Designing with Twill, herringbone, and Rosepath.

The January number of Handweaving News has for several years given suggestions for different phases of design with reference to weaving. This month I am giving some material which a good many of my students have found of much interest, designing with the threading drafts of twill, herringbone, and rosepath, as a basis. It was in the Handweaving News of June 1936 and 1937, that I first wrote up this method of writing up ones own drafts.

At Figure No.I above is given the threading draft of twill, herringbone, and rosepath in order. This can be used just as it is for a repeat, and would be suitable for linens or dress or coat materials. In weaves of this sort, it is possible to use only one shuttle, and make one shot on each shed. Of course too there are many ways in which the threading draft could be woven, which would add still more to the variety which could be achieved. This threading could be centered on harness 1 and then reversed, as shown at Figure No.II. Of course this would result in a different pattern from No.I.

At Figure No.III. the center is made also on harness 1, but this one is at the end of the repeat. With this as a center, repeat back the original draft in reverse. At Figure No.IV. the draft is centered on harness 4, then reversed back to the beginning. These four drafts show how centers can be arranged in different places to change the pattern effects.

Figure No.5

At Figure No.5 we have 3 twills repeated. This is often a good way to use up extra warp threads on a threading, at the end and beginning. Reversing these twills gives the center on harness 4 with a reverse twill. At No.6 we have a repeat of four twills, with the center on harness 1 which gives the rosepath in the center. Twills can be repeated in this way, in groups of different numbers of repeats very effectively, especially for linens or for dress materials.

At Figure No.6 on Page 2 is a threading using twill, rose-path, twill, with the center on 4. At No.7 is a twill, rose-path, twill, with center also on 4. Note the difference between these two threadings, and also the difference in the woven effect which is drawn out below. No.7 gives two repeats of the pattern. From this it is easy to see how you can put together these three threadings to obtain many different and unusual drafts.

How to Draw down the pattern threading drafts to get woven pattern effects.

It is simple to draw down these threading drafts to get the woven effect. There are four possible pattern blocks on a four harness loom, namely 1x1, 2x2, 3x4, and 4x1. Plain weave is 1x1 and 2x2. On drafts of this sort it is possible to use only one shuttle, and only one shot on each pattern shed. No plain weave is needed between the pattern weft shots as the skips are only two threads long. Note how each pattern block overlaps the next by one thread each time. To weave the threading draft "as drawn," means to take each pattern block as it occurs in the order of the draft, and draw a line below each place where that block occurs on the threading draft. The figures at the left of the threading drafts above indicate the order in which the blocks are drawn down, as they occur on the draft. Follow these out on a diagonal line. These are the harnesses used in the weaving. On a loom where the harnesses rise, as in the Structo looms, use 3x4 for 1x2 above; 1x4 for 2x2; 1x2 for 3x4; and 2x2 for 4x1. This order makes the pattern come on top of the weft as it is drawn down above, that is the only difference, and it is also somewhat easier to weave the pattern because you can see it more clearly. There are many other ways in which drafts, of this sort may be used to get still other effects, as they can be woven in any order which may be desired, as well as the "drawn in" effects above.

Increasing the sizes of pattern blocks of any threading draft for variety.

At Figure No. 9, each pattern block of Figure No. 7 has been increased by 1 thread. When weaving these patterns, pu in an alternate plain weave shot after each pattern weft shot. Still other patterns are made by increasing some blocks and leaving others as they are. Try this and draw them down.

At Figure No. 10 is a draft of "Hearts and Flowers" from June 1936 News. Note that it is the same order as No. 8 above, with only 3 of the pattern blocks increased by two threads, namely the 4x1 block, the 4x3 block, and the new 4x1 block. This is another way to change these patterns to make your own threadings. Note that at each point where a pattern repeats back on itself there is an odd number of threads.
The first four key drafts and their threading drafts below are taken from the June 1937 News, all designed by Marie Copeland, one of my students. They can be used as repeats from A to B, or B can be made a center, and the threading then repeated back to the beginning in reverse. In this case the pattern will be different in each case. Draw down these key drafts as a repeat, then make a center and reverse back, and you will see the difference.

From these examples, it should be easy to draw out your own key drafts and make threading drafts and pattern effects. Try them out.

They are very different from the Colonial patterns.

This key draft is drawn out so you can see what sort of pattern effect is obtained when the key draft is written and repeated from A to B, without making a center, or reversing back the pattern. This pattern has considerable movement and is most decidedly different from anything of the Colonial, that I have ever seen. When interesting color combinations are used in the weaving, this pattern will go still further with the modern feeling. A two block border designed for the sides might subdue the movement a little and hold it in some.

I hope some of you will be interested enough to not only make some of your own patterns in this way, but will try some of these here. If you do, let me know how you succeed and if you like this sort of thing. It's brand new, and my students love it.

January 1945

The brocades described in this News are all fabrics which I personally selected and brought back with me from Peru. The descriptions given are from the original textiles, as are also the designs drawn out on cross section paper on Page 2 and 3. These patterns are given not so much with the idea that they be copied, as to show the type of design and use which these ancient people made of brocade as a technique. Of course any of these patterns could be used on the Hearthside Loom, or any loom where a two harness shed is possible. Note that on the cross section paper, the vertical lines represent warp thread, and the horizontal lines the picked up weft threads. There is a shot of the plain weave after each pattern shot. Be sure and use alternate plain weave after each of the picked up pattern weft shots, and it is best if this is finer than the pattern weft used.

The photo above is of Brocade #13. The design for this is Figure No. 4 on Page 2. This is a rather choice piece having the borders across the complete width from selvage to selvage. These borders alternate one red, the other gold, with about a 3/4 inch space between them. And either side could be a right side. The finished borders are about 2" wide, and the design is of interlocked heads or faces to form the geometric pattern. There is a red wool fringe at the bottom of the piece, and as a heading for this, three rows of red wool weft over 5 and under 1 are put in. This is alternated with over 1 and under 5 all across. Warp is white unevenly spun cotton set about 30 threads to the inch, plain weave white like the warp, with red rather stiff two ply wool for one border, and a faded gold wool for the other border. These were used double. This would make a handsome border for a rug on the Hearthside loom. For this use Rug Filler for pattern, with soft spun for plain weave. For a bag, Germantown yarn could be used for both pattern and plain weave shots, but use two colors.

At Figure No. 2 is shown an interesting spot brocade #29, having a design of small faces. Warp of brown cotton and wefts of brown for the plain weave, and set about 24 threads to the inch. Pattern wefts are of yellow, dark red, rose, cream, each unit of a different color. As yellow used from A to B, C to D, dark red etc., then a unit of rose and one of cream on the same row all across. On the next row above as at E to D, repeat the same color as at A to B. The colors were put in to form a large diamond figure inside of each other. Each pattern weft color is carried only as far as its own unit and turned back for the next row each time.

February 1945.
Figure No. 1 and No. 2 are separated figures taken from Brocades #5 and #6. The little birds of No. 1 were woven in rows across a complete piece of brown cotton for warp and plain weave. Pattern wefts to make birds of several colors were of wool in red, yellow, cream, and light brown. Warp was about 30 to the inch. This piece and #6 were woven with no cut or hem, finished on both ends, on a loom as described in the June 1943 News. The rows of birds were separated by about an inch of the plain weave. The fish design at Figure No. 2 from #6 textile was also woven as a separate figure, each color carried as far as the pattern goes, then the next color taken up for the next figure about an inch beyond. Put the pattern wefts below the weaving, put in a row of plain weave, then bring up the pattern wefts to the top again for each row all across the width. A row of the fish pattern makes an attractive border for a rug.

At Figure No. 5 below is an interesting bird design taken from Brocade #15. This design is in multiples of two. It is used as a repeat all over pattern in red on a white cotton warp. Back and front are the same except in reverse. One half of the repeat pattern is given here. Warp was about 40 to the inch. The second part of this repeat continues on from this half, but instead of going over two warp threads and under six as shown on this repeat, work just the reverse, over the 6 spaces and under the two black lines of the design below. I hope that this is clear for it is a rather odd way of working out the pattern design.

Figure No. 5 Brocade from #15. Site of design woven 2\(\text{x}2\frac{1}{2}\)" when woven.

Two Block Patterns for the Hearthside Loom.

This month I am giving several patterns for the Hearthside Loom which are similar in effect from those which are generally woven on a four harness loom. In fact all of these could be woven on a 4 harness loom with a little different threading. The one given above called "Lasting Beauty" is taken from an old coverlet sample which I have in my collection of old Colonial pieces. Those of you who are familiar with the writing of a 2 block pattern will have no difficulty writing these four harness drafts.

The first material of this sort which I wrote up was given in the News for April 1941. And a draft for a Rug pattern was also given in the booklet "Weaving on the Hearthside Loom" which many of you have; refer to bottom of Page 9 for this. Many people have enjoyed using this, and there has been a number of requests for more patterns of this same sort, so here they are. And I hope you will like them.

Explanation of Pattern threading above for "Lasting Beauty". On this draft, there are two lines. One line B represents the holes in the heddle, and the second line S represents the slits of the heddle. The 0's on the draft mean to omit or skip a hole or a slit of the heddle according to the line on which the 0 may be in the draft. The E's mean two warp threads in either a hole or a slit, according to the line where they occur on the draft. Instead of using 2 threads as written on this draft only one thread can be used if desired. This takes much less material for the warp, but makes a somewhat lighter weight material when woven, all right for some things, especially if the wefts are well beaten together. Edges are better threaded double than with single threads of warp. Thread the draft above as follows:

- S to A salvage takes 6 holes & slits or 12 warp threads
- A to B border " 33 " " 37 " "
- B to C center, repeat 22 x 6 for 132 holes & slits or 176 warp threads
- C to D once takes 3 holes and slits or 4 warp threads
- B to A for left border takes 33 holes and slits or 37 " "
- A to S salvage takes 6 holes and slits or 12 " "

Totals 213 holes and slits or 278 " "

If warp is used singly in holes and slits, only 144 warp threads are needed.

Method of Weaving. The pattern threading at No.1 on Page 1 can be used as a repeat from A to C if desired, then thread from C to D. The threading draft as given uses A to B as a border for each edge of the rug, with B to G repeated over and over for the center or body of the rug. For this weaving at least two colors are needed, or if two different kinds or materials are used, it may be of the same color. For instance, Home-craft cotton yarn in white with white carpet warp works out very well for bags, or rugs if closely beaten up. The warp is almost entirely covered, and a thick firm fabric results. When the alternate of the two weft shuttles on the edges, keep a good edge and do not let it pull in too much or edge warp threads will break. Keep it out as near full width as possible by letting the weft thread lie in the shed on a long slant each time it is carried through the sheds.

Leave a heading of carpet warp about ½ inch wide to start. No true plain weave is possible on this threading. Wind two shuttles, one with one color A, and the other with carpet warp or color B. Put in a shot of A, change shed and put in a shot of B. Fasten ends of both A and B around the edge warp thread. Then alternate A and B until the last block of the pattern is squared. Change the shed each time the weft is put through. Note the figures at the side of the pattern drawn on Figure No.1. These indicate the pattern blocks. For the second pattern block, put a shot of A weft in the same shed as the last B weft of block 1, without changing the heddle or shed. Finish the second pattern block by changing to B weft, then A weft, etc., enough times to square the block. To begin the next or the 3rd pattern block, there should be a shot of both wefts in the same shed. Continue in the same way for all pattern blocks in order as given. The number of times to weave the alternate shots of A and B will vary according to the kind of weft used, but weave to square the block if you wish to get the same effect as the pattern drawing.

The following is quoted from a recent letter from Mrs. Mary E. Tirrell.

"You have asked that your subscribers tell "what they've done with it", and I have never thought I had anything worth telling before. Now I think I really have, and only hope it will be worth something to others. In your book printed especially for the hearthside loom, there are directions for making a rug on an uneven threading done in rose and white. I made one of these for Christmas and then tried out color schemes with three colors, and they came out beautifully. I used one color all through the rug. For the borders I alternated this with a second color, and for the body of the rug with the third color. For instance, one rug had the borders of slate gray and black with the body of the rug in slate gray and lemon yellow. I made another rug with white and "cream" for the borders, and rose and white for the body. An especially lovely one was of dark brown and "ecru" -- which looks like old ivory -- for the border, and "ecru" and gold for the body. I made five in all and everyone different.

"That isn't the nicest part of it. My thrifty soul dislikes to waste anything so I tried weaving a bag on the end of the warp, following your suggestion. And you don't know what a lovely bag it made. I used the rug yarn in the balls for this. Weave a heading with carpet warp about ½ inch. Then I wove 2 pattern blocks all in white, 2 shots on each block. Then the border was 2 dark brown, 2 ecru, 2 lemon-yellow, 1 ecru, 1 myrtle green, 1 ecru, 2 aqua green, 2 ecru, 2 orchid, 2 ecru, 2 dusty-rose. For the center of the bag I used all white then reversed the colors as given for the other border, ending with 2 blocks of eight white as in the beginning, and the ½ inch heading. I machine stitched the headings together for the sides, and turned the selvages around for the top and bottom. I lined it with broadcloth and made handles of different colors of rug filler twisted so all the colors show. I twisted the ends of this cord to form a rosette, and sew to the bag before lining is put in. The rug yarn makes a different texture than the rug filler, and is very firm".

"I think that uneven threading makes a lovely weave with one color and am planning on making a bedspread of it, weaving one strip for the right and left border, and two or more strips for just the center pattern for the center of the spread. If anyone has a large loom it is easy to do many things, but I'm finding plenty to do with this loom, and I hope the owners of similar ones will enjoy theirs as much as I do mine." Thanks a lot for your nice letter, Mrs. Tirrell. I am sure many will be interested in your suggestions.

The patterns on this page are 3 more simple threading arrangements for this 2 harness west pattern weaving. These may be used for bags, rugs, upholstery etc. and work up very well.

Figure No.2 is composed of alternate pattern blocks of the same size. They can be made larger by writing them and threading them 2, 4, 2, 4, 2. But this is about as long as this should be used. A), B), and C) are different borders, and these are separated by weaving with just one color. It is possible to get very pleasing color arrangements with this simple threading by the use of several colors.

Figure No.3 and 4 are patterns written with single threads of warp instead of the double. Of course No.1 and No.2 can be threaded singly if desired, instead of 2 warps in a hole or slits as written. Threading singly requires less warp, which at the present time may be very much of an advantage. On all of these patterns, the selvage threads are from A to B, and one repeat of the pattern is from B to C, but end the threading with the repeat B to D, then the selvage edge threads as given, for the left edge.

Directions for a Rug using Figure No.3 for the threading. Make a warp of 164 warp threads. The thread the selvage 2,1,2,1 as given. Then repeat from B to C, all across the width of the heddle. Finish threading from C to D, and end with left selvage 1,2,1,2. Weave single header with dusty rose carpet warp. Then use wine color home-craft cotton yarn for one and the dusty rose carpet warp for the other, and weave as follows: 29 shots of each. End with a shot of carpet warp. Then use dusty rose home-craft cotton and wine home-craft cotton, R, W, R, W, R, W, for a narrow border, then rose carpet warp and wine home-craft cotton, 10 shots of each, then end with the carpet warp for an extra shot. Now 3 shots of rose, and 3 of wine alternated, a shot of carpet warp. The wine 4x, rose 3x, alternated, then a shot of carpet warp. Then R 4x, W 3x, and a shot of carpet warp, which is the center of the border. Repeat back in reverse order to the beginning of the border. Do all of the center of the rug, over and over alternating the two colors, as the first 29 shots were put in. Repeat the same border on the opposite edge to finish the rug. Knot the carpet warp for a fringe or if hem is desired, weave a wider heading at beginning and end.

Note in this rug the one shot of carpet warp at the end of the pattern block on the opposite shed will change the alternation of the two colors, so it is not necessary to put one shot of each color in the same shed. This is an improvement in the technique as this shot of carpet warp scarcely shows at all. We are indebted to Mrs. Rumon, one of my students for this, and the rug described above.

