

SHUTTLE-CRAFT BULLETIN NO. 28.

JANUARY

-

1927

The time of the year between New Year and Easter is apt to be the very best part of the year for doing large and important bits of work. In other words it is the time of year for coverlets! This is to be a coverlet Bulletin, and it is hoped each Guild member will find a suggestion to meet his or her special needs, and will be inspired to accomplish what is the "magnum opus" of the hand-weaver.

The four drafts supplied with this Bulletin are the patterns of four unusual and beautiful coverlets found in the collection of the Pennsylvania Museum. These are all four-harness overshot patterns and within the reach of any of us.

Pattern No. 1 is a decidedly formal and serious pattern. It would be appropriate for a man's room furnished in dark wood. The coverlet seen in the museum was made of exceptionally fine materials, and in that lay a good deal of the charm of this particular pattern -- do not select this one if you wish a large and "splashy" effect. Our "24/3" Egyptian cotton is somewhat heavier than the warp used, but would be satisfactory, set a little closer than ordinary -- say at 34 or 36 threadsto the inch. A No. 20 mercerized warp could be used if preferred, and this could be set a little closer. Fabri yarn should be used for weft.

The coverlet in the museum had no border, but in my opinion a border is always desirable. It gives a coverlet a finished look that it never has otherwise. The "Diamond" border is always safe -- the arrangement at (h), diagram 9 of the course would be the one to use. A border threaded as at (b) diagram 8 would also be good, and here is an arrangement that would, in my opinion, be particularly handsome: Warp 1538 threads, which at 36 to the inch will be a little more than 42" in the reed. Begin threading at thread 27 of the draft, putting in no selvage, as this is to be the seam line of the coverlet. Thread to the end of the draft and then thread the entire repeat five times from beginning to end, putting in an extra thread, - through a heddle on harness No. 2 - after the last repeat. Now thread 17 repeats of the threading at (b) Diagram 8. Then beginning at thread 126 of the pattern draft, thread to the end, and begin at the beginning of the draft and thread to thread 94. Thread 17 repeats of (b), Diagram 8, and put in the remaining threads, 1,2,3,4, as a selvage. If the setting at 30 threads to the inch is preferred, make a warp of 1272 threads and follow the threading directions as above, omitting one complete repeat

of the pattern and putting in 13 repeats of (b) ~~8~~ each time instead of 17 repeats. If this setting in the reed is chosen the weft should be Shetland or Zephyr yarn instead of Fabri and the effect will not be as fine, of course. An 18 dent reed can be used to give a setting of 36 to the inch,

Treadeling for pattern No. 1 - following the threading directions as given, and number of shots as for Fabri yarn, - is as follows:

Border --

Treadle	4,	3 times	--	black
"	3,	3 "	--	red
"	2,	3 "	--	black
"	1,	3 "	--	red
Repeat 17 times				
"	2,	once	--	black
"	3,	"	--	black
"	4,	11 times	--	black
"	1,	once	--	red
"	2,	12 times	--	black
"	1,	once	--	red
"	4,	11 times	--	black
"	3,	once	--	black
"	2,	once	--	black
"A	1,	12 times	--	red
"	2,	once	--	red
"	3,	12 times	--	black
"	2,	4 "	--	red
"	3,	12 "	--	black
"	2,	once	--	red
"	1,	12 times	--	red
"	2,	once	--	black
"	3,	"	--	red
"	4,	11 times	--	black
"	1,	once	--	red
"	2,	12 times	--	black
"	1,	once	--	red
"	4,	11 "	--	black
"	3,	once	--	black
"	2,	once	--	black
"	1,	3 times	--	red

Repeat the first part of the border 17 times as above.

Treadle	2,	once	--	black
"	3,	"	--	black
"	4,	11 times	--	black
"	1,	once	--	red
"	2,	12 times	--	black
"	1,	once	--	red
"	4,	11 times	--	black
"	3,	once	--	black
"	2,	once	--	black
"	1,	10 times	--	red
"	2,	2 times	--	black
"	1,	10 times	--	red

Treadle 2, 2 times -- black  
 " 1, 10 times - red  
 " 2, 2 " - black  
 " 3, once - black  
 " 4, 11 times - black  
 " 1, once - red  
 " 2, 12 times - black  
 " 1, once - red  
 " 4, 11 times - black  
 " 3, once - black  
 " 2, once - black  
 " 1, 12 times - red  
 " 2, once - red  
 " 3, 12 times - black  
 " 2, 4 " - red  
 " 3, 12 " - black  
 " 2, once - red  
 " 1, 12 times - red  
 " 2, once - black  
 " 3, once - black  
 Repeat

Pattern No. 2 is a simpler pattern but also attractive. It is written "on opposites" as will be noted, and in treadeling the "accidentals" may be omitted. Weave the pattern just as threaded: Treadle 1, 12 times; treadle 3, 12 times; treadle 1, 5 times; treadle 3, 12 times; treadle 1, 12 times; treadle 4, 6 times; treadle 2, 5 times; treadle 4, 6 times, etc., etc. For a border use as a repeat the part of the pattern from thread 121 of the draft to thread 170 inclusive. The seam of the coverlet should be arranged to run through the 1-4 block between threads 150 and 160 of the draft, as indicated.

This would make a charming coverlet for a young girl's room.

Pattern No. 3 has a long repeat that includes two large "tables". It is an excellent pattern for weaving in two colors, as indicated. With this pattern a "Diamond" border would probably be the best. Use the threading at (e), Diagram 9.

Pattern No. 4 is remarkably pretty for so small and simple a pattern. It would be charming for a child's bed, or for a coverlet in a light and dainty room. The effect depends, of course, on the choice of good shades of the colors mentioned, or could also be used effectively with other colors, -- plum color, brown and tan, for instance. The Diamond threading at (d) Diagram 9 would make a suitable border. Or the coverlet could be arranged in a manner similar to that suggested for Pattern No. 1: Warp 1264 threads (at 30 threads to the inch this is 42" in the reed). Begin at thread 70 of the draft as the seam of the coverlet is to be at this point; thread to the end. Then thread the complete repeat ten times. Next thread the 12-thread repeat of (b), diagram 8 twelve times. Now, beginning at thread 53 of the draft, thread to the end of the pattern and then put in one complete repeat. Thread (b) 8,

12 times and put the remaining threads into a selvage. If it is desired to set the warp at 36 threads to the inch, make a warp of 1528 threads, and in threading put in 16 repeats of (b) 8 each time, and two more repeats of the main pattern in the middle part of the coverlet.

\* \* \* \* \*

Out Structo weavers will have to follow a somewhat different system in making coverlets. It is hardly practical on so small a loom to undertake a coverlet for a large bed, but a coverlet for a narrow single bed, or for a child's bed, or a couch blanket can be made very nicely. Three strips should be woven. The two strips for the sides should be threaded with a border and the middle strip woven in the pattern without borders. This involves a little re-threading, but is not very troublesome. For instance, pattern No. 4 might be arranged as follows:

Begin at thread 66 of the pattern and put in the remaining threads of the draft, then thread the complete repeat seven times, the last repeat ending at thread 76 of the draft. This is the threading for the middle strip of the coverlet. When this has been woven, rethread about half the warp - on either side, - but for most people more conveniently on the left, - being careful to find the end of a repeat. The border may be threaded either in the "Diamond" threading or the (b) 8 threading, allowing it to come as it will on the edge and putting the last four or eight threads into a selvage.

In weaving the middle strip, treadle of course, first for the border. Weave as many repeats of the pattern as desired for the length of the coverlet and repeat the border. The length depends on the bed for which the coverlet is to be made. For a full sized bed coverlets are usually woven 3 yards long, tho some people make them 2½ yards.

To use Pattern No. 2, begin at thread 152 of the pattern, thread to the end, and put in three repeats of the complete pattern, ending on the last repeat, however, at thread 156 of the draft. This will not cover all the 590 threads of one of our ready wound warps. The extra threads - 27 of them - there will be - must be unwound as the weaving progresses and should be chained up to keep them from getting tangled. After the middle strip is woven, take out one repeat of the pattern to re-thread for the border.

Be very careful in weaving to keep an even beat and measure the figures often to keep them the same size so that the strips will match.

In treadeling, remember that to weave a block threaded 1-2, like the first block of pattern 4, you must bring down the two back levers. For a 2-3 block, bring down levers 1 & 4, for a 3-4 block, levers 1 & 2, for a 1-4 block, levers 2 & 3.



There is not room in the Bulletin to give the treadle-  
ing in detail for each pattern and Guild members should not  
need these directions. We can, of course, supply them but  
will have to make a charge of \$1.00 for the service. We rec-  
comend a study of the directions given in the course for "weav-  
ing as drawn in".

To make coverlet weaving inexpensive as well as inter-  
esting, we have secured a special lot of yarns which we can  
sell at a special Guild price during January and February.  
Zephyr, and Homespun in the following colors, plum, green, brown,  
tan, navy blue, Colonial blue, and rose, at \$2.25 a lb. for  
the Zephyr, and \$2.00 a lb. on the Homespun. The Shetland in  
Navy only is to sell at \$2.25 a lb.

\* \* \* \* \*

We are also quoting a special January price on cover-  
let warps, \$1.65 a pound for fine Egyptian on small spools -  
no order for less than 60 spools.

On the large spools of 24/3 Egyptian the price is \$1.50  
a lb., minimum order 10 lbs.

Please use the enclosed order blank. There is no ad-  
ditional discount from these prices and postage is an extra  
charge.

\* \* \* \* \*

I am especially glad to be able to offer the plum-colored  
yarn as many have asked for it. Coverlets in this shade with  
"old gold" or tan are very beautiful, and the brown and tan  
combination also makes a delightful coverlet - especially for  
a room with buff or cream-colored walls. The green we are hav-  
ing dyed for this January offer is a delicious shade of almond,  
that we have not carried regularly in stock.

\* \* \* \* \*

For making a coverlet in several colors, it is advisable  
to order more than 4 lbs. of yarn as it is difficult to calcu-  
late the proportions of colors exactly and if anyone runs short  
we may or may not be able to match the shade.

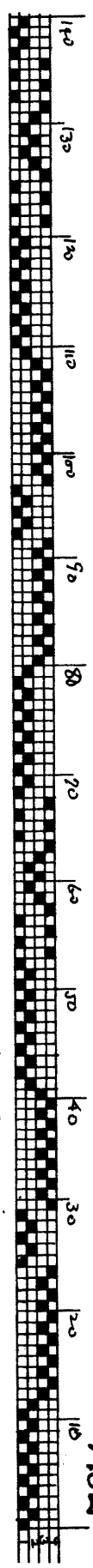
\* \* \* \* \*

One of our members here in Boston has met with an ac-  
cident that disables her so severely that she will not be able  
to use her large loom for a long time. She wishes to sell it.  
It is an eight harness "Practical" loom, in perfect condition  
she says, and she will sell it for \$60.00.

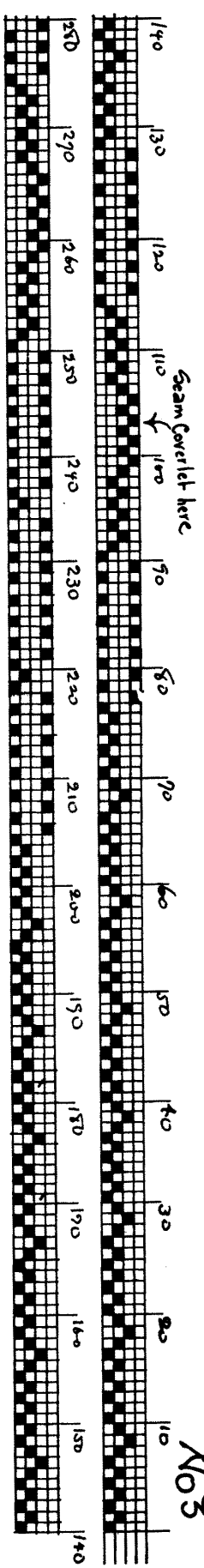
\* \* \* \* \*

# Some Old Coverlet Threadings from the Pennsylvania Museum

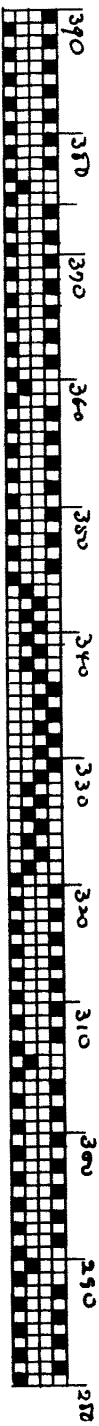
This is the draft of a very beautiful and unusual coverlet, woven in two colors, as indicated, in fine wool on a fine white warp set at 38 or 40 to the inch. — Pattern woven as drawn in. Name of pattern unknown.



From a coverlet woven in rose-colored wool over a fine white cotton warp. Pattern on opposites — name unknown — woven as drawn in.

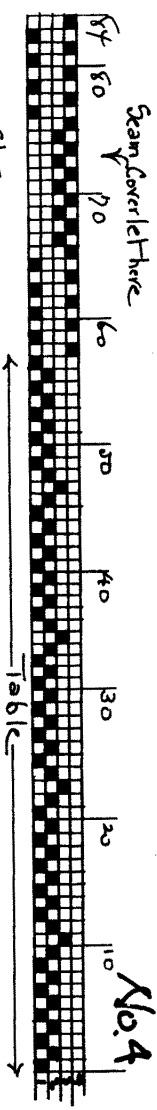


All large 1-4 blocks woven in red — all other blocks blue. Pattern as drawn in — no name



A simple pattern, name unknown — very effective. Woven as drawn in, in three colors, on a fine white cotton warp, as follows:

First Table — all 1-2 blocks, dark blue, 2-3 blocks, red. Star — 1-4 blocks, light blue; 3-4, red. Second Table — all 1-2 blocks, red; 2-3 blocks, dark blue. Star, as above. Repeat: "First Table" etc.



Use the ordinary tie-up for 4 harness "Overshot" weaving with all these patterns.

First: the pattern for this month! "Pine Bloom" is one of the most famous of the old patterns and is, no doubt, familiar to many Guild members. This draft, however, was taken from a particularly handsome old coverlet and will, I hope, prove of interest. It differs, of course, slightly from other readings of the same pattern.

The pattern as given is intended for coverlet weaving in wool over a fine warp. For linen weaving or for bags it should be written very much smaller — for instance the blocks may all be made just half size without changing the proportions of the pattern, — the long blocks of eight instead of sixteen threads, the large blocks of the "table" of six instead of 12 threads, the small blocks of two threads only. Of course this will not make a draft of exactly half the number of threads, as there are several blocks of an uneven number of threads and some of six threads. Before attempting to thread a shortened draft into the loom it should be carefully written out on squared paper and "proved" if there is any doubt about correctness. This is not a good pattern for rugs.

This pattern is occasionally seen with the two 1-4 blocks of the star figure written larger than shown on our draft — the block between threads 240 and 250 and the one between threads 284 and 294. These may be made of 17 threads instead of 11, and the complete draft will then cover 340 threads instead of 328. The square table may be increased by adding another pair of blocks or decreased by taking out a pair — 16 threads either way.

In using the pattern for a coverlet arrange it so that the seam will run through the point marked "G" on the draft — the 3-4 block between threads 265 and 268, inclusive.

For instance, for a coverlet in Egyptian cotton set at 30 threads to the inch, put in 8 threads for selvage as shown on the draft. Then 20 repeats of the 16-thread repeat of the border, then two complete repeats of the pattern as shown, then repeat from the beginning to thread 268 of the pattern:

8 selvage
320 border
656 repeats
<u>268</u>
1252

To put this pattern on the Strueto loom -- very handsome for pillow-tops or a piece of drapery -- thread 1,2,3,4, three times, then one repeat of the border figure, (16 threads), then one complete repeat of the pattern; then the first part of the pattern again -- from the beginning to thread 220. Thread the last threads: 1,4,3,2,1,4,3,2, etc.

12 selvage  
16 1 repeat, border  
328 1 repeat, pattern  
220 first part of pattern, including border  
14 last threads of border and selvage  
590

\* \* \* \* \*

One of our Guild members, Mr. E. H. Cochrane of Hibernia, Florida and South Hatley, Quebec, sends in a very handsome upholstery material with the following notations for the weaving:

"Pattern, 'Goose-Eye' figure in "Bronson" weave (b), as given in Shuttle-Craft Bulletin No. 17, February 1926. Tie-up and treadeling as given.

"Materials: Warp, Egyptian cotton 24/3 at 30 threads to the inch.  
Weft, Belspun yarn, black and burnt orange.

"The two colors alternate as tabby and pattern as follows:

"A" tabby -- black (between two red pattern shots)  
"A" tabby -- red ( " " black " " )  
"B" tabby -- black (between all pairs). For example:

"B" tabby, black -- right to left  
Pattern -- red, " "  
"A" tabby, black -- left to right  
Pattern, red " "  
"B" tabby, black -- right to left  
Pattern, black -- left to right  
"A" tabby, red -- right to left  
Pattern, black -- " "  
"B" tabby, black -- left to right  
Pattern, red ----- " "  
"A" tabby, black -- right to left  
Pattern, red ----- " "  
Etc., Etc. "

\* \* \* \* \*

So many inquiries about the Italian type of weaving are coming in that I have been shopping intensively for a soft unmercerized cotton in colors suitable for this sort of work. I am enclosing samples of six colors I am having dyed, and shall be able to add other colors from time to time as we need them. As this material is made up for us

at a large factory there may be some delay in filling orders after the first lot of material -- that that is now on hand, -- is exhausted. However, if this material meets with approval I shall be able to keep it in large stocks. As you will note, it is a very fine cotton "doubled" to make a strand of six ends. The colors are wash and sun-fast. The price is \$2.00 a pound, on 4 oz. spools. No less than a pound can be supplied but this may be in several colors if preferred.

This material can, if desired, be used for warp, and is much softer than a twisted thread of the same weight. However, it is interesting chiefly for weft, in pieces similar to the Italian ones mentioned in several recent Bulletins.

We have on hand a few samples of Italian weaving that we will sell, -- as long as they last -- at \$1.00 each.

Here are some further notes on this type of weaving. We have a piece in "natural" and yellow cotton, threaded to the "Whig Rose" pattern. The warp is a "20/2" cotton like the warp we use so much, but is set at 48 threads to the inch. The plain parts of the fabric are woven in the same thread as the warp, beaten very hard and close, -- in plain tabby weave with occasional ridged stripes, sometimes in white and sometimes in color, made by throwing a six-strand shot. These heavy strands are pulled up into loops about every two inches -- probably with a crochet hook. (This is an effect I, personally, do not admire). Bands of pattern weaving alternate with plain stripes, -- the pattern weaving being done in the usual way, using a colored six-strand cotton for the pattern shots and the warp cotton for tabby. The pattern is written with very long overshots, the largest blocks covering 20 threads. Of course the skips are not as long as might be supposed on account of the close setting in the reed. The "Pine Bloom" pattern as given in our draft would be excellent.

This weave would be very handsome for a coverlet. It might be woven all white if desired.

A bag sent me from Italy and which I am told proves very saleable, is made of stripes of brilliant color set in the warp. The warp is set so close together that the weft is entirely covered. The weft is a fine jute, making the bag extremely stout and strong. The bag, finished, measures 12" wide by 11" deep. It is made of a 12" strip of material woven 22" wide, the selvages being the top of the bag, a fold for the bottom and the sides seamed. As the fabric is stiff it requires no finish except a pair of handles, which are made of 2" strips of weaving folded and stitched double.

The colors are arranged as follows: next to the edge, a  $\frac{3}{4}$ " stripe of red, next a  $\frac{3}{4}$ " stripe of green, followed by a stripe  $1\frac{3}{8}$ " wide alternately red and yellow. Next a  $\frac{3}{4}$ " stripe of blue; a  $1\frac{1}{8}$ " stripe of red;  $\frac{3}{4}$ " white;  $\frac{3}{4}$ " yellow;  $2\frac{1}{2}$ " red;  $1\frac{1}{4}$ " green;  $\frac{1}{4}$ " yellow; and a broad stripe -- about 2"-- alternately red and white. This red and white stripe is the center and the fold comes up the middle of it. The 6-strand cotton could be used for this, set at 30 to the inch, and instead of just a heavy mercerized cotton could be used for weft. The weft does not show at all. There is no pattern weaving in this and the material could be produced on a two harness loom.

The directions given in the "Sesqui" Bulletin for the heavy Spanish hangings could be worked out for table runners in the strand cotton, and would be very effective and unusual.

\* \* \* \* \*

Some time ago we made a suggestion about samples. So far not enough names have come in to make the project workable. Will everyone please refer back to Bulletin No. 25 and consider this suggestion again. It appeals to us as very valuable.

\* \* \* \* \*

We have been experimenting with the pattern sent out with the November Bulletin and find it a wonderfully handsome pattern. At present we are using it for rugs, - in two colors for the pattern and a third color for tabby. A pillow-top in plum and tan is also very beautiful. This has caused more comment from visitors than any pattern we have ever had on the loom. For coverlets, written larger as indicated in the Bulletin, it would be gorgeous.

\* \* \* \* \*

A little of the January Special yarn is still in stock and as long as it lasts we will sell it at the January price. We also have a little heavy weight homespun, like the sample enclosed, which we are having dyed in the special colors sent out in January and which will sell at the January sale price of \$2.00 a pound, in lots of four pounds. The January sale price on warp cannot be continued.

\* \* \* \* \*

The colored linens are the first of the new color line. We now have these four colors and black -- and, of course, the half-bleach of the same weight -- in stock. We expect ultimately to have 16 or 18 colors. The material is put up on 2 oz. spools and will sell at 50¢ a spool, or at \$3.50 a pound of one color. This is, of course, very much cheaper than the linen in small skeins that we have been supplying, and is also put up in more convenient form. The colors are guaranteed fast.

The old books advise in weaving linen to keep both the warp and the weft wet. In weaving linen on cotton warp it is also an advantage to keep the linen weft damp. The material packs more closely if this is done though it is somewhat clammy and unpleasant to handle.

\* \* \* \* \*

It may be of interest to some who are making small things, to know that we can supply the tapestry crewels in a great number of colors. These sell at 3½¢ a skein for the English crewel wool, and at 4½¢ a skein for French Tapestry wool. Minimum orders of 50 skeins taken.

\* \* \* \* \*

We have succeeded in getting throw-shuttles that though not as highly finished as the old ones are still perfectly satisfactory and far less expensive. This will be a convenience to many, as it is pleasant to have a large number of shuttles when doing work with many colors. These shuttles sell at \$1.75 each and \$3.50 a pair. They take the regular metal bobbins. Paper "spills" for these shuttles can also be supplied at very low cost, but they do not fit the ordinary bobbin winders.

