobbin in the right hand, run the right hand up and to the right of the right selvage, and place the fingers behind the first three or four heddles--i. e. in the opening formed by the heddles and the surface of the warp. Place the right thumb on the top of the heddle bar and using the thumb as a fulcrum, lift up the heddles. These heddles will lift up the warp threads to be used.



With the palm up, place the fingers of the left hand in the shed opening; remove the right hand from the heddles and heddle bar; raise the left index finger to make the shed opening wide enough for the bobbin to pass through;



and, holding the bobbin at the shoulder as before, insert it through the opening from right to left, head first, then the shoulder and then the point.



Hold the weft between the thumb and forefinger of the left hand as shown in the photograph--at about a 45° angle to the fell. Special care must be taken when making the turning at the selvage. Before beating the weft into place

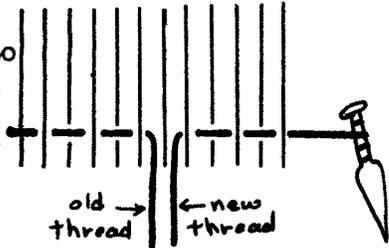
against the fell, pull the wool just enough so that it makes a smooth selvage turning. Then using the point of the bobbin, press the weft into position around the first two or three selvage threads. Now beat in the rest of the weft inserting the bobbin deeply into the warp as described before.

Raise the next three or four warp threads as just described; insert the bobbin from right to left; beat; and, continue across the warp to the left selvage. Remember not to get carried away and pick up too many warp threads (five is a maximum); remember too, to insert the bobbin deeply into the warp when beating.

When making the selvage turnings, take care that they are made smoothly. The selvages should not be looser or tighter than any other part of the weaving. If, as you weave successive rows, you find that the selvages are not remaining smooth and straight, rip out your weaving back to the point where the trouble began and reweave it taking care that the weft tension and beating is such that there is no widening or narrowing of the web.

Turn the frame over from time to time and look at the right side of the weaving to make sure the weaving is smooth and even and that you have not skipped weaving around any of the warp threads. Again, if there are any loose or tight spots or any skips in the weaving, unweave back to the mistake, remedy it, and reweave.

When the wool on the bobbin has been used, bring the end--about 1" to 1½"-- to the surface of the weaving and insert a new thread in the same shed, leaving the new end just beside the old one. Neither the new thread nor the old thread are knotted, turned in, or overlapped. They are just left hanging.



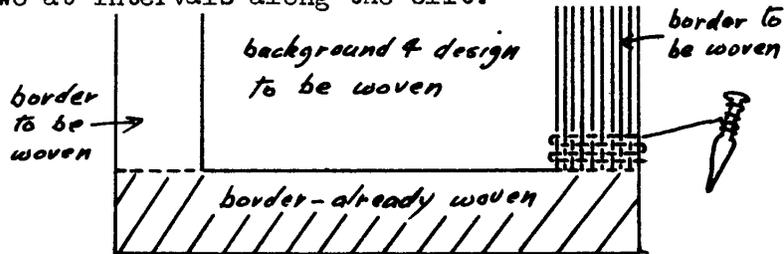
When the desired width of the border has been woven, bring the bobbin out to the right or left selvage, it doesn't matter which one. Now wind a second bobbin of the same border color, and a third bobbin of the background color.

If the side borders are to be the same width as the bottom border, make a gauge to measure the width of the

bottom border. Then hold the gauge against the warp at each selvage to see how many warp threads are to be woven to make the side borders of equal width. We will say, just as an example, that each vertical border is ten warp threads wide.

In most finger - manipulated weaves, wherever two different colored design areas meet in a vertical position, the two colored wefts are either interlocked (Swedish Knot, Rolakan, etc.) or held together by a tabby binder thread after every pattern shot (plain inlay, dukagang, krabba, flossa, etc.) In the French Gobelin tapestry however, the two colored wefts are neither interlocked nor bound together with a tabby binder, with the result that a slit appears wherever two different colored design areas occur together in a vertical position. For example, in the hypothetical tapestry we are about to weave, vertical lines will appear between the side borders and the main design area for the height of the woven piece, and these will appear as slits, rather than being a solid piece of weaving.

The reason for leaving slits in the weaving is that it is felt that they produce a sharper more definite design line than if the weft were interlocked. As with all rules however, there is an exception to this one, although it does not affect this piece of weaving. If you are weaving a large tapestry in which there is a very long slit--say a foot or more--then it is permissible to interlock a thread or two at intervals along the slit.



To get back to our own tapestry, let us say that we have left the bobbin at the right selvage. Pick up five warp threads; insert the bobbin from right to left; draw the weft carefully into position pressing down around the two or three selvage threads with the point of the bobbin; and beat deeply across the remaining weft to bring it against the fell.

Now turn and weave under the opposite five threads back to the right selvage. Continue weaving back and forth

across these ten threads until you have an inch or so woven. You can weave more if you like, but I'm sure you'd rather get on with some other part of the design. While weaving the border, try to keep both sides of it perfectly straight. This is essential, for if the border has an hour-glass rather than a straight-up-and-down figure, it will put the rest of the weaving off. The edges can be kept straight by carefully following the rules I'm afraid I've been harping on:

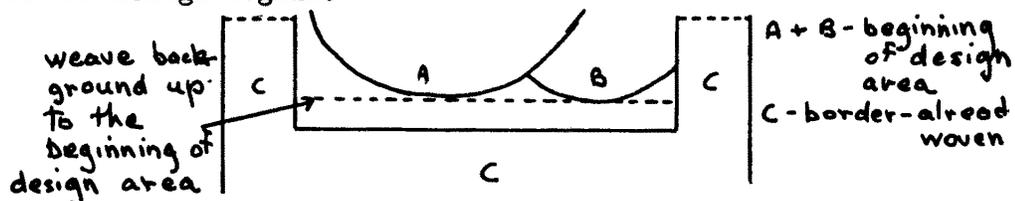
1. When making the turnings at either side of the design, pull the weft carefully into position so that the selvage is smooth--neither too tight nor too loose; press down the first two or three threads at the side of the design area with the point of the bobbin; and beat the remaining weft against the fell. It is not necessary to beat as deeply for the narrow border as it was when weaving from selvage to selvage; however, still insert the bobbin into the warp $\frac{1}{2}$ to $\frac{2}{3}$ the way up to the shoulder of the bobbin.

2. Do not pull the weft too tightly as this will pull in the edges of the design, and the weft will not cover the warp.

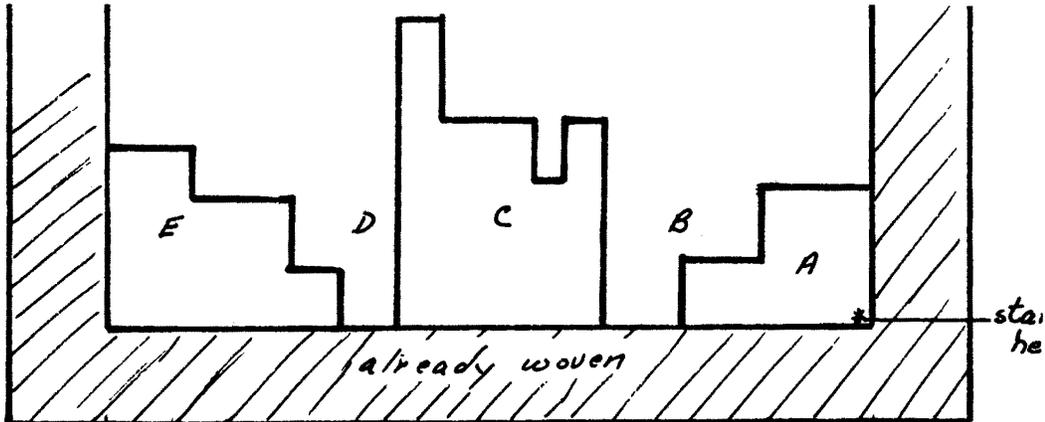
3. Do not leave the weft too loose or the edges of the design will bulge out. The warp will be covered, but the weft will slip up and down on the warp threads making a loose, spongy, undesirable fabric.