Four Harness Colonial Coverlet Patterns for Rugs.

At Figure No. 1 above is shown Sample No. 20 from my Colonial Coverlet collection. This I call "Reflections" due to the white areas shown on the pattern. Some of you may know another name for this, if so I should be glad to hear from you. It is a long time since I have given any Colonial coverlet patterns, and as there have been several requests for these, here they are with some adaptations for over-shot rugs. These threading drafts can be used in many other ways too, and with the exercise of ingenuity with regards to color would I am sure be adaptable to modern effects. Try weaving these with white, tan or cream, or gray for the pattern weft, and use a contrasting color for the fine tabby plain weave shots. Some very handsome results may be obtained in this way, and they are quite different from the old blue and white, or red and blue of our Colonial ancestors.

Figure No. 2 on Page 2 gives the complete 4 block key draft for Figure No. 1. If you wish the full pattern effect draw this down, bringing the blocks down as they are written, squaring each one in its correct succession. One repeat of the pattern is from A to B, and is given at Figure No. 3. For a coverlet, warp 20/2 or 24/3 cotton, set at 30 threads to the inch. If a border for this is needed, use the diamond repeat from C to K of the threading draft, and repeat for width as desired. Center of the coverlet could be at either G, the center of the small table, or at H, the center of the large table.

Note on the key draft at Figure No. 2, that the different figures are named. And these names correspond to those on the threading draft also, from A to C is a star figure on pattern blocks 1 & 2, written on the threading draft in 1 & 2 and 2 & 3 harnesses. The diamond from C to K is written on the four pattern blocks: 1, 2, 3, 4; and on the threading draft 1 & 2, 2 & 3, 3 & 4, and 4 & 1 to correspond. From K to D is a table on blocks 1 & 2; while the star from J to K is written on blocks 3 & 4, as is also the table from K to L. It is possible to arrange these figures for a new pattern in any way desired. The key draft at Figure No. 4 and its threading draft at No. 5 is an excellent plan for a rug which gives a very modern effect when woven, quite different from the original threading. No. 5 is just half of the complete threading, from A to C, then reverse and thread back to the beginning at A for the end. Weave from A to C, then C to D, then E to J, squaring each pattern block, for the border. Then from M to K, and repeat from K to L over and over for the whole length of the center of the rug. Then reverse and weave in same order for the opposite end of the rug to finish.

At Key Draft Figure No. 4 from X to Y, is another border which can be used instead of the one A to J. X to Y has a table instead of the diamond between the 2 stars. To thread Figure No. 5, begin with a twist 1, 2, 3, 4 with two threads in each heddle. Then from A to B, 220 threads, then from B to A, 219 threads, end with 4, 3, 2, 1, also threaded double as in the beginning. This takes 455 warp threads for the complete threading. Set at 15 threads to the inch, this will make a rug about 37" wide, or about 36" wide when a 12 dent reed is used.

Warp carpet warp, weft rug filler or rags for pattern, carpet warp for the plain weave between pattern rows. Tie up is the regular four harness tie up as given.

Weave as follows:- Enough times to square each pattern block.

Star No. 1 A to C, - 1&2-4x; 2&3-2x; 1&2-3x; 2&3-1x; 1&2-4x.
Diamond C to E, - 1&4-1x; 3&4-1x; 2&3-1x; 1&2-2x; 2&3-1x; 3&4-1x; 4&1-1x.
Star No. 1 E to J, - Same as Star A to C.
Star No. 2 J to E, - 1&4-4x; 3&4-2x; 1&4-2x; 3&4-2x; 1&4-4x.
Table X to L, - 3&4-1x; 1&4-1x; repeat this for the center of the rug as long as desired. Then repeat the border in reverse.

The number of times given after the different combinations of harnesses will be different for other sizes of pattern weft. This is for rug filler or wool of about that size. Use a shot of pattern weft, then a shot of plain weave, and be sure and alternate this plain weave. For a runner on the Strueto loom, or any loom where the harnesses rise, use the opposite numbers, as for instance for 1&2 use 3&4; 2&3 use 4&1; 3&4 use 1&2; 4&1 use 2&3. This will make the pattern come up on the top side of the weaving.

Announcement of Weaving Class for Wayne University Summer Session.

From June 18th through July 27th, I will teach a regular course in Weaving, provided enough people register for it. The group will meet mornings from 9-12 Monday through Thursday of each week. Register for Art 245, or Art 247, if you have had a previous course with me. This course carries college credit for those qualified, but is open to anyone. Cost $15.00 for the entire six weeks. Write me if you are interested or have further questions about this.

Modern Peruvian Weft Brocaded Belts.

The belts in the photo above are some which I bought in the mountains of Peru. I shall never forget the sight which met my eyes as I stepped out on the balcony of my room, and looking up and down the street saw the native Indian market stretched out below me. Just under my windows were a large group of women selling these gay colorful belts of all bright colors which I shall now describe for you.

These belts are very easy to weave on either a small heddle or the Hearthside Loom. For warp, use carpet warp or knitting cotton. These have 124 warp threads and are pulled into a width of about 3 inches, by pulling the warp threads very close together. Use really bright colors to get the effect of the native belts. We have tried out subtle colors with not very good results. Bright green, yellow, cerise, orange, blue-purple, scarlet wool was used for the brocaded weft, and the same thread as the warp for the plain weave between each brocaded shot. Some people may like to use the Inkle loom for these, but I believe the heddle loom is better. The heddle cannot be used to beat up the weft close, use a shuttle for this. Use the heddle only to raise and lower the shed, and push it back toward the warp beam of the loom. The reverse side of these belts shows only a faint color, and the plain weave as the brocaded pattern shots are all on the top side of the weaving.

One characteristic of these belts is that the pattern weft brocade design is based entirely on the diagonal. It is very easy to improvise these patterns on the loom. But I have drawn out 2 of the figures shown in belt No. 2 above, to show how the designs increase and decrease. Sometimes by two warp threads and sometimes by only one thread to change the direction of the diagonal line desired. This makes it easy to makeup patterns right on the loom. For the first row, though, be sure and find the center thread for the brocaded weft, and continue from this, increasing or decreasing.

Method of Weaving the Technique. Weave about 3" of plain weave for the heading. Pull in with this weft all of the warp threads so the width is only about 3 inches. Open the plain weave shed. Two warp threads from the edge start a colored pattern weft, fasten the end, and carry the weft in the plain weave shed up to the place where the pattern begins. Bring it out of the shed, on top of the warp threads, and over the top of the warp for the pattern skip, then down into the shed, and up on top for the next skip, stopping about 2 threads from the edge, put in a plain weave shot, change shed. Turn the weft color back, and proceed in and out of the shed in the same way.

May 1945

Nellie Sargent Johnson 12489 Mendota Ave., Detroit 4, Mich.
The difference between this form of brocading and the regular brocade is that the pattern weft skip is over the top of the raised warp threads, and the pattern weft goes in and out of the shed as it is raised. This is really a very simple method of working and should not present any difficulty to anyone. I shall be glad to answer any questions about it, if you wish to write to me.

The photo at the left is of warp pattern belts in color. All of the color is in the warp threads. The weft thread does not show at all except a little on the edges. It is very easy to weave these belts, and much variety is possible only by using a dark thread alternated in the threading with a light thread. A solid line of color results when several threads of one color are warped at a time. The warp is pulled close in the weaving, and the heddle just raised up and down. These were described in December 1938 News. This is available if you wish to have it.

These figures are taken from bolt No. 2 in the photo on Page 1. They are drawn out as near like the original as possible. These count both the raised warp threads and the sinking ones for each skip. An easier way to draw these out would possibly be to just count the raised warp threads for each skip.

"Four and One", a new Variation of over-shot Weave.

This month I am introducing an entirely new form of over-shot weaving which I believe many of you will find of much interest and rather unusual in many ways. It has a great many possibilities for practical articles and is quite different in texture than the ordinary over-shot. I have not seen this particular technique written up in any other place. It came to me as I was trying to work out overlapping pattern blocks in large blocks on opposites. The final results were tried out and I am presenting them in the hope you also will enjoy using the pattern.

Characteristics of the Weave. The weave as it is used here has four possible pattern blocks, though of course it would be possible to use only three pattern blocks if one desired. I have called it a "four and one" threading as there are four threads plus one in each pattern block, or five threads really, except where the design changes, then there must be either a four or a six thread pattern block. It is a little tricky to write a threading draft in this weave on account of these particular blocks, and care should be used or the weave will look unbalanced. The woven effect gives almost a solid band effect rather than that of separate pattern blocks. This occurs due to the effect of the single thread skips.

Threading Draft on Page 2. Is planned for a modern luncheon set and is also an unbalanced design for a place mat. I first introduced this sort of design planning about two years ago in an effort to get some modern effects in "Summer and Winter" weave, which so many people like to do.

Arrange the threading draft for a warp of 420 threads as follows,-

| Thread the first two heddles double | - 4 |
| Then A to B repeated 7 X 8 | - 56 |
| E to C Once | - 95 |
| C to D repeated 20 X 8 | - 130 |
| D to E Once | - 45 |
| E to F repeated 7 X 8 | - 56 |
| Thread last two heddles double | - 4 |

Total 420 warp threads.

This is planned for 7 spools of mercerized cotton natural warp to be woven on the Strumto loom.

June 1945   Mellie Sargent Johnson  12489 Mendota Ave, Detroit 4.
Different materials are different effects in this weave. Figure No.1 below the threading draft at No.1 was used by one of my students, Leona Jones, for a luncheon set. Weft used was linen cross in white for pattern, with “fine grey linen” for plain weave. The small borders were repeated on each end, with the center of the mats woven in grey plain weave. Beginning at the bottom of Figure No.1 use letters as follows, - 15-10x; 33-9x; 441-3x; 41-3x, repeat in same order the same time more, then weave center in plain weave, and repeat borders for other end in reverse.

A solid band all across the width of the mats results when alternating single rows of 15x and 33x are used. This may have a fine plain weave between each shot if desired. This is not shown on the sketch below.

Figure No.2 can be used as a border or any one of the sheds can be repeated for the center of a place mat. The latter will give a very interesting effect that is different. Fine grey No.10 mercerized cotton and peach-colored 2 strand cotton are especially nice in color. Perma-No.10 cotton for pattern with grey for plain weave also looks very well. Lately we have been trying several colors together for effect. The effect is careful color chosen is very subtle. Try No.10 white, grey and gold, or yellow-green, grey, and light green, with plain weave of wheat of the same.

If you like heavy mats, try No.5 mercerized cotton tan, with “fine linen color” or grey for plain weave. Weave as follows, - 15-36x; 34-23x; 44-9x; 44-9x; 34-15x; 33-6x; repeat 1/2 for 13 inches for center, then 34-6x; 33-6x; 34-6x; and 15-12x, with a plain weave for hem. There is a very ribbed effect to this piece, quite different from the plain weave given above.

Figure No.1 Threading Draft for “Four and One” over-shot threading.

Figure No.2 Ends and borders for linen Luncheon set.

Figure No.3 Another method of weaving ends of a Place Mat.

Importance of Texture in Handweaving.

Threads are the essential structure of all woven textiles. By texture we mean the "feel" of a fabric. Is it soft, smooth, fine, coarse, rough, etc. The present tendency in textile design places much emphasis on texture interest rather than on pattern. As hand-sowers, how can we build up original textures in the fabrics we weave on our looms? There are a number of ways which I shall try to point out.

First, texture can be achieved through variations of loom controlled techniques such as twills, simple over-shot pattern, sumner and winter technique, buckle weave, etc., but keeping these always subordinate to textural effect desired.

Secondly, texture can be obtained by the use of the free-weaving techniques such as laid-in, Spanish weave, tapestry in its varied forms, lace weaves, etc. But by far the most important fact in all of this is, what kind and sizes of threads and yarns are to be used. Textures gained through the use of very simple patterns, such as twill, or even just plain weave tabby, can be exciting, interesting, and offer a large opportunity for the development of new and different textiles for modern uses. And it has occurred to me many times that many weavers do not realize the great possibilities which lie in just the use of different kinds and sizes of the threads with which they weave. It is my firm conviction that if handweaving is to follow the present modern emphasis on simplicity of pattern, weavers must stop using recipes and traditional patterns, and go back to the real elements, threads, of which cloth is constructed. Those of you who have been subscribers for Handweaving News over a period of years will note how often in presenting a weaving technique or a pattern, the emphasis has been not on the copying of the specific design presented, but on the development of the structure by which it was achieved. It has always been my firm belief that the teaching of fundamental principles is much more important than running around collecting and using someone else's recipes. The use to which a fabric is to be put sets up certain requirements as to the kind of thread which can be used, and how close to set it in the reed. For instance, material woven for upholstery, needs to fill certain definite uses different from those of hats or bags.

Now just how are some of the ways we can use threads of different kinds and sizes. First let us consider warps. In these days with so many restrictions on threads, and the difficulty of obtaining them, many people write me that they do not know how they are going to weave at all, they cannot get enough of anything. Have you ever tried to use up all your odds and ends of threads in a warp? It can be done, and most effectively if you are not afraid to use some experimenting and also ingenuity, some coarse and some fine threads. Coarse threads can be laid one thread in a dent, and fine threads several in a dent, also dent can be skipped. In doing this there are a few principles which it is best to follow. Colors can be mixed but try for either a cool or warm effect, with perhaps just an occasional accent of bright color. Or if all the warp is of bright colors, use a neutral color for all of the weft shots. To avoid a warp striped effect, separate the different kinds or colors of threads as it is being laid by using other yarn in between. For instance in a recent warp, there were only twenty threads of one kind and color. These were spaced at intervals in the reed so as to about equally divide them up according to the width, then other threads were put in between in the same way. With combinations of different threads in the warp, do not ever mix wool with cotton, or wool with linen, unless you use another warp beam for the wool warps. Wool threads stretch more than cotton or linen.
Variations of felt yarns. There are many kinds of threads and yarns which can be used as felt yarns. These include course cotton, rayon, wool, linen if you have some at hand, or combinations of these. I recently combined some soft straw, wasteroid and bronze shades of rayon to produce a texture, smooth and slightly rayon. Then there are the many new synthetic threads which, while they are not yet available, will be as such the needs for the armed forces are met and peace is assured. Such for things such as scarfs, sarongs, the vinon and vinion E and nylon, as well as new metal threads of aluminum and aiss. They will all be important. Right now, look into the uses which can be made of such things as pine needles, raffia, corn shucks and cat-tails for rough textures. Finely cut perscales or wool plaid materials can be most effective. Use combinations of several fine threads to make one coarse soft. All of such materials can be used as wefts on the Heartside loom or on a floor loom. It is most important to use imagination, incelcity, and not be afraid to try out and experiment with materials on the loom until the texture and color effect desired is created. Now is a very good time to use what you have and make it do.

As a help to show what can be done with threads in this way, I will give some of the texture experiments which some of my studente have woven, and which found a place in the recent exhibit at the Art Institute in Detroit.


2. Same warp, 9 shots grey raffia, 9 shots of rose raffia, 9 shots of dark blue raffia. Repeat in same order throughout for required length.

3. Same warp, one shot grey raffia, one shot of cream color hat straw, one shot of lime yellow two ply wool yarn. Repeat for length desired in same order.

4. Black carpet warp. One shot coarse rayon crochet chenile, such as is used for crocheted bag, 1 shot of coarse black rayon boucle, repeat for required length.

5. Dark wine colored carpet warp. Wefts, 2 shots of dark wine color mercerized cotton No.5, 1 shot dark red violet Germantown yarn, 2 shots DH mer. cotton No.5. 1 shot dark red raffia, 2 shots DH merc. cotton, 1 shot red yarn, 2 merc. cotton, 1 shot red raffia, 2 shots mer. cotton,1 shot red raffia, 2 shots red merc. cotton, 1 shot red raffia. Repeat from beginning over and over for length desired.