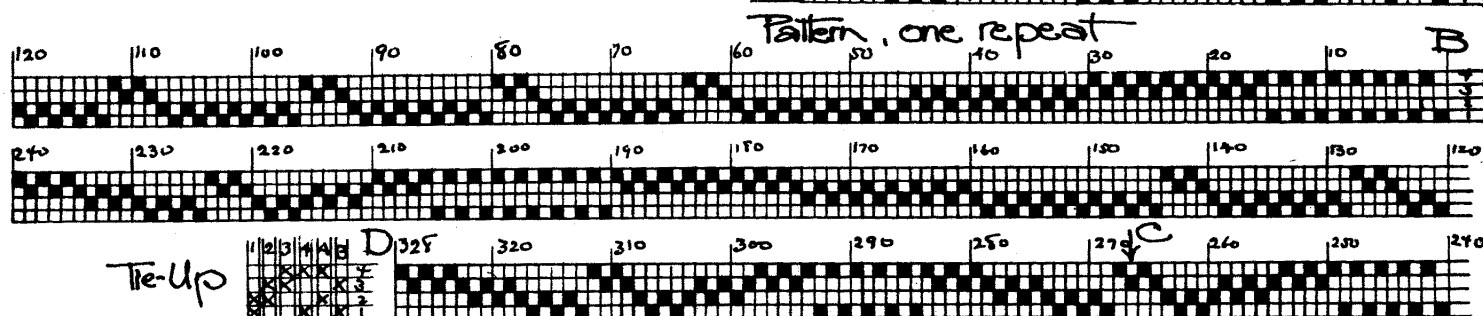
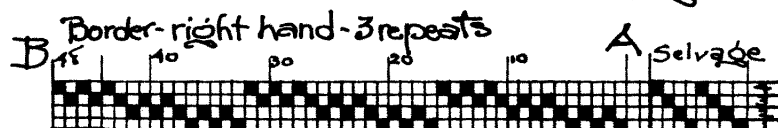
\* \* \* \* \*

# Shuttle-Craft Draft for Hand Weaving, Series A, No. 8

Pattern known in New England as  
"Isle of Patmos"

and as  
"Fine Bloom"  
in the Southern states

Threading

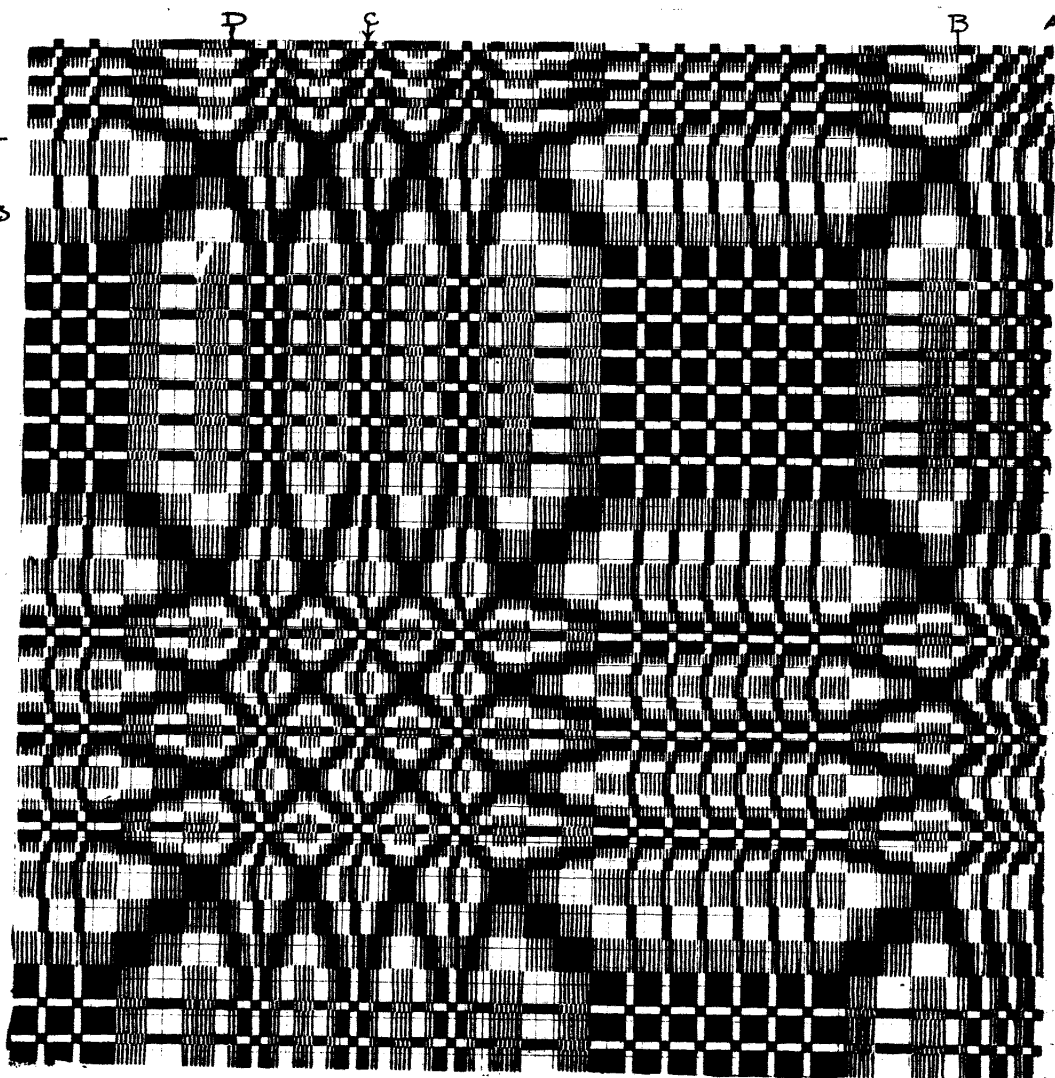


"A" to "B", right hand border-3 repeats; "B" to "D", one complete repeat of the pattern. In arranging the pattern for a coverlet, have the seam at point "C". The treadling is written as for the Shuttle-Craft standard six-treadle tie-up as shown, and must be transposed for use on table looms or on looms with four treadles.

Treadling

Border		(Pattern, continued)	
Treadle 1, 3 times		Treadle 3, 5 times	
"A" 2, 3 "		" 4, 10 "	
" 3, 3 "		" 3, 5 "	
Repeat		" 2, 5 "	
Pattern:		" 1, 5 "	
"B" Treadle 4, 16 times		"C" 3, 4 "	
" 3, 15 "		" 1, 5 "	
" 2, 15 "		" 2, 5 "	
" 1, 14 "		" 3, 5 "	
" 3, 4 "		" 4, 10 "	
" 1, 12 "		" 3, 5 "	
" 3, 4 "		" 2, 5 "	
" 1, 12 "		" 1, 5 "	
" 3, 4 "		" 3, 4 "	
" 1, 12 "		" 1, 5 "	
" 3, 4 "		" 2, 5 "	
" 1, 12 "		"D" 3, 5 "	
" 3, 4 "		Repeat	
" 1, 15 "			
" 2, 15 "			
" 3, 15 "			
" 4, 16 "			
" 3, 5 "			
" 2, 5 "			
" 1, 5 "			
" 3, 4 "			
" 1, 5 "			
" 2, 5 "			

Note:  
the number of  
pattern shots  
varies with the  
weights of  
materials used.  
Weave to re-  
produce the  
pattern as  
illustrated



Copyright 1927  
Mary M. Atwater  
Cambridge, Mass.



Never again shall I make promises on the strength of manufacturers promises to me! The unmercerized strand cotton mentioned in last month's Bulletin has just come in, and here are the missing samples.

This material, I believe, will be good for many different things. If used as warp it will make a much softer warp for a heavy fabric than the ordinary warps of the same weight. Its uses for the Italian types of weaving has already been discussed, - and woven in a similar way it will make handsome coverlets. Many people like coverlets made without wool for use in the "mothy" months.

In this connection, please note, too, the sample of raw silk included with this Bulletin. This material we actually have on hand in "natural" like the sample, and are preparing to dye it so that we shall also have it in colors. In the natural it would make a beautiful coverlet woven over an Egyptian cotton warp, and would also be charming for summer dresses, either in natural or in colors.

Who is planning curtains for a summer home? I saw some delightful and very simple curtains the other day made of a heavy cotton material warped in broad stripes of color -- blue, old gold and "natural" with a fine line of black -- woven in plain tabby weave. Either the unmercerized cotton or the raw silk material would be charming used in this way, and the effect might be made even more interesting by introducing a simple "tobine" stripe, as described in the Course of Instructions. By using additional harnesses "Monk's Belt" or any other suitable little pattern may be introduced in the stripes.

In a number of the Italian pieces that have come to me, the pattern is entirely in the warp. For this sort of weaving the loom should be set up with two separate warps, a plain warp for the ground and a colored warp for the pattern, as the "take up" for the pattern threads and for the tabby ground is different. However, for small things, that may be taken out of the loom from time to time and the warp tied in again, it is perfectly practical to warp both plain and colored threads at the same time. The material must be set twice as close in the reed as for overshot weaving. For instance if both pattern and plain warp are of 20/2 cotton, it would be necessary to warp 30 plain threads and thirty colored threads to the inch, and sley

four threads through each dent of the reed. In threading, the plain threads should all be drawn in through the two front harnesses, -- 1 and 2 alternately. The colored threads should be threaded according to a pattern through the other harnesses. If a pattern thread heavier than the plain warp is used, of course fewer threads will be required in the colored warp and the material may be sleyed, two fine ground threads and one heavy pattern thread through each dent of the reed. A four harness loom allows only patterns of two blocks, of course, such as "Monk's Belt", "Sugar-Loaf", and the like. However, many of these patterns are very handsome. A great many interesting effects can be produced by setting a simple four-block Diamond in this fashion -- which would, of course, require six harnesses. Thread eight colored threads (if the fine material is used), or four heavy colored threads for each block of the pattern. For instance: eight red threads on the third harness, eight red threads on the fourth, eight blue threads on the fifth, eight red threads on the fourth and repeat. The plain warp as noted above, being threaded through the two front harnesses. The tie-up would take eight treadles if to be woven with one foot: 1&3, 2&3, 1&4, 2&4, 1&5, 2&5, 1&6, 2&6. The tie-up could be made to six treadles by tying one treadle to each harness and then weaving with both feet. Variations can be produced by bringing down two of the pattern harnesses at the same time.

As the weaving is done entirely with one shuttle carrying a plain tabby thread, the work progresses very rapidly.

\* \* \* \* \*

This is the time of year to think about summer camps. Will any Guild members who would like to consider summer camp positions, please send in their names. We have a request from Camp Directors Association, Placemont Bureau, Wolfeboro, N.H., which we are glad to quote -- "We have positions open for camp pouncellors who can weave, and would appreciate it if you would refer to us those who are seeking camp positions."

\* \* \* \* \*

We also know of several excellent positions in Occupational Therapy that are at present open or will be very shortly. It is convenient for us to have on file the names of those Guild members who might be available and would like to consider openings of the sort. Hand-weaving is becoming increasingly prominent in Occupational Therapy. From being counted one of the major crafts, it is rapidly becoming "the" major craft, and most large hospitals are increasing their hand weaving equipment.

There is a demand for instructors who actually know something about weaving, -- which is of course very satisfactory. Weaving when poorly done is a great waste of time and good material, when well done it has a value greater than any other craft because it combines the pleasures to be found in the use of color and of pattern, the pleasure of agreeable textures, a certain amount of physical exercise, a great deal of mental stimulus, a wide variety of product, and the joy of creation. We who know weaving intimately must, I think, feel that what may be called the spiritual values are as great if not greater than the very delightful material values.

\* \* \* \* \*

Some Guild members no doubt have seen the little article on simple upholstery weaving in the March number of "Modern Priscilla". While it contains nothing very new to most of us, it may prove of interest.

\* \* \* \* \*

It occurs to us that Guild members may not all have seen our most recent booklet. We shall be glad to supply copies to any who wish them.

\* \* \* \* \*

Mrs. Nellie S. Johnson, 12489 Mendota Blvd., Detroit, Michigan, writes: -- "I am planning to keep on hand bag-tops as follows:-

1. Metal gate-tops, in 9", 10" and 12" sizes at \$1.50 plus postage, either silver or green gold finish.
2. Amber shell tops, ball clasps, with amber chain handles in 7" and 10" sizes at \$4.00 and \$4.50 each. These are the best quality that is to be had. The number of bags on these tops that I sold at Christmas time for \$20.00 and over was amazing."

\* \* \* \* \*

We still have some of the Special January Offer yarns in stock, and shall be glad to fill any orders as long as the supply lasts.

\* \* \* \* \*

Please note the new price-list. Most of the prices remain the same, but the price on Egyptian cotton has been reduced and the prices on single skeins has been increased. As anyone will realize, the handling and mailing of single skeins is expensive. In fact it is so expensive in time and trouble that there is no profit in doing it even at the increased prices but it is often a convenience to our members to be able to get small quantities and we are willing to supply it so -- however, please order in as large quantities as possible.

Two new yarns will be found listed on the price-list -- Afghan and Kashmir. These are very beautiful high-grade worsted yarns, suitable for both warp and weft. They are very much finer than Fabri and will be useful for filmy summer scarves and the fine light shawls that are so convenient for a summer baby. We have not yet a complete line of colors in this material but we have a number of shades -- light delicate shades for the most part.

The unmercerized cottons and the silk material are not listed on the price-list as I am offering these experimentally only. However, I feel certain that both -- especially the unmercerized cotton -- will fill a long-felt want. I have been experimenting with them on the loom and am delighted with the cotton, which is as soft and lovely as wool and is just what we want for many summer uses. I have some samples of this material woven on the three harness weave and also some samples woven on the pattern of the November Bulletin, and shall be glad to supply these samples at the usual price (\$1.00) as long as the supply holds out. The silk is very beautiful, too, and makes a fabric that would be ideal for upholstery and draperies or a "sports" coat, though -- in my opinion -- rather too heavy for a summer dress, or for a scarf.

The sample shows the colors we have on hand in the strand cotton. We have also on order the following: black, henna, old gold, plum color and scarlet, also "natural", and a little darker shade of green. These will be ready -- I won't venture to say when after last month's experience, but soon. It is, of course, the getting a new line started that is slow and difficult. After this we should have no great delay in getting the cottons.

The cotton is put up on 4 oz. spools and sells at \$2.00 a lb. -- four spools. We cannot supply less than a lb., but will supply, if desired, four different colors for one lb.

If used for warp, in curtains for instance, as suggested above, this material should be set at 15 threads to the inch. If a very open mesh is desired, it may be set 12 or even 10 to the inch. Set at 15 or 16 to the inch it would make a

beautiful soft warp for a coverlet to be woven in Zephyr or other heavy yarn, and set about 20 to the inch, woven in the same cotton as the warp with a tabby of Egyptian it would be beautiful for "Summer & Winter" weave.

Yardage is 16,800 to the pound.

The silk sells at \$3.00 a lb. in the "natural" and at \$3.50 a lb. in the colors.

Yardage is 23,700 to the pound.

\* \* \* \* \*

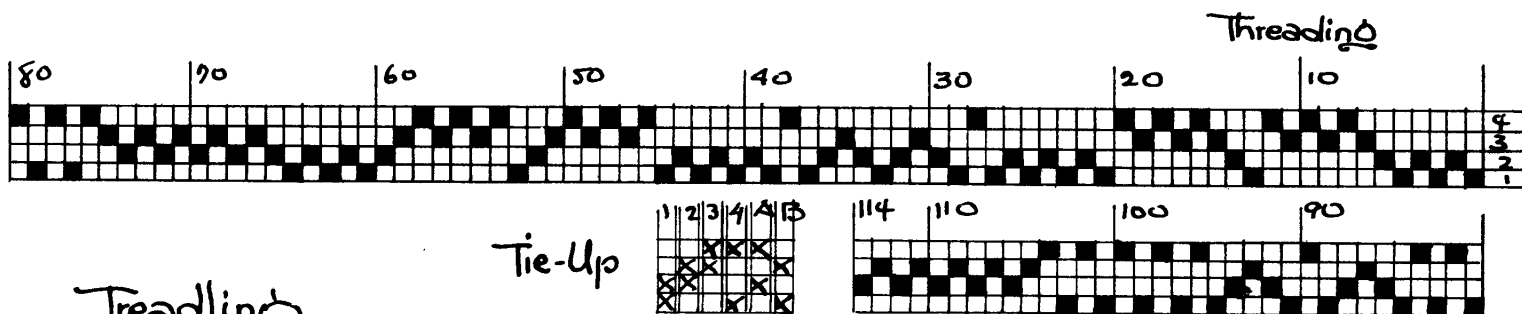
The pattern this month is a very charming and unusual one, taken from an old coverlet preserved in the Boston Museum of Fine Arts. As will be clear on studying it closely, it is an arrangement of "Chariot Wheel" on opposites. Patterns of this sort are rare, and have a very unusual and delightful effect. As explained in the course, overshot on opposites is properly an eight-harness weave and to produce it on four harnesses results in numerous "accidentals" which may mar the pattern if not cleverly arranged. The Colonial weaver who made the draft of this old coverlet was unusually successful, and the accidentals actually add to the richness and beauty of the design.

This is a small pattern, covering only 114 threads, and is especially appropriate for furniture covering and for hangings. If a still smaller pattern is desired, the first 38 threads of the draft may be used as a repeat. If used for a coverlet, a narrow border threaded to the twill threading would be appropriate. The pattern has so decided a character that it does not require a wide border. However, if a wide border is desired, as a repeat use the 18 threads from thread 21 to thread 38, inclusive. The seam of the coverlet may run through the 1-4 block, - threads 89, 90, 91 - or through the 1-2 block, - threads 32, 33, 34 - whichever is the more convenient.

This pattern is not advised for rugs or for borders on towels. It is better as an "all-over" pattern. Worked out in fine materials it is lovely for bags, and for curtains, for foot-stool covers, for chair-seats and for all the other purposes where an "all-over" pattern is desirable.

# Shuttle-Craft Draft for Hand-Weaving, Series A, No. 4.

Pattern of an ancient coverlet in the Boston Museum of Fine Arts.  
- apparently an arrangement of "Chariot-Wheel" on "opposites."

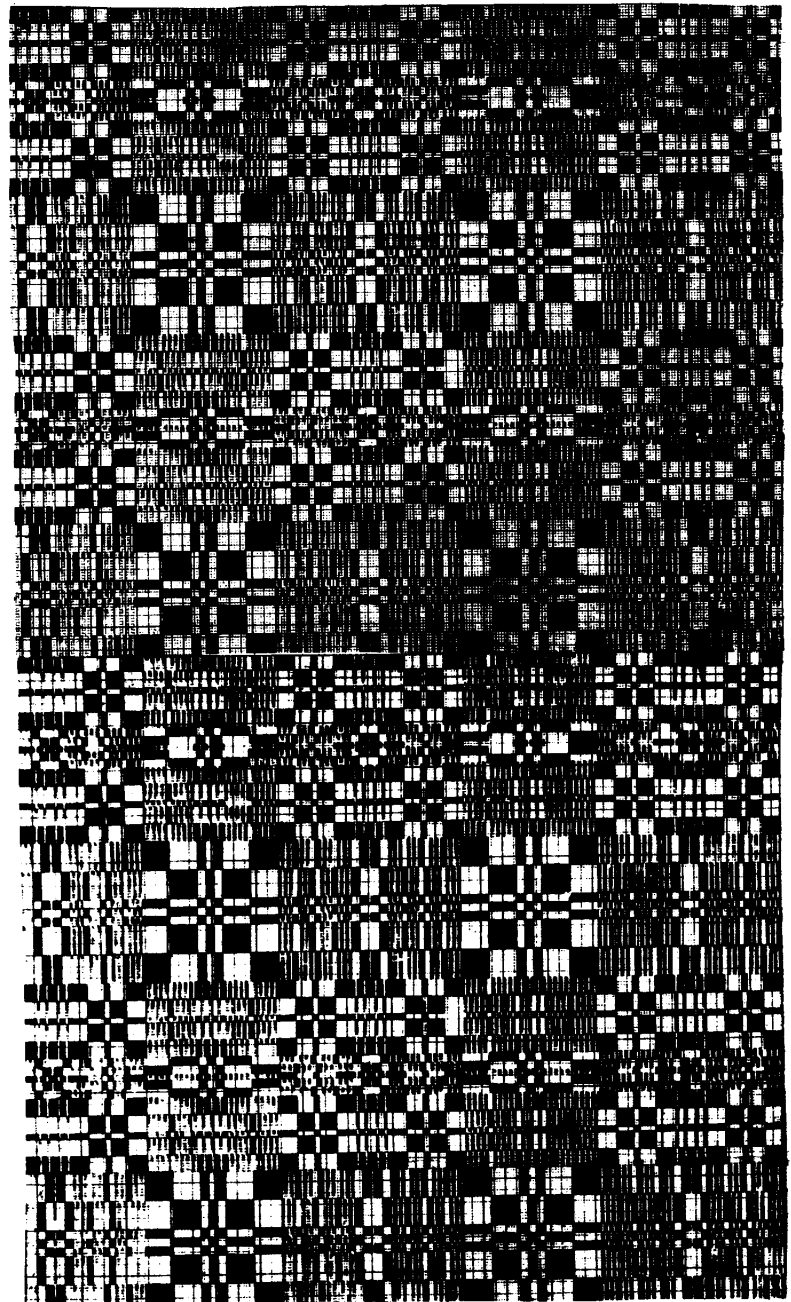


## Treadling

First Figure	Second Figure
1, 6 times	2, 10 times
3, 6 "	4, 10 "
1, 2 "	2, 3 "
3, 6 "	4, 3 "
1, 6 "	2, 3 "
4, 3 "	4, 10 "
2, 3 "	2, 10 "
1, 2 "	
2, 3 "	Repeat
4, 3 "	
1, 6 "	
3, 6 "	
1, 2 "	
3, 6 "	
1, 6 "	

(For use on the "Structo"  
or similar table looms,  
Transpose the treadling  
as follows:

For "1", read	3 8 4
" "2" "	1 8 4
" "3" "	1 8 2
" "4" "	2 8 3 )



For this month, some notes on the recent exhibition of "Craftsmen at Work" held in Boston during March, under the auspices of The Women's Industrial Union, should be of interest, - not only to those of our members who live at a distance but perhaps also to those who are near at hand and were able to visit the exhibit in person.

Though many different handicrafts were displayed, the hand-weaving was much the most prominent feature. Mrs. Anna Ernberg brought a large and interesting exhibit from the Fireside Industries of Berea, about which we have always heard so much. Other Southern groups were also represented -- with spinning, the knotting of fringes, and even a "blue-pot" in actual operation. Several looms were set up and in use, and the local exhibitors -- The Boston Society of Arts & Crafts, the North Bennett Street School, the Christopher Shop, and the various associations for the employment of the disabled, the blind, and so on, all had large and interesting showings of hand-woven textiles.

There was also an exhibition of ancient coverlets and quilts, and a group of five woven coverlets made in one family by five successive generations.

We as an organization did not exhibit this year, but the work of individual Shuttle-Craft Guild members was to be seen in almost each booth.