To weave the left border, count ten threads in from the left selvage. Run the right hand up to the right of the tenth thread; place the fingers under the five heddles to the left; pick up these five threads with the left hand; and insert the second bobbin (same color as the rest of the border) from right to left, leaving an end of weft hanging on the surface. Weave back and forth over these ten threads for an inch or so, as you did with the right border.

The background is begun in the same way, that is, assuming that there is some plain background between the two borders. Insert the bobbin, from right to left, at the lower right hand corner of the background area and weave back and forth across this area up to the point where the first change in the design begins.



If your design doesn't have a background area but starts with the design right on top of the border, this makes no difference in your procedure except that you will be working with more bobbins. For example, suppose the beginning of your design looks something like this:



You can still start weaving from the lower right corner of the A part, and continue weaving back and forth in this A section until it is completed. You could then weave the C and E sections in the same way, then the B and D sections. Note that you could not complete the B and D sections before starting the A, C or E sections since you would be weaving an overhanging area under which you cannot weave.

If desired you could weave all these sections simultaneously, but if the section is small--such as the A section -- it is usually wiser to complete it before starting another section. This because your attention isn't divided between several parts of the design at one time, but is completely on one part until it is finished.

We will discuss the weaving of curves, diagonals and circles in the next issue of SHUTTLE CRAFT; and also complete the weaving and finishing of this practice tapestry. Magazine space permitting we will also deal briefly with some of the possibilities of shading or "hatching" in this technique.

In the meantime, weave as far as you can with the information given above. Keep your weft at right angles to the warp; keep all vertical lines vertical and straight; and follow your dots carefully making sure they are completely covered before starting the next design area.



SILK

by *Mary E. Black*

And now in our study of natural fibres we come to that most beautiful of all, the one frequently referred to as the "queen of fabrics"--silk.

There are many stories, and it is problematic as to which is the correct one of the origin of silk.

Most authorities agree that it originated in China about 2600 B. C. The wife of the Emperor Hoang-ti, Si-Ling is accredited with being the first to explore its possibility. We are all familiar with the stories of the surreptitious transfer from China to other countries of the cocoons concealed in the hair buns of Chinese women, in hollow canes of travellers or in the garments of Bhuddist monks. Cocoons which did appear in other countries were carefully nurtured and thus began sericulture on a competitive basis.

The bulk of raw silk imported into Europe and America over the centuries has come from Oriental countries. During World War II and for several years after, its importation ceased. First effort made to revive it as a high fashion material met with little success, as, in the years immediately after the war synthetic fibres, rayons, nylons, etc. were introduced at low prices, and women who had grown up during the war years without it were not particularly interested. The silk manufacturers realized that unless a vigorous advertising campaign directed largely at this group was instituted the future of silk was doomed. The success of this campaign was evident in 1957 when delegates from 21 nations met in New York City at the 6th International Silk Congress where reports were made on the wonderful acceptance of this fabric and its restoration to its rightful place in both industry and in the daily life of modern women.

Although all the delegates pledged co-operation in the development of silk it was recognized that each nation had and has its own specialty. To discuss only a few, Japan's basic interest is in the production of the best raw silk possible. Sericulture lends itself particularly well to this small compact country and to the natural characteristics of the Japanese people. Her majesty, Empress Nagako of

Japan is a keen sericulturist. Her interest is both personal and as it effects the country and its people.

In the United States concentration is on the improvement of the washability of silk, on its non-slip and non-crease finishing, marketing, and on distribution methods which will place it within the price range of millions of its women shoppers yet keep it among the "preferred" textiles.

England has placed the emphasis on the restoration of silk to its pre-war prestige and income level. Among England's specialties have been, and still are, the foulards, and Jacquards for men's wear and the elegant exclusive-and-expensive fabrics for royal palaces, churches, embassies, castles and landed estates.

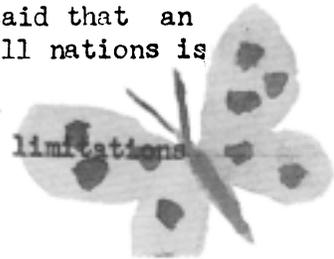
In the history of France its silk products have played a most important part and today the French silk firms are striving to reproduce once again the magnificence and brilliance of its old silks, satins and brocades as fitting materials for its couturiers. While sericulture is carried on in Lyons and some other centers, the amount of raw silk produced is far below the requirement with a resultant huge importation each year from the Orient.

The Italian silk mills were almost completely destroyed by bombing during the war years so it is all the more surprising to learn of the rapid return of Italian silks to world markets. The Italians have been able to capture the American markets with fresh new silk prints, vivid in coloring, soft in feeling, and, with beautifully designed and made dresses.

In Switzerland, a small country which realizes its limitations in mass production, new complicated looms have been invented and installed. Concentration is on the sheerest of chiffons as well as on the heavy Swiss Jacquards, damasks and other intricate weaves wanted, but not produced by any of the other 21 nations.

India is known for its silk because of its fine "hand" and coloring. Dyers in other countries have tried without success to reproduce the Indian dyes. It is said that an Indian silk placed among a pile of silk from all nations is the one to first attract attention.

Keen weavers that we are, we realize the limitations



of our own looms in contrast to the intricate commercial looms which weave these beautiful silk fabrics, yet we are not entirely denied the pleasure of working with silk. There are many among these silk yarns that are quite suitable for handweaving and we shall tell you of some of them, but first where does silk come from?

Strangely enough, this, one of nature's most beautiful products comes from a worm, Bombyx mori. This little black worm hatches from an egg about the size of a mustard seed. Where sericulture is carried on commercially the worm emerges from its egg in its own little cubicle upon a bed of shredded mulberry leaves. During its comparatively short lifetime, about 30 or 40 days, it lives in this cubicle and eats voraciously. As well as always being hungry it is nervous and sensitive to sounds, odors and uncleanliness. Because of this the young girls who take care of them walk carefully in padded shoes and wear spotless white at all times. During its short lifetime it consumes mulberry leaves 30,000 times its initial weight. It also sheds its skin, snake like, four times during this short lifetime. The immense amount of food which the worm has consumed has been gradually changed to cellulose which is exuded from two tiny spinnerettes, one on each side of its head when it is ready to spin its cocoon. So that it will be safely anchored the first filaments it exudes are thrown to points at quite some distance from its head, fastening themselves to whatever branch or stick they may encounter. It spins initial anchoring silk at the rate of from 9 to 12 inches a minute, but it takes about three days to complete the whole cocoon. During this period although it changes from a plum green worm to a dark brown, shriveled pupa, it remains alive and as soon as all movement ceases the cocoons are ready for processing. They are sorted and a certain percentage of the best formed and healthiest are selected for reproducing the next crop.

The remaining cocoons are carefully sorted, all poor and dead ones removed and the rest placed in pans which in turn are subjected to heat, either in an oven or under steam, sufficiently hot to kill the worm.

The next process is "degumming" which is accomplished by placing the cocoons in warm water and stirring them about with a stick. As the ends of filament loosen from the cocoon they are gathered up and twisted together with the fingers to unite them into one thread. A point of interest is that the silk filament is double rather than single.