6. Warp same as 5. Weft 3 threads of a fine dark greyish red silk boucle, one shot, 1 shot dark blue raffia, one of the silk, 1 blue violet Germantown yarn, one of the silk, one ruffle blue, 1 silk, one red violet Germantown yarn, one shot of the silk, one shot dark blue violet yarn. Repeat from beginning over and over for the required length.

7. Black warp No.20/2 cotton set 27 to the inch in the red woven on a four harness loom. "et, weave 13" black mer. cotton No.10, 13" black rayon boucle, 13" mer. cotton black, 1 shot copper metal thread, 1 shot narrow black leather lacing, 1 shot copper, 4 shots black merc. cotton, 1 shot copper, 1 shot leather, 1 shot copper, 4 shots black merc. cotton, 1 copper, 1 leather, 1 copper. Repeat from beginning for length desired. This is a very handsome piece to be used for a large black bag.

8. Same warp as No.7. Weft one shot mer cotton black No.5, 1 shot leather lacing black, 2 shots shiny black hat straw. Repeat for length desired. This leather lacing is the same as that used for lacing together leather for hand made leather purses etc.

9. Same warp as No.7, weft fine wool plaid material cut 14" wide. This plaid had white, soft blue, and red brown in it, and was most attractive when woven. Could well be used for upholstery or chair seat material.

These weavings may sound very simple to do and they are, but the effects are excellent as far as texture is concerned. And those of you who wish to do interesting materials, will I hope be stimulated by these, and try some for your own use. Furthermore such work is very difficult to copy exactly, if you wish to do original weavings.

As this sort of weaving is rather difficult to visualize, it occurs to me that perhaps some of you might be interested in having an Exhibit made up entirely of some of these textures. Let me know if this would be of interest to you.

August 1945
Crackle Weave Patterns.

Patterns for the so called "crackle" weave always seem to have considerable interest for four harness weavers. These included in this month's News may be used in a variety of ways. The following issues of the News contain more patterns in this same weave: February 1940, November 1940, May 1941, April 1943, May 1944. All of these back issues are still available at 45c each. Those of you who are recent subscribers may wish to have some of these.

Threading Draft for Pattern No. 1 above.

From A to B on the threading above corresponds to A to B on the key draft above. Repeat this 3 times, then thread B to C once as given, then C to D 11 times, thread the single A, then C to B, B to A 3 times to end. This will give a total of 451 warp threads. Carpet warp set at 12 to the inch can be used for a rug, which will finish about 36" wide. The order of weaving this is given on the right side of the figure. The pattern effect of the weaving is also drawn out. The number of times to use each piece of the harness combinations will vary according to the kind of weft used. The center will be larger in proportion than the drawing, and weave it over and over for the length desired, then repeat the border as given. The border as given will be about 5" wide, it could be made 2 to 3" wider by repeating the A to B more times than reducing the center C to D accordingly. For a luncheon set thread A to B, B to C, just as given. Reduce C to D so it will fit a warp of 420 threads or if a 12" mat is desired, still more to fit a warp of 360 threads. Set these 30 threads to the inch and use a fine warp.

September 1945

Nellie Sargent Johnson 17489 Kendota Ave, Detroit 4,
This pattern has many interesting uses. It is composed of two figures, A to B and B to C. The rug planned here calls for 450 warp threads, and the pattern is arranged so for A to C on the key draft is the border and C to D is repeated for the center. Thread as follows: A to B - 50 threads; B to C - 50 threads; A to F 35x 6" - 216 threads; F to B - 14 threads; B to C - 50 threads; A to B - 50 threads. Thread selvage 1, 3, 5, 7, 9, 11, and 13 at the beginning, and the first warp thread double. End with selvage 3, 7, 11, and thread last warp thread double. This makes the total of 450 warp threads.

Weave in the following order: - 23, 12, 14, 23, 12, 14, 23. Work A to B. For B to C 12, 14. In using these harnesses, repeat each block the number of times needed to produce the pattern effect. Plain weave between each shot.

Pattern No. 3 can be used for a Rug or Luncheon set.

Arrangement for a Rug. Thread first and last thread double. Then A to B - 107 threads, B to C 10x4 threads - 40; C to D 23x6 threads, - 126; C to B 10x4 - 48 threads; B to A - 107. Total 450 warp threads. Carpet warp set 12 threads to the inch would make a rug about 36" wide finished. A smaller rug would be easily planned by reducing the number of times the center is repeated.

Arrangement for a Luncheon set.

Thread
A to B 107 threads
B to C 10x4 threads 40
C to D 23x6 " 126
C to B 40
B to A 107

480

Set warp 30 threads to the inch. Use No. 20 mercerized cotton or 40/2 linen. Use weft of linen. These three patterns offer some interesting plans for weaving either rugs or luncheon sets. I hope you will enjoy using them. Now that the war is over, perhaps we may soon be able to have more threads available for weaving, as well as for other things.

Some Six Harness Twills.

The threadings given above are eight variations of six harness twills. They have many uses and may be used for different kinds of fabrics, such as dress materials, upholstery, all linen luncheon sets, rugs, etc. Of course the threads used determine to some extent these uses. Some of my Wayne University students have threaded the loom just as the threadings are given, up to a center, and then reversed back to the beginning. Then we tried many different tie-ups, and different orders of weaving some of the tie-ups, to produce some most unusual textures.

The threading drafts are threaded into the loom just as given above, one thread on each harness as written. The numbers indicate the harnesses of the loom. It is possible to only use two or three of these threadings if desired, instead of all eight of them. You probably will enjoy making a sampler of these as we did. For the results are really thrilling, so many unexpected things come out on using the different tie-ups. This kind of experimentation is very much worth while.

No. I is the 6 harness twill. It requires 30 threads for the repeat as given from A to B. Of course there are just 6 warp threads in one repeat. No. II is a reverse twill and requires 30 threads for the repeat B to C. No. III requires 34 warp threads for the repeat from C to D. No. IV is a broken twill, and requires 34 threads for the repeat from D to E. No. V. is a twill with the pattern block 5×6 increased by 2 threads. The repeat from E to F is 30 threads. No. VI from F to G requires 36 threads for one repeat. H to I is 5 threads added to balance the joining of pattern VI and VII. No. VII. from I to J, is essentially the same as No. III, except that the pattern blocks have been increased by two threads which will make the weft thread skips longer.

No. VIII. is similar to No. II, except that the 136 pattern blocks have been added. A suggestion for more threadings to write would be to take some of the threadings above and increase some of the pattern blocks and leave others as they are.

November 1945

To make a six harness sampler it is possible to use almost any kind of warp desired. Carpet warp can be set at 12 or at 15 threads to the inch, and weft of coarse materials such as cotton or wool; rug yarn for rugs; or Home-craft soft spun cotton; heavy gartentown yarn would make excellent bags and upholstery materials at these settings in the reed. Color could also be introduced into the warp too if desired. A finer sampler could be made using 70/2 cotton warp. This could be set at either 24 or 33 threads to the inch. Wefts on this would be correspondingly finer threads such as, mercerized cottons No. 20, 10, or 8; six strand cottons; No. 85/2 linen etc. One repeat as given will require 235 warp threads. Or if K is used as a center for the whole threading, 509 warp threads. In the latter case, thread from A right through to K, and reverse back from K to the beginning at A.

**Explanation of the 6 harness loom tie-up.** There are many combinations of the harnesses on a six harness loom, as any number of harnesses from 1 to 6 can be used. At Figure No.1 given below is the loom tie-up draft for one harness tied to its corresponding lam and this lam tied to one treadle. This is indicated by one black square. The numbers at the left side of this diagram, going up vertically, are the harnesses from 1 to 6. Figure 1 is the front harness, and 6 is the back harness, on the loom. The numbers on the diagram at the top going across horizontally are the treadles. Treadle No.1 is on the left hand side of the loom. As one sits in front of the loom at the bottom of the tie-up drafts give the order of using the treadles to weave the patterns. One weft shot is used on each of the treadle combination.

At Figure No.2 is shown the tie-up using 2 harnesses tied to one treadle, namely lamms from harness 1 & 2 tied to treadle 1. Lamms from harness 2 & 3 tied to treadle 2. Lamms from harness 3 & 4 tied to treadle 3. Lamms from harness 4 & 5 tied to treadle 4. Lamms from harness 5 & 6 tied to treadle 5, and lamms from harness 6 & 1 tied to treadle 6. Or this same tie-up at Figure No.2 can be tied up one lam of each harness tied to one treadle as indicated on Figure No.1 tie-up, and woven by using both feet, one foot on each treadle, and bringing them down both at once.

There are four different ways in which the tie-up at Fig. No.2 can be woven. This is shown at A, B, C, and D, below the tie-up draft. Always remember that the numbers below the tie-up drafts refer to the order of using the treadles. This is very important.

Plain weave or tabby weave, as it is often called, is not indicated on the tie-up at Figure No.2 although it is on several of the tie-up drafts which follow. This requires that three harnesses be tied up to one treadle. One plain weave results when harness 1, 3, and 5 are tied to one treadle. And the other plain weave is made by tying harnesses 2, 4, and 6 to the other treadle. On a six harness loom the full tie-up with the plain weave would require 8 treadles. It is easy to use the single tie up and use 2 treadles with two feet at the same time, but it is a bit difficult to use three treadles at one time on the tie-ups which use three harnesses at one time.

Understanding the tie-up drafts is an important part of a weaver's technical knowledge, and one should know just what is meant by all of these technical terms. A careful study of all of the above information will prove to be very useful. Take it step by step, each word is important. A six harness loom offers many more possibilities than a four harness one, and is not nearly as common as it should be. Try out some of these and let me hear from you.

HANDWEAVING NEWS

SOME VARIATIONS
ON AN ANCIENT FOUR BLOCK
DOUBLE WEAVE.

The photograph above is of a four block 8 harness double weave pattern described by Cornelia Stone of Kankakee, Ill, in the Weaver of August 1941. It is with her kind permission that I am repeating the material here, and adding some of our own experiments both with the 8 harness loom and the four harness loom as well.

Miss Stone writes that the weave came from an ancient book, 'Instructions for Weaving in all of its Various Branches' by Absalom Hecht, printed in Baltimore in 1849, nearly 100 years ago. It was my privilege in 1940 to see a very handsome red and white linen drape which was woven by Miss Stone using this method. She used 25/2 Knox linen set at 40 threads to the inch for the warp and weft. This is about the same weight as the special linen which was offered to News subscribers in the Sept-Oct number 1945. This pattern is given at Figure No. 1 on the next page with the method of weaving and the tie-up. This is a very rare form of weaving. I hope you will try it out.

Suitable Threads for this weave. Color is an important part of this weave, and 2 colors of warp are necessary. This warp can be strongly contrasting, as blue and white, or light blue and a darker blue. The last is a little more subtle in effect. Or two closer shades may be used. The weft should be of the same size as the warp if the effect of the weaving is to be the same as in the ancient weaving. But in some of our experiments we used one heavy weft and one very fine weft. In this case the weft does not show at all. No. 3 mercerized cotton for both warp and weft makes a very firm and close, durable fabric, slightly stiff, which makes excellent heavy bag materials or for upholstery. Set this 30 threads to the inch, or 2 through each dent of a 15 dent reed. Carpet warp can be set at the same number of threads to the inch, or even could be set at 40 threads to the inch. Fine warps such as No. 20 mercerized cotton would probably need to be set about 60 threads to the inch. The effect would be quite handsome in this material for place mats.

Threading Draft. 8 harness four block. Figure No. 1 is for the pattern of Miss Stone's piece as shown above. Thread harnesses 1, 2, 3, 4, with white warp threads. And harnesses 5, 6, 7, 8, with blue warp threads throughout. An analysis of the draft shows the pattern blocks to be 5 & 1, 6 & 2, 7 & 3, and 8 & 4. To weave each pattern block, repeat the tie-up for 4 shots, one shot on each shed, for each of the pattern blocks. The tie-up draft is numbered 1, 2, 3, and 4 meaning the corresponding pattern blocks.

Figure No. I (A) Basic four harness threading draft for double weave

8 harness
Tie-up

The above threading draft is the basis for the eight harness draft for the double weave pattern shown on Page 1. This is woven as any four harness pattern, and is not the double weave. Compare the threading draft at No. I (B) below to see how this is written from the basic threading draft above.

Figure No. I (B) 8 harness 4 block double weave threading draft

One unit of the 8 harness double weave draft is 4 threads. The figures 1, 2, 3, 2, 3, 2, 1, 4, 3, 2, 3, 2, 1 are the pattern blocks order of weaving. Numbers 12x, 4x, 16x, etc on the draft are the number of times each 4 thread unit is repeated in the threading and also the number of times that block is repeated on the tie-up to make the woven pattern. One repeat of the threading draft is 256 warp threads. Thread harnesses 1, 2, 3, and 4 with white or light warp threads and 5, 6, 7, and 8 with blue or dark warp. Use the same colors for alternate weft shots.

Note: (A to C is 1/3 the repeat.)

Figure No. II (A). Another 4 harness draft for (B).

Figure No. II (B) Full threading draft 8 harness double weave.

To Weave, use the 8 harness tie-up above. Block I. Treadle 1, 2, 3, 4.
Block II. Treadle 9, 10, 11, 12.
Block IV. 13, 14, 15, 16.

On Figure No. II (B) the full repeat is from A to C and then reverse back to the beginning. For instance end at C with 2, then 7. Then begin back to the beginning in reverse to thread 6, 5, 7, 2, 6, 5, 7, 4. This was set up on a warp of blue No. 3 mercerized cotton and light red brown, with weft of the same. Warp was set at 30 to the inch, or 2 in each dent of a 15 dent reed. This makes a very firm close fabric, excellent for bags or upholstery material. The pattern is entirely reversible. It comes up in blue plain weave on one side and red brown plain weave on the other. In this heavy thread the back ground weave resembles a twill, but it is not a true twill. Any four block pattern can be written up for this type of weaving and offers a splendid field for those who like to do original 8 harness patterns.

For the weaving of the pattern at No. II (B) use the same tie-up as for No. I (B) but the order of the pattern blocks is slightly different. Use then the same as the pattern is written namely, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, reverse back in same order to the beginning. The figures above the tie-up drafts for the 8 harness weave are pattern blocks. Use one shot on each shed, and 4 shots for one repeat of each unit of the threading draft. And use two colors of weft.

Figure No. III. (B) Threading Draft for the Basic threading shown at I (A).

Figure No. III. (A) Regular Tie-up.

Note on the tie-up that harnesses are tied to rise. From now on all tie-ups will be this way.

Figure No. III (B) is the pattern written from the basic threading plan at III (A). The numbers written on this threading draft at III (B) are dark threads and the X's are the light warp threads. Thread from A to C, and then reverse back to the beginning for the complete. Use the regular tie-up as given above. The numbers on the order of weaving below indicate rising harnesses on the loom. Thread yellow and brown carpet warp singly through the heddles, and sley 2 threads through each dent of a 15 dent reed or 30 threads to the inch.

The following weaving instructions are the results of an experiment on this threading draft carried on by Miss Beatrice Carrothers, an active Guild member, in the weaving group this past fall. We hope you will also find this material of interest.

No. I. Weave with weft of yellow Enterprise cotton for the light weft and No. 20 brown mercerized cotton for the fine weft. L refers to the light or yellow weft in these directions, and D is the dark or brown weft. -

(A) 23 L repeat 2x
14 D " 2x
34 L " 2x
12 D " 2x
14 L " 2x
23 D " 2x
12 L " 2x
34 D " 2x

(B) Repeat all of A to B - 2x

Then
23 L repeat 2x,
12 D center, reverse
back in same
order to A for complete repeat.

Try the same order using brown softspun cotton and yellow carpet warp alternately. And use the pairs only once instead of 2x. The effect is quite different.

For this use heavy Rug Filler for the dark weft and carpet warp for the fine weft of light color. One shot on each shed.

23 D
14 L
34 D
12 L
14 D
23 L
12 L
34 D
23 D

No. II.

No. III.

For this use yellow raffia for all of the pattern shots. One shot on one harness alone.