This being the case, the exhibition did not furnish much in the way of novelties, or new patterns. It was interesting to find in the exhibit from Berea, a coverlet in a pattern similar to the one sent out with the November Bulletin, -- though a less effective draft than ours. The Southern weavers know this pattern as "Sunflower", which is certainly a more descriptive title than "Ladies Delight", which appears to be its Northern name. So many patterns, almost alike, are differently named in the North and in the South! Another pattern in the Berea exhibit, - seen before but unnamed, - is an arrangement of groups of 25 small stars like the square figure in "Lee's Surrender", separated by figures like half the "Double Bow Knot" pattern. No square

"tables" at all. This is a large pattern and not particularly beautiful, and the name -- "Wandering Star" -- is not interesting, however, as the pattern appears quite frequently it is rather pleasant to be able to recognize it. There was, also, an effective arrangement of "Chariot Wheel" on opposites, -- very different from the one in the Boston Museum, sent out with last month's Bulletin. This pattern we hope some day to reproduce.

There were no other patterns of particular interest except among the ancient coverlets shown. The two patterns sent out herewith were the most unusual ones. These were both in "Double Weaving" and No. 1 especially excellent in workmanship. No. 1 is a very attractive little pattern and makes a dainty and charming coverlet. The "Pine Trees", being made on two blocks only, somewhat resemble club moss or a row of bottle-brushes, but make a good border nevertheless.

The draft as given serves for either "Summer and Winter" or "Double" weaving, being written by the "short" method explained in the course, each square of the draft representing four warp threads threaded according to the special weave selected. For "Summer and Winter" weave, this pattern requires seven harnesses, -- for "Double" weaving, fourteen harnesses. We know no name for this pattern and have never seen it before. Can any one supply a name?

Pattern No. 2 can be woven in "Summer and Winter" weave on six harness -- twelve harnesses for double weaving, or twenty if the Scandinavian method is used. It is the pattern of the oldest of the five coverlets mentioned above as having been woven by successive generations. The other four were ordinary "overshot" and not remarkable.

The tie-up in both these drafts represents simply the blocks and not the actual knots on the treadles, and should be transposed for the weave desired, according to the directions in the course. No. 1 for instance, in "Summer & Winter" weave would require ten pattern treadles and two for tabby, or eight or nine treadles by the "X-Y" method.

To those who have the John Landes pattern books, it will be interesting to compare pattern No. 2 with the John Landes pattern No. 62 -- on page 78. The difference in the "window" figure is, of course, in the threading.



Neither of the patterns this month are for four-harness weaving, but it is a long time since we have given our "Summer and Winter" weavers a new pattern and it was their turn. It may be of interest to some of the Structo weavers to know that the Structo loom may be modified to allow six and eight-harness weaving at a very modest expense. We have several Structo weavers who are enjoying the more elaborate weaves and patterns.

\* \* \* \* \*

Here is a suggestion for the four-harness weavers: In experimenting with the new soft strand cotton, we have made some window draperies in open-work weave, using the strand material for both warp and weft, set at 15 threads to the inch for three inches on each side, to make a firm edge, and the middle part of the curtain set at  $7\frac{1}{2}$  to the inch, - sleying every other dent of a fifteen dent reed. The borders were in plum with a narrow strip of scarlet along the inner edge, and the main part of the curtain was of gold with scarlet and purple threads marking the centers of the figures. The effect was interesting and unusual, and the fabric delightfully soft.

The threading used for the curtains is given at C, Diagram 20 of the course but with a different tie-up. Tie treadle 1, alone; treadle 2 to 4, alone, and treadles 3 and 4 as tabbys -- A, 2&4 and B, 1&3. Treadle as follows: A,1,A,1,A,B,A,1,A,1,A,B,A,1,A,1,A,B,A,B,2,B,2,B,A,B,2,B,2,B,A,B,2,B,2,B,A,B, and repeat. The pattern shows very little in the weaving and is confusing at first. It shows when the work is taken from the loom and washed, the groups of threads drawing together and leaving lace-like openings. This weave may be arranged in many different ways -- of large squares and small squares, borders and so on. The openwork spaces may be separated by plain tabby weaving if desired by threading these spaces 1,4,1,4,1,4, etc.

For curtain material in the soft cotton, which does not have to be washed to finish it, the pattern may be brought out by pushing the groups of threads together with the fingers as each repeat is finished. This is quickly done.

The mesh being very open, this weaving goes very rapidly. A few samples are available at the regular price - \$1.00.

In warping with the strand cotton, quite unusual care is required to keep the strands separate, as the material is untwisted and it is easy to confuse threads from different strands. In warping from the spool rack, it is advised to have a paster for each bout of the warp. In warping on a board, be careful to keep the lease between threads and do not warp two or more threads together without separating them over the pegs. Otherwise the material is daightful for warp.

If this material is to be used for warp in coverlets, table runners or other fairly closely woven fabrics, it should be set about 18 to the inch, though fifteen will do.

\* \* \* \* \*

One of our members, Mrs. L. V. Friedman of Newton Centre, Mass., contributes the following suggestion. She finds it very convenient to be able to use the little ready wound warps for small things on her large loom, which she can do in this way without disturbing the warp on the sectional beam. In using the same loom for all purposes, it is often distressing to have to weave off a long rug-warp in a hurry in order to fill an order for, say pillow-tops or bags in fine material. By this method the thing can be done with very little trouble.

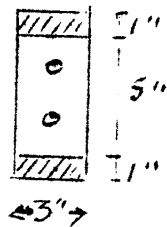
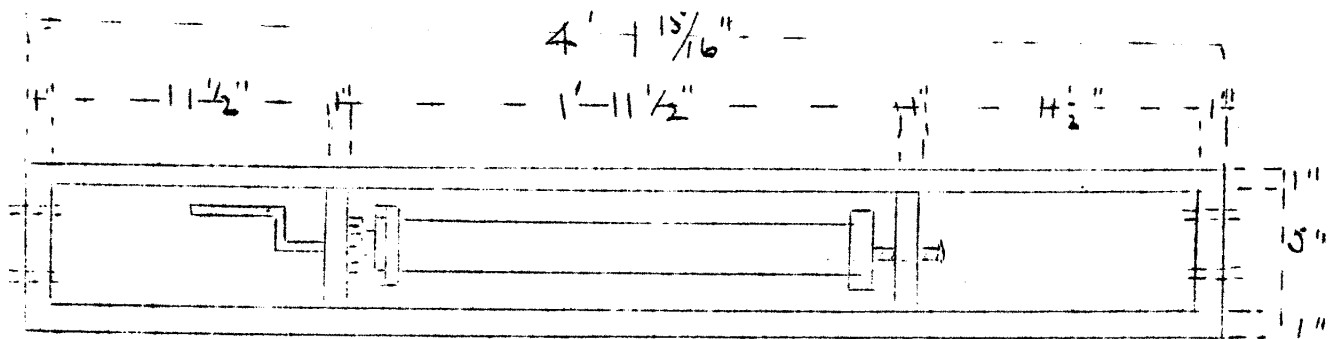
"The drawing shows the beam as it looks from the back of the loom. As you sit at the loom in front, the handle of the small warp-beam is on the right.

"The measurements are for the spool or beam on which the ready-beamed Structo warps are supplied.

"In adjusting the apparatus, the two end screws are screwed into the back uprights of the large loom. Carpet warp may be left on the big warp beam and the small beam may be slung directly above it, the fine warp being carried over the back beam just as if it came off the large warp beam.

"I found it convenient to be able to use fine warp for a time altho there was still a lot of carpet warp on my loom."

"I used the 20/2 cotton that comes warped on a "spool" and so the measurements are for that "spool" - if that is the proper term for it."



Clear pine, planed and squared - one inch stock

2 pieces, each 4 ft. 1 15/16" x 3" x 1"  
 2 " " 5 in. x 3" x 1".  
 2 " " 5 in. x 5" x 1".

4 - 3 1/2" machine bolts (3/8" diameter)  
 8 washers  
 24 - 1 3/4" wood screws

Ratchet wheel and pawl of Structo loom.

\* \* \* \* \*

In the March Bulletin the yardage per lb. on the unmercerized Strand cotton was listed as 16,800. This was an error. The correct yardage is 2800 to the lb.

The yardage for the "Sase" material was also incorrect. This was given as 23,700, and should have been listed as 2600 to the lb.

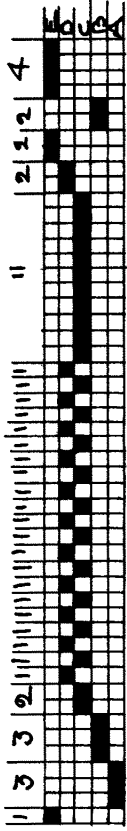
\* \* \* \* \*

The two samples enclosed are the new yarns listed on the price list sent out with the March Bulletin - Afghan and Kashmir. We can supply it in the following colors: Pink, sand, pastel blue, orange, water green, corn, turquoise, silver grey, lavender, tan, black and white.

\* \* \* \* \*

## Pine Tree Border

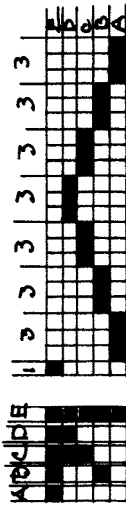
↑  
No. 1



204 threads

Coverlet marked:

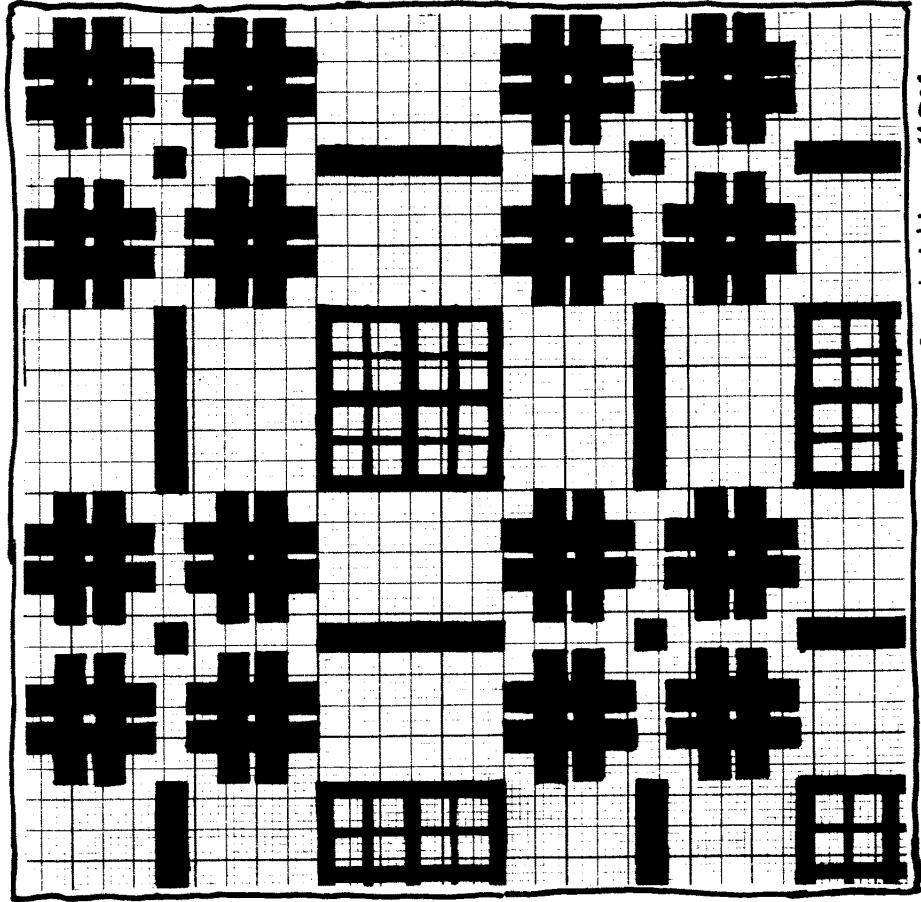
"Before 1820" tie-up



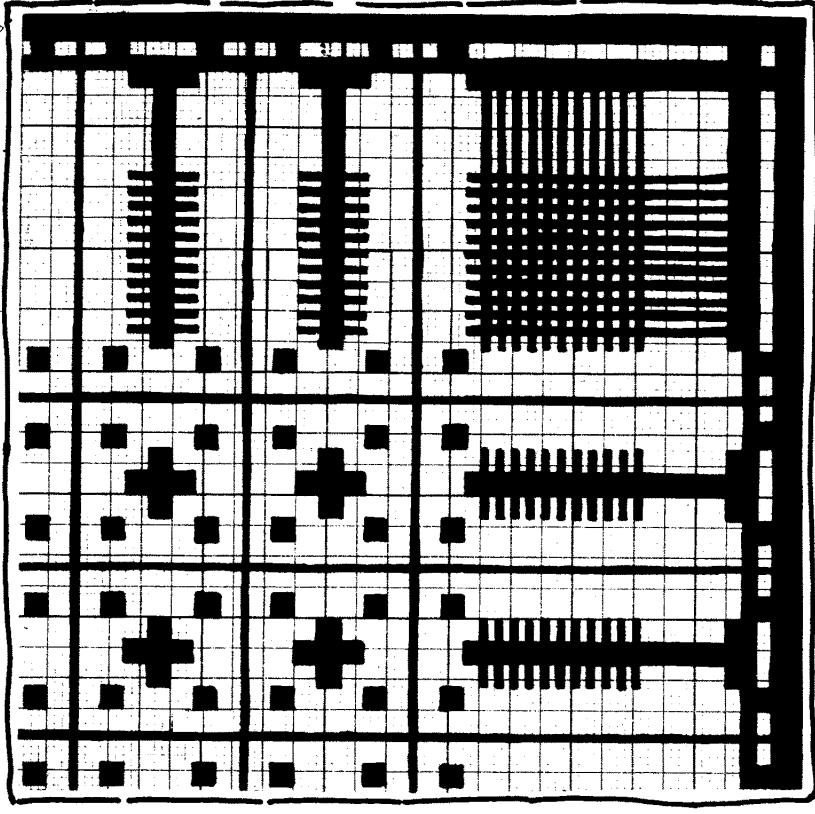
Each repeat 88 threads

101

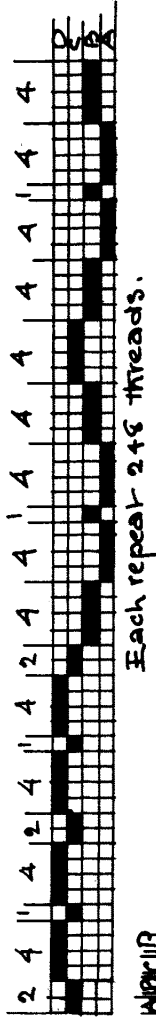
No. 2 ↓



Copyright 1927. Mary M. Atwater, Cambridge, Mass.



২৭ ↓



Each repeat 248 threads.

tie-up.

This coverlet is in "Double" weave — ground white, the "window" figure in rose and the flower figure in dark blue.

For this month we have a number of interesting notes.

First, the pattern for this month. "Whig Rose" is perhaps the best known and the most famous of the old coverlet threadings, and occurs in many forms and innumerable variations. Our draft is particularly agreeable in size and proportion, and is useful for many purposes, -- small enough for runners and upholstery, hangings and so on, and still effective enough for coverlets. It is not recommended for rugs, however.

The pattern though so widely used in Colonial weaving, is not a purely American pattern. It appears in much Scandinavian weaving and some of the Italian things that have come to me are done on it. However, it was used in America from the earliest times of the Colonies and has among us a very American name.

The draft, as will be noted, is written from centre to center of the Diamond figure.

The best threading to use for a wide border with this pattern is a repeat of 18 threads -- the Diamond figure as written. This covers the last ten and first eight threads of the draft.

For a coverlet in two strips of full size in fine warp at 30 to the inch, warp 1260 threads. If you wish the seam edge of your strip to be on the right, begin threading the pattern exactly as shown, - except that it is well to put in an extra 1 and 2 before beginning in order to allow for the narrowing in of the first block in seaming the coverlet. Thread either nine or ten repeats, depending on the width of border desired. Thread the remaning threads in the Diamond repeat, ending with four or more threads threaded 1,2,3,4, for a selvage.

To put the pattern on the Structo loom, thread: 4,3,2,1,4,3,2,1, then begin at thread 90 and thread to the end, go back to thread 89 and thread from there to the end twice. Now begin at the beginning of the pattern and put in five complete repeats of the whole pattern. Then thread the first 12 threads of the pattern, repeating three times, and end with a selvage threaded 3,4,1,2,3,4, etc. This is lovely for pillow-tops, bags or runners.

If a large figure is desired for a more-dashing effect, increase the pattern by writing two more threads under each block except the four large blocks of the large rose -- increase these by four threads. This will give a repeat of 156 threads.

If woven "as drawn in" this threading produces a star-figure similar to "Single Chariot Wheels" and usually called "Lover's Knot".

\* \* \* \* \*

On a recent trip to New York, I visited the Swedish book concern there and got the titles of all the books on weaving that are available, and made arrangements to supply these to Guild members. A list of titles follows -- please order by number.

I.	Caroline Halvorsen, Den Norske Husflidsforenings	
	HAANDBOK I VAEVNING .....	\$2.75
II.	Montell-Glantzberg, Vavboken, Handbok for hemmet	
	och skolan .....	4.50
III.	Ny Vavbok 1 .....	1.00
IV.	Ny Vavbok 11 .....	1.00
V.	Palmgrens Vavbok Vol. 1 .....	2.00
VI.	Palmgrens Vavbok Vol. 11 .....	2.00
VII.	Elisabeth Waer-Bugge, Hemmets Vavbok .....	1.50

In my opinion the most valuable of these books is Haandbok i Vaevning, by Caroline Halvorsen. This has in it many extremely interesting drafts, and the diagrams and pictures are so clear that one does not need to know the language. I have had some of the text translated and found that it referred chiefly to sizes of yarns and setting in the reed. As our reeds and yarns are quite different, this information is not particularly valuable. I shall be glad to help any Guild member who has difficulty reading the drafts in this book -- they are written a little differently from our American method of draft-writing -- but most people I believe will have no trouble.

\* \* \* \* \*

The two books by Sigrid Palmgren are also very good indeed, with colored illustrations and many interesting drafts. The others are perhaps less valuable, though all have interesting things in them.

\* \* \* \* \*

Some experiments conducted lately have demonstrated a very attractive use for the fine "Afghan" yarn, that will be of interest to Guild members. The idea was originally for very light weight baby blankets or shawls, of the kind used for a tiny baby. The same weaves have also been used with success by one of our members for light wraps -- shawls and scarves.

The weave used was the little openwork weave so often mentioned, arranged in a variety of ways. As it would take too much space to write complete drafts of all the various arrangements, I will note them down as follows, and it is suggested that anyone before using them first dot them off complete on cross section paper.

The weave is composed of two units, one threaded 1,2,1,2,1,4 and the other - - - - -3,4,3,4,1,4. We will call these X and Y respectively. Plain tabby sections may be threaded any width, 1,4,1,4,1,4 etc

If a very open effect is desired, the units should be of 8 threads instead of 6, as  
 X: 1,2,1,2,1,2,1,4.      Y: 3,4,3,4,3,4,1,4.

The Afghan yarn should be warped at 15 to the inch.

Here are three arrangements that proved attractive. The figures are for a wide shawl but could be modified for the making of scarves on the Strueto loom.

No. 1. Warp full width, 44" at 15 threads to the inch, -- 660 threads. Thread 114 threads 1,4,1,4, etc. (This is for a plain hem and should be turned back and hemmed all around not far from the open-work as a finish). Then thread the pattern thus:-

Unit X, (8 thread unit) twice

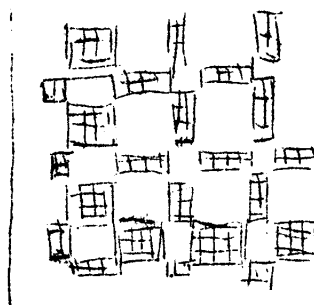
" Y, 6 times  
 " X, 6 times  
 " Y, 2 times) 4 times  
 " X, 6 times)  
 " Y, 6 times  
 " X, 2 times

Thread the remaining threads 1,4,1,4, for plain hem.

This threading gives a border all around of large squares and a center in dashes of openwork.

If the 6-thread unit is preferred, thread thus: thread 108 threads, 1,4,1,4, for plain hem

Unit X (60thread) 6 times  
 " Y 2 times  
 " X 6 times  
 " Y 6 times  
 " X 2 times) 5 times  
 " Y 6 times)  
 " X 6 times  
 " Y 2 times  
 " X 6 times



No. 2. Warp 40" at 15 to the inch, 600 threads. (Or warp full width and make a double hem as suggested for No. 1 above).

Thread 60 threads 1,4,1,4, for plain edge, then thus:

Unit X (8-thread)	8 times
" Y	8 times
" X	28 times
" Y	8 times
" X	8 times

This threading gives a plain center with open work all around in a frame when woven as indicated below.

No. 3. Warp 720 threads, setting three inches at each side at 30 to the inch instead of at fifteen.

Thread the first 60 threads 1,4,1,4, for a plain edge and sley these threads double through the reed. Then: Openwork border

Unit X (8-thread)	5 times
" Y	5 times
" X	5 times

Then 30 threads 1,4,1,4, and sleyed double.

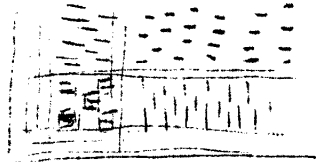
Thread the center of the shawl, 336 threads.

Unit X (8 thread) and Unit Y (8-thread) alternately 21 repeats.

Then 32 threads 1,4,1,4, sleyed double.

Repeat openwork border as above.

Thread remaining threads 1,4,1,4, and sley double.



The hem set twice as close as the openwork parts gives a good edge and makes the light beat of the openwork weaving a good deal easier. This shawl is 42" wide in the reed. It gives an effect with a five block corner, a handsome border all around and a dainty lace-like mesh for the middle of the shawl.

The tie-up for this weave is as follows:

Tie treadle No. 1 to bring down harness

" No. 2 to bring down harness

Tabby A, 2&4 and tabby B, 1&3 as usual.

Treadle Unit X as follows:

Tabby A, once

Treadle 1, once

A, once

1, once

A, once

1, once--omit in weaving

A, once--6-thread unit

B, once



Treadle Unit Y as follows:

Treadle 2, once  
B, once  
2, once  
B, once  
2, once -- omit in weaving  
B, once -- 6-thread unit  
A, once  
B, once

On the Structo loom treadle

Unit X

Levers 1&3, once  
4, alone  
1&3,  
4  
1&3 omit in weaving  
4, 6-thread unit  
1&3  
2&4

Treadle Unit Y as follows:

Levers 1, alone once  
2&4, once  
1, alone once  
2&4, once  
1, once - omit in weaving  
2&4, once - 6-thread unit  
1&3, once  
2&4, once

For shawl No. 1, treadle as follows:

Plain tabby for hem in the usual way, being careful  
not to put in more than 15 shots of weft to the inch.

Unit Y, twice -- as above

" X, six times

" Y, six times

" X, twice Repeat 4 times, or as often as desired

" Y, six times for length

" X, six times

" Y, twice

Plain tabby hem.

For shawl No. 2, treadle as follows:

Plain tabby hem.

Unit Y, as above, eight times

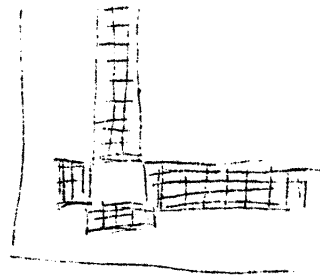
" X, eight times

" Y, twenty-eight times

" X, eight times

" Y, eight times

Tabby hem.