This can plainly be seen under a microscope and is due to the fact that the silk worm exudes the filament from two, rather than one spinnerette. The twisted end is passed through a metal or glass eye and fastened to the reeling machine which is placed far enough away from the basin of cocoons to allow the softened gum on the silk filament time to dry before it is wound onto the reel. It requires both skill and care to wind the silk filament from cocoon to reel as the fibers are of varying length and strength. New threads must be added when broken threads occur; these ends are fastened together with the natural gum.

The second process which the silk undergoes is called "throwing". This is done while the silk is still in the skeins or hanks. These, after being tied, in the same manner in which we are accustomed to tie our wool skeins for washing or dyeing, are washed in warm soft water with pure soap. Once they are dry they are put on large reels, or swifts, adjusted so the hanks are tight. Raw silk is measured in books. It requires 30 skeins of raw silk for one book of 4.3 lbs., and 30 books of the raw silk for a bale. 100 kan or 900 lbs. of cocoons are required for a bale of raw silk. The ends of these books are sometimes covered with curious little caps formed from a single cocoon, which have been manipulated into a lacy cap large enough to cover a man's head.

Following several additional cleaning processes the fiber is wound by machine onto bobbins. At this stage several fibers can be twisted together or it can be twisted with other types of fibers. Actually silk is not carded nor spun because the filament as it comes from the cocoons is strong and continuous. There are however certain bits and pieces of the filament near the ends of the cocoons which are inferior. These as well as short, broken filaments which are not used in the preparation of the best silk are carded or combed, and spun very much in the manner in which cotton is spun. This is known as spun silk and is inclined to be rough. Other waste bits of the silk filaments are salvaged, carded and spun into a usable silk yarn called noil silk. This yarn has particular beauty especially if several colors of noil are combined with a single neutral background color.

Warp and weft yarns are spun differently and bear the names of organzine and tram. Organzine, the warp yarn, is usually made of singles twisted in one direction, doubled, then twisted together in the opposite direction. This

produces a strong, even yarn ranging in size from exceedingly fine to coarse. Weft or filling yarn, called tram is usually of singles slightly twisted.

For some reason we do not use silk yarns in our weaving to the extent which we could and should. Perhaps we are a bit afraid of the price, or of our own ability to handle them.

At first glance the price of silk yarns may frighten us, but after all what better bargain could we get than 10,000 yards of any yarn for a mere \$5.40 per lb? This is a recently quoted price from Searle Grain for 100% pure silk weft. The 12/3 natural silk warp, from the same firm, is quoted at \$3.40 for the 1/2 lb. spools. Noil, flake and very fine silks are available at reasonable prices from many vendors.

Now about our ability to handle silk yarns.

Rough hands are taboo; also impatience. Hand lotion in generous doses will help the former, but the cure for the latter is up to the weaver.

Good eyesight and a good loom, with smooth beams and good heddles are a necessity. Otherwise, with care there is no reason why most of us cannot weave with silk. Like all yarns it has its own characteristics, like standing off from the warping reel in a weird, frightening, but harmless manner. We can speak feelingly about weaving with silk because, strange as it may seem, after all these years of weaving, it is only recently that we have begun to explore its possibilities.

In 1957 we carried on some correspondence with Mr. George Wade of California about silk for weaving and at this point we take pleasure in quoting in part from his letter: "my article was written in a rather general vein with a view of stirring some of our expert weavers to try delicate threads. After all, our climate makes light-weight fabrics a necessity; and I feel that handweavers should make appropriate clothing. Our looms will handle delicate threads, and our available weaving techniques will suit the threads, so why not use these threads? To further this idea, at this time I am making up various silk threads into overshot, summer and winter, plain, twill, crepe, satin. . "

The samples which Mr. Wade sent us were beautifully

woven, and of beautiful hand. Here is a list of threads which he used and the purpose for which the material was woven:

- 24/2 cotton count spun silk set at 45 ends per inch--for a sport coat.
- 44/2 cotton count spun silk set at 72 ends per inch--for a ladies suit.
- 108/2 cotton count spun silk set at 90 ends per inch, in plain weave log cabin pattern for dress material.
- 108/2 cotton count spun silk set 80 ends per inch, in plain weave, 36/1 slub silk weft, for dress material.
- 108/2 cotton count spun silk set at 108 ends per inch, in a crepe twill weave for a blouse.

For our experiments we chose two types of silk yarn, one a 12/3 pure silk in the natural cream (pure silk is never white, white) and the other a 100% flecked spun silk.

The latter is excellent for women's suits, sheath dresses and for men's jackets.



We chose to weave ours on a 2/32 Weavecraft wool from Searle Grain. The Lily light weight weaving wool is also quite suitable.

Mrs. Rankine of Searle Grain has some useful hints for weaving these two together, stating first of all that the 100% fleck silk is suitable for weft only. She suggests slewing the 2/32 Weavecraft at 36 ends per inch, and the 2/16, which is best for men's jackets or women's coatings, at 30 ends per inch. If an even heavier weight is desired use two strands of the silk together on the bobbin. This is where a double bobbin shuttle comes in handy; it makes for easier and smoother weaving.

Mrs. Rankine also suggests that if you do not wish to combine wool with your silk use a 30/3 Egyptian cotton, in any color you desire, set at 36 ends to the inch; a 60/6 mercerized Egyptian cotton set at 36, or a linen of comparable size. Both Weavecraft and the fleck silk are obtainable in many shades so there is no worry about obtaining a color which is becoming. Mrs. Cook of Bridgewater, Nova Scotia, whose sample of suiting on the Searle Grain sample sheet first turned our interest to this type of silk weaving used 2/32 Weavecraft in ice blue shade #866 and azure blue shade #448 with blue-grey-white flecked silk. The



allover resultant color was a lovely soft powder blue. Mrs. Cook sleyed her warp at 40 ends per inch and beat firmly.

We have seen samples of the 100% spun fleck silk set on the 12/3 pure silk warp at 36 ends to the inch for suits and dresses, and at 30 ends to the inch for neck and head scarves. The dress material is really lovely, especially for full skirts or shirt waist dresses and the scarves soft and beautiful. They are particularly good for those who are allergic to wool and for those who do not care for man-made yarns.

We experimented with various color schemes for our portfolio samples. (Some portfolio subscribers will receive samples of one color, some of another.)

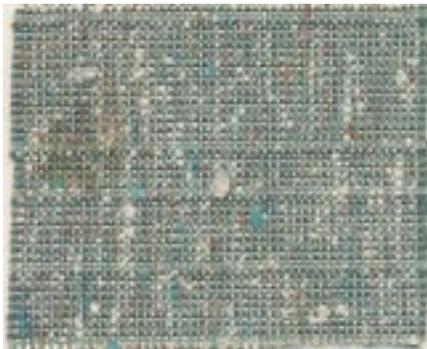
One sample is on 2/32 Weavecraft of two shades of green numbers 868 and 867. If an allover lighter shade of material is desired use green no. 451 in place of the 867. The weft used with the greens was the grey-white-turquoise fleck.

The second sample using a tan-brown-yellow fleck silk was woven on a gamp type warp of yellow, yellow and brown mixed, and a warp of 1 yellow and 1 brown thread alternating. You can decide for yourself which arrangement you like best. When you examine the sample you will note that the brown section of the warp is of a fine 24/2 worsted warp threaded two per heddle. We used this experimentally and found it quite satisfactory. Perhaps you will like this better than the other yarns mentioned. The use of two finer threads, of different shades of the same color, adds subtleness to the color of the finished fabric.

The third combination which we used was again with a 2/32 Weavecraft warp--1 thread royal blue alternating with one thread azure blue, and a dark blue flecked silk, single in the shuttle for weft. We feel the finished effect was very pleasing for a softly draped dress or ladies suit.