1 alone
2 alone
3 alone
4 "
2 "
3 "
4 " center, reverse back to the beginning in same order.

The raffia only shows on the top side of the piece, the back is entirely of warp skips. A most unusual effect.

No. IV. For this use heavy rug filler, or soft-spun cotton doubled to make a very heavy weft thread. Brown was used for this weft color. Heavy rug wool used for weft on this would make good upholstery materials. The warp shows almost entirely on the back, the weft but very little. One shot of weft on each shed. Order of weaving is, 3 alone, 4, 1, 2, 3, 4, 1, 2, 3, 4, 3, 2, 1, 4, 3, 2, 1, 4, 3, for the complete repeat.

We think these are something out of the ordinary, and hope you will enjoy using them.

This year the News will be sent out two months at a time, but it will arrive about the 15th, instead of around the first week of the month. Please note this change.

Weaving on the Hearthside Loom.

Here are a few ideas for those who are weaving on the Hearthside loom. First, we present an interesting brocaded rug, simple and easy to do. If you have not tried brocade technique, weave this rug, we believe you will like it.

**Brocaded Rug. Materials:** Warp carpet warp threaded full width of the loom, 214 threads. Weft in the border below at Figure No.1 is entirely of Maysville Rug Filler, blue for the plain weave and white for the pattern brocade as given at Figure No.2. If the Rug Filler is hard to get, you can use Maysville Home-craft soft spun cotton double or cotton chenille which also makes an excellent weft, though a little more expensive than the first two yarns mentioned.

After warping the loom and tying it up again ready to weave, make a heading of the plain weave for about a half inch or so with blue carpet warp. Then weave about 4" of the plain weave with the heavy weft blue. Then one shot of white, 3 shots of blue plain weave. We are now ready for the pattern design at Figure No.2 below.

**Brocaded border**

Find the center warp thread of the width. With the shuttle pick up the pattern toward the left side of the loom starting at the center C of Figure No.2. Then using the same stick pick up to the right side of the loom. Turn stick on edge and put the white shuttle through the opening thus made. Pull out the pickup stick. Change shed and put in a shot of the plain blue weft. Note carefully where, according to the pattern design, the first picked up row ends at the right side of the loom. Then start the pattern at this point with the pickup stick so it will come out correctly. Pick up the second row of the design, turn the pickup stick on edge, and pass the white weft through the opening. This is the second row of pattern weft. Then put in another shot of plain weave with the blue. Continue picking up the pattern in the same way for the complete design.

Then weave 3 rows of plain blue, and one row of plain white to finish the border. Weave the center of the rug as long as desired with the blue weft. Then repeat the same border for the opposite end of the rug in the same way.

Belt and Place Mats of Wheat Straw.

Figure No. 3 At Figure No. 3 is the sketch of a belt woven with narrow black leather lacing material such as is used to lace leather purses together. This is a very novel use of material and the results are very effective and smart.

Warp,—6 only strands of black enterprise cotton, and 5 strands of black carpet warp. Thread the heddle beginning with the heavy cotton, and then the carpet warp. Put the heavy through the slits and the carpet warp through the holes of the heddle.

Weave about 2" of plain weave to start, with carpet warp. Then use one shot of black Home-craft soft cotton. And then one shot of the leather. Another shot of the soft cotton, and another of the leather and so on. The leather is very slippery, so change the shed after inserting it into the shed, then beat it close, and put in the cotton for the length desired. To end, repeat the carpet warp heading as in the beginning. The belt may be fastened with two small black buttons and loops on the ends. When turning the leather, keep as even as possible, and have them come out beyond the edges of the warp for about 1/3 of an inch each time, as shown on the sketch. This idea was contributed by Mrs. Cora Crouch, a member of the Detroit Handweaver's Guild weaving group this past fall. If you wish to try some of this work, I have a supply of the leather in black or in gold color. Cost 3¢ a yard. This belt required about 7 yards, for about 30" length.

Wheat Straw Place Mats. Golden wheat stalks on a brown carpet warp, with a shot of brown Home-craft cotton between are something out of the ordinary. We think them very smart and good looking, just the thing for some handmade pottery dishes to rest on.

To make them warp 96 threads of dark brown carpet warp. Thread the heddle of the Hearthside Loom. Weave two shots of plain weave with dark brown Home-craft cotton weft. Then change shed and in this lay two stalks of wheat straw. Change shed and put in another shot of the brown Home-craft cotton. Continue for the required length, about 17". Leave enough length between each mat for a fringe of the warp, about 2" in length. Cut the ends of the wheat straw so they extend about 3/4" inch beyond the edge of the warp each time. Do not try to turn them at all.

Wheat Straw on a Gray Warp. Try this one. Warp a total of 96 threads. Of this thread the first 12 into the heddle of the gray carpet warp. Then thread double gray enterprise cotton through a slit, and carpet warp through the holes, until you have used 6 double strands of the gray heavy cotton in the slits. Thread the rest of the width with the gray carpet warp. This heavy thread in the slits makes an attractive heavy border down one side of the mat.

To weave this, use 4 shots of the grey enterprise cotton weft. Then two stalks of the wheat straw, 2 shots of the cotton weft, for the entire length of the mat. On this also, allow enough length of warp between each mat for a 2" long knotted fringe.

Raffia in a soft gold tan is also very effective on this same warp with the grey cotton weft used with only one shot between. Of course the raffia is soft enough to turn easily at the edges of the place mat instead of letting the ends stick out beyond the width of the cotton warp and weft, as in the wheat straw mats.

Detroit Handweaver's Guild.

It gives us much pleasure to announce the formation of the Detroit Handweaver's Guild. Some of our members have been weaving for several years and others are just beginning.

You are probably wondering why you have received the enclosed card with your copy of Handweaving News. Well, there are two types of membership in the Guild, associate membership and active membership. Any person who subscribes $3.00 for 12 issues of the News becomes an associate member. We welcome you on our list, and hope you will enjoy the News we send to you each month. And that you, as an associate, will find time to write us and tell us what you are doing too.

During this past fall, we have had two active weaving groups. These people have met once a week for ten weeks under the instruction of Mrs. Nellie S. Johnson. Any associate member can become an active member by joining one of these groups. If you are interested, write Mrs. Johnson for further information concerning this.

Designing one's own patterns is always of interest to the person who wishes to know the real fundamentals of weaving. It is easy to take another draft which has been all worked out and "copy" it. But it can be exciting to plan one's own draft, and then actually thread and weave it on the loom. If you follow these directions step by step, you should be able to do this and understand it. Then you can carry the same design out in several different woven textures. Each texture uses a different threading draft, for Colonial Over-shot, "Summer and Winter", U's and O's, and Bronson weaves. The two block pattern design can be used in all of these.

**Equipment for Draft Writing.** A good tracing board, a medium drawing pencil, and a #5 lettering pen and black India ink. A pad of cross section paper with 8 or 10 squares to the inch. It is best at first to work with pencil and ink in later.

**Definition of Terms.** Refer to Figure No. 1 above. **Key Draft** is the unit plan which we make up as we desire. This is a 2 block pattern. One pattern block is shown by the lower row of black squares or units, and the second pattern block is shown by the second line of black squares or units on the cross section paper. Thus, for a two block pattern design, only two lines of the cross section paper are used.

**Units of the Key Draft.** The black squares on one line are for one pattern block and the black squares on the second line are for the second pattern block. Key drafts are more interesting in design when these pattern block units are of different sized units. For patterns for Colonial over-shot drafts it is generally better not to make the units in one line of the key draft more than 7 or 8 units long, because the over-shot skip of the threading for the loom will be a very long one, 14 to 16 threads in such a case. On the other hand, for "summer and winter" threading drafts, the pattern block units may be as large as desired. The same holds true for U's and O's and for Bronson weaves, as will be explained later.

**Borders or Tables.** When unit pattern blocks are written all the same in size the effect is called a table. This is one way in which extra warp threads may be used up to form a border on each edge, to make a given pattern conform to the number of warp threads to be used.

March 1946

Making Your Own Key Draft for a pattern. Refer to the key draft at Figure No. 1 on page 1. On this key draft the first pattern block on the lower line has 5 black squares or units at A. These drafts are read from right to left, as the loom is threaded. The second pattern block is the rest of black squares on the second line of the cross section paper and has 4 units. The next pattern block is on the first line again and has only one unit, and so on up to the center which is marked with a C. In all of our drafts A to B is one pattern repeat, C marks the center of the pattern, and B to D is the last pattern block which is just like the first block at A.

In writing the key draft up to the center C, just reverse back the blocks in the same order to D, to make the design complete. To set the full effect, it is often a good plan to draw once, and half of the repeat in order to set the full effect of a pattern design when it is drawn out for the pattern effect.

Draw out several key drafts of your own. Leave enough space below each one in order to draw down the pattern effect below the key draft. As soon as you have made up a number of key drafts, the next step is to draw them down to get the pattern effect "as drawn". Now refer to the pattern effect on Figure No. 2 on Page 1. Here the first pattern block has 5 squares, so draw it down below the key draft 5 units square. Each place where the first pattern block appears on the key draft, it must be drawn down 5 units, the same as the first square of 5 units. This is shown at Figure No. 3 below, and is step 1 in the procedure of drawing down the pattern effect of the key draft.

Step 1. Key draft for one pattern repeat A to B, and B to D is shown.

Step 2. After the first block is drawn down, all the way across the pattern, draw down the next block which is the 2nd one of the key draft. This is a 4 unit pattern block. So draw down all of the unit blocks on the second line 4 squares down.

Step 3. The 3rd pattern block on the key draft is a one unit block, so only draw it down one square all across the width of the pattern.

Always follow the order in succession that the unit pattern blocks occur on the key draft. The fourth pattern block is on the second line and is a 2 unit block. Draw all of the blocks on the next row 2 units down wherever they occur across the pattern. The 5th pattern block is also a 2 unit block but on the first line of the key draft, so draw down all of the unit blocks on the first line 3 units down. Continue until all of the drawing is made. This is called "working as drawn" after you have studied this all out and understand it. Try drawing down some of your own drafts to get the effect of the patterns you have made. There will be many other effects which can be used after you understand how to set this basic design. The key draft does not have to be drawn down in this way, that is the number of times to draw each block may be any number of times. But when first drawn out it is better to set the "working as drawn", and other effects can be tried out later when it is thoroughly understood.

Planning a Threading Draft for a 2 Block Colonial Over-shot Pattern. It is possible to plan four pattern blocks on a four harness loom. For Colonial over-shot patterns, these combinations of harnesses are 1&2, 2&3, 3&4, and 1&4. Plain weave is formed by the combination of 1&3, and its opposite 2&4. For a two block pattern, we use

only two of these combinations, and the plain weave harnesses. We can use harnesses 1&2 for the pattern block units on the lower line of the key draft, and harnesses 3&4 for the second pattern block units on the second line of the key draft. This is called a pattern written "on opposites". We could use instead the combination of harnesses 2&3, and their opposites 1&4 and get the same woven effect.

Figure No. 6 Actual threading draft for Figure No. 1 Key Draft

To make a threading draft for the loom from the key draft of Figure No. 1, use 2 threads for each unit of the key draft for the first pattern block. Write one of these on harness 1, and the other on harness 2. There are 8 units in the first pattern block of the key draft, so we write 1, 2, 1, 2, 1, 2, 1, 2; for the threading draft. The next pattern unit block is the second line of the key draft, so we have 8 units. So we write this with 2 threads for each unit on harness 3 and 4. For, 3, 4, 3, 4, 3, 4, 3, 4, for the second pattern block of the threading draft. The next pattern unit block is a two unit block on the second line, so we write 3, 4, 3, 4, for the threading draft. Continue in the same way for the complete repeat from A to B. Write threading drafts for your own key drafts in the same way.

How to arrange a threading draft for the warp threads of the loom. This is a matter which many people find difficult, so I shall describe it in some detail. After a threading draft is written, it is necessary to make it fit the number of warp threads to be used. It must be centered so the threading will balance on each edge. Let us take a warp of 240 warp threads and arrange this pattern to fit this. One repeat of the threading from A to B is 68 threads. Divide 240 by 68 and we have 3 repeats with 36 warp threads left over. From this 36 we must take 8 threads from the pattern block B to D, which leaves us 28 threads to be disposed of. Half of these or 14 should be used up at the beginning of the threading of the loom, and the other half should be used up at the end of the threading to make the pattern come out even on each edge. There are three different ways in which these extra threads can be used up, and each will be described in detail. Take your choice of any of these.

1. To use a twill threading at the beginning and end of a pattern draft. Thread thus 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4. Put two warp threads in the first heddle on the 13 threads. At the end of the B to D block is threaded, thread 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2. Put two warp threads in the last heddle like the first. For a firm close edge it is always a good idea to thread the beginning and end heddles double, even 3 or 4 of them may be double if desired.

2. Another way to use up these extra threads, especially when there is a very large number of them, is to go back into the pattern itself. Start at B and count the warp threads toward C. In this case start at B and count back 13 threads. This leaves us up to a point marked H. Begin to thread block A from E to E, then A to B 3 times, 3 to D, then end again with B to E. It is important at the end of the pattern threading to have a 3&4 pattern block follow the 1&2 of B to D. So the end of the pattern threading will read from E to F, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, with the last heddle threaded double to use up the 13 left over threads.

3. Another way to use these extra threads up is to write a simple table border for the beginning and end of the threading draft. This can be called E to F, and of course would be 3 threads before A to B is started. Three key drafts are shown below at Figure No. 7 with the pattern threading drafts given at (A), (B), and (C). These are for this pattern and use the 13 threads, but they can be written and repeated to any desired size for whatever number of threads have to be used up. But Note, that at the end on the left side of the loom, begin with the 3&4 pattern block and end with the 1&2 pattern block for these threadings. The reason for this is because the block B to D is a 1&2 pattern block. I hope this is clear. It may need some study.

Figure No. 7

Three designs for table blocks of equal sizes.

March 1946

Nellie Sarson Johnson 1489 Mendota Ave. Detroit 4, Mich
Threading the Loom.

This News is a continuation of the March issue in order to explain the next steps in the handling of a threading draft and putting it into the loom. Several have asked me to give my method for doing this, and I hope this will be clear and helpful.

Writing out the Arrangement of the Threading draft for the warp threads to be used.

We will use the same pattern draft as for the March News, repeated above for convenience. Any number of warp threads can be taken as desired, but we are going to take only 240. One repeat is from A to B. For each threading draft you use, always write out the arrangement plan and follow it as you thread the loom.

Start at E, thread from E to B - 13 threads
A to B is 66 threads, repeated 3 times - 204 "
B to D, the last pattern block like the first - 10 "
B to E, to end and balance the pattern - 13 "

Total 240 "

Counting the Number of heddles for each loom harness. Before the threading of the loom can begin, we must know how many heddles are needed for each harness of the loom. Divide the threading draft into groups of 20 or more threads. Label these groups with roman numerals I, II, III, IV, etc. as necessary according to the length of the threading. Then count the number of heddles on each of the 4 harnesses of these groups. Also those for B to E, and B to D. Write these all down as shown below. Get the totals by adding up the groups, in the order in which the pattern is to be threaded into the loom.

<table>
<thead>
<tr>
<th>Group I</th>
<th>Group II</th>
<th>Group III</th>
<th>B to D</th>
<th>E to B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harness</td>
<td>1- 6 x 3</td>
<td>1- 5 x 3</td>
<td>1- 4 x 3</td>
<td>1- 5</td>
</tr>
<tr>
<td>2- 6 x 3</td>
<td>2- 5 x 3</td>
<td>2- 4 x 3</td>
<td>2- 5</td>
<td>2- 1 x 2</td>
</tr>
<tr>
<td>4- 6 x 3</td>
<td>4- 5 x 3</td>
<td>4- 4 x 3</td>
<td>4- 5</td>
<td>4- 5 x 2</td>
</tr>
</tbody>
</table>

22 22 24 10

To get the total number of heddles for each harness, add the number of heddles for each of the groups and for B to D, and B to E. If correctly done, this should come out to the correct total for the number of warp threads being worked. Or 240 in this case. Group I, II, and III is A to B which is repeated 3 times, and B to E is repeated twice. So we have Harness I- 52 heddles

2- 52 " (Thread the first and the last heddle with 3- 67 " 2 threads to make the 240 warp threads 4- 67 " which is our total number to be used.)