Treadle No. 3 "as drawn in", unit X, 5 times, Unit Y, 5 times,  
etc., etc., being careful to beat up the plain hem to 30 picks  
to the inch and weave the open-work part at 15 to the inch.

The effect of this weave depends a good deal on  
weaving the same number of picks to the inch as the number of  
warp-ends to the inch. It takes a little experiment to get  
this right, as, of course, the warp stretches a great deal.  
The work while on the loom shows little or no pattern and looks  
entirely too loose, however, when taken from the loom and washed  
the pattern appears and the fabric is very attractive, -- soft  
and light and close enough for a scarf though not for dress mat-

erial. At thirty to the inch it is good for dress material.

For baby shawls we advise using white only. For scarves and womens summer shawls a white warp may be used and the weft may be in any one of the pretty pale colors in which this Afghan yarn is supplied. Samples of this fabric can be supplied at \$1.00 each.

For a scarf in pattern No. 3 -- on the Structo loom -- make a warp of 344 threads. Thread the first thirty threads 1,4, 1,4, and sley them double. Then thread:

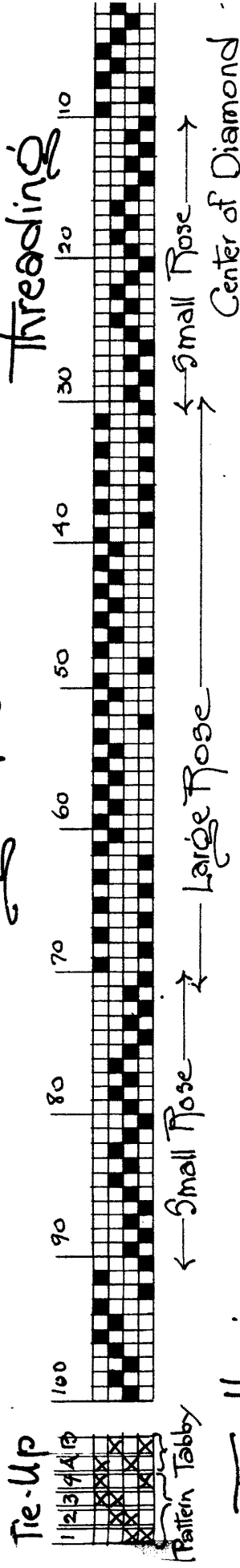
Unit X, (6-thread) 4 times  
" Y, 2 times  
" X, 4 times  
16 threads 1,4,1,4, sleyed double  
Unit X and Unit Y alternately for eleven repeats (6-thread unit)  
16 threads plain and sleyed double  
X, 4 times  
Y, 2 times  
X, 4 times  
Thirty threads plain and sleyed double.  
Weave "as drawn in".

\* \* \* \* \*

The linen warp rolls for the Structo are now ready. They are -- 10 yards long, white, and sell at \$9.00 each.

\* \* \* \* \*

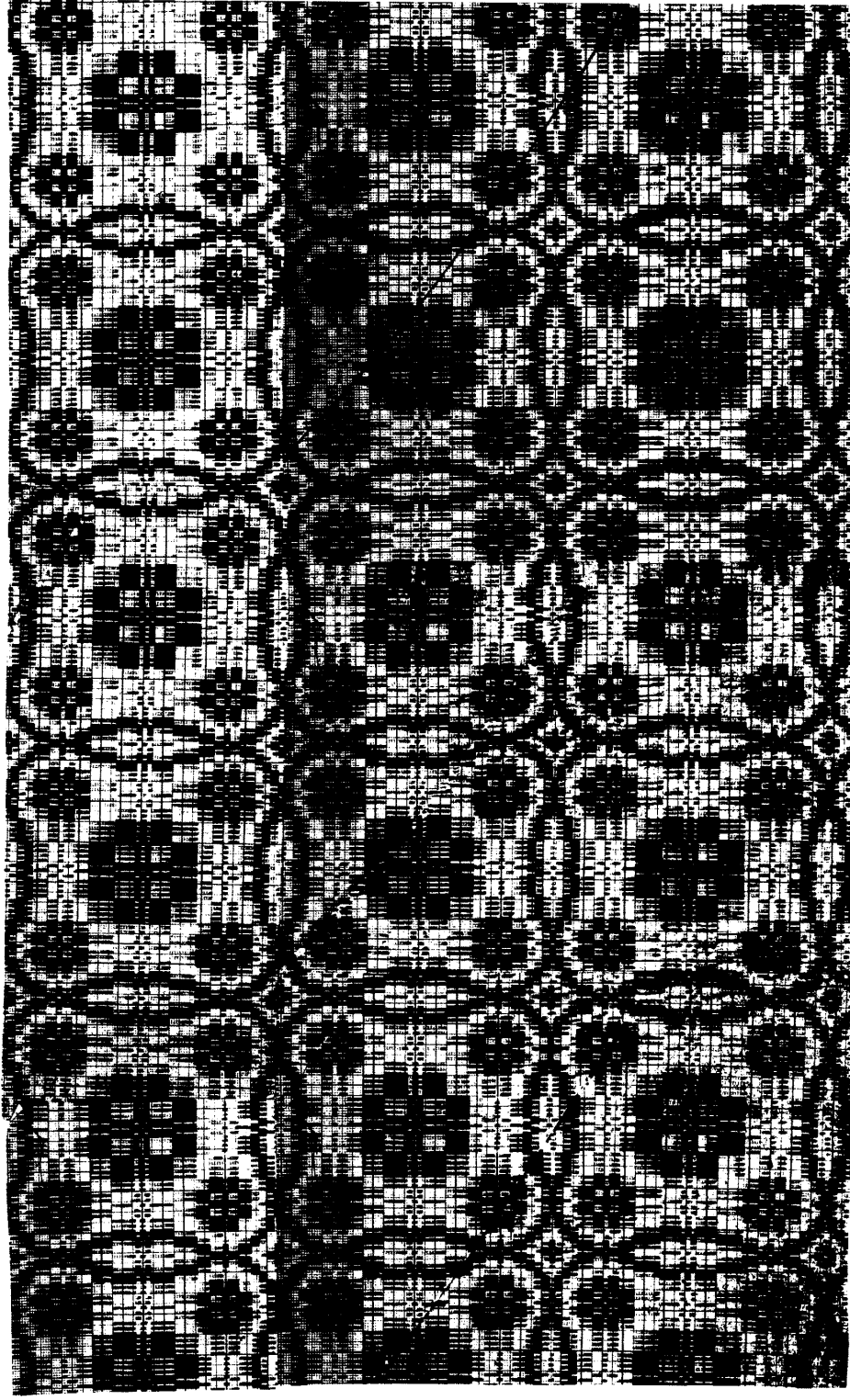
Shuttle-Craft-Draft for Hand Weaving. Series A, No. 1  
"Whig Rose"



Treadling  
2, 2 times

For Table Looms Transpose treadling for "I", read 384; "2" = 184; "3" = 182; "4" = 283.

3, 3, 3, 5, 4, 2, 4, 5, 9, 8, 2, 2, 2, 8, 9, 5, 4, 2, 4, 5, 3, 3, 3  
1, 4, 3, 2, 1, 2, 1, 2, 5, 4, 5, 4, 3, 4, 3, 2, 1, 2, 1, 2, 3, 4, 1,



## SHUTTLE-CRAFT BULLETIN No. 33

JUNE

1927

As so many of us are campers -- or will be before long -- this is to be a "Camper's Number" of the Bulletin, though no doubt some of the suggestions will be found useful also by those who do not camp.

The pattern chosen for this month is the "Double Bow-Knot" or "Maple-Leaf" pattern, also known in some places as "Double Muscadine Halls". It is one of the most famous of the old patterns, and as far as I can discover, purely American. Coverlets in this pattern have been found in widely separated parts of the country, but the most ancient seem to be from the South and I believe this to be a Southern pattern. If any member of the Guild has authentic data or interesting notes on the subject, it is to be hoped that he or she will send them in.

The figure appears to me to be a development of the very ancient "Sunrise" figure, and may be used in the way "Sunrise" is sometimes used, - as a border for simple patterns. We are familiar with "Lee's Surrender", a pattern composed of square "tables", a small "sunrise" and a square in the "Sweet Briar Beauty" figure. A pattern known as "Wandering Star" -- which is, by the way, not a very attractive or descriptive name for it -- is a compound pattern of the same sort with a "Double Bow-Knot" in place of the "Sunrise". The "tables" may be omitted.

The "Double Bow-Knot" pattern is excellent for many purposes, though it should not be used for rugs, - except perhaps for the corners and border when a simple small figure is used for the center. In a general way, any pattern showing a wide difference in size among the blocks is inadvisable for rugs, as a long overshot skip is dangerous to life and limb and the very small blocks -- of two threads -- are distorted by the heavy weft material used in this type of weaving. Patterns composed of blocks of not less than four or more than ten warp-ends are the best.

This is a digression.

The "Double Bow-Knot" pattern makes a handsome coverlet. The "Blooming Flower" pattern, threaded as shown on the draft, is not so good for coverlets but better, perhaps, for bags, screen panels, and such things where part of the treadeling is to be done "Blazing Star" fashion.

Two repeats of the pattern, exactly as shown (with an extra repeat of the square "table" of course, to balance the corners) makes a handsome pillow.

To put this on the Structo loom, proceed as follows: thread the first **twenty** threads, 4,3,2,1,4,3,2,1, etcetera; then, beginning with thread 174 of the draft, thread to the end. Now put in two complete repeats of the pattern as written, and thread the remaining threads, 1,2,3,4,1,2,3,4, etcetera. This should be woven in a square "as drawn in" for the front of the pillow, -- beginning with a twill border and the block figure, of course; -- and may be treadled "Blazing Star" fashion for the other side.

A handsome table-runner, a piece of drapery or a screen panel may be made by treadeling: "Table," "Bow-Knot", "Table", for the bottom border and "Blazing Star" for the body of the piece, repeating "Table", "Bow-Knot", "Table" for the other end.

Another use for this pattern, if small "projects" are desired, is to make pin-cushions of it. For each pin-cushion treadle; "Table", "Bow-Knot", "Table" and heading. Folded over and sewed together this will give an attractive little cushion with a "Bow-Knot" on each side.

On the little #240 thread looms, this threading will prove attractive for girdles, purses, hat-bands, and the like. Begin at thread 168 and thread to thread 200; then begin at the beginning of the draft and thread to thread 200; thread the remaining threads 1,2,3,4,1,2.

(Note that as usual in following the treadeling as given on the draft, Structo weavers must transpose as follows:-

For "1" read "levers 3&4"  
For "2" read "levers 1&4"  
For "3" read "levers 1&2"  
For "4" read "levers 2&3"

Tabby, 1 & 3 against 2 & 4.

Also note that the number of shots as given must be modified according to the weight of the weft material used. The pattern should be woven as nearly square as possible -- allowing for shrinkage).

Another way to use this pattern for a pillow is to thread a twilled border, -- seven or eight repeats of 4,3,2;1, and then the "Bow-Knot" figure as given, with the whole center of the pillow threaded like the table, -- as many repeats of the eight-thread unit as necessary -- and a "Bow-knot" and twilled border for the other side. Or the center might be threaded, 1,4,1,2, and repeat, which gives a closer effect, - or it may be threaded in the diamond pattern or any other small figure.

The "Bow-Knot" figure may be written a good deal larger than as shown on our draft -- which was taken from a particularly handsome old coverlet but is, of course, not by any means the only possible writing of the draft. A pillow in which the "Bow-Knot" figure -- much increased -- occupies the center of the pillow with square tables in the corners only, is very effective. Anyone familiar with draft-writing will find it easy to make this change. Perhaps the following notes may be of assistance:

It is apparant, of course, that the pattern is simply a "Herring-Bone" threading with the blocks progressively increased and decreased to the center; thread the draft as shown as far as thread 44; make the next block -- a 1-2 block -- of ten threads; follow it with a ten-thread 2-3 block, a 12 thread 3-4 block, a 12 thread 1-4 block, a 12-thread 1-2 block, a 10-thread 2-3 block, a 10-thread 3-4 block, an 8-thread 1-4 block, and going back now to the draft as written, begin at thread 45 and thread to the center -- the long 1-4 block on which the pattern returns. This block should be written over 15 threads. This is half the figure; reverse for the other half. This will give a "Bow-Knot" of 329 threads. Write it cut on paper, however, before attempting to put it on the loom. We shall be glad to examine and correct modified drafts on this pattern sent in by Guild members.

\* \* \* \*

A very interesting and practical thing for camp weavers to do is to weave material for the binding of their camp diaries and picture books. A smaller pattern than the "Double Bow-Knot" is advisable for this purpose. "Monk's Belt" is good, and so are "Sugar-Loaf", the small rose figure from the "Wreath Rose" pattern, - and especially the little "Bronson" threadings so many of which have been given from time to time. "Honeysuckle" is always pretty, but has been used so much.

The materials may be cotton, wool, or linen. Linen is particularly good.

Directions for making a simple book-binding were given in a Bulletin of some months ago and will not be repeated here as most of the members have this back number. We can supply it if desired.

\* \* \* \* \*

Mr. E. B. Cochrane who is such an enthusiastic Structo weaver and has given us so many valuable suggestions, has another note for us. He has been making neck-ties. These are woven on the Structo loom on the regular 20/2 warp, the weft material being Fabri or the fine Afghan yarn. The new #20 mercerized cotton might be used also, and the fine silk, either alone or in combination with Fabri. The threading he has found particularly attractive is the little "Diamond" in "Bronson" weave, given at (a) Diagram 30 of the course.

The weaving of a particularly attractive tie was as follows: five tabby shots in tan: B,A,B,A,B. Then in dark brown: A,B,1,B,1,B,A. Five tabby shots in tan as before. In Henna: A,B,3,B,3,B,A. And repeat the whole series.

(Structo weavers transpose for "A", read levers 2&3&4  
" "B", read levers 1, alone  
" "1", read levers 3&4.  
" "3", read levers 2&3.)

Some neck-ties were made in plain tabby weave, five shots of each of the three colors.

Mr. Cochrane says he weaves a piece of material 18" deep on the Structo, full width. This is sufficient for two neck-ties, cut eight pieces according to the paper pattern we are sending herewith, seam in pairs, and then join in the middle of the back. A piece of weaving 36" deep would make four neckties without the seam in the back. The stitching should be done on a sewing machine, on the wrong side, and then turned inside out. This, of course, is easier to do if the neck-tie is made with the seam in the back.

\* \* \* \*

We received enough of the "Tied Dyeing" coupons to make it possible to prepare and print the material. We made several extra copies and these are now available at \$3.00. This craft is a good craft for camp-work as it requires no equipment. It is a charming way to ornament scarves, negligees, curtains, bed-spreads and many other things.

\* \* \* \*

We are sending herewith the new cards showing the colors available in linen and also several sizes of warp-linen, etc. The new "Linen Weaver" can be used both for warp and weft and is suggested for curtains in the openwork threadings given with last month's Bulletin. It should be set about 12 to the inch for this purpose, if a fairly open mesh is desired. It can also be used for weft over a good cotton warp for towels, table-runners and the like. Also for book covers as suggested above.

\* \* \* \*

One of our Guild members is making "linsey-woolsey" in Fabri over a fine linen warp instead of using Egyptian cotton, and finds the effect quite different from "linsey woolsey" made over a cotton warp. I have not myself experimented with this. A



linen warp presents special difficulties, and though entirely practicable, is not advised for beginners.

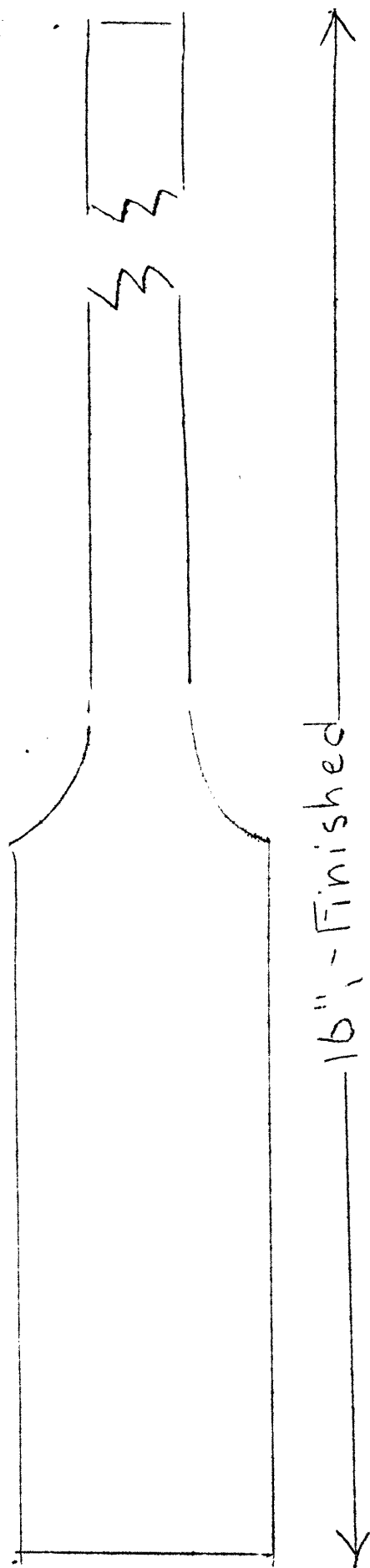
\* \* \* \*

As noted last month, we now have ready-wound warps in linen for the Strueto loom. These warps can be used on the large loom by the method devised by Mrs. Friedman, and noted in a Bulletin of some months ago.

\* \* \* \*

We are discontinuing the sale of the "Belspun" yarn as shown on our sample card.

\* \* \* \*

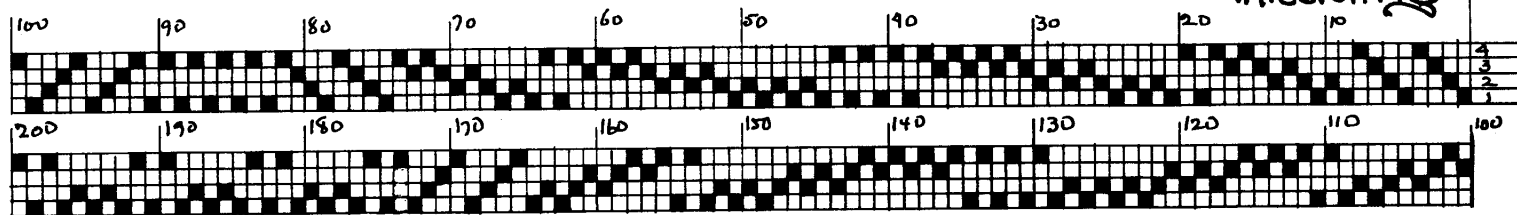


Pattern for  
Neck-Tie

Allow For seams  
and shrinkage

# "Double Bow-Knot" or "Maple-Leaf" Pattern

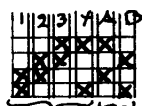
threading



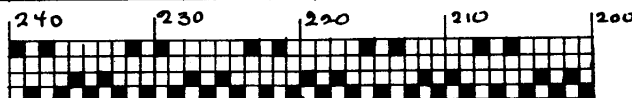
Note: this pattern is sometimes used without the square "table" and is then usually called:

"Blooming Flower". To thread for this, put in the "Bow-Knot" figure — the threads from 1 to 172, inclusive, of the draft above, then thread ten threads: 1, 4, 1, 4, etc., and repeat from the beginning. This gives a repeat of 182 threads. The "Blazing Star" figure may be woven on either the "Double Bow Knot" or "Blooming Flower" threading; treadle: 1, 2, 3, 4, each ten times, Repeat.

Tie-Up.



Pattern Tabby



Treadling:

1, once } Repeat  
2, " }  
3, " } twice  
4, " }

1, 3, times

2, 3 "

3, 3 "

4, 3 "

1, 5 "

2, 5 "

3, 7 "

4, 7 "

1, 7 "

2, 5 "

3, 5 "

4, 3 "

1, 3 "

2, 3 "

3, 3 "

4, once } Repeat

1, " }

2, " }

3, " }

4, 10 times ↶

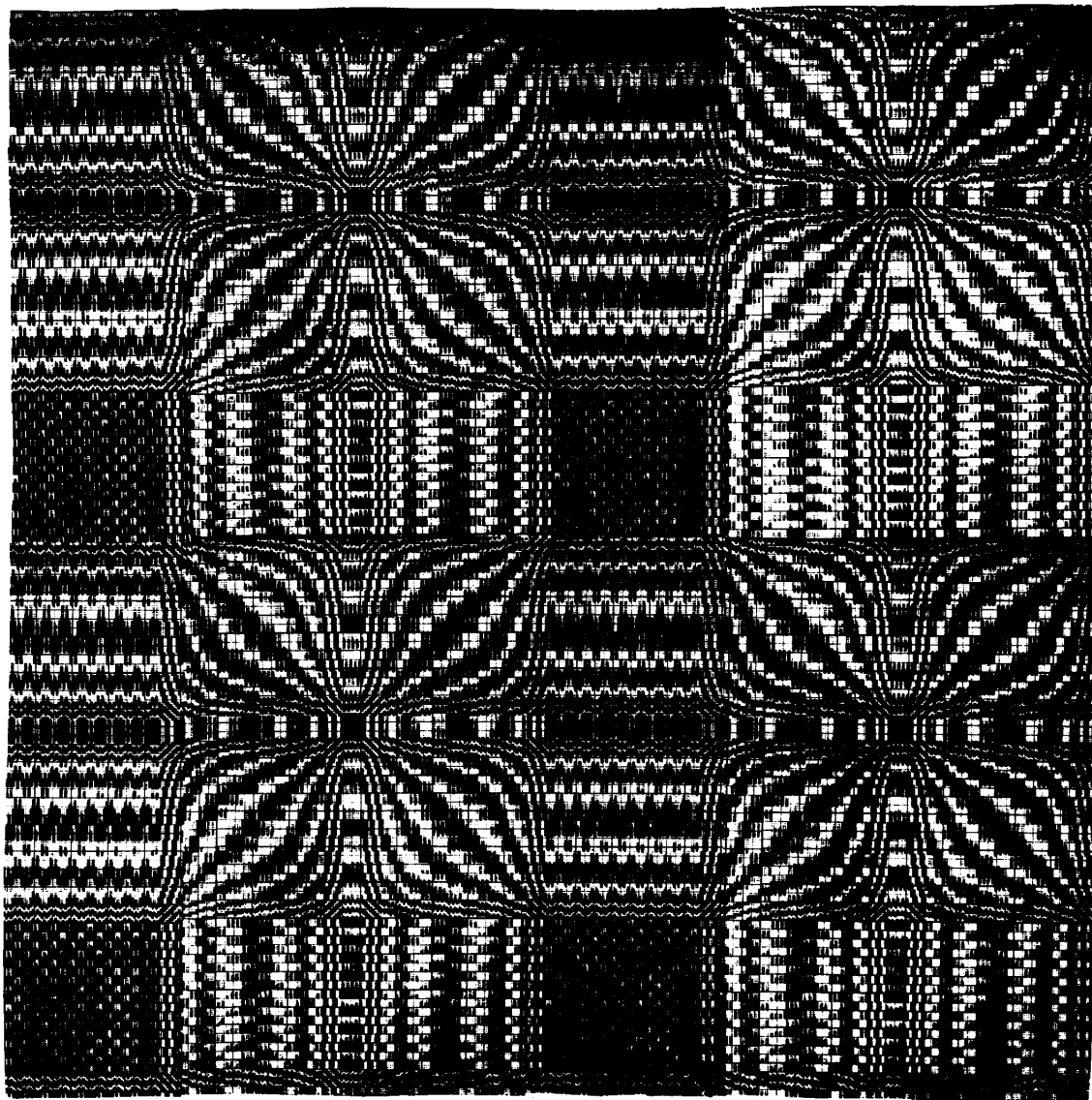
Center: repeat in reverse order back to the beginning.

treadle "table":

4, 4, times

1, 4, " } Repeat

4, 4, " } 8 times



SHUTTLE-CRAFT BULLETIN NO. 34

JULY - - - - - 1927

The pattern this month is a very famous old pattern found in many different forms. The draft we give is excellent for coverlets, especially, but is also good for portieres, pillow-tops and other such things. It is not recommended either for rugs or for small borders or little articles such as bags, - or dress-material.