The flecked silk is obtainable in other colors but these three seemed to us to be the most attractive. They can be woven on different warps to obtain different color emphasis but no matter what colors are decided upon weave a sample first please!

It was while we were working with the 12/3, 100% pure silk in our ecclesiastical weaving that we were first impressed with the ease with which silk could be handled.



This beautiful material lends itself equally well to either 2, 4, 6, 8, 10 or 12 harness threadings. What is done with it depends largely upon the equipment, knowledge and imagination possessed by the weaver, and the purpose for which the material is to be used.

Suggested threadings are four, six and eight harness plain and return twills; Bronson spot and lace weaves set at 40 ends per inch for a fabric where draping is desirable and for a brocade-like fabric use crackle, summer and winter and miniature overshots set at 36 to 40 ends per inch. Long thread skips are to be avoided. Treadle 2/2 twill on an overshoot or crackle threading for a soft material suitable for sport shirts or shirt waist dresses. This gives a design which is a bit less tailored than that of the regulation twills.

A variation on the plain 2 harness weave may be obtained on two harnesses by threading as follows:



The four threads which appear in succession should be sleyed in one dent. When treadled for plain weave a ribbed weave results; when treadled as-drawn-in small squares of fine weaving with four thread frames around each square will appear.

For our experiment we had in mind material for a cocktail blouse to be worn with a sheath skirt. The 12/3 pure silk was used singly for both warp and weft and double on the bobbin for pattern thread.

Threading was Mrs. Atwater's crackle draft printed in the January 1959 SHUTTLE CRAFT page 16, omitting the border --that is, thread the section designated by b repeated as required.

The standard tie-up was used.

Treadling:

1 - 4x	2 - 4x	3 - 4x	4 - 4x
2 - 4x	3 - 4x	4 - 4x	1 - 4x
1 - 4x	2 - 4x	3 - 4x	4 - 4x

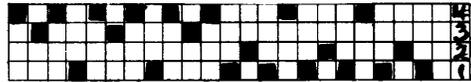
This, set at 40 ends per inch produced a very nice, not too stiff, brocade-like fabric. If a stiffer fabric is desired, set more closely, 3 per dent in a 15 dent reed. If





a bit of glitter is desired use Lurex for weft, though frankly we are not too happy about mixing the two.

For a second experiment with the 12/3 pure silk we took that part of Mrs. Atwater's draft which reads



and rethreaded the warp.

Still using the standard tie-up and with a single 12/3 for weft and two strands of 12/3 for the pattern thread we treadled: treadle 1 - 6x then treadle 3 - 6x repeating in alternating succession. A neat little squared design appeared, still in the brocaded effect. Treadling variations on this threading could well bring up some interesting results.

At this point we experimented with a single strand of the 12/3 treadling a straight twill which was not particularly satisfying except that it produced a fabric of pleasing weight. Then we reversed the twill--treadles 1, 2, 3, 4, 3, 2 repeated and repeated--and were very pleased with the fine little texture design which came up.

One of our Shuttle Craft Guild members who has done considerable weaving with silk advises us that silk is not difficult to dye, so if you want to coordinate a costume, a print or stripe skirt for instance with a blouse, choose one of the predominant colors in the skirt material and dye your silk to match, or safer and easier weave your fabric in the natural silk, then send it to your dyers and cleaners to be dyed. In this way you are assured of an evenly dyed piece.

To sum up our findings in this study of silk we learn that silk is durable; strand for strand its tensile strength is equal to that of steel. Silk is easy to care for; hand washing with pure soap in warm water will freshen it. Most silks should be ironed on the wrong side while still damp. But iron tussah, pongee and shantung when bone dry. Do not attempt to wash the heavier silks. Have them dry cleaned.

Silk garments are excellent for travelling,

packing wrinkles disappear in a short time if the garment is hung on a hanger where the air can circulate around it.

Silk is a natural insulator, it is comfortable at any temperature, warm in cold weather and cool in hot. It is a naturally clean fabric having no fluff or dust of its own to shed, and it readily sheds any dust or soil with which it comes in contact.

Avoid purchasing "cheap" silk as it is what is known in the trade as "filled" or "weighted" silk. There is considerable weight loss during the cleaning and processing of the silk filament and some manufacturers endeavor to compensate for this loss by "filling" the silk with tin or other minerals. Filled silk does not have the softness of pure silk nor does it wear well, often cracking where it has been folded. The price will tell you whether or not you are buying pure silk, your sales girl, and the ticket on the garment will also tell you. Any silk marked "pure dye" is not "weighted" or "filled" and is a good buy.

For source material we are indebted to: AMERICAN FABRICS; HOW TO KNOW TEXTILES, by Small; and to numerous other publications and encyclopedias.



Tensolite

---yet another man - made fiber, is made of spun glass coated with plastic and while it is difficult to describe its hand (feel) it seems to us to overcome the problems encountered in using Fiberglas or Saran.

Mrs. Warren of the Warren School of Weaving, Sheffield, Mass. sends us the following information about Tensolite: "The fine Tensolite, CC 246 yields approximately 4200 yards to the pound. For mats crossed with the same size, we have found a set of 30 to the inch satisfactory. Always have Tensolite warm for either warping or weaving."

It comes in many colors and sizes and is suitable for many purposes, including seat covers, lamp shades, cosmetic purses, room dividers, etc. and is not difficult to handle if used warm as Mrs. Warren suggests. The web is firm and does not stretch unless pulled on the bias; it has a silvery sheen; and is attractive. We hope later to experiment with it, so we can suggest additional uses for it.

LOOM LANGUAGE

All the terms given below are defined as applied to silk. For those of us brought up in the era of synthetic fibers, we may be surprised to know that terms such as bengaline, chiffon, grosgrain and taffeta were originally used only in connection with fabrics made of silk.

Bengaline--a woven material with a pronounced corded effect.

Charmeuse--a popular dress silk woven on an eight-end satin wea weave, set 70 or 80 threads to the inch. It is soft, drapes well and is popular for evening wear.

Chiffon--a lightweight, sheer, transparent plain weave material. Drapes beautifully and wears well in spite of the very fine yarns used.

China silk--Soft, extremely light weight silk woven in a plain weave, used principally for linings.

Crepe--crepe has a pebbled, rough or granite appearance and feel. A very popular material.

Crepe-de-chine--Similar to, but somewhat finer, lighter and smoother than crepe. May be woven of either raw or spun silk. It is soft, drapes beautifully and washes well and is therefore very popular and widely used for blouses and dresses.

Doupioni--A silk filament reeled from cocoons which contain two, instead of one worm. This filament and the resultant fabric are rough and uneven.

Foulard--Lightweight, soft silk which is printed and is used largely for neckwear, dresses and linings. Especially popular for summer dresses.

Grosgrain--A heavy silk with a pronounced rib. It is very rugged, durable and is largely used for ribbons, vestments and for churches and ceremonial affairs. There are many types of grosgrain, each with its own particular name.

Honan--Silk pongee cloth made from wild silk worms in the Honan area of China.

India silk--Hand-loomed plain weave fabric, very thin in texture, and soft. Woven in India.

Italian silk--High quality raw silk. Has good strength and elasticity.

Korean silk--made from doupioni cocoons. Has a slubby appearance.

Paisley--Silk cloth made to imitate the Paisley designs seen on woolen or worsted cloth.

Pongee--A tan or ecru silk, very light in weight, woven of tussah silk in the Chinese homes on handlooms. Sheds dirt, washes easily and is cool for summer wear.

Satin--A fabric in which one system of threads shows on the face, another system shows on the back. A beautiful cloth for evening wear because of its brilliancy and draping qualities.

Sericin--name given to the "gum" expelled by the silk worm, which cements the cocoon.

Sericulture--The raising of silk worms.

Shantung--Similar to pongee.