Total 238 heddles

April 1946
Now actually count off the number of heddles needed for each harness on the loom. If there are not enough heddles on a harness, remove the harness which has too many on it, and take off some in order to make the correct amount for the other harness.

To change heddles from one harness to another, loosen the heddle bars of both harnesses. Take off two of the heddles from the harness which has too many heddles. Thread the heddles to be removed off on these two heddles, using one for the top and one for the bottom of the heddles being taken off. Then these can be slipped easily on the heddle bars of the harness which needs more heddles. Do not take heddles off singly. Always thread them on one of the other harnesses in this way. It saves much time.

**Figure No.1** Changing Heddles.

**Figure No.2**
Threading the loom.

**Warp threads** (loop of warp)

**Figure No.3**
Looping the Group.

Threading the loom without mistakes. This will be given in detail in order to show the method we use to avoid making mistakes in the threading of the loom. After the correct number of heddles have been arranged on each loom harness, we are ready to thread. Follow the arrangement plan given on Page 1. Start with the group A to B. Count off 1 heddle on harness 1, 1 on harness 2, 5 heddles on harness 3, and 5 heddles on harness 4. Push these counted heddles to the right side of the loom as you sit in front of it, and the uncounted heddles all to the left, leaving a space between them. It is easier on a large loom to remove the beatten and breast beam while threading.

Bring the first group of warp threads through the space between the counted and uncounted heddles. Hold them taut between the 3rd and 4th fingers of the left hand. With the right hand pull out the first two warp threads, reaching through the harnesses from the right of the counted heddles. Make a loop of these two threads and put them into the first heddle on harness 1. Continue to pull out one thread at a time from the group, loop it with the right hand, and thread it into its proper heddle and harness until the group of A to B, 13 threads, is finished. This is shown at **Figure No.2**.

Loop each group with a loop knot easy to untie as shown at **Figure No.3** above. Now we thread group A to B three times. Start with group 1. Count off the required heddles for each harness of this group, which is 22. Again bring the group of warp threads to the left of these heddles, and proceed to thread according to the threading draft for this group. If any mistakes are made while threading, the number of heddles will not come out right. It is easy to check and find the mistake if one has been made. Take these threads into a group, this is group I. Thread group II and III in the same way. Be sure you make no mistakes when you count off the heddles on each harness, and that you thread correctly. It is easier to have a small number for a rhythm, than to look at the paper for every thread you take up. This method of threading into groups allows you to work without making a mistake.

By counting the groups finished, you know just where to begin threading again when you return.

After the pattern is threaded into the loom, it must be drawn or sleyed through the reed with the reed hook. In this case we put two threads through each dent or slit of the reed. Take care in sleying not to let any of the warp threads get opposed. And take them exactly in order as they come from the heddles to the reed.

**Figure No.4** shows how the warp threads are tied to the cloth beam. Be sure each group is the same tension. This is important if the weaving is to be even. Press down on each group with the fingers after they are tied to see how the tension is. The end groups can be tied first, then the center group, and so on for the width of the loom. Retie as necessary to set the groups even.

April 1945

Nellie S. Johnson
An Interesting 4 Harness Colonial Over-shot Pattern.

The pattern shown above was given in the August 1943 News. It was derived from some of the pattern drawings in the Speck Book from the Pennsylvania Museum in Philadelphia. Some of the members of the Detroit Handweaver's Guild have been doing some very interesting things with this pattern. As I have had some requests for a simple Colonial pattern, I am repeating this, giving the variations which have been used.

In the first place, you will note that this border design is not entirely balanced on each side of the center. This was a border which we designed for this and was not given in the original drawing. The threading draft as arranged below is worked out for a rug using 390 warp threads of carpet warp set 12 threads to the inch. For a wider piece using more warp threads, the repeat from A to B can be used again as desired. This center repeat used alone as a repeat, makes a very useful small threading for towel or luncheon set borders which will be given on the next page, and also a repeat for a treading for upholstery material or bags will be given.

Arrangement for the Pattern Draft for a Warp of 390 Warp Threads.

<table>
<thead>
<tr>
<th>Then S to E selvage 2x - 8</th>
<th>Group</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>E to A - Border</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A to B repeat 6 times 40 - 240</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B to D once</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A to E Border</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>End selvage 4, 3, 2, 1 - 4, 3, 2 - 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Warp Total 390

Total harness, according to the threading arrangement:

Harrows 1 - 90
2 - 92
3 - 104
4 - 104

Count of Heddles

(Note: It is very much easier to thread the loom when the threading draft is divided up into groups and the heddles counted out for each group as is given above. To get the total add up the times each group repeats.)

May 1946

Nellie Sargent Johnson 1489 Mendota Ave., Detroit 4.
The tie-up as shown above at the left of the threading draft will from now on be the regular tie-up which I shall use. This is arranged for harnesses which rise. Treadle 1 will raise harnesses 3 & 4, and is the first treadle on the left hand side of the loom. Treadle 2 will raise harnesses 1 & 4. Treadle 3 or A tabby is 1 & 3. Treadle 4, or B tabby treadle raises 2 & 4. Treadle B will raise harnesses 1 & 2, and treadle 4 harnesses 2 & 3.

Weft materials for a rug may be rags, cotton rug filler, heavy cotton chenille, or home-craft soft spun cotton. For the latter use three strands as one weft thread. When this is finished about 25' wide, we found that the home-craft cotton with a carpet warp tabby weave between pattern shots, will make about 28' of woven length. So six balls will make about a 54' rug. If you desire to use rug filler or home-craft cotton, or carpet warp, write to Sears Roebuck Co. in Chicago, Ill. They will have it available very soon, and possibly you can get it now. They also do have candlewick cotton, and the lighter weight enterprise cotton which is nice for bags or drapery materials.

Treading the pattern given on page 1. The plain weave is understood between each pattern shot as given in the threading orders below, but is not included in these directions. Be sure and put it in, one shot, alternating A, 1 & 3; and B, 2 & 4.

For the border, Treadle 3 = 4x; 2-2x; 1-2x; 1-2x; 1-2x; 1-2x; 1-1; 4-3x; 1-1; 2-2x; 1-1; 4-3x; 1-1; 2-3x; 1-3x; 4-2x; 3-4x; 2-3x.

For the center, repeat, = 1-4x; 1-3; 1-2; 1-1; 1-2x; 1-1; 2-1; 1-3; 1-4; 1-4x; 2-4x; 3-6x; 2-4x. Continue from * to * as far as desired for the length. Then repeat the border to finish.

1-1; means one shot of weft using treadle one, 1-4x means treadle one used 4 times with the alternate plain weave A then B treadle, after each shot of weft, as for instance treadle 1, A tabby, Treadle 1, B tabby, Treadle 1, A tabby, Treadle 1, B tabby, and so on as the directions are given above.

The number of times each treadle is used will vary according to the size of the weft thread being used. A fine weft thread needs to be woven more times than a coarse weft, and some people beat harder than others which also makes for some difference. Weave to get the effect of the photograph in this case.

This is a very versatile pattern, it can be woven in many different ways. This is excellent for towel borders and luncheon sets using a fine warp, set either at 24, or with a fifteen dent reed at 30 threads to the inch.

Border No. 1 = Weft in this case was No. 20 white linen for plain weave or tabby, and a medium heavy linenfloss for the pattern weft borders.

Weave a plain weave heading with white. Then Treadle 4-2x brown, 8 shots plain weave, Treadle 2-2x br, 8 shots plain weave, Treadle 3-3x, 4-4x, 1-4x, 2-1, 3-1, 1-1, 2-4x; center, reverse back to beginning for complete border.

Border No. 2 = Treadle 3-1, 2-1, 1-5; 4-5x; 3-10x center, reverse back in same order to the beginning.

Try out some of these variations, we are sure you will find many other ways of weaving this pattern which you will like.

May 1945
Nellie Sargent Johnson [2489 Mendota Ave, Detroit 4, Mich.]
A simple Variation of Twill, Herringbone, and Rosepath.

From time to time, I have given some threading based on twill, herringbone, and rosepath threadings. These simple threadings may at first seem as though not much could be done with them. But quite to the contrary they do offer much, especially if interesting materials are used.

The photograph above is of a rug woven with heavy cotton rug filler with carpet warp set 12 threads to the inch. For this make a warp of 390 warp threads.

**Threading Draft**

<table>
<thead>
<tr>
<th>Tie-up</th>
<th>FF</th>
<th>III-6x</th>
<th>D III-7x</th>
<th>C II-4x</th>
<th>B I</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Arrangement of the Threading Draft above for a warp of 390 Warp threads.**

<table>
<thead>
<tr>
<th>Thread A to B, group I once</th>
<th>14 warp threads</th>
</tr>
</thead>
<tbody>
<tr>
<td>B to C, &quot; II, repeat this 4 x</td>
<td>48 &quot; &quot;</td>
</tr>
<tr>
<td>C to D, &quot; III, &quot; 7 x</td>
<td>64 &quot; &quot;</td>
</tr>
<tr>
<td>D to E, &quot; IV, &quot; 6 x</td>
<td>96 &quot; &quot;</td>
</tr>
<tr>
<td>Then thread one thread at F</td>
<td>1</td>
</tr>
</tbody>
</table>

Now thread in reverse back to A.

| D to C, group III, repeat 7 x | 84 " " |
| C to B, " II, " 4 x | 48 " " |
| B to A, " I, once | 14 " " |

**Total 389 " "**

To use up the last warp thread, either thread it into a needle on harness 1 or put two threads in the last needle on harness 2.

June 1946

Nellie Sargent Johnson

12439 Wendota Ave., Detroit 4, Mich.
To Set "The Peddle Count" On Each Harness

Divide the threading draft into groups. Number these groups I, II, III, IV. Then count the number of threads on each harness of each of the groups. Multiply these by the number of times each group is repeated in the arrangement of the threading draft for the width of the article to be woven to get the totals needed on each harness.

<table>
<thead>
<tr>
<th>Harness</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>II</td>
<td>3</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>III</td>
<td>4</td>
<td>28</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>IV</td>
<td>5</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>V</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Totals 83 112 110 84

Threading with the use of groups may be new to many of you. We have been using it for a long time. If you do use it and check each group carefully, you will eliminate threading mistakes entirely.

The tie-up. Note the tie-up on page 1 as given at the left of the threading draft. This tie-up is the one which will be used in all of my directions from now on. The harnesses on the "Nellie Sargent Johnson" loom rise when the foot is placed on a treadle. For a loom where harnesses sink, use the opposite combination for the weaving directions which follow.

To weave the rug as shown on page 1. Weft materials can be heavy rug filler, three strands of home-craft soft spun cotton, or heavy cotton rug chenille. No plain weave is used between the pattern weft shots in this weaving. And only one shot is thrown on each shed. For a wider material, the rose-path or the center group can be repeated more times, and the twist border could also be widened if desired.

Treading for Rug. - No. 1 Page 1:

#1. Treadle 1, 2, 3, and 4. Twill border. Repeat for 5½ inches.

#2. Then use treadle 3, 2, 1, 2. Repeat this for 3½ inches.

#3. Then use treadle 3, 4, 1, 2, 3, 4, 3, 2, 1, 4, 3, 4, 1, 2, 3, 4, 3, 2, 1, 4. Alternate #2 and #3 treadlings for the length of the center as desired. Then repeat #1, the twill border, for the opposite end of the rug.

Treading for Rug. - No. 2. (Not illustrated):

#1. Treadle 1, 2, 3, 4, repeat for 6 inches.

#2. 1, 2, 3, 4, 3, 2. Repeat this for length desired for center of rug. Then repeat #1 for the end border.

Treading for drapery or upholstery material. Many other interesting variations are possible with the use of different weft yarns and threads. The following directions were used for this weaving. Pale grey "Enterprise" cotton, a heavy white rayon thread, grey mercerized cotton No. 3, scarlet red mercerized cotton No. 3, yellow green No. 3. This gives a very modern subtle effect.

#1. Treadle 4, 3, 2, 1 Merc cotton G- MCG. Then A tabby red mercerized cotton - R. Now treadle 1, 2, 3, 4, MCG, 2. Treadle 1 Enterprise cotton grey - EGC, 2. Rough grey- RG, 3. White rayon, WR, 4. Rough grey- RG, 1. Enterprise cotton grey - EGC. Treadle 2, 3, 4, 1 MCG, 2. Treadle 2 EGC, 3. Treadle 4, WR, 1 RG, 2 EGC. Treadle 3, 4, 1, 2 MCG. Treadle 3, MCG, 4 RG, 1 WR, 2 RG, 3 MCG. Treadle 4, 1, 2, 3, MCG. 3 Tabby with red mercerized, repeat back to the beginning in reverse order. The A tabby is the center. Then repeat again but instead of using the red mercerized cotton shot for the center, use the yellow green. Note that there are three sections between the shots of red cotton, which alternate with the four shots of mercerized grey cotton. Many other unusual textures may be built up in this way and I hope you will enjoy trying out some of these. This is a modern way of weaving, and quite different from the Colonial type of texture. Try out this threading with a variety of materials to get interesting effects.

June 1946

Nellie Sargent Johnson
HANDWEAVING NEWS

THREADS - THE WEAVER'S MATERIALS.

The selection of yarns and threads with which to weave is one of the most important problems which confront the weaver. With threads on our looms we build the fabrics of different textures according to the kind and size of thread we use, how close it is set in the reed, and what kind of weaving technique is employed.

The quality of this fabric may be thick or thin, soft and pliable, hard and boardlike, dull or shiny, rough or smooth. Texture, the "feel of a cloth," is at present an important factor in modern textiles. It offers a wide field for experimentation to the handweaver. Weavers should always be on the alert to try out and use many of the new synthetic yarns and threads which manufacturers are now developing.

Several factors can help us decide what yarn or thread to use. These will guide us to make the selection from the great number of different kinds of material now available. The first thing to consider in selecting a thread is whether it is suitable to the use or purpose of the textile to be woven. As an obvious example, we would not choose a linen thread if we were going to make a warm blanket, or a wool thread for glass curtains. This at once puts our choice within a more or less definite limitation, due to the inherent properties and qualities of the thread itself.

Threads can be classified as animal, vegetable, and man-made or synthetic. The animal fibers include wool, hair, silk, and the vegetable: cotton, linen, hemp, jute, etc. While the synthetics include rayons, ląstex, cellophane, and many other new threads developed during the war. It is not my purpose here to go into the physical and chemical characteristics of these different fibers, and the methods of testing them. There are a number of excellent books which almost any good library can supply. "Textile Fabrics" by Isabel Wingate, published by Prentice-Hall (1937), or "Textile Fabrics and Their Use" by Katherine P. Hess, are good references. The Wingate book has an excellent bibliography if one wishes further study on this subject.

After we have decided what we are going to weave, its use and purpose, we must consider what size and kind of yarn or thread to use to produce the texture desired for that article. And this kind of yarn also must be suitable to use for the pattern design and the weaving technique to be employed to weave the textile. All of these factors have to be decided before one can start to weave. In other words, the textile needs to be designed, no matter how simple it is.

There are general rules, or one might say suggestions, for uses for the common threads such as carpet warp, 20/2 cotton, 40/2 linen etc. And many of these have been given in the "News" with the patterns and techniques employed to weave a specific article. But it has always seemed to me to be difficult to formulate rules to fit all requirements, which apply to all instances for the use of all kinds of threads. Choices are or should be governed by the individual taste of the person who is going to use the textile, and where and how it is to be used. Some people like to weave with coarse threads, while others prefer fine threads and close textures. A textile is never used alone. It is always "related" to something else, and it cannot be judged fairly all by itself. Is it to be decorative, used as an accent, or entirely utilitarian in its purpose?