\* \* \* \* \*

A number of Guild members have written to me for information about some of the patterns shown in an article about weaving in the June number of the Ladies Home Journal. I think perhaps everyone will be interested in remarks on the subject. The article is not a weaver's article -- that is, it gives no drafts nor directions for weaving, -- it is a descriptive article concerning the work of the Talbots, a family of weavers at present living in Germantown, Pennsylvania. In case that any member who did not happen to see this article, and has occasion to send for it to the office of the magazine, here is the address: -- Curtis Publishing Co., Independence Square, Philadelphia, Pa. And may I suggest that in sending for this back-number it would be well to mention that it is wanted for the weaving article. It is a good plan to keep the magazines reminded that we weavers appreciate articles on our subject, -- and how are they to know if we don't tell them? They put into the magazine what is asked for by their readers, as far as that is possible.

But to return to the Talbots. The picture that heads the article shows two chairs, one upholstered and one with a cushion, in what appears to be the same pattern. The picture is taken at such an angle that it would not be possible to read the pattern correctly from the photograph, -- it happens, however, that I have just been studying a very ancient book of weaving patterns in which this figure appears. The book is in German and was published in 1740. The copy lent to me by one of our circle was brought to the New World by a very "great"-grandfather of the present owner, who settled in Pennsylvania some time in the seventeen hundreds. The thing is a treasure. Some of the figures are similar to figures in

the John Landes book, and many are different from anything I have ever seen before. The patterns are all intended for very elaborate weaving, some of the tie-ups being written for as many as forty harnesses! A pattern, however, that requires 40 harnesses for damask weaving can be woven in "Summer & Winter" weave on ten harnesses. The figure shown on the chair seat takes eight harnesses and is within the reach of a good many of our Shuttle-Craft Guild.

To judge from the photograph, the piece of weaving on the chair-seat is either a damask weave, but more likely a "Summer & Winter" weave on opposites. To do it in four-heddle damask or in double-weaving or double-face twill would take 24 harnesses, but "Summer & Winter" weave on opposites takes no more harnesses than simple "Summer & Winter" weaving.

The portiers at the left, below on the same page, will be recognized by some of us as one of the John Landes patterns -- number 24 on page 32 of our publication. The draft differs a little from mine in the writing of the plain solid figure. The pattern was designed for "double weaving" of course, and in drafting it for overshot work this figure cannot be rendered exactly as shown on the old drawing, because it would require too long an overshot in order to make the large squares in proper proportion. In my draft I have written this part as a "table" of two small alternating blocks, keeping the proportion. The Talbots have made a star figure, different in size, so that the proportions of the pattern are altered. To weave the pattern exactly as shown in the magazine, substitute for the table as written on my draft (which begins with thread 25 and goes through thread 72) a figure threaded like the central star of the draft that begins at thread 161 and goes through thread 188. This will make the whole repeat of the pattern twenty threads less.

The portieres on the right, on the same page of the article, are in a special weave that it is difficult to make out from so small a picture. A "Summer & Winter" weave, woven using one only of the pattern shes gives the stripy appearance noticeable in the texture. There are also several other ways of producing it. How, exactly, this was woven I cannot say without seeing the fabric closer. There is a way of writing an overshot draft to produce this effect, too. Of course to produce the border and plain center more than four harnesses are required. If the weave is an overshot it could be done on eight. The "Summer & Winter" effect would take ten harnesses.

The small picture at the bottom of the page shows several patterns. The couch cover is in a large "Double Bow-knot" figure, like last month's pattern. It may have been woven in coarse material to make the figure this size, or it may be woven in "Summer & Winter" weave, which is a favorite

--  
 weave with the T1lbots. The faintness of the picture makes it impossible to say which weave was used. The sausage-shaped cushion at one end of the couch is clearly overshot weaving in coarse materials. It shows a variation from the normal treadeling on one of the Chariot-Wheel threadings. As it is not particularly attractive, I will not give the draft and the treadeling.

The zig-zag effect of the next pillow is probably tapestry weaving, similar to much Scandinavian work of the kind, or may be a "tobine stripe" on a good many harnesses. The third pillow is in a very old and lovely pattern known to me only as "Miss Cobb No. 2". I published a draft of this, slightly different in detail, but the same pattern, in an article that came out in House Beautiful under date of August 1924. As my draft seems to me the handsomer, of the two, I will not give this one in detail. The difference is chiefly in the size of the "table" and in the detail of the center of the rose-figure.

The light colored cushion is in a pattern similar in structure to our pattern of this month but a good deal smaller and simpler. I cannot of course count the threads of the warp from the small photograph but the following will produce the pattern, and is probably about the size of the draft used, as the materials of the weaving appear to be fairly heavy. Set as we usually set out warps -- at 30 threads to the inch, -- the figure would be smaller of course:

1,2,1,2,1,2,1,2    3,2,3,2,3,2,    1,2,    3,2,3,2,3,2,    1,2,  
 1,2,1,2,    1,4,1,4,    3,4,    3,2,3,2,    1,2,    1,4,1,4,1,4,1,4,  
 3,4,3,4,3,4,    1,4,    3,4,3,4,3,4,    1,4,1,4,1,4,    1,2,1,2,    3,2,  
 3,4,3,4,    1,4.

A repeat of 80 threads. Do not thread from this draft as given, but write it off properly on squared paper, and try it out before using it. The fifth pillow is a sort of "trick" pillow. Without examining it closely it is impossible to say how it was woven. The threading is apparently a small diamond, -- probably "Rosengang", -- and the frame-like effect could be produced by using several small shuttles, but would be slow and troublesome to do in that fashion. It might be done in double weaving, using this little weave in place of the usual plain tabby or, -- if the under side need not be as good as the right side, it might be done quite easily, leaving, however, long skips of yarn on the under side, - on eight harnesses.

The two chairs on either side of the next page at the top are said to be "in an old needle-point design". It appears in the illustration to be a "diamond" figure, but exactly how woven does not appear in the picture. The ways of weaving the "Diamond" are innumerable.

The piece shown over the old oak chest is most interesting. It is almost exactly like one of the patterns in the old German book mentioned previously. A slight difference in the tie-up and proportion of the rose figure is the only difference. This is another pattern that can be woven on eight harnesses in the "Summer & Winter" weave.

The carpet under the chest is probably in "Summer & Winter" weave as the figures are too large for overshot. This is a simple pattern and could be woven on six harnesses. The pattern is similar to the John Landes pattern No. 21, on page 29 of our publication. The small rose-figure is woven in so light a color that it is not clearly defined in the picture,--or else it is threaded on one harness and omitted in the treadeling.

The piece over the fire-place is apparantly a three-block pattern and can be woven on five harnesses in the "Summer & Winter" weave. The very tiny figure in the upholstery of the chair might be several things and is probably a "Rosengang". The pillow in the chair is a simple "Blazing Star" and could be woven on last month's "Bow-Knot" draft as explained in last month's Bulletin - the "tables" of course, being omitted from the draft, as described.

The rug on the floor is similar to a piece I saw at the Sesqui-Centennial. This was in "Summer & Winter" weave on opposites. The pattern is a simple one and I believe any of the Guild members who have been doing this sort of work can write it off readily from the illustration which is fairly clear.

I shall be glad to correct drafts of the rug-pattern sent in by members.

It is suggested that members file the Ladies Home Journal article with this Bulletin in order to have the illustrations for reference.

It is interesting and encouraging to all who are interested in weaving to see pictured such well-designed and beautifully executed things. We all, I velieve, owe the Talbots and the Ladies Home Journal a vote of thanks. The Talbots make much use of the "Summer & Winter" weave and often weave it on opposites, and by those who enjoy making drapery textiles this weave has always been found especially satisfactory. Simple two-block patterns can be woven on four harnesses, as often pointed out and as explained in the course, but for the more elaborate patterns, more harnesses are required. Eight will give one a large liberty in design that is very delightful, and this is entirely within the

possibilities of "Structo" weavers as well as for those who use a large loom. The additional harnesses may be added to the loom with no great difficulty and at no great expense. They are well worth while -- in my opinion -- for anyone who weaves at all.

I should like to give in the Bulletin some of the wonderful patterns from the old book, but as none of these patterns are adapted to overshot weaving, I hesitate to do so, as long as we are not all using the necessary number of harnesses. However, I have written five of the best of these patterns, including the two in the Ladies Home Journal article, and if Guild members want them I can have them printed, but, of course, to have a plate made and the printing done would be far too costly for a few copies. It seems a pity, though, to let this fine old book go back to the generous owner of it without making full use of it for the Guild.

If a tenth of the Guild members wish the drawing, we can do it for \$3.00 a copy. If half the members of the Guild were to order, it could be done for \$1.00 each. I could probably get a local Guild member to copy this drawing by hand, but this would cost about \$6.00 a copy.

\* \* \* \* \*

So many members have asked about weaves for coat material -- winter coats and fall coats -- that I am planning to make the next Bulletin a coat-fabric number. Anyone having interesting samples or suggestions, please send them in!

\* \* \* \* \*

In the meantime, a few words about the new strand cottons. Everyone who has used the material appears to be delighted with it. It weaves into a lovely soft fabric with much of the quality of fine wool. We are planning to add several more colors to our "line". At present we have Colonial blue, black, purple, two shades of green, orange (light), old gold, henna, rose and brown -- white, too, of course. The next shades will be burnt orange and a dark blue.

So far this material has been experimental. We have been trying it, and have not carried a large stock on hand. We are now stocking it in larger quantities and are





standardizing the colors. However, it is likely that successive dyeings will vary a little and it is wise to get enough for work projected. A table runner takes about half a pound, or two spools. A pillow top on the Structo loom about one spool. A coverlet takes about five pounds. Anyone wishing to make a white coverlet will find this a delightful material to use. We can make a special price of \$1.25 a pound for "natural" in five pound lots, and \$1.75 for colors in five pound lots.

\* \* \* \* \*

Mrs. Jack McReynolds, Allens Park, Colorado, is opening a gift shop July 12th and would like to sell the work of Guild members on consignment. Articles should be priced to allow a 25% selling commission and should be sent as soon as possible as the season is short. She wishes small things only -- such as towels, bags, runners and pillow-tops. Shawls, too, possibly.

\* \* \* \* \*

Our stock of the fine real silk that we have been carrying is at present low and we cannot supply all colors at short notice. We do not plan to carry a large stock of this material and in future will accept orders only for half a pound or more in one color. There will be a delay in supplying it as we shall have it made up to order. We can in this way supply practically any color desired.

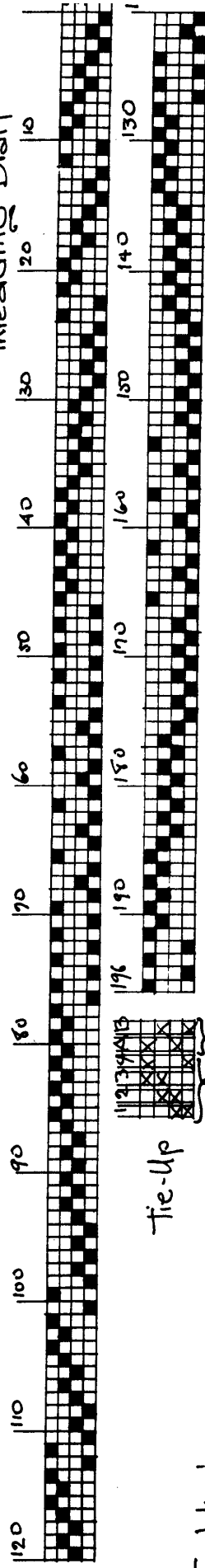
\* \* \* \* \*

I am planning to be in the West this summer for some weeks, but my office will be open -- in charge of Mrs. Nerrington, -- and orders will be taken care of as usual. Personal mail will be forwarded, of course. I expect to be back in Cambridge early in September.

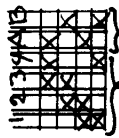
\* \* \* \* \*

# Shuttle-Craft Loom for Hand Weaving. Series A, No. 20. "Wheel of Fortune" or "Cup and Saucer" "Iron Wheel" etc.

Threading Draft



Tie-Up



Pattern Tabby

Treadling

(Continued)

1. 3 times

2. 9 times

1. 9 "

4. 2 "

1. 2 "

4. 2 "

1. 2 "

4. 2 "

1. 2 "

4. 2 "

1. 9 "

2. 9 "

3. 7 "

4. 5 "

Repeat

[For weaving on Table Looms Transpose Treadling directions as follows:

For "1" read 3 8 4

"2" " 1 8 4

"3" " 1 8 2

"4" " 2 8 3

1. 3 times  
2. 9 times  
1. 9 "  
4. 2 "  
1. 2 "  
4. 2 "  
1. 2 "  
4. 2 "  
1. 9 "  
2. 9 "  
3. 7 "  
4. 5 "

It seems as though everyone were planning to weave a fall coat or a winter coat, -- or both! So many inquiries have come in that coat-materials appear to be the most interesting subject to write about this month.

The Structo weavers cannot very easily weave material for a coat but can make sweater jackets, scarves, and similar things, so this is for them as well as for the big-loom weavers.

Besides, several of the threadings given on the accompanying diagram are valuable for many other uses besides the weaving of dress material.

\* \* \* \* \*

#### Threading (a)

This little threading, -- a repeat of ten threads only -- produces an interesting all-over weave with the effect of interlaced basketry. It may be used in many ways -- for scarves in fine wool, for borders in linen towels, for collar and cuff sets in linen, as well as for coat material.

A plain tabby weave border can be produced by threading 1,4,1,4,1,4, etc., as shown on the diagram. Plain weave stripes may be threaded between blocks of pattern weaving in the same way if desired.

Four treadles only are required for this weave and the weaving is done with one shuttle as follows: 1,A,1,A,B,2,B,2,B,A and repeat. (On Structo looms: 3&4; 1&3; 3&4; 1&3; 2&4; 1&2; 2&4; 1&2; 2&4; 1&3 and repeat).

Warp and weft should be the same or similar in weight and different in color, for best effect. For a fine, soft scarf, Afghan yarn set at 30 threads to the inch will prove satisfactory. This may, if desired, be threaded double through the heddles, and should then be woven with a double strand of weft. Blue and sand would

be an attractive combination of colors -- or orange and gray. Such a scarf would be very dainty and light.

Iceland yarn for a scarf in this weave should be set about 20 to the inch. For a heavier scarf use Shetland set at 15 to the inch.

For a "sports" coat for fall, use Fabri for warp, set at 30 to the inch and threaded double through the heddles. Use Shetland, single, for weft. For a light colored coat, color 722 for warp woven with weft in color 113, is charming -- 113 for warp and weft of 624 is good, or 622 and 14. One may use three or four colors if one wishes. For instance make the warp of 624 and 627 -- all the threads on harnesses 1 and four in the darker shade and the threads on harnesses 2 and 3 in the lighter. For weft weave all the tabby shots in color 627 like the darker shade in the warp and all the pattern shots in color 14.

Zephyr yarn may be used for a coat of this sort. It should be set at 12 threads to the inch.

#### • Threading (a')

This little arrangement of the (a) threading makes a very pretty belt. Warp 41 threads -- or for a narrower belt, take out one repeat of the pattern, threading (10 threads) and also make the tabby edge narrower. The warp should be a heavy material -- Art silk set about 20 threads to the inch or Perle cotton #3 set at 18 to the inch or D.M.C. strand cotton at 18 or 20 to the inch will be satisfactory. Weave the pattern in squares separated by tabby weaving or weave the whole belt in the pattern weave, beating the work close. Such a belt could be made on a tiny loom only a few inches wide. The same threading makes a handsome heading for fringe.

#### Threading (b)

This is properly a linen threading, -- but as mentioned several times, the linen weaves are all almost suitable for all-wool weaving also. This pattern was adapted from a very beautiful piece of old linen lent by one of our Guild members in Pennsylvania. For towels or small linen pieces, the pattern may be made smaller by omitting two of the blocks, (ten threads) and eight threads from each side of the twilled part. In this form it is excellent for the Strueto loom.

The tie-up is shown on ten treadles, but the weaving can readily be done on the ordinary or "normal" six-treadle tie-up by using both feet as follows: Weave the first

block, treadle 1 and A together, alternated with 1 and B together. Repeat till there are sufficient shots to make the block square. Weave the second block using treadles 3 and B together alternated with 3 and A together. Weave the seven blocks in this fashion. Then weave the twilled square, treadeling: 4,3,2,1, repeated seven times, or oftener if necessary to reach the middle of the square; then reverse, 1,2,3,4,1,2,3,4, etc., back to the blocks again.

(On the Structo loom treadle: 3 alone, 4, alone, alternated for the first block and 2 alone, alternated with 1 alone for the second block. Weave the twilled square: 2&3; 1&2; 1&4; 3&4; and repeat to the center, then reverse back to the blocks.)

This threading makes a handsome coat-fabric. Fabri warp at 30 to the inch, threaded double through the heddles, woven either in homespun or Shetland makes a good fall coat material. For a winter coat use Fabri at 45 to the inch, three threads through each heddle, and weft of Zephyr or G Germantown yarn. Warp and weft should be of different colors but not in great contrast or the effect will prove too startling.

#### Threading (c)

At (c) is shown a threading that produces square figures showing a difference in weave -- a very fashionable effect at the moment. This particular arrangement gives a very restrained effect, -- not showy at all. Warp and weft may be quite different in color without danger. It is handsome in this weave to use four colors -- warp in alternate threads of two colors and weft of alternate threads of two other colors. A very handsome sample has come to me in which the warp is in two shades of lavender - 715 and 773 - and the weft in two shades of tan, - 624 and 833.

Fabri is again suggested for warp, though a heavier yarn could be used. Fabri at 30 to the inch, threaded double, makes an easier warp to manage in the loom than Shetland at 15 to the inch. It also makes a softer and pleasanter fabric. Weft may be homespun, if a rough effect is desired, or Shetland, or a double strand of Fabri. Homespun in my opinion would be the best. The tie-up is shown on eight treadles, but it is plain that two of the treadles appear twice. The regular six-treadle tie-up can be used, though the order of treadeling for the second block may prove a little confusing. It would go this way: For the

first block treadle, 1,2,3,4, and repeat as for any twill. For the second block treadle, B,2,A,4 and repeat. The squares can be made any size desired, of course. They are shown on the draft as of 20 threads each. (It is to be understood that if Fabri is used as suggested above each thread shown in the draft stands for two threads of warp).

This threading may be used for a winter scarf on the Structo loom. The treadeling, of course, must in that case be transposed: For "1" read 3&4

"2"	"	1&4
"3"	"	1&2
"4"	"	2&3
"A"	"	1&3
"B"	"	2&4

#### Threading (d)

The threading at (d) is the ordinary twill threading. If a very thick twill material is desired thread in this manner with a heavy warp -- Fabri at 30 to the inch threaded double, or at 45, three threads to the heddle, will be satisfactory, or a heavy cotton warp can even be used. The tie-up requires eight treadles, and the weaving should be done in a fairly heavy yarn -- homespun or Shetland -- in two colors, weaving treadles 1, 3, 5, and 7 (which make the face) in one color and treadles 2, 4, 6, and 8 in the other color (which makes the back). The warp will not show. Of course a Herringbone or a "Goose-Eye" threading may be woven in the same way, on the same tie-up.

#### Threading (e)

The threading at (e) shows an arrangement for making double cloth in squares, with stripes of plain weaving between. It is suggested that three colors be used in warping and weaving as indicated -- the plain stripes threaded on harnesses 5 and 6 should be double threads or a heavier yarn than that used for the "double" squares.

Treadle the first block weaving treadles 1 and 3 in the same color used in warping the first and third threads, (indicated on the draft by the black squares), weave treadles 2 and 4 in color indicated by the dots. Weave the four pattern treadles in succession repeating till the block is square. Then weave a plain stripe on treadles A and B, using a double strand of the color threaded on the fifth and sixth harnesses. Weave the second block like the first except reversing the colors.

Five colors may be used for this if desired, -- two for warp and two different ones for weft for the blocks and a fifth for the stripe. Fabri at 30 to the inch may be used for warp and Shetland or Homespun for weft. It is advisable not to have any sharp contrast in colors, unless one desires a patchwork effect.

The blocks may, of course, be made larger or smaller as desired, and may indeed be of different sizes. The plain stripe, however, should be set between all blocks to hold the fabric together.

#### Threading (f)

The threading at (f) is the regular "double" weave threading as given in the course, and the tie-up at (f') is the regular tie-up for double weave. The tie-up at (f'') is the one for double-face twill as also given in the course and these tieups are repeated here simply for convenience. It is possible also to make a tie-up that will twill the face and make a broken twill for the ground. This is not shown as it is easy enough to arrange, if one wishes this particular effect. The tie-up at (f''') is for a twilled material decorated with detached squares of weaving in a double tabby. The effect is excellent. I took it from a handsome coat observed on the street.

A sample of a very handsome imported coat-material has been sent me. It is in double-weaving, in the pattern figure given at (g). Alternate figures were threaded in different pairs of colors, -- greys, tans, a soft lavender and a light brown. The weaving was the regular double weaving technique also in several colors. The fabric was very loosely woven, and would have been slimpsey if it had not been pretty well felted together -- probably by treatment in a fulling mill. I believe, however, that we could get a similar effect with Fabri warp and Shetland weft. The finished material, however, should be well soaked and rubbed in soap-suds -- rather more severely treated than other fabrics.

At (h) and (i) are shown two threadings for a very interesting weave I have just come across in an old Scotch weaving book unearther in a book-store that makes a specialty of antique books. It is a weave I do not happen to have seen before. By this technique one may weave a fabric as thick as one chooses. A study of the draft and tie-up will make it clear that two separate fabrics are produced as in double weaving, but stitched together at intervals in a pattern,; and between these two fabrics one may weave a wadding in or padding as thick as one desires.