Silk Noil--Waste from the last dressing operation in spun silk; it is often too short to be used in regular silk manufacturing. Fancy nub and novelty yarns often contain noils.

Taffeta--Faille, paper, pigment and tissue taffeta are all plain weaves with slewing from 70 to 130 threads per inch. Taffeta has a crisp paper-like finish and rustles when worn.

Tussah silk--Sometimes called wild silk is a product of the uncultivated silkworms which live on the leaves of oak, castor - oil plant, cherry and uncultivated mulberry leaves. It has a sturdy, tough fiber. It is not as soft as other silks but is long wearing.

Waste silk--Short, unreeled filaments left after the long cocoon filaments have been removed. These are carded or sometimes combed, spun and then woven.

PLACE MATS

by Evelyn N. Longard

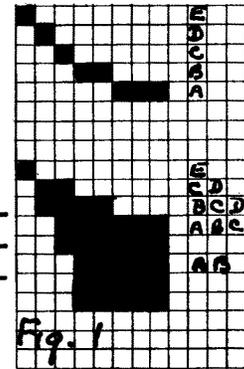
(Photographs of the placemats described below are shown on the cover of this month's SHUTTLE CRAFT.)

One of the most interesting Weavers' Guild meetings we attended was one at which the program convenor simply brought a stack of tea plates, all different patterns, and as many different hand-woven place mats as she could collect and said, "Match them up." It was surprising to see what different ideas the members had of what went with what. It was then that we thought of how interesting it would be to design mats actually meant for a particular pattern of china, not just all-purpose ones that would go with almost any kind. Such designing presents problems because you are led to dream all sorts of apparently simple patterns which turn out to involve very complicated processes and very many harnesses. However, that is the way one learns !

To start with we had a request for a set of mats and napkins to be used with a lovely Wedgewood pattern-- "Whitehall", a white china with a wide border of gold leaves. Our first thought was white linen with a band of gold leaves at each end. Having just finished a length of summer and winter weaving, naturally we thought of that technique as giving a solid pattern without long skips. We had already decided not to use laid-in designs but to try to design these mats to be "treadle" woven.

After much drawing on squared paper, we finally came up with a leaf pattern which could be set in summer and winter, on seven harnesses, leaving one more harness for the plain areas, the short draft looking as in Fig. 1. Then we decided to use white ramie instead of white linen, it having very similar qualities to linen but being less expensive. The only remaining design problem was that of the napkin. We decided to weave the napkin the same width as the mat, put the same border as on the mat but place it in the centre, and weave the napkin square.

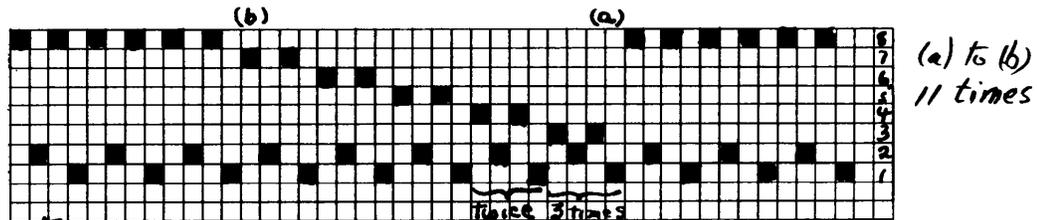
This placing of the border showed it up well when the napkin was folded in thirds and we were very pleased with the result. The actual instructions follow.



Finished size of mat: 12" x 18" Napkin: 12" x 12"
 Warp: 20/2 white ramie
 Weft: body of mat--same as warp
 pattern thread--1/32 gold rayon-supported metallic
 tabby thread--33/1 white ramie

No. of threads wound: 376
 Reed: 15, sleyed double

See fig. 2 for threading and fig. 3 for tie-up.



Weaving plan:

$\frac{1}{4}$ " tabby in 33/1 ramie for underhem

$\frac{1}{2}$ " tabby in 20/2 ramie for hem

$\frac{1}{2}$ " tabby in 20/2 ramie for border

Pattern border: change to fine
 tabby thread 33/1 and gold pattern
 thread. Weave in conventional
 summer and winter weave, i. e.

b, 1, a, 2, b, 2, a, 1.

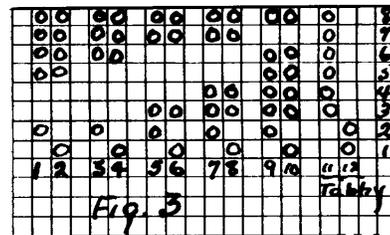
Weave block E (treadle 9 and 10) once.

blocks C and D (treadles 7 and 8) once.

blocks B, C and D (treadles 5 and 6) once.

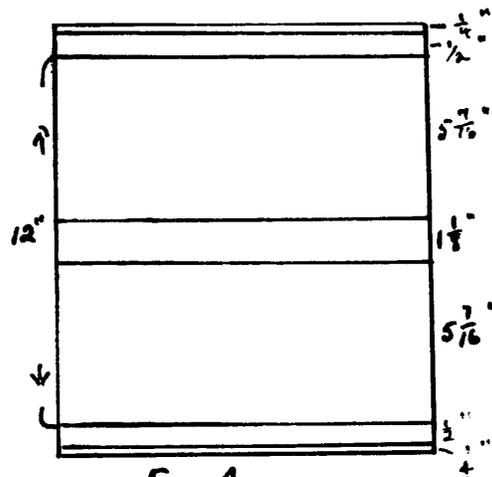
blocks A, B and C (treadles 3 and 4) twice.

blocks A and B (treadles 1 and 2) twice.



The number of times may vary with the weight of the gold but the proportions of the leaf as seen in Fig. 1 should be maintained. Our leaf measured $1\frac{1}{8}$ " when completed.

Change to 20/2 ramie and weave the centre of the mat in tabby and then weave the border in reverse as at the other end. Finish with 1" tabby in 20/2 and $\frac{1}{4}$ " in 33/1.



The napkin is started the same way with allowance for hem and turn in, and woven according to the plan in Fig. 4. Then both mat and napkin were washed and ironed.

The second mat brought its own problems. The pattern of the china, an Aynsley one called Blue Durham, consists of a white ground with two deep blue bands separated by narrow gold ones and with a series of decorative lines radiating inward from the inner band of gold. After some thought--and doodling--we decided to repeat the pattern of gold and blue on the four sides of the mat and to try to repeat the gold lines both horizontally and vertically. Vertically could be done quite simply but horizontally took some careful planning. However, it worked out very well, although we feel a better choice of blue material should be made. We used what was available which was satisfactory as to color and texture but unfortunately proved not colour-fast.