Exhibits of handweaving are very valuable to the weaver who is desirous of learning how to use threads for his own projects. With my own students I use woven samples of different kinds and technique all of the time. It is always of much help and inspiration to see how someone else has used different kinds of threads and yarns, and then one can actually see and judge for themselves what they wish to do. Many exhibits of different types of weaving are available to handweaving News subscribers. I have an exhibit of weaving done exclusively on the Hearthside loom, and I am always glad to assemble a special exhibit for anyone.

Here I would also like to stress the importance of making experimental samples of every technique and threading draft which you set up on your loom. Very frequently someone says to me "I had no idea so much could be done with this technique." Try out different colors, as well as different kinds and sizes of yarn and threads in these samplers. Save and file them with full information concerning the material used in them. Also keep a note-book. You cannot remember just how much you used and how much threads cost. Write them down. A simple method of identifying samples or in fact woven articles is to mark them with string tags with the following method, 45-1, can refer to the first article woven in 1945, 46-2, the second and so on.

Making samples is an important part of weaving. For a large project where a special effect is wanted, it is always advisable to try out a small sample of the thread and weave which has been decided upon. This does take a little more time and possibly involve a little more expense for the threads. But through doing this you are sure what the finished article will be like, and a little experimenting may give you some entirely new and different ideas. This is not a waste of time, even though beginners sometimes may think so.

Whatever their use and purpose, handwoven textiles are often very lasting and durable fabrics. For this reason, one should always be sure the threads purchased are fast to light and washing, if the article will need to be washed. Get into the habit of reading the labels on balls and skeins of yarn and thread you buy. See what the manufacturer has to say about his product. Many wool yarns are now moth-proofed. Look for this on labels. Also look and see how many yards there are in the ball or skein you are buying, and whether the material is fast color or not.

If there is any doubt about color fastness of yarns and threads, test them by washing them and exposing them to the sun. Keep a small sample out, then compare the washed thread to this. Such treatment may save you much grief. It is most discouraging to have hours of work wasted through having colors run when the fabric is washed and finished. I well remember a dozen handwoven green towels I did for a special order. When they were washed they all faded out a dirty grey which never did come out, and the order had to be done all over again.

It is generally better to buy standard yarns of reliable dealers who stand back of their products. Such threads can almost always be duplicated if more is needed or an order is duplicated. Colors in different dye lots often vary slightly so it is best to over-purchase what you think you will need, rather than to figure too close on amounts needed for a definite project, and then run short before it has been finished.

Another problem which has to be decided is how close to "sley" or set a thread or yarn in the reed. On this depends the real success or failure of the weaving. The resulting textile should not only be suited to its use and purpose, but it should also be of the right texture. Here too the value of a sample comes in. One reed will not do for everything one wishes to weave. Weavers differ as to the size of reed they prefer. Our experience leads us to believe that a 12, 15, and 20 dent reed are the ones which are the most useful to have on hand. The "Nellie Sargent Johnson" loom is sold equipped with a 12 dent reed, which is suitable for most rug weaving sleyed with one thread of carpet warp in a dent. For a coarser warp, or the carpet warp threaded double in the heddles, every other dent of the 12 dent reed will give 6 threads to the inch. Or for finer threads, 2 threads can be sleyed in a dent to give 24 threads to the inch. Thus a 15 dent reed will give 7½, 15, and 30 threads to the inch, and a 20 dent reed will give 10, 20, and 40 threads to the inch. These sizes will be suitable for most things one will wish to weave on a hand loom. Another thing which affects texture is thread. Some weavers beat very hard, and others very lightly. As a general rule wool yarns are beaten lightly, but of course this again will depend on what is being made.

July 1946

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WARP REP. When the warp is set so close in the reed that it completely covers the weft, it is called a warp rep fabric. Carpet warp set from 24 to 30 threads to the inch will cover a weft of rags.

WEFT REP. When the warp is set far enough apart so the weft thread completely covers it we have a weft rep textile. When there is equal spacing of the warp and weft in a fabric, the warp is set so that there are the same number of warp threads to the inch as there are weft shots to the inch, and both will show equally in the finished material.

Suppose you have your warp all set up on the loom for a rag rug, and you want the weft to cover the warp. If it does not cover the warp when you try it out, there are two things you can do. The first thing is to cut the rag weft fine enough to make it cover the warp. But this will tend to make a light-weight rug. The alternative is to set the warp further apart. If the warp is set at 12 threads to the inch, sley every other dent with 2 threads to a dent and skip a dent which gives 5 threads to the inch. This is an important principle of weaving and should be understood.

If the cloth is sleazy, the warp is too far apart. This can be corrected by using a heavier weft thread, or a double weft thread if the weft is too fine. Or the warp can be sleyed closer together in the reed. Many times with a new thread, the only way to determine the number of threads to the inch, is to try out a sample. If the weft thread is put through the shed and pulled too tightly so the edges pull in, the edge warp threads are not only apt to break, but it may also be impossible to beat down the weft closely. Often this is the reason why the weft cannot be beaten as close as may be desired.

Weaving with Native Materials. There are many simple materials with which one can weave interesting and unusual fabrics. I sometimes think people do not try to use their imagination enough to devise simple ways of using such things. We use a great many corn shocks for place mats on the Hearthside Loom. These can be dyed, boiling the shocks up in regular commercial dyes for about 2 or 3 minutes, and then allowing them to cool in the water. Rinse well to wash off the surplus dye, and dry. When using the shocks they can be stripped into thin strips and placed in the shed. Roll them in a damp towel to keep them damp. Last fall we tried weaving the gold wheat stalks, but they are rather slippery and have a tendency to slide. Broom sedge or sage grass, goldenrod stems stripped, and cat tails may also be used, and some of the natural colors are very lovely.

How to Open a Skein of Yarn or Thread. It may seem strange to many of you, to know that some people do not know the correct way to open a skein of yarn or thread in order to keep it from becoming tangled and a nuisance to wind on the shuttle.

This is very easy to do if you do it right. Unroll the skein. Take it on both hands as you would to make a cats cradle. Loosen and pull it out, by bringing the hands in and out, making the yarn taut then loose. This has a tendency to straighten out the threads, then cut the places where the skein has been tied, and fingle the place where the ends are tied together. Cut the ends apart. Put the skein on a reel, or over the backs of two chairs if a reel is not handy.

Wind the shuttle directly from the skein. When finished with the winding and putting the skein away, twist the two ends together and tie, then twist up the skein again and turn one end back around the other end.

Woven by Nellie Sargent Johnson 12403 Mendota Ave., Detroit 4, Mich.
Rag Rugs.

There are two reasons for making a rug of rags. One is to use up material for the work which is easily available in every home. And the other is to make a rug for some special place of a definite size and design. With a little planning, it is just as easy to make an interesting attractive rag rug, as it is to weave one of some other materials that one may purchase.

Some of the members of the Detroit Handweavers' Guild this past spring have made some very good looking rag rugs, and it is these I will describe to you now. In the book "Weaving on the Hearthside Loom" are several pages which show how to plan unevenly designed stripes for a rug, how to get the right proportion of length to the width. And also how to join rags or stocking loops by knotting them together instead of sewing. As many of you have this book, I will not repeat those directions here.

Use of Color. "Hit and Miss" rugs can be made that are attractive, but it is more than likely they will not be. With small amounts of materials, such as percales etc., it is generally to tear or cut the material up into lengths and then mix them up well. Keep lighter colors for one rug and darker colors for another rug, or for a contrast in borders. We like to dye our rags to have enough for one rug, and the more uneven the dye takes, the better it is, as then you get a shading from dark to light. This is always of more interest than a solid color. A rug of this type is shown at Figure No. 1 above. Insert small lengths of a bright color at intervals to give small accents adds interest.

Colored Wraps. Are often most effective. Rug No. 2 was made of a grey plaid blanket. The warp used was slate grey, and rose carpet warp. Two sections of the new "Nellie Sargent Johnson" loom were warped with rose, then two sections with grey for the width desired. Wef was all the same material, but the plaid made it appear as if a pattern had been laid in. Get out some of your worn blankets and see what happens when you weave over a striped warp. A rose rayon redspread over pale green warp turned out a lovely rose beige color.

August 1945

Nellie Sargent-Johnson

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THE RUG AT FIGURE NO. 3 IS OF INTEREST FOR TWO REASONS. THE WARPS IS ONE THREAD OF DARK GREEN AND ONE OF LIGHT GREEN THREADED ALTERNATELY ALL ACROSS THE WIDTH OF THE LOOM. IT WAS WOVEN OF DARK GREEN RAGS. THE DESIGN WAS MADE BY TWISTING A LIGHT TAN WEFT WITH THE DARK GREEN FOR THE V SHAPES, AND JUST LAYING IN EXTRA STRIPS OF LIGHT WHERE THE LIGHT LINES ARE. VERY EASY AND EFFECTIVE TO DO.

PREPARATION OF RAGS. NEVER WEAVE POORLY PREPARED RAGS. WOOL RAGS ARE BEST IF YOU HAVE THEM. THE WIDTH TO CUT THESE DEPENDS SOMEWHAT ON THE WEIGHT. IF IN DOUBT HOW WIDE TO CUT THEM, TRY A FEW RIGHT ON THE LOOM TO GET THE TEXTURE DESIRED. ALWAYS CUT YOUR RAGS EVENLY, AND IF A LIGHT AND HEAVY MATERIAL IS COMBINED TRY TO CUT THE LIGHTER WEIGHT MATERIALS WIDER, SO THE WOVEN EFFECT WILL BE SIMILAR. YOUR RAGS CAN BE CUT ANYWHERE FROM 1/2 INCH TO 2 INCHES WIDE. PLACE THE END OF ONE STRIP OVER THE END OF THE OTHER, AND SEW TOGETHER, BY HAND OR ON A MACHINE. OR THEY CAN BE KNOTTED TOGETHER IF THE STRIPS ARE WIDE ENOUGH.

AMOUNTS OF MATERIAL. WE ESTIMATE THAT 2 POUNDS OF CUT RAGS ABUT AN INCH WIDE WILL WEAVE ONE SQUARE YARD OF WOVEN MATERIAL. FOR A 36" RUG ON THE NEW "NELLIE SARGENT JOHNSON" LOOM, WARP 450 WARP THREADS. THIS WILL BE ABOUT 38 INCHES IN THE REED. BUT RAG RUGS DO PULL IN A LITTLE ON THE EDGE. BE SURE AND SLEY RAG RUG WARP DOUBLE FOR 3 OR 4 SLITS ON EACH SELVAGE EDGE. TO COMpletely COVER THE WARP THREAD WITH WEFT, SLEY THE REED 2 THREADS IN A SLIT, SKIP A SLIT, SLEY TWO MORE, SKIP A SLIT ETC. FOR THE WIDTH OF THE LOOM. IF THE WET DOES NOT COVER, CUT THE WEFT A LITTLE FINER.

FINISH WITH A HEM OR A FRINGE. WE FINISH THEM BOTH WAYS. BUT A FIRM HEM WILL GENERALLY BEAR A LITTLE BETTER. THESE HEMS SHOULD BE WOVEN OF WARP LIKE THE COLOR OF THE BODY OF THE RUG IS POSSIBLE, OR OF FINE RAGS IF DESIRED. ALLOW 2" OF PLAIN WEAVE FOR HEMS. WHEN THE RUG IS REMOVED FROM THE LOOM, STITCH TWICE BE FORE CUTTING THE RUGS APART. ALLOWING ABOUT 1/2 INCH BETWEEN STITCHING. THIS HELPS SECURE THE THREADS ALSO. FOR FRINGES LEAVE ABOUT 8" BETWEEN THE RUGS. FOLDED NEWSPAPER OR CARDBOARD STRIPS CAN BE PUT INTO THIS SPACE IF DESIRED. THEN REMOVE AFTER THE MATERIAL IS STITCHED.

A MODERN FOUR BLOCK PATTERN.

THIS RUG SHOWS A RATHER DIFFERENT WAY TO USE A COLONIAL OVER-SHOT THREAERING THAN IS COMMONLY SEEN. IT FORMS A BORDER ON THE ENDS AND SIDES OF THE RUG WITH A TEXTURED CENTER. FOR THE RUG SHOWN HERE CUT THE WOOL RAG WEFT ABOUT 2" WIDE. THIS WAS DYED DARK BROWN FOR THE PATTERN, AND ORANGE CARPET HARP WAS USED FOR THE PLAIN WEAVE AFTER EACH OF THE PATTERN SHOTS.

ARRANGEMENT OF THREAIDI Draft FOR 390 THREADS.

THREAD FIRST TWO HEDDLES DOUBLE 2

THEN E TO A 10
A TO B, GROUP 1, 11, 11, 11, IV 78
B TO C " V, VI. REPEAT 5X40 200
C TO D " VII ONCE 11
THEN B TO A, GROUP IV, 11, 11, 1 78
A TO E 10
THREAD LAST HEDDLE DOUBLE 1

TOTAL 390

FOR A WIDER RUG, REPEAT FROM B TO C.

TOTAL HEDDLE COUNT. HARNES 1-112, 2- 89;
3- 82, 4-104, TOTAL 387. THE EXTRA WARP THREADS ARE USED UP BY THREADING THE FIRST TWO AND THE LAST HEDDLES DOUBLE. WEAVE A 2ND HEADING WITH ORANGE CARPET HARP FOR A HEM. USE A AND B THREAD.

August 1946
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To weave this use the treadles in the following order, alternating the pattern sheds with the plain weave, as usual. Treadle 4-3x, 2-1, 4-1, 2-1, 4-1, 2-3x, center of border. Repeat in reverse order back to the beginning of the pattern. For the center of the rug use treadle 3-3x, 1-1, 3-1, 1-1. Repeat this for the desired length for the center. End with treadle 3-3x, then repeat the end border, and the 2" of plain weave as at the beginning. Always be sure and use the alternate between the shots of pattern weft.

Another way to weave this makes a pattern for the center, a patterned corner and a textured end and side border. For this use treadle 1-3x, 3-1, 1-1, 3-3x, 1-2x, 3-1, 1-1 center, reverse back to beginning. For center of the rug, weave treadle 4-3x, 2-1, 4-1, 2-1, 4-1, 2-3x, 4-1, 2-3x, 4-1, 2-1, 4-1, 2-1. Repeat this for length desired. End with treadle 3-3x. Then repeat the end border, and finish with the plain weave heading. These rugs are decidedly different from most over-shot rugs and give an excellent effect.

Modern Arrangement for a "Crackle" Weave Rug.

This threading draft and the resulting pattern is very simple with most of the interest in texture. There are many ways it can be varied besides those given.

Arrangement for a Warp of 390 Threads

| Thread A to B, Group I, 11, 111, IV, V | 94 |
| B to C, Group VI, repeat 4x8 | 32 |
| C to D, " VII, " 23x6 | 138 |
| D to E, " VI, repeat 4x8 | 32 |
| E to A, " IV, III, I, I, I | 94 |

Total: 390 threads

Heddle Count in Groups: Multiply this by number each group is repeated; for total on each harness.

| Harness 1 | 11 111 IV V VII |
| Harness 2 | 4 7 4 7 6 4 2 |
| Harness 3 | 6 5 1 5 7 2 2 |
| Harness 4 | 4 3 4 3 5 0 1 |

For a wider warp repeat group VI as many times as desired.

Warp: Carpet warp set 12 to the inch

Weave: Maysville rug filler, dark blue for pattern shots and carpet warp like warp for the plain weave. Rugs can be used if desired.

Weave a plain weave heading with the warp. For the end border, use treadle 2-3x, then treadle 4-2x, 1-2, 2-5x, 3-3x, 4-3x, 3-3x, 2-5x, 1-2x, 4-2x. Then repeat the center of the rug, repeat treadle 2-3x, 3-2x, alternate for the desired length. Then repeat the end border back in reverse to the beginning. The finished width of this rug is about 30".