The draft at (h) is intended to be woven with a fine yarn for the face fabric and a coarser yarn for the backing. I made a very satisfactory sample using Fabri at 24 to the inch for the face and Shetland at 12 to the inch for the



backing. I wove the face in Shotland weft, and the backing in Germantown. The colors used were a matter of chance -- things that happened to be on hand -- but the effect was charming. The Fabri warp was jade green and the Shotland weft was navy blue. The backing warp was white and the backing weft a dove grey.

For most people this fabric without padding would be warm enough for the coldest weather, however, it could be woven padded in a deep border for the bottom of the coat and for cuffs on the sleeves, and unpadded for the rest, or heavily padded at the bottom and lightly padded above.

The threading at (i) is for making two fabrics both of fine materials, -- the same number of threads being shown for face and for backing, -- the face-warp being indicated on the draft by squares and the backing-warp by dots. The method of weaving is the same for both drafts except that the same number of weft shots must be woven for backing as for face if threading (i) is used, and half as many backing as face shots with threading (h).

These weaves are much easier on a loom equipped with Jacks than on a counterbalanced loom, as the sheds are very unequal. The shed on treadle 8, diagram (i) for instance where only one harness comes down and seven are supposed to rise. I wove my samples on a counterbalanced loom, however, and found that with some "false ties" and adjustments it worked, though this particular shed was shallow.

(Those Guild members who have Structo looms equipped with six or eight harnesses will enjoy using these weaves, which are charming for bags. Treadeling on the Structo is much easier for this weave than on a treadle loom. To read the tie-up draft for the Structo, simply read the blanks instead of the crosses. The padding shed of (h), for instance, is opened by bringing down levers 1 and 2; the first face shed by bringing down levers 1 and 3, and so on).

To treadle (h) proceed as follows: treadle 2 as shown on the tieup with face-weft; treadle 7 with backing weft; treadle 1 with padding (which may be a shot of the weft used for backing or may be a heavier material) treadle 3 with face-weft. Then 2, face; 8, backing; 1, padding; 4 face; 2, face; 7, backing; 1, padding; 5, face and so on.

Treadeling for (i) is similar: 2, face; 8 backing; 3, face; 9, backing; 1 padding; 2, face; 8, backing; 4, face; 9, backing; 1, padding; and so on.

This weave according to the old book was used for bedspreads, and also in England for fancy vests.

\* \* \* \* \*

The quantity of materials is always difficult to estimate. Warp we can always calculate fairly close by the yardage to the pound of the various yarns, and of course in double weaving if the same yarn is used for weft as for warp, about the same quantity will be required. However, if as suggested, a heavier yarn is used for weft more weight will be required. The double twill at (d) will take more than twice as much weft material as warp.

In a general way, a thick all-wool fabric will weight between  $\frac{3}{4}$  lb. to  $1\frac{1}{4}$  lb. to the yard, -- whether for fall or for winter coats. It is better to allow generously and to have a little yarn left over rather than risk running a little short and having to wait, -- with the chance that material from a different dyeing will not match exactly.

To finish all wool fabrics for coats or suits, one should always wash and rub it very thoroughly and press while still damp. This takes the place of the finishing and "fulling" processes in use in factories.

\* \* \* \* \*

The book-keeping department wishes to remind those who have not yet sent in their checks for the Tyed Dyeing material to do so. They will be appreciated.

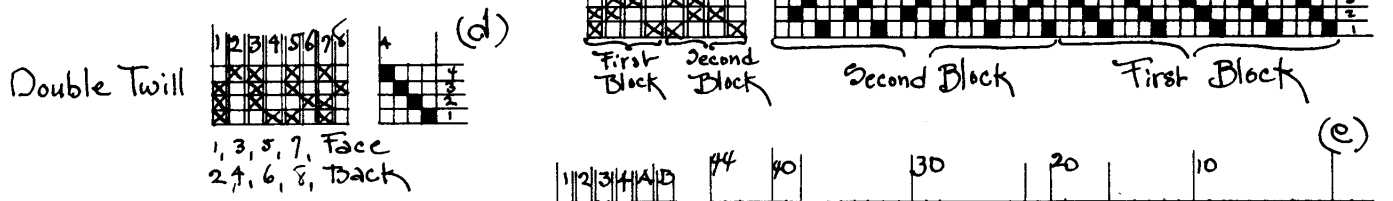
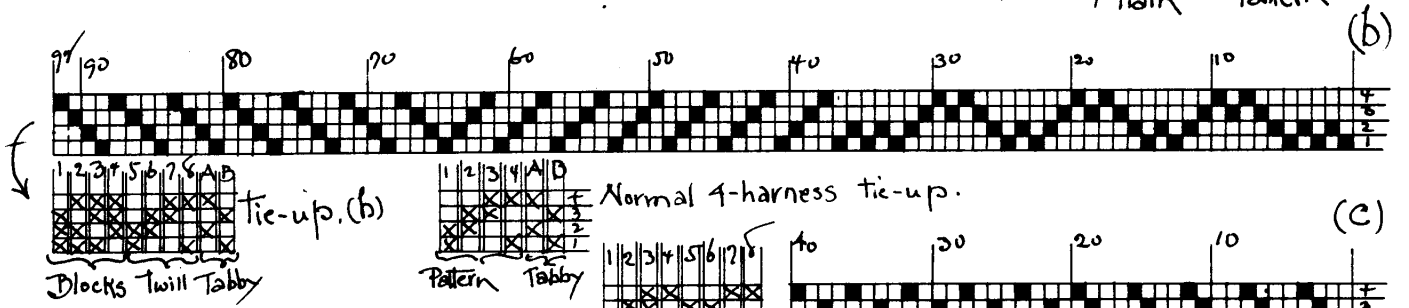
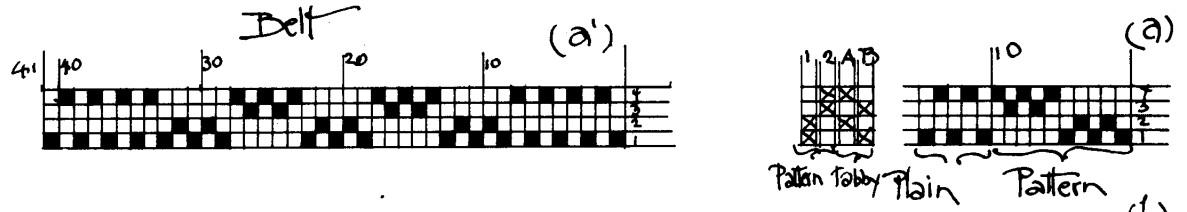
\* \* \* \* \*

Mrs. Nellie Johnson of 12489 Mendota Blvd., Detroit, Mich. has secured some very attractive new bag tops at an equally attractive price. Any one desiring these prices and the list of tops now available can secure same by writing to Mrs. Johnson direct. The prices on the metal tops offered some time ago have been reduced considerably.

\* \* \* \* \*

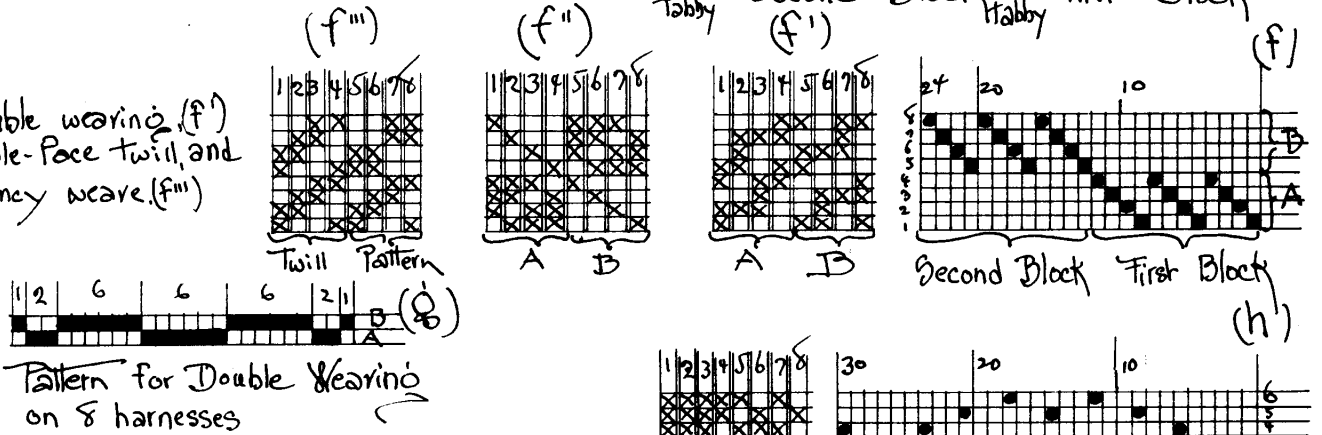
\* \* \*

# A Group of Special Threadings

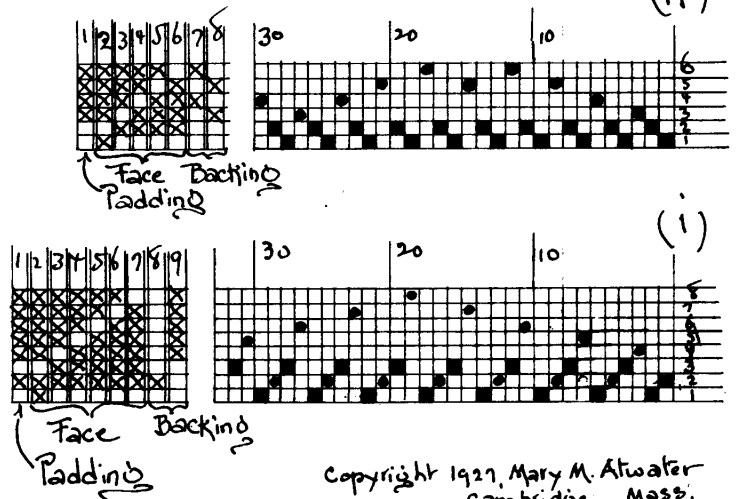


Double wearing on 6 harnesses

Double wearing (f')  
double-face twill and  
a fancy weave (f'')



(h) and (i) are threadings  
for quilted wearing —  
two separate fabrics  
stitched together in a  
pattern, with padding  
between.



The pattern for this month is one of the most charming of the Old Colonial patterns. The name is modern -- that is, it is the name applied to this pattern by Mrs. Obenchain (Eliza Calvert Hall) in her book on handwoven coverlets, and is, I believe, the name of the owner of a coverlet in this pattern. What the ancient name may have been I have so far not been able to discover. If any Guild member has light to shed on the subject, let him or her not withhold it.

The question of the old names is puzzling and also interesting. There are history, sentiment and poetry in the old names, and we should make an effort to preserve them and pass them on.

This particular pattern seems to have had a wide-distribution and may have been known by many names. The coverlet shown in Mrs. Obenchain's book is a Kentucky coverlet, but the pattern is not exclusively a southern pattern, - at least examples are found in other parts of the country.

Sometimes the pattern is written with a smaller repeat -- a smaller square or "table", and also one less star and one less rose in the figured square. To produce this variation, omit four blocks from the table (16 threads) and end the pattern at thread 154 of our draft. This will give a repeat of 138 threads. This shorter draft is a handsome pattern for upholstery material.

The "Mary Simmons" pattern may also be used for rugs. For this purpose, after putting in a selvage, begin the pattern at thread 184 of the draft, thread to the end, then begin at the beginning and put in the complete repeat. Repeat the star and rose feature again, as often as required for the center of the rug, then the table again, for a border on the other side, and the first star, ending with thread 102 of the draft, and put in a selvage. If the rug is large it is advisable to increase the table in order to make the borders of good proportion.

For instance, for a medium sized rug warp 572 threads. Put in eight threads of selvage, then the thirty threads from 185 to the end of the draft; next the table, adding four blocks (16 threads) put in the sixty threads from thread 71 to thread 130 inclusive, repeating these sixty threads five times; then thread from 190 to the end; then the table again,-- adding 16 threads as on the other side, - continue the draft to thread 102 and put in a selvage. This makes a rug that will be 36" wide, finished.

For coverlets the pattern is best exactly as drafted. Seam the coverlet through the 1-4 block, - threads 142-3 and 4. End the pattern with the table and the following star -- to thread 101 of the draft -- and use a "Diamond" border. The diamond threading at (d) Diagram 9 of the course will be the best one to use.

For instance, for a coverlet warped 44" wide in the reed, at 30 threads to the inch, put on a warp of 1320 threads. Begin at thread 142 and thread to the end of the draft. Then begin at the beginning and thread the complete repeat four times. Then thread from the beginning to thread 101 and put on the border.

The pattern is often woven in two colors -- all the 1-2 and 2-3 shots (treadles 1 and 2) -- in one color and all the 1-4 and 3-4 shots (treadles 3 and 4) in the other. A very dark blue and a brownish rose were the favorite Colonial combination, of course, but the brown and tan combination are also good, -- or indeed any two colors, that do not quarrel with each other or the surroundings. Brown and orange in the strand cotton work very well together, and so do the blue and green. This pattern is very good with the table and the lines (treadle 1 and treadle 2 shots) in green and the stars and roses in blue. For upholstery material orange and brown on a black mercerized cotton warp would be handsome -- or my favorite combination of plum color and old gold.

The pattern lends itself very well to table linen. For a lunch-cloth warp 1064 threads. Put in four threads for a selvage. Then begin the pattern at 184 of the draft, thread to the end. Begin at the beginning and thread to thread 94. Then begin at the beginning again and thread to thread 70. Repeat the next 60 threads of the draft 11 times. Then from thread 191 to the end. Begin at the beginning and thread to thread 94. Begin at the beginning again and thread to thread 101 and put in the selvage. This will make a "window-sash" figure of four "panes" in the corners of the cloth, and alternat-

ing stars and roses for the center. It is attractive to weave this in natural or half-bleached linen, figure and tabby and all, either over a cotton warp or a fine linen warp. If desired, colored borders may be introduced by warping every other thread of a border on each side in, say, blue; then in weaving use a blue tabby for an equal depth. (If the border is warped solid blue the color will be stronger than in the weft stripe).

A table runner with the pattern arranged as suggested for the rug is very good, and doilies to match may be made as follows: warp 355 threads, put in four threads for selvage -- or warp 363 threads and put in eight threads for selvage. Begin at thread 184 of the draft thread to the end; then thread one complete repeat of the pattern; then from the beginning of the draft to thread 101, and the selvage.

\* \* \* \* \*

One of our Guild members has a most interesting collection of old coverlets and woven pieces, which she has been generous enough to lend to us. A number of the patterns will appear in the Bulletin in due course. Here is a very odd little threading -- not symmetrical and quite unreasonable but very charming in effect. It would make good upholstery material, and done in fine materials would be charming as an "all-over" weave for a dress. The threading covers 22 threads and reads as follows: 2,1,2,1,2,3,2,3,2,1,2,1,4,3,4,3,4,1,4,1,4,3,4,3. The oddity consists in putting two of the "blocks" "on opposites".

The treadeling is this:(on our standard six-treadle tie-up)

1, 4 times	or Structo	3&4 - 4 times
2, 4 "		1&4 - 4 "
1, 4 "		3&4 - 4 "
3, 4 "		1&2 - 4 "
4, 4 "		2&3 - 4 "
3, 4 "		1&2-- 4 "
Repeat		Repeat.

This, of course, is woven with a tabby.

It could be woven in two colors by weaving the second and fifth blocks in a color different from the other blocks, but in simple blue and white, like the old piece that is before me, it is very lovely.

\* \* \* \* \*

It is amusing to weave a pillow-top, front and back at the same time. To make such a seamless pillow with this pattern on one side and a plain back requires six harnesses. Set the warp just twice as close as for ordinary weaving -- the fine Egyptian cotton we use at 30 threads to the inch should be set at sixty to the inch, -- four threads through each dent of a #15 reed. Thread the pattern on the four front harnesses and the tabby back on the two harnesses in back. In threading alternate one thread of the pattern draft and one of the backing, as follows: thread 1 of the draft through the front harness, next thread through harness 5, next the second thread of the draft, next a thread through harness 6, and so on. In making the tie-up, tie the first four treadles according to the ordinary tie-up with two additional ties, -- to the back harnesses: Treadle 1 tied to bring down harnesses 1&2&5&6. Second treadle, 2-3-5-6. Third treadle 3-4-5-6. Fourth treadle 1-4-5-6. Then two treadles for the front tabby: 2-4-5-6, and 1-3-5-6. Then two treadles for the tabby back, a treadle to tie to 5 only and one to 6 only. To weave front and back together at the beginning two more treadles are required, one tied 2-4-6 and one tied 1-3-5. The two tabby treadles for the top might be tied in this way till the heading was woven and then an additional knot put in on each.

After the heading weave: treadle 1 (pattern), treadle 7 (backing) with the same shuttle, -- the one carrying pattern weft. Then tabby A (fifth treadle) and backing, treadle 8, with the tabby shuttle. Second pattern shot, followed by treadle 7 with the pattern shuttle. Tabby B, (treadle 6), followed by backing 8 with the tabby shuttle. It is much simpler than it sounds. The only thing that may prove difficult is making the loom operate satisfactorily for so unbalanced a weave. The two backing sheds may not open wide enough, owing to the fact that only one harness is carried down and five must be raised. This condition may be corrected by a few "false ties" to the offending treadles. This has been described before but the operation is repeated here for convenience. Hold the treadle down with the shed

open. It will be found that one of the harnesses -- the other backing harness -- will go up to high and the other four harnesses will not move. Make a tie to the harness that rises too high, and with the treadle held down draw this knot just tight enough to bring the harness down level with the other four rising harnesses. It will be found that drawing it down will raise the others. The two backing sheds are apt to remain somewhat shallow but by the use of the false ties can be made deep enough for the throw-shuttle, which is all one needs.

Of course on the Structo loom this difficulty is not encountered.

\* \* \* \* \*

Owing to the cost of sending out small orders, we are obliged to limit all orders to not less than \$1.00. In ordering a single skein of material, plan to order something else to make your order confirm with the above ruling.

\* \* \* \* \*

This number of the Bulletin brings to a close the third year of our Guild. Our numbers are increasing and we can count our members in all parts of the United States, in Canada, in England, in Australia, in the Phillipines, in Alaska, and in Mexico. Our circle is doing much towards reviving the ancient art of Hand-Weaving, and we have reason to be proud of what we are doing.

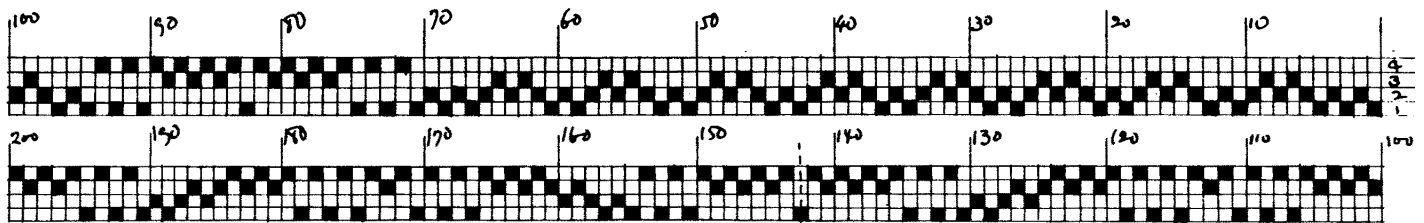
We are looking forward to a bigger and better Guild year. Don't forget to send in your renewal at once so that you will not miss your October copy.

\* \* \* \* \*

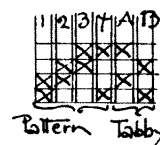


# Shuttle-Craft Draft No. A. 2. Pattern "Mary Simmons"

threading Draft



Seam cornerlet  
here

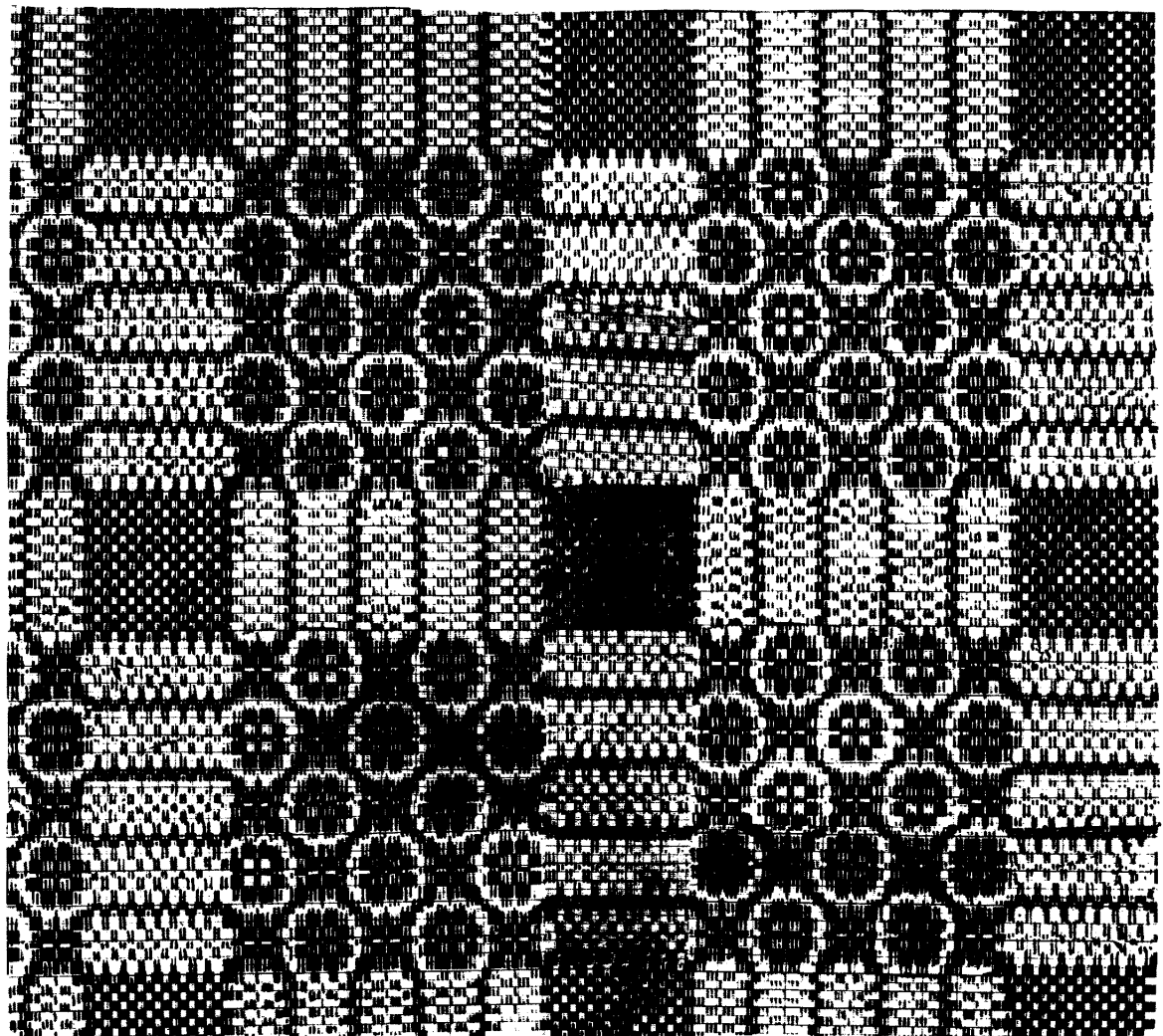


Treadeling

Note: for the "Structo" and similar looms  
transpose the treadeling:

for "1", read 384  
"2", " 184  
"3", " 182  
"4", " 283

1. 5 times  
2. 4. " } Repeat  
1. 4. " } 7 times  
2. 4. "  
1. 5. "  
4. 5. "  
3. 6. "  
4. 2. "  
3. 6. "  
4. 5. "  
1. 3. "  
2. 3. "  
3. 5. "  
4. 6. "  
3. 2. "  
4. 6. "  
3. 5. "  
2. 3. "  
1. 3. "  
4. 5. "  
3. 6. "  
4. 2. "  
3. 6. "  
4. 5. "  
1. 3. "  
2. 3. "  
3. 5. "  
4. 6. "  
3. 2. "  
4. 6. "  
3. 5. "  
2. 3. "  
1. 3. "  
4. 5. "  
3. 6. "  
4. 2. "  
3. 6. "  
4. 5. "  
Repeat



Copyright 1927  
Mary M. Atwater, Cambridge  
Mass.