Finished size of mat: 12" x 18" Napkin: 11" x 11"

Warp: the same ramie as in mat #1

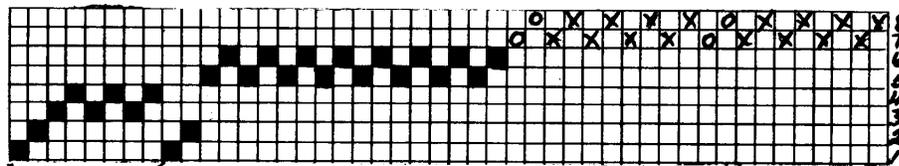
dark blue ratina
gold as in mat #1

Weft: same as warp

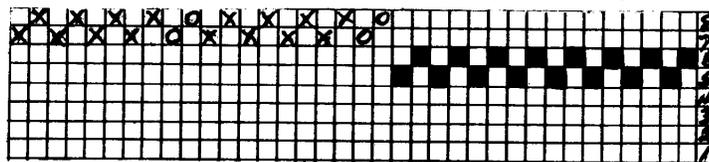
Warping plan:

16 threads dark blue	4 threads gold
4 threads gold	16 threads blue
16 threads blue	4 threads gold
4 threads gold	16 threads blue
338 threads white	

Threading:



38 times

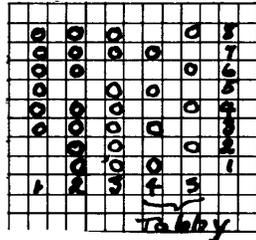


x = blue ■ = white o = gold

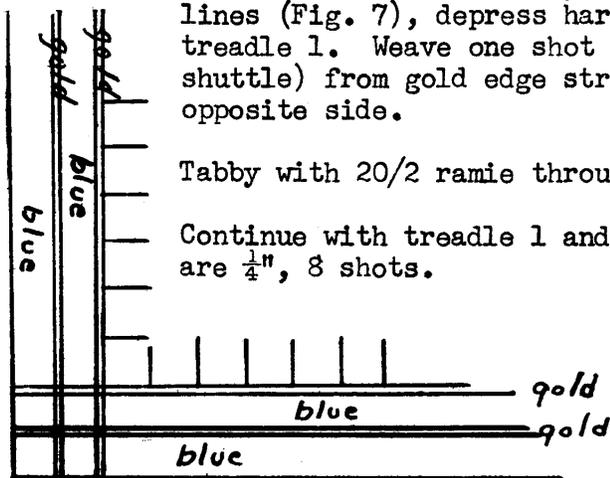
Thread both gold and blue double in the heddle.

Set in a 15 dent reed sleyed double, i. e. the threads from two heddles in each dent.

Tie-up:



Weave $\frac{1}{4}$ " plain white with the 33/1 ramie, then $\frac{1}{2}$ " with the 20/2. The border is woven in tabby with both blue and gold double in the shuttle. Weave 4 shots blue, 2 shots gold, 4 shots blue, 2 shots gold. For the vertical gold



lines (Fig. 7), depress harnesses 1 and 2, treadle 1. Weave one shot of gold (single on shuttle) from gold edge stripe to one on the opposite side.

Tabby with 20/2 ramie throughout.

Continue with treadle 1 and tabby until lines are $\frac{1}{4}$ ", 8 shots.

For the horizontal lines, wind two small sock bobbins with gold thread double. Depress harness 5, treadle 2. Enter bobbins from centre, go to outer edge over 8 threads and lay bobbins on top of web. Tabby as before.

Depress harness 6, treadle 3. Enter bobbins from outer edge, pass over 8 threads, and drop down. Please note that these gold threads only concern the 16 threads at each end and do not pass over or under any other threads.

Tabby for 6 shots, then repeat the two gold shots to make the gold lines again. This all sounds complicated but is surprisingly easy when you get at the loom and it works up quite quickly. When the desired length is reached, with the gold lines woven in all the way every 6 shots, repeat the border in reverse, i. e. weave the gold lines first.

The-napkin was planned similar to the one for mat #1

except that in this case the centre border reversed on itself with gold lines on both sides as in fig. 8. The coloured threads on either side were cut from the warp leaving the 5, 6 group as edge threads and an allowance of $\frac{1}{2}$ " heavy and $\frac{1}{4}$ " fine was woven at each end for hems.

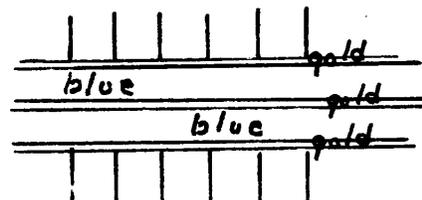


Fig. 8

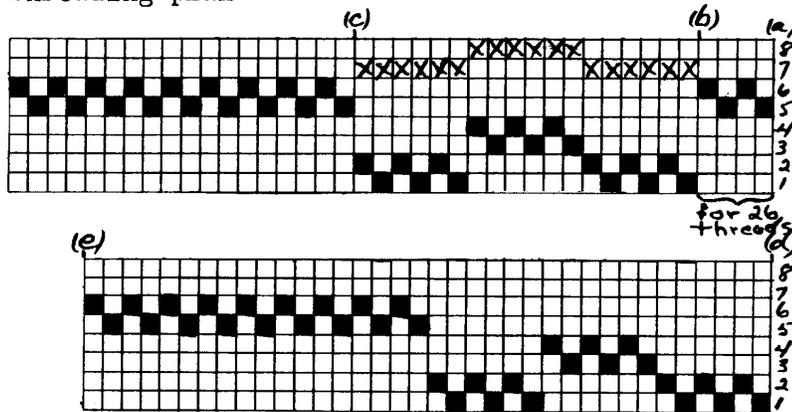
This is an attractive set and one that definitely suits that particular pattern of china. But, let us repeat, make sure the deep blue is colour fast.

The third mat is in many ways the most attractive especially from a colour standpoint, and is definitely the easiest to weave. The china chosen for this one was "Blossom Time", a Royal Albert pattern, and one which is very popular with tourists coming to our province of Nova Scotia, because the scene is typical of our lovely Annapolis valley. It is a picture type pattern showing apple trees in bloom. The main part of the plate is white so we felt that a green mat would be quite in keeping. The warp chosen consisted of various green linens of different weights but mainly 40/2. Three shades of green were used in the warp in light tones, and a green singles linen as weft. The way in which the different shades in the warp twisted around each other gave a lovely shaded effect. We decided to put our "apple blossoms" all around the mat by weaving the ones across the end in overshoot and the ones on the sides in warp pattern. This worked out well and easily because the mat was then woven, except for the end borders, in tabby with just one shuttle. The threading, as in all warp pattern designs, is a bit tricky, but once this is accomplished, everything else just falls into place.

The chief disadvantage is of course the long skips on the back. We feel that we have eliminated this by extending the sides and ends of the mat so that a wide hem can turn back over the carried threads and so prevent pulling. We found that a 6-strand mercerized cotton in pale pink made ideal "blossoms". It packs together well and does not shred in the warp. If many mats are woven on the same warp it will be found necessary to find some means of taking up the tension in the warp pattern threads, perhaps by putting extra sticks in at the warp beam, or using two warp beams.

Finished size of mat: 12" x 18" Napkin: 12" x 12"

Warp: 3 shades of green 40/2 linen
pink 6-strand mercerized cotton (floss)
Weft: green singles linen
Warp plan: the three strands of green linen were warped
and threaded as one.
--green warp, 286 threads
--pink warp, 36 threads
Threading plan:



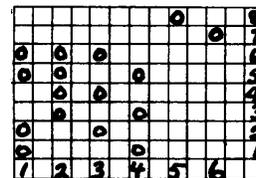
Pink warp threads are shown as x on the above draft---
all 7's and 8's are pink. Section (b) to (c) would read 1,
7, 2, 7, 1, 7 and so on. Thread from (a) to (b) for 26 threads
(b) to (c)
(c) to (d) for 18 threads
(d) to (e) five times
(b) to (c)
(a) to (b) for 26 threads

Reed: 10 dent, double sley.

The pink threads were put through the reed with the
green ones, making two green triple threads and two pink
ones in each dent for the side borders.

Tie-up:---

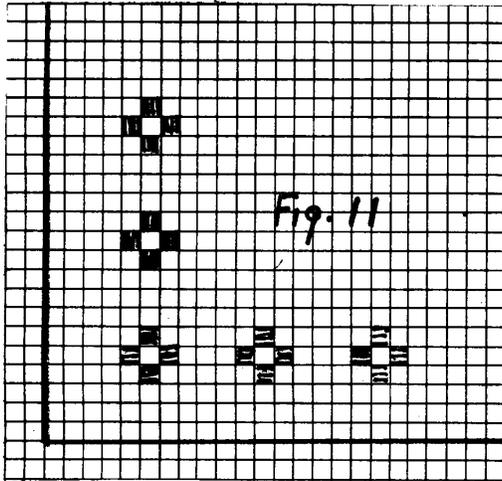
Weaving: 1 1/4" tabby with green weft
linen. For "flowers", depress
harnesses 3 and 4 (treadle 1).