One skein of rug filler weaves about 18" in this width.

There are many other interesting ways of treadling this pattern. Try using home-craft soft cotton, using 3 strands as one weft, with carpet warp or "Enterprise" cotton for the plain weave shots. Heavy rug wools, chenille, candlewick cottons etc. can also be used for weft for these.

August 1946

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Handweaving News

QUESTIONS ABOUT SELLING

HANDWEAVING

One of the most frequent questions people ask is, "If I buy a loom, will I be able to sell my handweaving?"

The answer to this is, "Of course you can sell your handweaving, if you weave something people will want to buy."

But you say, "This involves a good deal more than just buying a loom." It surely does. It requires that you learn how to use the loom as a tool; how to use different threads; and how to use weaving techniques to make attractive saleable articles.

I often tell the students in my weaving classes that when they start to learn how to weave, they are off on a grand adventure that never needs to end. Learning how to weave does lead one into many otherwise unknown paths and by-ways. Along this way, you find many solid substantial friends too. For it is only the worthwhile sort of person who has the patience and perseverance to continue in this weaving craft. There is much more to it than just throwing a shuttle through the shed to make a rug or some cloth for a dress. Learn how to weave. Be a craftsman, not just a "shuttle thrower."

The first step is of course, the purchase of a good loom that fits your needs. Don't buy this loom though with the first idea that you are going to sell. Buy it rather with the idea that you are going to buy it for the purpose of learning how to weave something people will want to buy. Many people buy a loom to weave things for their own use and for their homes. They find in their looms a deep and growing satisfaction and enjoyment that comes from the making of something different than what forty million other people have.

Would you be surprised if I should tell you that I know of several families that have been saved from a very definite break up, due to the fact that the mother has taken up handweaving? This is true. The whole family interest can become closer when mother produces an attractive rug, curtains, upholstery, or a bed-cover that all can admire. Children quite naturally brag to their friends about what their mother can do, that your mother can't. They tell their teachers at school. Father also has an interest in this project. Though often at first, it's just out of the corner of his eye. Then in a short time as work on the loom progresses, he too is telling men at the shop or office, about what his wife is doing. He derives pleasure and satisfaction from the loom too. This is one very sure way of making other people want to buy what you can make.

September 1946

Nellie Sargent Johnson 12489 Mendota Ave., Detroit 4, Mich.
Since the August News went out I have had a number of questions concerning the making and selling of rag rugs from several subscribers. These I will make an attempt to answer to the best of my ability. I hope the material will be of help. Perhaps there may be among you, someone who has more experience selling rag rugs than I have. If so, and you have any ideas on these matters, I will welcome a letter from you.

First, what answer will we give a customer who complains that your price for a rug rug is more expensive than those in the stores. To my way of thinking you should never try to compete or sell on the same basis as the commercial rug in the store. You must try to make your rug better in every way. It should be well designed, good in color and very well woven. Try to put in some sort of individual touch so they will be different from a commercial rug, just as different as you can possibly make them, so there can be no comparison. When a customer says then, she can get a less expensive rug in the store, you can say that she cannot get a rug like yours in the store, and be very sure, yourself, that she can't.

Our next question is, "What is a fair price to charge per foot for weaving raggs?" Strange as it may seem, a good many weavers of rag rugs do not know how to figure what it actually costs them in money, for one yard of woven material, just for the warp. To work this out, proceed as follows. Start with the reed on the loom. If you do not know how many threads there are in an inch of the reed, first look on the side of the loom reed. Generally the reed is in tenths, 0.10, 0.20, or possibly 0.12-36. The 10 or the 12 refer to the number of dents or slits to the inch of the reed. The 36 or the 38 is the length of the reed. Most reeds for rugs are either 10 or 12 dents. If the reed is not marked, actually count how many dents there are in an inch.

Now you multiply the number of dents to the inch, by the width the rug is to be in the reed. On 12 X 38, which is 12 threads to the inch times the width of the rug. This equals the total of 456 warp threads. A rag rug generally will pull in on the edge about 2 inches and it is best to thread and sley the first 3 or 4 heddles and slits of the reed double. So with this, you come out with a 36" width on your finished goods.

Suppose you make a ten yard warp. The total number of warp threads, or 456 x 10 equals 4560 yards needed of carpet warp. One half pound spool of carpet warp contains 800 yards, then buying them, look and see how much they contain, some have only 600 yards, and some as little as 300 yards. A spool gives you 4200 yards of warp. This is a little more than you need, but do not underbuy. At 45c a spool, your carpet warp will cost 6 x 45c, or $2.70 for a ten yard warp. There will be some take-up on the warp as you weave, different people beat closer than others, but figure out how many yards of finished material you get out of this amount of warp. Figure in all of the warp including that used for tying up to warp and cloth beams, and that included in fringes etc. Also figure in how long it takes you to weave a solid yard of material on an average, so you can get some idea of how much to charge for your labor. Don't forget that to charge for your labor, this is entitled up to you and your own situation. You know that much better than I do. But at least figure out your costs, as near as you can, including of course the time it takes to set up and thread the loom as well as to weave the material. Don't forget to include the hemming, fringing and any finishing you do on the rugs either.

Another question I received is, "What should we charge a customer for a rug when we furnish the rag strips for their rugs?" Answer, "What is your time worth?"

Here are some notes which I made in my note book for the very first rug which I ever made on a loom many years ago. I bought 20 yards of unbleached cotton @ 14c a yard. Total $2.80. This was torn into strips 1 inch wide, and of course 20 yards in length. Thus 1/3 of a yard gave 12 of these strips, or 36 strips, 20 yards long for the width of the material. This made a total of 36 X 20 or 720 yards of weft. This weighed 5 lbs. It was dyed dark blue and took 30c worth of dye, making total cost of the weft $3.10. One 20 yard strip weaves about 5" of material 36" wide. But this last might vary a little depending on how it was beaten down.

Cotton flannel, all-wool, or part-wool blankets make excellent rugs. I do not happen right now to know what our Good Will or the Salvation Army stores charge a lb for this kind of material. Now I do know, that some time ago it was possible to buy all wool old materials for 10c a lb. This was all washed and clean too. If you have had any experiences with this sort of weaving and can add to this in any way, I shall be very happy to hear from you.

September 1946
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HANDWEAVING NEWS

Weaving on the Hearthside Table Loom.

There have been a number of requests for some new ideas for articles woven on the small Hearthside Table Loom. Before I give these, I wish to say that this loom is now available from Sears Roebuck & Co. It can be ordered through the mail order catalog in any of the retail stores or by mail from Chicago. These looms are sold already threaded and with 5 yards of warp on ready to weave. For cost of these refer to Sears catalog.

I should like to hear from those of you who have made articles from the book which I wrote to go with this loom, "Weaving on the Hearthside Loom". How successful have you been in following these directions? Are they perfectly clear? What have you made? Have you sold any of these articles? If so, will you not write to me?

There is one question that is asked of me very frequently by people who are using this loom. How do you beat rag rugs down close on this loom? Due to the nature of the beater on the small Hearthside loom it is not as easy to beat rugs closely as on a large floor loom with a heavy batten. But it can be done. Put a shot of weft through the shed. Beat it close to the previous row. Change the shed. Beat the weft down again. A comb can be used to push it close or the edge of the shuttle may be used to press it close to the previous row of weft. Then put in the next row of weft in this shed. Beat this down; change shed and so on. Be very careful in weaving rag rugs or any rug with a very heavy weft, not to pull in the edge warp threads. You cannot beat down the weft close enough if the edge warp threads are drawn in at all. So be sure you watch this. It helps to keep the edge warp threads from pulling in, if they are threaded double for 2 or 3 slits, on each edge.

Another question which has been asked of me lately, is how do you cover the warp on the Hearthside Table Loom? There are two ways to cover a warp. One is to set the warp further apart. The other way is to use a fine weft. Carpet warp on the loom can be covered by using a very finely cut rag, if you are using rags. Or Shetland or sport wool yarn will cover, if it is beaten down close with a comb. This makes a very firm close texture with the warp completely covered. Closely shaded yarns of several colors woven in stripes can be used for envelope purses and bags. Or some of the tapestry techniques may be used, if desired, to put in pattern. Handweaving News for March 1940 tells how to do the Peruvian form of tapestry weaving. This is similar to the Norwegian Aklæ tapestries too. Many of you may have this number of the News and it is still available if any of you wish to have it, so as to learn how to do this form of weaving.

October 1946

Nellie Sargent Johnson 12489 Mendota Ave., Detroit 4, Mich.
KNOTTED FLOSSA RUGS.

THE RUG SHOWN AT FIGURE NO. 1 AT THE LEFT IS MADE OF RAGS KNOTTED OVER A STICK, USING THE FLOSSA RUG KNOT AS DESCRIBED IN THE NEWS FOR APRIL OF 1940.

Both rugs on this page were woven on the small Table model Heartside Loom. They could be woven on any loom where there is a plain weave shed.

In this rug, there were 50 knots for the full width of one row across the warp. Each knot was made using four warp threads, and the first knot on each edge was set in about 1/2 inch.

Cut rags about the weight of a worn sheet, about an inch and a half wide for the knots, and about one inch wide for the rag weft between the rows of knots. Make two, or if desired, three rows of the plain weave between each row of the knots.

This rug has a dark plain border all around the edge. The knots are not cut, though they could be cut if desired. If you have a large amount of different colors of rags, percales etc., we like to dye them, and use two or even three colors only in the design. This gives a much better effect for the finished rug. Try to get your materials dyed uneven.

Then you get nice soft shaded effect in your colors. The design should be worked out on cross-section paper first. Use a simple one, and make it 50 squares wide to correspond to the 50 knots needed for the width of the loom.

These rugs can be very attractive if the colors are carefully selected, and they are soft and durable, and hold the floor well. Caution: Take care you do not pull in the edge warp threads as the weft is pushed into place, and beat each row of weft close with a comb if necessary. This rug was woven by Miss Brokan, a Wayne student this spring.

This rug is woven in the same manner as the one described above, except that all of the weft is of Maysville soft spun cotton, used double. Both for the plain weave and for the knots. 6 balls of dark brown, 3 balls of beige, and 1 ball of lemon yellow were used for this rug. Dark brown carpet warp for the warp. Warp the first four and last four warp threads double on each edge.

Three shots of plain weave was used between each row of the knots, and this weft was also double. This rug was woven by Emma Rosow, also a student at Wayne University this past spring.

Detail of the knot is shown at Figure No. 3. Full detail is given in the April 1940 News. This is still available at 45¢ each, if anyone wishes to have it.

October 1946.

Nellie Sargent Johnson 12489 Mendota Ave., Detroit 4, Mich.
ANY BLANKETS. SOFT LIGHT BABY BLANKETS CAN BE WOVEN ON YOUR HEARTSIDE LOOM TOO. FOR THESE GET A GOOD KNITTING WORSTED, AS SEARS GOLDEN CROWN 4 PLY YARN FOR THE WARP AND WEFT. YOU WILL NEED ABOUT TEN OUNCES FOR ONE BLANKET. AND IT CAN BE OF ALL WHITE, OR YOU CAN CUT SMALL STRIPES OF EITHER BLUE OR PINK IN THE WARP, THEN CROSS THIS WITH THE SAME TO MAKE A PLAID, WITH THE WEFT. MAKE THE WARP OF WOOL JUST AS YOU WOULD OF CARPET WARP. BUT DON'T TRY A WOOL WARP UNTIL YOU HAVE HAD SOME PRACTICE. YOU WILL FIND IT NEEDS A BIT OF ARE IN THE HANDLING, BUT IT IS NOT DIFFICULT TO DO. CAUTION—BE VERY CAREFUL AND BEAT OUR WEFT DOWN LIGHTLY. IF YOU BEAT THE WEFT TOO CLOSE, YOUR BLANKET WILL BE HARD AND GARDLIKE. WARP SHOULD BE THE FULL WIDTH OF THE LOOM, 214 THREADS.

FIGURE NO. 4

HEAD SQUARES OR NECK SCARVES ARE ANOTHER SUGGESTION FOR WOOL WEAVING. THESE MAKE EXCELLENT GIFTS. AT FIGURE NO. 4 ARE SHOWN TWO. MAKE THE WARP OF TWO SHADES OF THE SAME COLOR, DARK AND LIGHT BEIGE, OR DARK AND LIGHT BLUE, OR GREEN ETC. TO MAKE A PLAID WEAVE WITH TWO SHUTTLES. USE TWO SHOTS OF ONE COLOR THEN TWO SHOTS OF THE OTHER IN 1947. THE WARP CAN BE OF ALL OF THE LIGHT COLOR WITH A STRIPE MADE BY WEAVING WITH THE DARK COLOR. THERE ARE MANY WAYS OF VARYING A WARP OF THIS KIND. THE SCARVES SHOWN AT FIGURE NO. 4 WERE MADE OF A RAYON AND WORSTED YARN OF TWO COLORS. THE ONE SHOWN AT THE LEFT SIDE HAS A ROUGH STRIPE ON THE SIDE EDGE. THIS ROUGH YARN IS THREADED THROUGH THE BLADES OF THE NEEDLE ONLY. IT WOULD NOT GO THROUGH THROUGH THE HOLES EASILY. NOTE HOW SINGLE WEFT SHOTS HAVE BEEN PUT IN ACROSS THIS.

THE BARCH AT THE RIGHT IN FIGURE NO. 4 WAS WOVEN TWO SHOTS OF LIGHT, AND ONE OF THE DARK WEFT ALL THE WAY THROUGH. BUT THE WIDE STRIPE WAS WOVEN WITH ALL DARK WEFT. WITH THESE WOOL PIECES, BE SURE NOT USE THE BEATER VERY LIGHTLY. BEAT JUST HARD ENOUGH TO PUSH THE WEFT INTO THE PLACE WHERE IT BELONGS.

FIGURE NO. 5 HEAVY CURTAIN OR DRAPERIES. HERE WE HAVE SOME INTERESTING HEAVY CURTAIN. FOR THESE YOU MAKE A WARP OF CARPET WARP FOR THE LENGTH DESIRED. WEFT IS CREAM COLORED "ENTERPRISE" COTTON. SEE THE SEARS CATALOG FOR THIS MATERIAL. STRIPES ARE OF GREY FOR THE WIDE STRIPE, BORDRED WITH THE PALE YELLOW. THE DESIGN WAS PUT IN WITH SPANISH WEAVE. METHOD OF WORKING THIS TECHNIQUE IS NOT AT ALL HARD. DETAIL IS GIVEN BELOW, BUT OTHER NEWS ON SPANISH WEAVE WERE GIVEN IN MARCH 1937, 1938, AND JULY OF 1945. IF YOU WISH FURTHER HELP. THESE DRAPES WERE WOVEN IN TWO PIECES, AND SEWED TOGETHER FOR FULL 50" WIDTH. IF THE EDGE IS CAREFULLY WOVEN THE SEAM WILL NOT SHOW BADLY. THESE CURTAINS WERE WOVEN BY IRENE WUDYKA, ONE OF MY WAYNE STUDENTS THIS PAST YEAR.

I HOPE SOME OF THESE ARTICLES WILL BE OF INTEREST AND THAT YOU WILL WEAVE SOME OF THEM. WHEN YOU SEND IN YOUR NEWS, WRITE SOME QUESTIONS TO ME AS TO WHAT YOU WOULD LIKE TO KNOW. I WILL TRY TO ANSWER THEM AS BEST I CAN. LET US TALK OF THE THINGS YOU HAVE BEEN DOING THIS PAST YEAR, AND WHAT INTERESTS YOU MOST?

FIGURE NO. 6 METHOD OF WORKING SPANISH WEAVE.

OCTOBER 1946

NELLIE SARGENT JOHNSON 12489 MENDOTA AVE. DETROIT 4, MICH.
THIRD COUNT FOR THE THREADING DRAFT AS GIVEN.