SHUTTLE-CRAFT BULLETIN NO. 37

OCTOBER

- -

1927.

With this number of the Bulletin the Guild enters on its fourth year of existence. It is pleasant to know that most of our original members are still with us and that our numbers are increasing from year to year. Let us hand ourselves a bouquet or two -- it is likely that among us we are doing more to bring back American weaving, and to raise the standard of workmanship among modern weavers than any other organization.

So far the Guild has been carried on without much organization, through the office of the Shuttle-Craft School of Weaving -- perhaps the time has come to organize differently, with elected officers and a more elaborate plan. What is the feeling of members on the subject? We shall be glad to hear, and to publish letters on the subject in the Bulletin.

So far, as probably all our members know, we have sent the Bulletin only to Guild members, and have limited these to students of our course of instruction, -- chiefly for the reason that we wished to be sure of speaking the same textile language. Many people have wished to subscribe to the Bulletin without taking instruction, and possibly to meet this demand we may bring out the Bulletin in the form of this month's issue -- a little magazine planned for more general circulation than the little monthly news-letter we have been getting out so far, -- with the addition of special sheets such as this which will be sent only to Guild members. Information about positions, sales, special yarn offers and the like will be reserved for members. When writing in, mention your opinion on this suggestion.

Several very interesting inquiries for expert weavers as instructors have come to us lately -- one is a position that can be filled only by an occupational therapist of training and experience. It is a very special position, to organize occupational activities in a new and interesting group. The pay is better than is usual in hospital positions. Further details will be supplied on application.

Two other positions are for weaving only, curiously enough, both in connection with land-development propositions, though these are very different in character. One is the development of a very beautiful and artistic residence tract in the South, near one of the larger southern cities. It re-

quires a weaver of experience and artistic ability, and also a rather special personality as the social side of the craft project is to be emphasized. The other is more in the nature of social service -- it is a proposition to introduce weaving as an occupation for the women on a large irrigation project in the West.

\* \* \* \*

A local dressmaker whose custom is among the people of taste, has requested samples of "linsey-woolsey" and other hand-woven dress-fabrics, and says she could sell a number of dress-lengths at once. Anyone having such wares on hand who wishes to supply her can do so by sending them in to us. We charge no commission on such sales, -- the commission to the dress-maker should be 25% on things on consignment.

\* \* \* \*

Several Guild members have asked for colored un-mercerized cotton warp -- especially for linsey-woolsey, but good also for weaving with the soft strand cottons. We are having this made up in a number of shades and have on hand now black and an "old gold" shade. These two colors make the most generally useful warps. However, we shall be glad to supply any color desired. This warp is to be a special combed cotton, warp-twist, making it stronger than the regular "20/2". It will be supplied on two-oz. tubes, so that eight pounds will be required for warping at 30 threads to the inch. Orders for a pound can be filled of the two colors on hand, for special colors, however, eight pounds is the minimum.

The price will, for the present, be \$1.50 a lb. Cotton is rising in price every day and when the present stock is exhausted we may have to raise the price.

\* \* \* \*

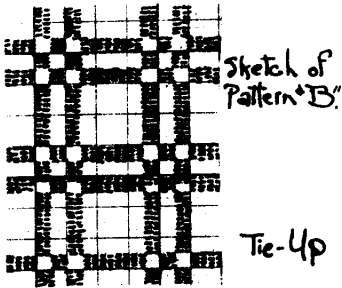
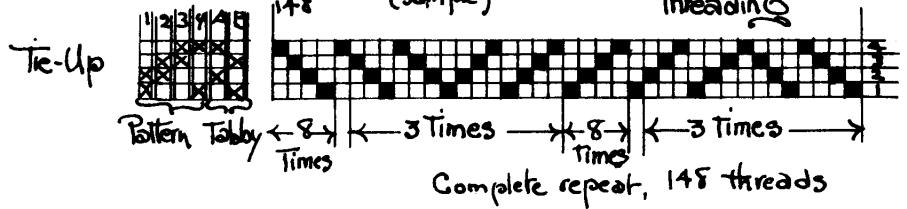
We have a special Christmas suggestion for Guild members; in addition to the suggestions in the Bulletin. We are making a special "Christmas Club" offer on the small loom warped and threaded and are sending out little notices like the enclosed to people who have inquired from us recently about looms. Any woman with a little time and cleverness can earn the price of a table loom several times over between now and Christmas and can, besides, make many lovely things to give away. It occurred to us that Guild members might have friends who would be interested in this offer, so we are enclosing a number of the little enrollment cards. Why not earn Christmas money for weaving materials or for other things by making a commission on sales of looms? We will pay 15%, which on \$40. is \$6. commission. And an additional commission if any of these Christmas Club loom purchasers subscribe for the course.



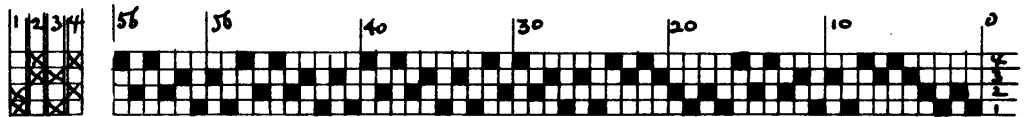
# Shuttle-Craft Threadings for Christmas Weaving



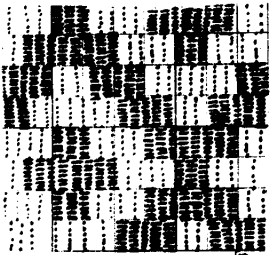
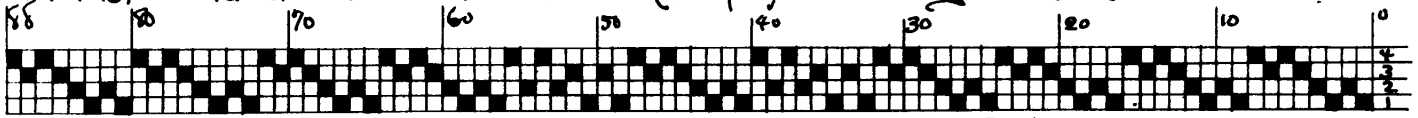
Pattern A. — Variation of "Goose-Eye" Threading



Pattern B, — "Ms and Os"

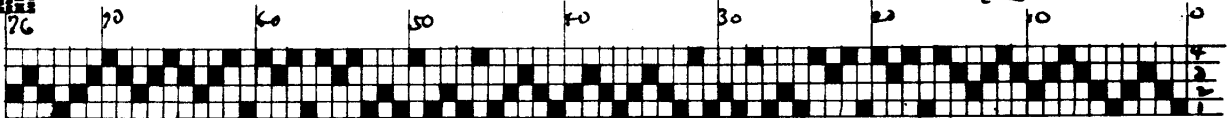


Pattern B, — Variation of "Ms and Os" (sample) threading of Border

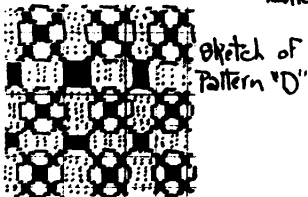


Sketch of Pattern C.  
Tie-Up as at "A"

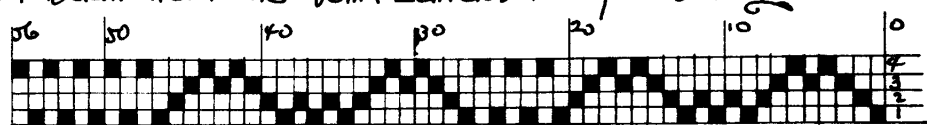
Pattern C. — A Scandinavian Linen Weave, in the "Diamond" figure



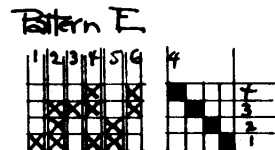
Pattern D — A Detail from the "John Lande's" Book of Drawings



Tie-Up as at "A"



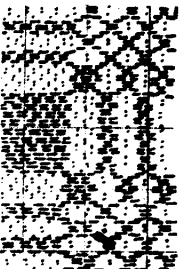
For seamless bags,  
Tie-Up



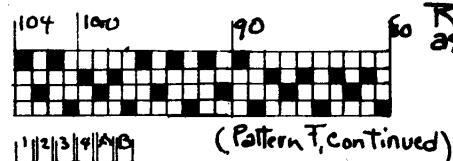
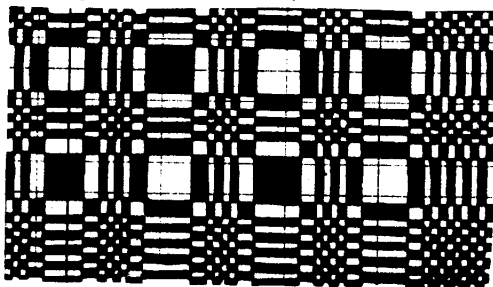
Pattern F. — a Four-Harness "Summer & Winter" Pattern



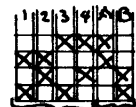
Detail of weave



Sketch of Pattern F



(Pattern F, continued)



# Shuttle-Craft Draft — "Honeysuckle" Pattern.

## Treadeling

### Treadle Looms

(Six-treadle tie-up as given)

Treadle 3, 2 times

" 2, 1 "

" 1, 1 "

" 4, 1 "

" 3, 3 "

" 2, 3 "

" 1, 6 "

" 2, 3 "

" 3, 3 "

" 4, 1 "

" 1, 1 "

" 2, 1 "

Repeat

### Table Looms

(Operated by hand-levers)

Lever 1 8 2, 2 times

" 1 8 4, 1 "

" 3 8 4, 1 "

" 2 8 3, 1 "

" 1 8 2, 3 "

" 1 8 4, 3 "

" 3 8 4, 6 "

" 1 8 4, 3 "

" 1 8 2, 3 "

" 2 8 3, 1 "

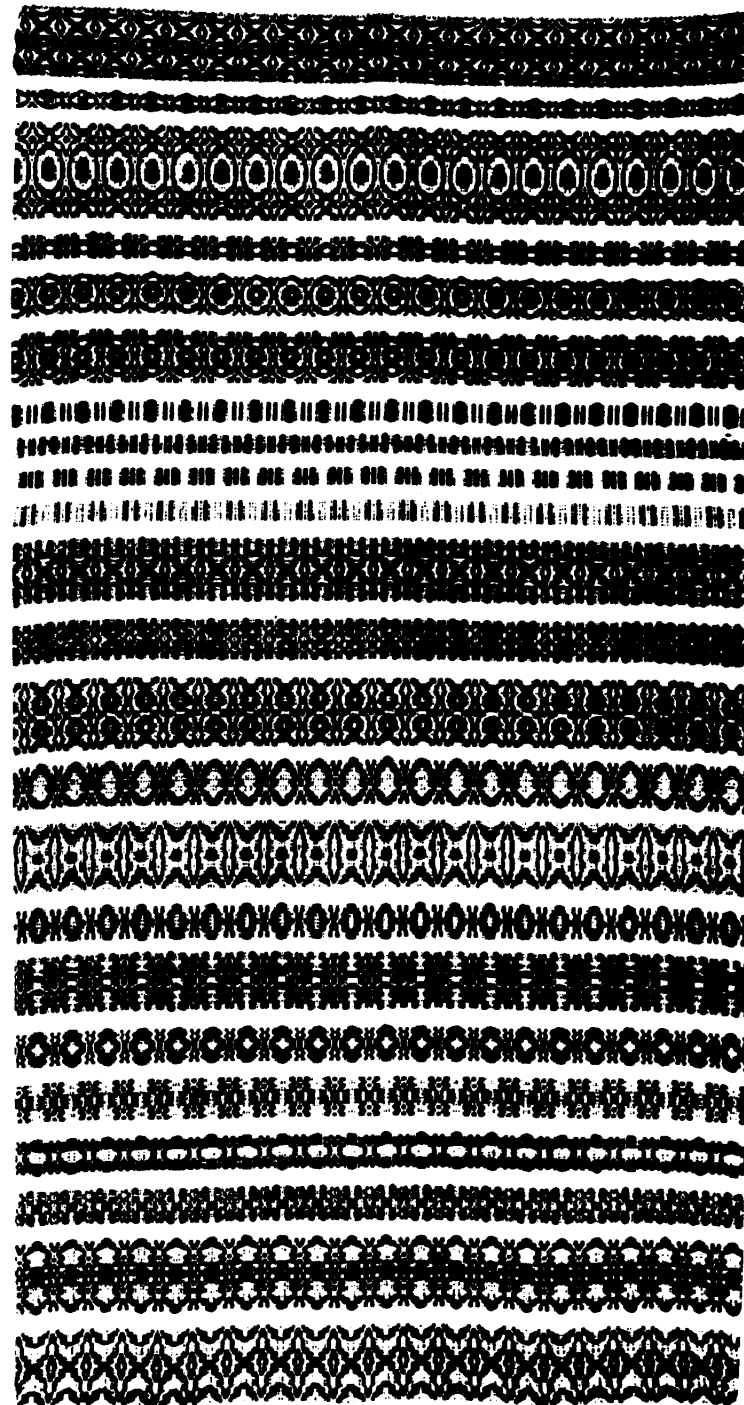
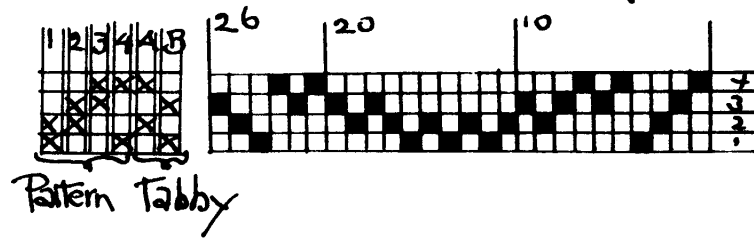
" 3 8 4, 1 "

" 1 8 4, 1 "

Repeat



## Threading



This threading may be woven in many different ways, a few of which are shown on the "sampler" illustrated. The treadeling above gives the "normal" weaving, — or the pattern "as drawn in."

SHUTTLE-CRAFT BULLETIN NO. 38

NOVEMBER

1927

- - - - -

Much interesting correspondence has reached us in reply to the various issues raised in the last number of the Bulletin. Most of the letters express approval of the suggestion to extend the circulation of the Bulletin. In fact so far there have been only three dissenting voices. These three, however, are from three of our most active weavers, so that what they have to say is of weight. Their idea is that by keeping the Bulletin within the Guild our exclusive patterns give Guild members an "edge" on competitors in the matter of sales. One of our correspondents also suggests that to make the Bulletin available to people who had not studied the course would lower rather than raise the grade of weaving being done.

I feel rather strongly on both these points. I believe that in trying to restrict weaving we make a mistake. Our chief difficulty from the commercial angle is the fact that hand-weaving is so little known, -- that the public is so poorly informed in the matter. People who have dabbled a bit with weaving are much more apt to buy handwoven fabrics than people to whom the idea of weaving by hand is a novelty. Of course it is true that there is commercial value in exclusive patterns -- provided they are good ones. Some day if the Guild becomes strong enough it may be able to command the services of a designer to supply exclusive designs for Guild members. At present this is not the case. And as to danger of lowering the standard -- I feel that this cannot result from giving people information. The trouble with a great deal of weaving is not that the weavers are unable to learn but that they have been badly taught and do not know how poor their work is.

On the suggestion of organizing more formally, most of our correspondents appear to find the present quite informal arrangement satisfactory, which is, of course, gratifying to us, but does not altogether meet the question. It is hoped that the Guild will grow and become stronger and stronger so that it will not depend on the efforts of one person as at present. In time it should be strong enough to employ a sales-manager to handle the output of hand-woven fabrics and



to organize the hand-weaving business in a business like way; it should hold exhibitions in various places and have a representative to go about to hold meetings, give talks before women's organizations and so on. There are probably actually more hand-loom in operation in this country at the present moment than there were in Colonial times, and if the output were organized commercially there would be a large business in it, with the chance for weavers to make a good deal more money -- if they wished to weave for profit -- than is possible in the present disorganized condition of the industry.

I feel that the Guild is, in a way, the only agency that could do this thing and keep to a high artistic standard. We are faced with the commercial development of hand-weaving in the south that has resulted in more and more fly-shuttle material being put on the market under the name of "hand-woven", and the sale of much rather inferior hand-woven material at prices too low to allow good work. I know of one place in the south where they are weaving coverlets on a power loom and are selling them as "hand-woven". The Guild could make an effective stand against this sort of thing.

We can do something as individuals to help this situation -- I suggest that each Guild member who sees products of this sort being sold as "hand-woven" will get samples and any advertising matter that is available and send this information to the Federal Trade Commission, Washington, D. C. together with a letter of protest. I have already taken up the matter with the commission, and if further protests come from various parts of the country something may be done. The fabrics complained of are for the most part fabrics for clothing -- the homespun from the Biltmore Industry at Ashville, North Carolina, and the fabrics marketed by the Churchill weavers of Berea, Kentucky. These things are made on fly-shuttle looms and should be sold as fly-shuttle products not as "hand-woven". If we had a strong organization, we would be in a position to make a much more forceable protest.

We ought to have an endowed "foundation" for educational work and research. And sometime we may attain to this. Perhaps we could enlist associate members among people who are interested in the revival of handicraft, though they are not weavers themselves. Of course this is all in the future, but let all Guild members keep these ideas in mind. We must aim a long way beyond our present tentative beginnings if we are to do with our Guild the work that needs to be done.



The Bulletin as our Guild organ must, of course, be kept for members only, -- however I believe a weavers magazine for more general circulation in connection with the Bulletin would be an advantage. I do not think giving wider distribution to patterns and information about weaving will prove harmful to those who are weaving for profit -- in fact I believe to do so will be of benefit. However, there is this difficulty -- many people who know a little about weaving know less than they realize; they might have trouble in understanding some of our patterns. I believe, therefore, that it will probably be best to defer offering our magazine to non-members until after the publication of the book on which I am engaged. The book will give an analysis of each weave and a large number of patterns, but will not, of course, be like the course of instruction. Guild membership we shall still have to limit strictly to those who have taken the Shuttle-Craft instruction -- unless Guild members do feel that it would be helpful to extend active membership to skilled weavers who are willing to submit work for inspection, and associate membership to any interested person. This would, in my opinion, be a good thing, as I believe our chief need is a larger membership.

The book, by the way, will probably be out early in January -- perhaps before. It will be made up of historical matter, notes on spinning, dyeing, etc., notes on the different Colonial weaves, and as many as possible of our large collection of ancient patterns. Some of these will be patterns given in the course but there will be a hundred or more that will be new to Guild members. The book will sell at \$6.00 to the public, and at \$5.00 to Guild members. Anyone who wishes may place an advance order for the book now and thus be sure of getting one from the first lot. No money need be sent with these orders, they will be placed on file and the book when sent will be billed in the usual way.

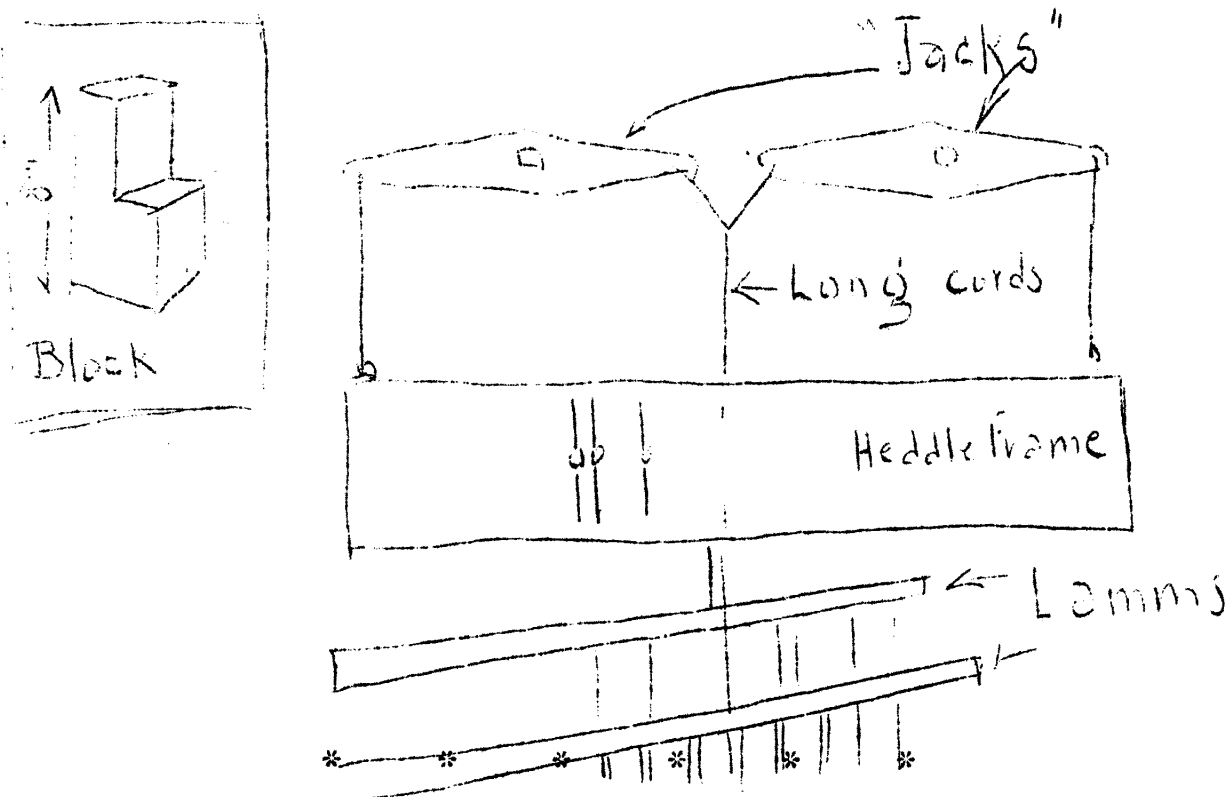
For the present then, we will continue the Bulletin as a service to Guild members only, and shall have to get it out in the old form. To have it printed like the October number is too costly for our present circulation.