Weave with pink, tabby with
green, and repeat with tabby between for six times making
sure that the pink is not caught by the tabby at the edge
but turns back at the edge of the flower.

Depress harnesses 1 and 2 (treadle 2); weave for six
shots with tabby; weave 6 shots with treadle 1. This com-
pletes the border.

Now, weave in tabby for $\frac{7}{8}$ " the distance between flowers. Raise harness 8 (treadle 5) and also press on the correct tabby treadle. Keep on alternating tabby with harness 8 raised for 6 or 8 shots, until the pattern is squared, then weave similarly with harness 7 raised (treadle 6), and then back to treadle 5, forming a flower like those in the overshot border. (Fig. 11). Continue with $\frac{7}{8}$ " tabby between warp flowers until 7 flowers have been completed. Weave tabby for $\frac{7}{8}$ ", then repeat with flower border and finish with $1\frac{1}{4}$ " tabby for the hem.



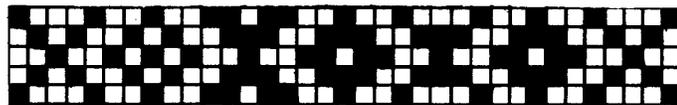
The napkin was woven on the same set-up with three weft and two warp flowers. Cut off the pink threads from the right hand side. Weave $1\frac{1}{4}$ " for hem. Then when you treadle 1 for the weft flower, pass the shuttle over only the three end patterns, on the left side. Continue as in the mat but only weave the three end ones each time. Since the warp pattern threads have been cut on the right-hand

side, when you raise harness 8, only one side appears. Weave as for the mat until two flowers have been completed. Finish the napkin in tabby being sure to add the $1\frac{1}{4}$ " for hem.

To make up, turn the hem under all the way around to cover the pink threads. Hem flat. We would suggest running a line of machine stitching at each end to hold the pink warp threads before hemming.

This set was colourful and practical and in different colours could be used for other patterns of china.

The above information has been given in detail simply to show one weaver's method of designing and weaving placemats for a specific purpose. We enjoyed doing this and hope our approach may be of value to other weavers who wish to design and weave placemats for their own individual needs.



And More Place Mats

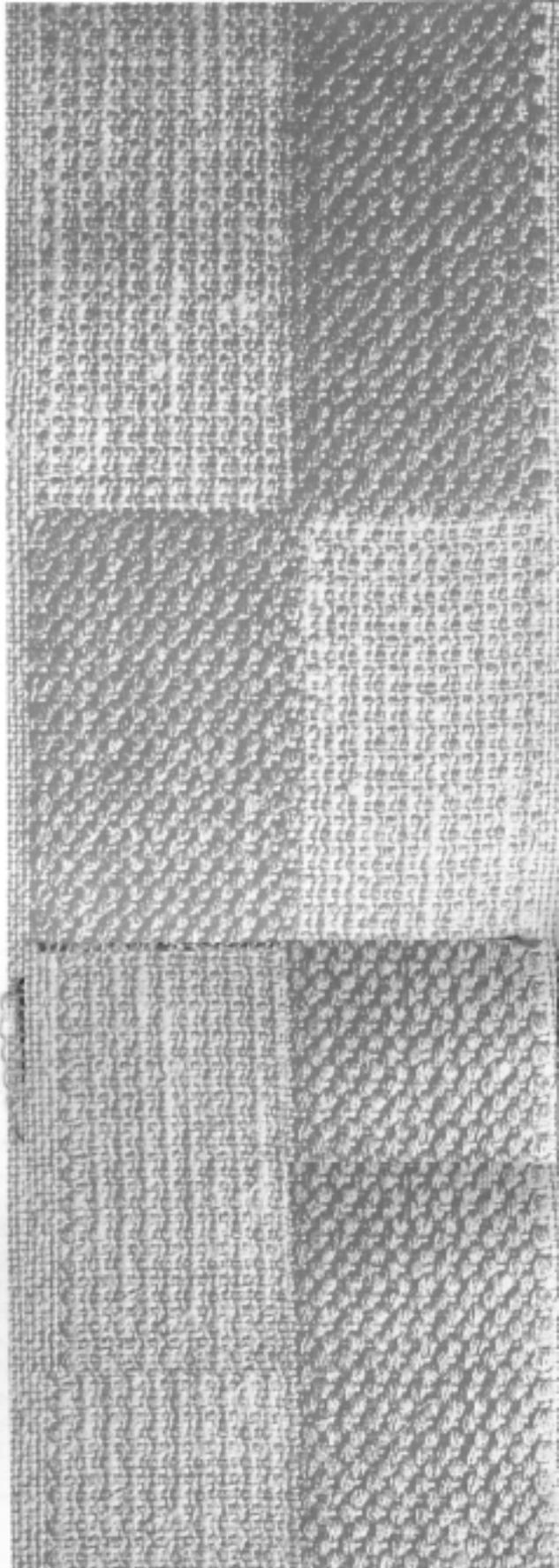
by Joyce Chown

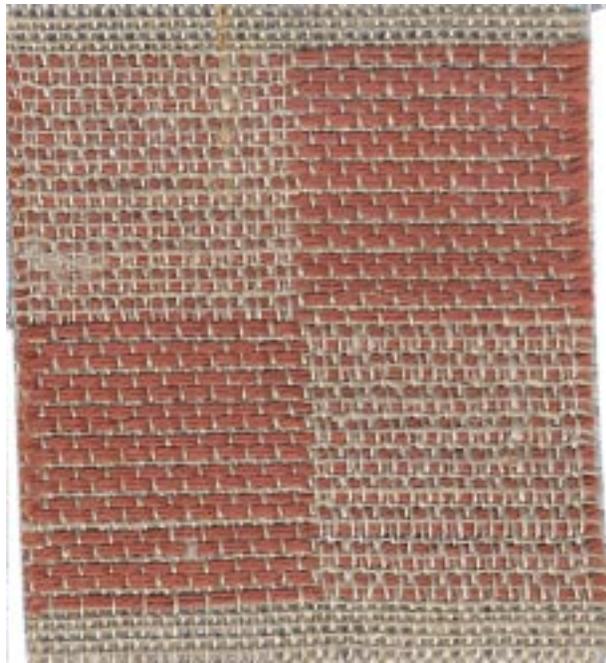
This place mat idea is suggested for use with bright pottery type dishes. The pattern is bright, bold and geometrical; the background is neutral and smooth.

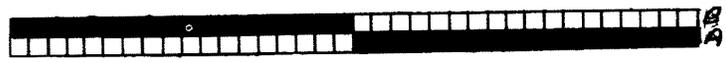
This fabric was planned originally for summer dirndl skirts--you almost got it in February's natural fiber study --but was found to be too stiff, unbending and heavy for that purpose. However, for the very reasons that it was not suitable for summer wearing apparel, we think it is suitable for bright checkerboard, informal place mats.

The warp used was #14 singles unbleached warp linen; the tabby weft #10 singles unbleached weft linen; and the pattern Lily's #3 pearl cotton, or 6-strand floss, or #5 pearl cotton double on the shuttle. Whatever pattern weft is used, it should be shiny and the color bright. For example, we found orange, peacock, bright blue-green and even a bright pink stood out well; but a light chartreuse, coral, or a dull brown, while pleasing were a little too genteel for the effect wanted.

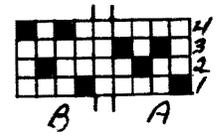
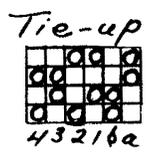
The warp was sleyed 24 threads per inch and threaded in a 2-block summer & winter.







Short
Draft



Draft
Key

For place mats, we felt that the checkerboard effect bands with each block squared were a little overpowering and preferred the effect of weaving only half the block, as shown in the photograph on the previous page. Whether it is woven in pairs, non-pairs or dukagang fashion is weaver's preference. We tried all three and found each equally attractive.

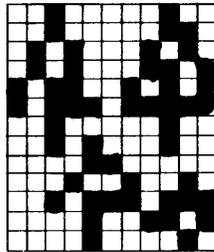
With the above suggestion for place mats in mind, use it as a jumping off place for your own experiments. You might try for example a stiff nylon or tensolite, or a soft thick jute or wrapping twine for your plain weave; a shocking pink or brilliant yellow pattern thread; variations in the size of the threaded and/or woven blocks; and variations in the threading itself -- summer and winter isn't the only weave or technique to give the gay effect called for here.

P A R T Y S T R I P S

Some time ago, Miss Ena Marston of San Luis Obispo, California, wrote to tell us of some handwoven party strips she had received from Stockholm. This information is a welcome addition to the foregoing place mat ideas.

"They are sold as yardage, and mine are from 6" to 10" wide. They are used, in the appropriate length for the table, either on top of a white cloth or on the bare table, to decorate the table for parties. The idea seems so "like a natural" for the narrow loom. All but one of mine are in linen, usually fine linen used double in both warp and weft, with a variety of methods of weaving included. One has warp stripes in yellow, red, two blues, green, black and white, set 30/inch and woven tabby with about 10/2 linen for very firm material. Three have natural linen warps with colored wefts, woven in Rosepath or similar pattern stripes. Two have warp stripes, threaded to weave in pattern in color. The last is totally different; it seems to be made of a striped cotton warp and rayon weft, the latter about the weight of 8/2 cotton. It is woven with colored stripes, plus shots of straw, that shiny yellowish straw that is made into Christmas stars and angels. Its edges are fringed."

The LOOM-SIDE MARKET



HARTLAND AREA CRAFTS

Harriet Tidball offers three weeks of specialized instruction in handweaving through the facilities of Hartland Area Crafts, Hartland, Michigan. Classes start August 3, 10 and 17 respectively—designed for one week's work or a consecutive program of your choice.

Housing available—write Hartland Area Crafts, P.O. Box 53, Hartland, Michigan.

COTTAGE CRAFT TWEEDS St. Andrews, N. B.

One of Canada's oldest handicraft shops specializing in handwoven tweeds. A distinctive range by the yard with matching knitting yarns and superbly tailored garments. Samples sent on request.

THE NOVA SCOTIA GAELIC MOD

St. Ann's, Cape Breton August 6 — 9.

In the heart of Scottish Cape Breton the bag-pipes, kilt and highland dancers will enchant you. Come see for yourselves. We will also be glad to show you our beautiful handwoven authentic tartans and tweed, and variety items woven by our local craftsmen.



Select your wools from Lilys

- Homespun yarns
 - Lamb's Wool
 - Suiting Yarn
 - Tweed Yarn
- Weaving Wool (41 colors)
- Light-weight Weaving Wool
- Hand Weaving Sports Yarn
- Knitting Worsted

All are 100% Virgin Wool

LILY MILLS COMPANY
Handweaving Department
SHELBY, NORTH CAROLINA

MOUNT ALLISON UNIVERSITY

Summer Courses
in Applied Art

Weaving
Metalwork and
Jewellery,
Leatherwork

Courses and individual instruction will be offered during the whole or any part of the period, July 2 - August 13, 1959. Accommodation in University residences available. For further information about these programmes, the academic summer school, or the Summer Art Workshop, (August 3 - 12), write to The Director of Extension, Mount Allison University, Sackville, N. B., Canada.

Handweaver & Craftsman

246 FIFTH AVENUE, NEW YORK 1

— comes 4 times a year

Canadian rates now the same as for the United States. 1 year \$4.00, 2 years \$7.50, 3 years \$10.00, 5 years \$15.00.

Single copies \$1.25.

Pan American and Foreign subscriptions \$1.00 a year extra.

Searle For Silk



—100% pure silk warp, and 100% pure silk colored tweed wefts

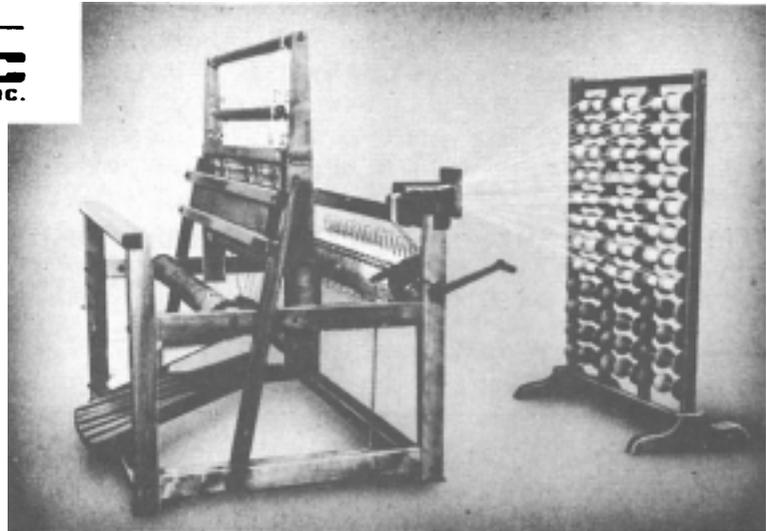
and For Wool

—Weavecraft in a complete range of 24 colors and in two weights—2/32 and 2/16.

SEARLE WEAVING SERVICE, 318 Grain Exchange Bldg. Winnipeg, Canada.

Nilus
Leclerc
INC.

L'Isletville, Quebec, Canada.



FOR THE BEST IN SECTIONAL-WARP BEAMING

A BAKER'S DOZEN

of SHUTTLE CRAFT for you

IF - -

your membership in the Guild falls due between April 1st and December 31st, 1959, and you renew it before September 31st, 1959, we will extend your membership three extra months.

This means you will receive all the benefits of membership for three extra months, including 13 copies of SHUTTLE CRAFT for the price of 10.

IF - -

you are not a member of the Shuttle Craft Guild and wish to become a member now, you too will receive 13 issues of SHUTTLE CRAFT for the price of 10 if you subscribe before September 31st, 1959.

Regular membership \$7.50 Portfolio membership \$17.50

(The Portfolio edition of SHUTTLE CRAFT is the same as the regular edition but includes woven samples of some of the textiles for which directions are given in the text.)

Back issues of SHUTTLE CRAFT now available at reduced rates as listed below:

August-September; October; November; December 1957 issues of regular edition of SHUTTLE CRAFT—four copies to one person—post paid	\$1.35
August-September; October; November; December 1957 issues of <i>portfolio</i> edition of SHUTTLE CRAFT—four copies to one person—post paid	\$2.70

Please add bank collection charge of .15 to orders of \$10.00 and under, or .25 to order over \$10.00.

NEW KEY TO WEAVING by Mary E. Black

The basic text for beginner and advanced weaver, student and teacher, gives complete information on finger-manipulated weaves and on loom-controlled weaves from 2 to 12 harness.....\$12.00
(Please add .45 Handling Charge)

WEAVING FOR BEGINNERS by Mary E. Black.

Clear and concise instructions for warping and dressing the loom, threading and weaving. Step by step illustrations of each process..... .35
(Please add .25 Handling Charge)

Printed in Canada.