\* \* \* \* \*

One of our Guild members contributes the following notes on the method she used in rebuilding her Practical loom to operate with "Jacks" or -- as the English books call them -- "coupers". This is a great advantage for elaborate weaving, and also for simple weaving though it involves a somewhat more complicated tie-up than the ordinary system with rollers:

a given treadle, all harnesses forming that particular part of the pattern are brought down, while all remaining harnesses are raised, forming a perfect shed. Inasmuch as each harness operates independently of any of the others, the tension on the ropes is only a fraction of that where rollers or pulleys are employed."

(We may add that looms are sometimes set up to operate with couplets with only one set of lamms -- the rising set up ~~only~~ the harnesses being held down by weights. This makes the loom a little heavier to operate, of course, but makes for simplicity in tie-up).



One of our members has an interesting suggestion for a travelling Shuttle-Craft exhibition, that could be managed with our present organization. She suggests that a group of members, -- say ten or fifteen of those who are weaving quite seriously -- contribute each a number of their best pieces for a loan collection, which will go from one to the other of the contributing members, somewhat as our travelling samples did at one time. The collection should remain a week, say, with each member who could if she wished make a feature of it -- invite people in to a studio tea, or exhibit the collection in a store, get a bit of newspaper publicity perhaps, and sell the articles on commission, -- those who contribute agreeing to supply other articles to replace any sold.

I believe this is an excellent suggestion and shall be glad to have the names of members who would like to do this. I cannot undertake to do the work myself at as my office is crowded with business, however, one of the contributing members should be willing to undertake this -- passing on contributions, making out the itinerary, etc. It is not a thing we will want to start at this season, while everyone is at top speed getting ready for Christmas -- but will be for, say, January, February and March. However, to do it and make a success of it, we must begin to plan now. I believe it would be impractical to include more than ten members in such a group, on account of the time involved in circulating the exhibition, and each of these ten members should agree to contribute articles to a minimum value of, say, \$100.00 -- these to be either large things like coverlets, dresses and so on, down to bags, little purses and guest towels.

\* \* \* \* \*

We have an extremely interesting letter from one of our members in England, who writes: "When strolling about the Victoria and Albert Museum looking for examples of handweaving -- I saw a linen scarf about 2500 years old, -- so charming that I am going to describe it. Nearly all warp with bars of tabby weaving at intervals, -- fine linen, natural color warped about 30 to the inch and lightly woven. It is about 60" to 70" long with a border 15" to 18".

"Border, tabby  $\frac{1}{2}$ "; warp  $\frac{1}{4}$ "; tabby,  $\frac{1}{2}$ "; warp  $\frac{1}{2}$ "; (t.  $\frac{1}{8}$ "; w.  $\frac{1}{4}$ ";) 4 times; t.  $\frac{1}{8}$ ", w.  $\frac{1}{2}$ "; t,  $\frac{1}{2}$ "; w,  $\frac{1}{2}$ "; (t,  $\frac{1}{8}$ "; w,  $\frac{1}{2}$ ") 4 times; t,  $\frac{1}{8}$ ", w,  $\frac{1}{2}$ "; t,  $\frac{1}{2}$ "; w.  $\frac{1}{4}$ "; t,  $\frac{1}{2}$ ".

"Body of runner: warp  $\frac{1}{2}$ "; tabby  $\frac{1}{8}$ ", repeated for length ~~xx~~ desired.

"The first and last threads of each weft stripe do not lie close, but tend to run out into the warp, but not badly. I have made a scarf of fine brown silk -- it is delightfully light and gauzy and yet warm, and in spite of its flimsiness appears to be wearing well. Perhaps in the original the warp spaces were meant to be filled in with colored designs by hand, as was done in so much early work, but even if it is only a skeleton, the effect is charming.

"Another piece I saw may interest you -- weaving on a painted warp. Fine white silk warp very closely set, almost solid in appearance, on which a bold design of flowers was painted, and which was then lightly woven with the same silk -- about 150 years old, if I remember right. It was a shawl or dress-length, I forget which."

\* \* \* \* \*

The last Bulletin had so much matter in it that one thing was omitted, -- mention of the heavy linen warp. This is a very beautiful material at a special price -- \$2.00 a lb. It can be used for both warp and weft for heavy linen runners, which are extraordinarily handsome and take very little time to weave. The warp should be set at 15 or 16 to the inch, in one of the small Bronson patterns, or "Goose-Eye" or "Ms and Os" using the first sixteen threads of the draft ~~a5~~ B on last month's diagram as a repeat. It is also a splendid warp to use for heavy weaving "on opposites" for chair-seats or heavy mats.

We shall be able to get heavy linen floss again -- like the "Special" we had some months ago that everyone liked so much. It was the loveliest linen material I have ever seen and made very beautiful runners, curtain material and towels. One of our members has just been in and told of using it for towels that proved highly satisfactory -- soft and absorbent and growing handsomer with use. The floss, if we have it, will have to be made up to order at the linen mill and of course they will not make a few pounds. I should like to know whether there will be a demand for this, and am asking you to check the enclosed blank and send it in if you would like some of this. It will not be for immediate delivery. The price will be about \$2.00 -- and we may be able to supply it in colors at \$2.00 or \$3.25. The heavy white warp is in stock and this can be sent out immediately.

\* \* \* \* \*

Miss Annie Ellsworth, one of our Guild members, -- is opening a shop, to be called "The Pedlar's Pack", at 308 Peoria Ave., Lafayette, Indiana. She asks to have this notice put in the Bulletin and will sell the work of other Guild members on consignment. She request that pieces be marked with selling price from which she is to deduct her commission of 25%.

\* \* \* \* \*

This month's pattern is one of the most famous of the ancient overshot patterns. There are innumerable versions of both "single" and "double" Chariot Wheels, but this particular version appears to be the only one called "Church Windows" so perhaps that is the better name for it. It is a very serious and dignified pattern. Usually it is woven in two colors, red and blue in most of the examples I have seen, though two shades of brown is an equally "Colonial" combination and somewhat less startling. Weave

all the 1-2 and 304 blocks in the lighter color, and all 2-3 and 1-4 blocks in the darker shade. It may also be woven with the wheels in one color and the "Table" in the other. In this case, however, tabby of two colors must be used, as explained some time ago, in order to equalize the colors and counteract the stripy effect. To do this the two tabby threads must be the same colors, or approximately the same, as the two pattern colors, say red in blue. The red tabby must then be woven with the blue overshot and the blue tabby with the red overshot. By this means the half-tone spaces will be about the same tone and the ugly stripy effect will not appear.

"Church Windows" is excellent for pillow-tops, for coverlets, for curtains, and is handsome for towels woven of soft cotton in the Italian manner. It is not recommended for rugs or for weaving in linen on account of the quite long overshot skips.

\* \* \* \* \*

Enclosed is a sample card of the new fine linens, and also samples of the heavy linen and of three colors in the new unmercerized colored cotton warp.

As noted in last month's Bulletin, this warp can be had in any color desired in lots of five pounds.

\* \* \* \* \*



SHUTTLE-CRAFT BULLETIN NO. 39

DECEMBER

- -

1927

It seems probable that some of the suggestions in recent Bulletins -- for closer organization, and the holding of travelling exhibitions, -- are likely to develop into something definite.

A local group is to be organized in New York, due to the initiative of Miss Jean Wolverton, 1403 Grand Concourse, New York City, and several other local chapters of the Guild are proposed. Those interested in such local organization in their own districts may have further information and lists of fellow-members by writing to us.

The plan for a travelling exhibition has interested a group sufficiently numerous to make the thing practicable. A number of excellent suggestions have come in. The plan will take a good deal of careful working out as to detail but will, I believe, prove most interesting and valuable to all our members -- profitable, too. Mrs. Nellie S. Johnson, 12489 Mendota Boulevard, Detroit, Michigan, has offered to undertake the work of organizing this activity and further letters on the subject should be addressed to her. We are turning over to her the correspondence so far received.

A loan collection of ancient pieces would be an addition to the exhibition, and any Guild member having an old coverlet, piece of linen or other relic of the sort will be invited to contribute to this collection. We have a number of excellent old pieces and a set of samples mounted on cards that we shall contribute.

\* \* \* \*

Some small samples of wool chenille -- for rug-weaving -- are enclosed. This material makes a very excellent and serviceable heavy rug. We have secured a job lot of this material at a special price and are offering it to Guild members at a bargain. We shall not have more, however, after the present stock is exhausted, so those ordering should be sure to order enough. It is difficult to judge quantity exactly, as different weavers and different weaves use very different amounts of materials. It is, however, far less expensive to have a little material left over -- as this can always be used in one way or another -- than to run short toward the end of a big job and not be able to finish.

Wool chenille is especially good for small rugs for hall-ways or doorways where the wear is severe. Such rugs in the 27" x 50" size will take about 5 pounds of material if closely woven in the plain weave, without a tabby. If woven with a tabby either of cotton or of ordinary wool rug-yarn the quantity of wool chenille, will, of course, be less.

A carpet warp set in the ordinary way will not do for the weaving of this particular material. A very heavy carpet warp set far apart will serve, or the ordinary carpet warp can be used but must be threaded double through the heddles. Twelve threads to the inch threaded double will have the same effect as a coarse warp set at 6 to the inch. This will be the best setting for rugs in plain weave. For pattern weaving it is better to set the warp, as usual, at 15 threads to the inch, but thread double through the heddles, giving the effect of a coarse warp set at  $7\frac{1}{2}$  threads to the inch.

No very elaborate pattern effects should be attempted with this coarse material. A good threading to use is a simple arrangement of squares in the Summer and Winter weave. Thus: for a rug 27" wide, warp 424 threads of ordinary carpet warp -- or 212 threads of heavy warp. Thread a border thus: (1,3,2,1; 1,4,2,4) three times; 1,3,2,3; (1,4,2,4) thirteen times; (1,3,2,3) thirteen times; (1,4,2,4) thirteen times; (1,3,2,3,1,4,2,4) three times; 1,3,2,3. This gives a border of seven single units and a pattern of large squares. The tabby may be a double thread of warp-material or a single thread of rug-yarn. Such a rug would be handsome in black and orange -- black warp and black pattern with an orange tabby. Or with the pattern in blue on a brown warp, and tabby in tan. Or for strictly Colonial hallways nothing is better than a tan and brown combination.

Another suggestion is to thread the loom for the three-harness weave. Weave three or four inches at either end and thirty inches for the center in plain weave, and put in 6" to 8" borders at each end in a variety of colors, as can be done so delightfully in the three harness weave. The material comes in 2 oz. skeins, -- for such a rug one should order four pounds in the color chosen ~~and~~ for the ground and a pound in a variety of colors. Brown for the ground and black, orange and tan for borders would be excellent. Blue for the ground and black, brown, orange and tan for borders would also be handsome. In some places a green rug looks well; a rug of the dull green with borders in black, blue, and the more vivid green would be delightful.



There were a number of suggestions for heavy rugs given in a recent Bulletin, -- many of these can be worked out very well indeed in this special material.

One of our Guild members has sent in a photograph of a handsome group of rugs woven on the "Rosengang" threading as described in the Bulletin of March 1926, and writes that she has had great success with these rugs -- "We have been making them right along ever since", she says. This threading would do well with wool chenille, but, of course, the warp should be spaced wider. Ordinary warp set at 15 to the inch with three threads through each heddle would probably work satisfactorily. I have not tried this myself but feel safe in suggesting it.

\* \* \* \* \*

The orders for the heavy linen floss have been so numerous that we have decided to stock this material regularly and will have it in colors as well as in half-bleach. The colors will be the same as the regular line of linen colors and will sell at \$3.00. It will be put up on 4 oz. tubes, single tubes 87½¢. The colored material, however, will not be ready before the end of January.

We find most people prefer the linens on spools and find we can have the half-bleach material spooled for 10¢ a pound. Will those who prefer their material spooled please let us know.

\* \* \* \* \*

The pattern sheet supplied this month is one of the diagrams prepared for the forth-coming book. One of our Guild members asked especially for the pattern of the Single Chariot Wheel opposite page 106. That is why this sheet is being sent out.

In the book an attempt is being made to classify the patterns -- as "Diamond Patterns", "Star Patterns", "Rose Patterns", "Wheel Patterns", and so on. This I believe will prove helpful.

The endless variety and beauty of the old patterns is more than ever impressed upon me as I made selection from among the patterns to draft and illustrate the book. It was like collecting flowers. Of course the 200 or so patterns in the book do not by any means exhaust the field, but I hope to have included the best-known and most individual patterns, with many rare ones and many of historic interest.

Of the patterns on the diagram there is this to say: No. 65 is the simple small Chariot-Wheel pattern given at (a) Diagram 10 of the course. It is a simple, straight-forward little pattern, excellent for many purposes. It should be woven as drawn in.

No. 66 is a very odd little pattern, much more subtle in effect than 65. The wheel hardly appears till the thing is seen from a distance or through half-shut eyes. There is an old coverlet in the Pennsylvania Museum woven on this pattern, but examples are rare. The draft given here is taken from a letter written a number of years ago by the celebrated "Weaver Rose" of Rhode Island, to one of our Guild members. It was lent to me with other interesting matter relating to this last of the weavers for inclusion in the forth-coming book. This would be a very good pattern for chair-covering for an old wing chair, or for a couch. The overshot is short, as is desirable for upholstery material. For bags it would also be excellent.

Treadeling for "Guess Me"

Treadle	1,	twice
"	2,	3 times
	3,	4 "
	4,	4 "
	2,	4 "
	1,	4 "
	2,	4 "
	4,	3 "
	3,	4 "
	4,	4 "
	3,	4 "
	4,	3 "
	2,	4 "
	1,	4 "
	2,	4 "
	4,	4 "
	3,	4 "
	2,	3 "

No. 67 was taken from a handsome old coverlet woven in blue and brownish rose. It is not a large pattern but makes a very handsome coverlet, especially if set off with a wide border. A good border to use with it would be the Diamond with the return on 1-2, as given on diagram 9, of the course. As it is a small figure, it could stand an elaborate border -- one based on the Sunrise figure, for instance.

No. 68 is the pattern for which a request came in. This is a very unusual arrangement of the single Chariot-Wheel motif and has a rich and handsome effect. It would be beautiful for draperies, pillow-tops, and other such things, though not advised for rugs. The treadeling is as follows:

Treadle 4, twice	Con.	Treadle 4, 2 times
2, 8 times		3, 2 "
1, 8 "		4, 2 "
3, 8 "		3, 2 "
2, 8 "		4, 2 "
1, 8 "		3, 10 "
3, 2 "		2, 8 "
1, 8 "		1, 8 "
2, 8 "		3, 2 "
3, 10 "		1, 8 "
4, 2 "		2, 8 "
3, 2 "		3, 8 "
4, 2 "		1, 8 "
3, 2 "		2, 8 "
		Repeat.

No. 69 is a simple pattern, similar to No. 65 though larger and more elaborated of course. The difference between Lover's Knot and Chariot-Wheel appears to consist in the fact that Lover's Knot has four small stars as well as one large star within the circle, while Chariot Wheel has one large star only. This threading when woven "rose-fashion" produces a Whig Rose pattern. The draft is written from center to center of the diamond figure. A good border to use with this pattern is the diamond as it appears in the pattern -- twenty threads, the first ten and the last ten of the draft. Pattern may be woven as drawn in, or rose-fashion as desired.

The pattern of No. 70 is the same figure as No. 69 -- but what a difference in effect! As is true of all patterns on opposites, this is more subtle, more brilliant and at the same time less obvious than the pattern when drafted and woven in the usual way. A whig Rose on opposites may be woven on the same draft by treadeling the pattern rose-fashion. The treadeling as given below weaves the pattern "as drawn in", with the accidentals omitted as is the usual practise.

Treadle 1, 3 times  
 3, 3 "  
 4, 3 "  
 2, 3 "  
 3, 4 or 5 times  
 1, 4 or 5 "  
 3, 2 times  
 1, 4 or 5 times

Treadle 3, 4 or 5 times  
 2, 8 times  
 4, 8 "  
 2, 3 "  
 4, 3 "  
 2, 3 "  
 4, 8 "  
 2, 8 "  
 3, 5 or 6 times  
 1, 5 or 6 times  
 3, 2 times  
 1, 5 or 6 times  
 3, 5 or 6 "  
 2, 3 times  
 4, 3 "  
 3, 3 "

Repeat.

No. 71 is an excellent little pattern for upholstery and would also make a good rug, as all the blocks are about the same size. It produces a circle surrounding a square and four small stars. As it is woven strictly "as drawn in" it is unnecessary to write the treadeling.

This pattern is also very good in linen and is especially good for the Italian type of weaving in the soft strand cotton, in white and in colors.

\* \* \* \* \*

There are a great number of "wheel" patterns. I have found it impossible to put them all into the book but among the thirty-five wheel patterns I have included, -- of which the ones on this diagram are the first seven -- I think I have given all the most characteristic and interesting of them. Numbers 69 and 70 are illustrated elsewhere in the book. Though it is impossible to illustrate all the patterns, and unnecessary, too, as the general type of a pattern may be inferred from the group in which it stands, and to a certain extent by an examination of the draft itself. It is always good practise, however, to develop an unfamiliar draft on paper before putting it on the loom in order to make sure it is exactly what is wanted.

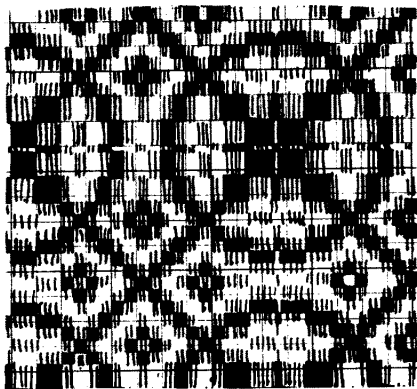
Note: Structo weavers should read the treadeling in the usual way: for "treadle 1" read lovers 3&4

"	2	"	"	1&4
"	3	"	"	1&2
"	4	"	"	2&3

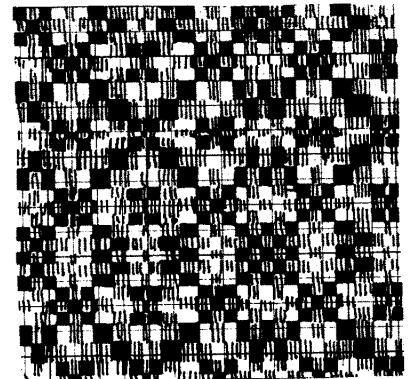
As frequently noted, the number of shots depends on the material used and on the beat. The blocks should be woven square so that the figure appears neither squatty nor long drawn out.

# Series III. Wheel Patterns

Group (a) Star and Wheel Patterns, with a Cross or Diamond

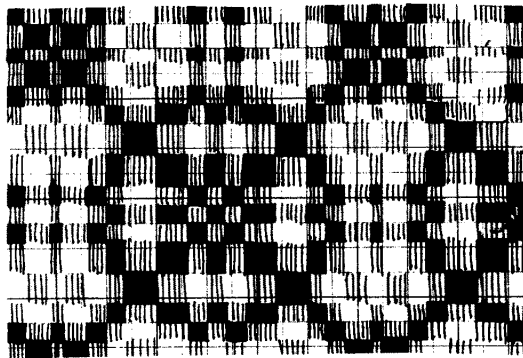
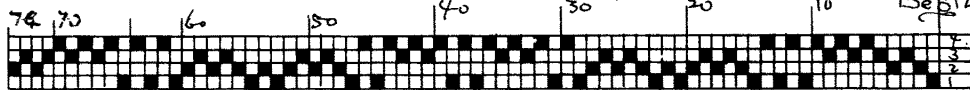


No. 65

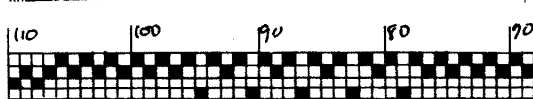
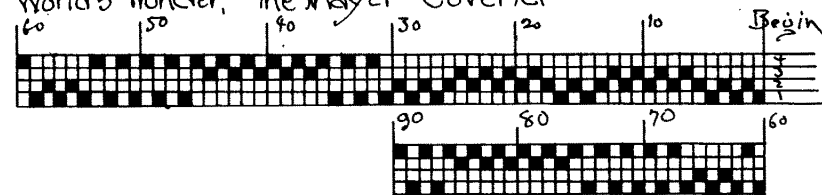


No. 66

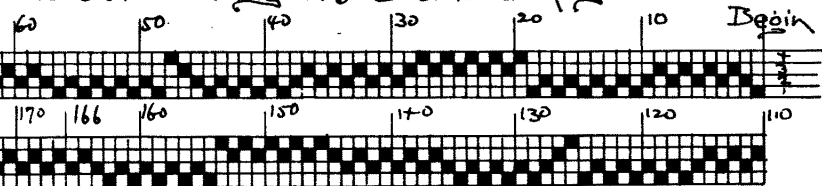
Guess Me - Weaver Rose



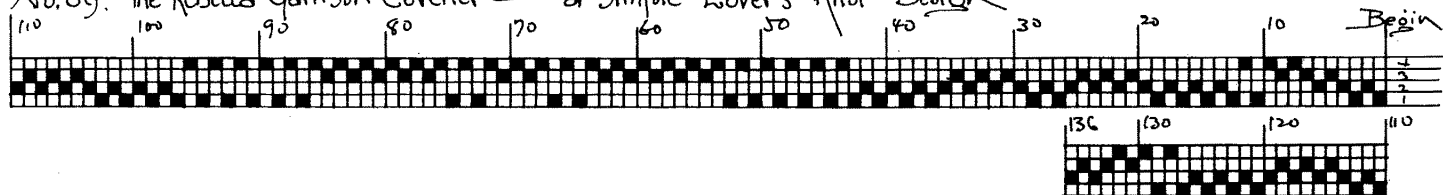
No. 67.  
World's Wonder, the Thayer Coverlet



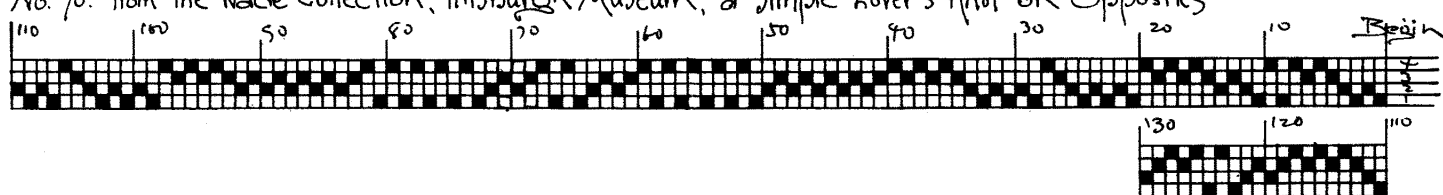
No. 68. Washington's Diamond Ring



No. 69. The Rebecca Garrison Coverlet - a Simple Lover's Knot Design



No. 70. From the Wade Collection, Pittsburgh Museum, a Simple Lover's Knot on Opposites



No. 71. The Cross Compass