- HARNES 1 - 111 HEADLES
  2 - 152
  3 - 111
  4 - 72 

TOTAL 440 (TO USE THE 450 HEMP THREADS, PUT TWO THREADS IN THE FIRST TWO AND THE LAST TWO HEADLE EYES WHEN YOU THREAD.)

OTHER WAYS TO USE THIS SAME PATTERN.

THIS PATTERN CAN BE USED IN MANY OTHER MAYS THAN FOR A RUG. USE 20/2 COTTON OR NO.30 CROCHET COTTON. SET THIS 24 OR 30 THREADS TO THE INCH IN THE REED. NO. 10 COTTON OR PERLE COULD BE SET ABOUT 20 TO THE INCH. AT 24 THREADS TO THE INCH THIS WOULD BE ABOUT 18" WIDE IN THE REED. OR SET AT 30 THREADS TO THE INCH ABOUT 15" WIDE, JUST ABOUT RIGHT FOR A PLACE MAT OR SMALL TOWEL. THIS COULD BE WOVEN WITH LINEN WEFT IF DESIRED, OR ALL OF LINEN.

FOR A COUCH BLANKET, USE HEAVY GERMAN DARNED YARN SET AT 7½ THREADS TO THE INCH, OR EVERY OTHER DEN OF A 15 DENT REED. FOR THIS, WEAVE TWO PIECES, HAVE THE CENTER WHERE THIS IS SEWN TOGETHER COME ON THE 2 UNIT PATTERN BLOCK AT C OF THE PATTERN DRAFT. REPEAT THE 20 UNIT PATTERN BLOCK ONCE MORE THAN IS GIVEN, SO THERE ARE FOUR OF THESE WITH THE BORDER ON ONE SIDE ONLY. WEAVE TWO STRIPS OF THIS ABOUT 3 YARDS LONG. AS THE FIRST IS WOVEN MEASURE EACH BLOCK CAREFULLY ON A TAPE AND MARK IT. WEAVE THE SECOND LENGTH BY THIS TAPE AND THE PATTERN BLOCKS WILL MATCH EACH OTHER BETTER WHEN SEWED TOGETHER.

ANOTHER WAY TO WEAVE THIS BLANKET IS TO SET UP THE CENTER STRIP OF THE PATTERN AND WEAVE THIS. THEN RE-THREAD THE LOOM WITH THE BORDERS ONLY, AND WEAVE TWO STRIPS FOR THE LENGTH DESIRED; ONE STRIP FOR EACH SIDE OF THE CENTER. THIS IS EASIER TO MATCH AND LOOKS BETTER, BUT IT IS A LITTLE MORE WORK TO DO.

FOR DECEMBER NEWS I AM SENDING WITH THIS A COPY OF THE LEAFLET ON FOUR HARNES DOUBLE WEAVE. THIS WAS FIRST WRITTEN UP IN MARCH OF 1934. IT WAS THE FIRST TIME THIS TECHNIQUE HAD BEEN GIVEN IN THE ENGLISH LANGUAGE. IT HAS SINCE FOUND WIDE USE AMONG WEAVERS, SO I AM SENDING IT OUT TO ALL MEMBERS OF THE DETROIT HANDWEAVERS GUILD. I HAVE MUCH MORE INFORMATION ON THIS TECHNIQUE, AND A GREAT MANY ANCIENT PERUVIAN FABRICS IN THIS TECHNIQUE. IF THIS MATERIAL IS OF SUFFICIENT INTEREST, I WILL WRITE UP MORE CONCERNING IT.

DETROIT HANDWEAVER'S GUILD EXHIBIT AND SALE TO BE HELD AT
OLD WORLD MARKET, INTERNATIONAL INSTITUTE,
NOVEMBER 15, 16, 17TH, 1946.

ALL MEMBERS OF THE GUILD MAY SUBMIT HANDWOVEN ARTICLES TO THE GUILD JURY FOR THIS SALE. THEY MUST BE DELIVERED TO THE JURY COMMITTEE OR TO MRS. JOHNSON OR ON OR BEFORE NOVEMBER 10TH.
ALL ARTICLES SENT IN MUST BE MARKED WITH THE WEAVER'S NAME AND ADDRESS, AND ACCOMPANIED BY A LIST. WHILE EVERY PRECAUTION WILL BE TAKEN TO GUARD TEXTILES FROM INJURY OR LOSS, THEY ARE EXCEPTED ONLY AT THE WEAVER'S RISK. THE GUILD CANNOT BE RESPONSIBLE FOR LOSS OR DAMAGE HOWEVER CAUSED.

ASSOCIATE MEMBERSHIP IN DETROIT HANDWEAVER'S GUILD

SEND IN YOUR SUBSCRIPTION TO HANDWEAVING NEWS FOR 1947 NOW AND BECOME A MEMBER. ALSO IF YOU WISH A COPY OF THE MAGAZINE "CRAFT HORIZONS" SEND $1.00 EXTRA FOR THE 4 ISSUES. THE GUILD IS NOW AFFILIATED WITH AMERICAN CRAFTSMEN'S EDUCATIONAL COUNCIL, IN NEW YORK.

LINEN STILL AVAILABLE AS ANNOUNCED LAST MONTH
$2.00 A BOX OF 16 BALLS, ONE LB. FAST COLORS
RED, BLUE, AND LAVENDER. DON'T YOU WANT SOME?

NOVEMBER 1946
NELLIE SARGENT JOHNSON 1249 S. MENDOTA AVE., DETROIT 4, MICH.
HERE WE HAVE AN INTERESTING WAY TO DESIGN IN MODERN MANNER, LUNCHEON SET PLACE MATS WHICH HAVE NO CENTER. ONE REPEAT OF THE PATTERN FILLS THE WIDTH OF THE WARP. FIGURE NO.1 SHOWS THE FULL KEY DRAFT FOR THE PATTERN EFFECT DESIGN AT FIGURE NO.2. THE KEY DRAFTS AT THE LEFT OF FIGURES 2 AND 3 ARE JUST HALF SIZE. THIS IS DONE TO MAKE THE DRAWING OF THE DESIGN SMALLER. THE EFFECT IS THE SAME AS FULL SIZE IF THE EXACT PROPORTIONS ARE KEPT.

HOW TO WRITE A 5&1 THREADING DRAFT IS SIMPLE. FOR EACH UNIT OF THE KEY DRAFT, PUT 5 THREADS ON HARNESS 1 AND 2, THEN ONE THREAD ON HARNESS 3; FOR ONE PATTERN BLOCK. FOR THE SECOND PATTERN BLOCK, WRITE 5 THREADS ON HARNESS 3 AND 4, THEN ONE THREAD ON HARNESS 2. OR IN OTHER WORDS, FOR PATTERN BLOCK 1, WRITE 3, 2, 1, 2, 1, 2. REPEAT THIS AS DESIRED. FOR PATTERN BLOCK 2, WRITE 2, 3, 4, 3, 4, 3. REPEAT THIS AS DESIRED. WHERE THE TWO PATTERN BLOCKS JOIN, THERE ARE 5 THREADS IN THE BLOCKS. STUDY THE THREADING DRAFT AT FIGURE NO. 3.

ON THE DRAWING ABOVE IS SHOWN THE WOVEN EFFECT. BUT THE PATTERN BLOCKS ARE NOT THE FULL SIZE BECAUSE THE UNITS ARE NOT DRAWN SO ON THE DRAWING. BUT IF REPEATED AS INDICATED, THEY WILL BE THE SAME SIZE AS THE FULL KEY DRAFT.

TIE-UP TO WEAVE PATTERN BLOCK 1, USE TREADLE 1, OR RAISE HARNESS 3 AND 4.

TO WEAVE PATTERN BLOCK 2, USE TREADLE 3, OR RAISE HARNESS 1 AND 2.

PUT ALTERNATE SHOTS OF PLAIN WEAVE WOFT IN AFTER EVERY SHOT OF PATTERN WOFT. PLAIN IS WOVEN ON HARNESS 1&3 FOR THE A TABBY, AND ON HARNESS 2&4 FOR THE B TABBY, AS IS USUAL.

JANUARY 1947   NELLIE SARGENT JOHNSON 12489 MENDOTA AVE. DETROIT 4, MICH.
How to write a "7 and 1" threading draft. This is written in the same way as the "5 & 1" draft on Page 1, except that two more warp threads are added to each of the pattern block units. This makes a longer pattern weft skip as shown at Figure No. 5 below. This threading draft is for pattern effect No. 2 on Page 1. For each unit of the reduced key draft, you write two pattern units. This can be written out in full by repeating these units the same number of times as the units of the key draft. Or they may be written in the short way, as here, and numbers written above each of the pattern blocks to indicate how many times the double units are repeated when threading the pattern into the loom.

**Short Key draft for Pattern No. 2 on Page 1**

<table>
<thead>
<tr>
<th>Block 7</th>
<th>Block 6</th>
<th>Block 5</th>
<th>Block 4</th>
<th>Block 3</th>
<th>Block 2</th>
<th>Block 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeat 13x 16 threads</td>
<td>Repeat 2x 16 threads</td>
<td>Once 13 threads 16 threads</td>
<td>Repeat 3x 16 threads</td>
<td>Repeat 3x 16 threads</td>
<td>Once 14 threads 16 threads</td>
<td>Repeat 3x 16 threads</td>
</tr>
</tbody>
</table>

Figure No. 5 "7 and 1" threading draft for key draft above.

This pattern is planned for a warp of 20/2 cotton, 419 threads. Put two threads in each dent of a 15 dent reed, for 30 threads to the inch. Weft thread can be as fine as No. 20 mercerized cotton, or coarser if desired. Very handsome effects may be obtained if you shade the pattern blocks from dark to light using the same colors.

This is woven in the same way as pattern No. 1. Use treadle 1, or raise harnesses 3 & 4 to weave pattern block 1. Put in a shot of pattern weft. Then a shot of plain weave weft using treadle A, or raising harnesses 1 & 3. Then treadle 1 again. Then another shot of plain weave weft on Treadle B. Repeat for the length desired in the same way.

To weave pattern block No. 2, use treadle 3, or raise harnesses 1 & 2. Put in a shot of pattern weft in this shed. Then use treadle A, or 1 & 3, for a shot of plain weave weft. Then treadle 3 again for another shot of pattern weft. Then Treadle B for a shot of the plain weave weft. Repeat this for the length desired. When you thread this pattern into the loom for the first time, it is a good plan to weave these two blocks out to see just what they look like when woven. To do this, weave pattern block No. 1 over and over until you have an inch or so woven. Then weave pattern block No. 2, repeating it over and over for an inch or more.

To thread this pattern into the loom proceed as follows,-

<table>
<thead>
<tr>
<th>Block 1</th>
<th>16 threads repeated 3x</th>
<th>48 threads</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot; 2 &quot;</td>
<td>14 &quot;</td>
<td>14 &quot;</td>
</tr>
<tr>
<td>&quot; 3 &quot;</td>
<td>16 &quot; repeated 3x</td>
<td>48 &quot;</td>
</tr>
<tr>
<td>&quot; 4 &quot;</td>
<td>16 &quot; 3x</td>
<td>48 &quot;</td>
</tr>
<tr>
<td>&quot; 5 &quot;</td>
<td>13 &quot;</td>
<td>13 &quot;</td>
</tr>
<tr>
<td>&quot; 6 &quot;</td>
<td>16 &quot; repeated 2x</td>
<td>32 &quot;</td>
</tr>
<tr>
<td>&quot; 7 &quot;</td>
<td>16 &quot; 13x</td>
<td>-208 &quot;</td>
</tr>
</tbody>
</table>

To begin thread selvage 1, 2, 3, 4, - 4 "
At end thread selvage 3, 2, 1. - 4 "

Total 419 "

There are many other ways of making key drafts in this same way. Of course they do not have to be unbalanced as the key drafts are drawn here. They can be made to balance on each side of a center block. If such a design is planned to use for a rug, it is best to make them balance on each side of the center. Or a regular two block pattern can be used as a repeat if desired.

When planning these key drafts, it is also possible to think in terms of inches with the finished woven article in mind. You first decide how you are going to set the warp in the reed; at 12, 15, 20, 24 or 30 threads to the inch. For instance, if you are to use carpet warp at 12 threads to the inch, and you make a 5 & 1 threading draft, you have 6 warp threads for each unit of your key draft. The length of each woven unit will be about 2 inch. In this way, you can think through in terms of inches how long your blocks will be. Try some of these patterns and see how you like them.

How to Go Tufting.

A recent exhibit of early Canadian crafts at our Detroit Art Institute this fall showed some interesting old woven bedspreads woven in tufting technique. This form of weaving is also found in many other parts of the world, Sweden, Italy, and above all Scandinavian piece with little separated bunches of tufts combined with a brocaded figure.

As some of my students have been enjoying this technique very much, and also as it may be woven on any loom allowing a plain weave, I thought guild members would be interested to hear what we have been doing with it too. Some most successful rugs have been woven on the table model "earthside" loom, and the rugs here described were woven on that loom. Larger sizes can easily be evolved from the designs given on the next page if desired. And those who are using these looms will find rugs of this sort very saleable.

Materials. All kinds of yarn may be used for this technique, but we have been using Marysville Rug Filler and Home-craft soft cotton with excellent results. The rug shown at the left was woven of home-craft cotton, double wefts for the pattern design, and single for the plain weave between.

Method of Working the Technique for a Rug. Weave enough plain weave with single home-craft cotton for a hem. Wind a shuttle with double weft. Throw a shot of this from right to left. Fasten the end of the weft around a warp thread on the right to hold it. With a stiff metal rod, 1/8", as long as the width of the material being woven, pick up loops of the double weft over the rod. Leave the shed open as you do this. Spaces between warp threads may be skipped as desired according the the pattern design being used. When left edge is reached bring the double weft up around a warp thread to keep it from pulling out. Pass the shuttle back to the right edge through the same shed. Then throw in the single weft after changing the shed. Pull out the metal rod.

When threading for these rugs, put double threads in for about 3 or 4 warps on each edge. This helps to keep a good edge. Do not bring the picked up loops clear to the edge either. Leave at least 1.5 inches of plain on each edge. This keeps the wefts from pulling out. Leave both the plain weave weft and pattern weft loose in the shed to keep the rug out the full width of the warp. Take care in picking up the loops to pull them up over the rod all at the same time, and keep them even. Do not draw them too tight over the rod. Knitting needles may also be used to pick up the loops. Always throw the double pattern weft from right to left and pick up in this row.

Pattern Designs below are planned for the Table model Heartside loom. C marks the center of each design. Begin to pick up these designs on the right of the pattern. Design No. 1 was woven by Mrs. Margaret Anderson of Peach color Rug Filler on a peach color warp. One repeat as marked move 11 inches of rug. 5 skeins of Rug Filler will weave a rug about 40" long. Use this double for picked up rows, single for plain weave. Design No. 2 is just the opposite of No. 1. It has woven of all white Home-craft cotton. Use double for the pattern design, single for the plain weave. One repeat of the design will weave about 9½". Be sure to beat each row down close. A comb may help this.

6 balls of white Home-craft cotton are needed for this. This makes a very durable, serviceable rug which is attractive too. It will always wash and look well too.

Design No. 3 shown in the photo on page 1, was woven of one strand of yellow and one strand of tan Home-craft cotton for the picked up pattern weft, and a single strand of tan for the plain weave shots. This rug has been particularly admired.

On all of these designs, the dark squares are for the picked up loops, and the light squares are for those not picked up.

These patterns have all been centered so they will fit the 214 warp threads of the Heartside Table loom which many of you are using. Thus the plain spaces at the beginning on the right of the design are left free, not picked up. Raise the warp threads and count spaces between for those not picked up for the pattern. Also you will see that you always put the plain weave in the same shed, and the pattern picked up loops in the other plain weave shed.

Try out some of these rugs. We are sure you will like them.

So called "crackle" weave or Jamtlandstav, the Scandinavian name, is always of much interest to handweavers. There are several reasons for this. First it may be woven in so many different ways, and second it has so very many possibilities for designing of new and original designs. This designing is a bit tricky due to the small two thread pattern blocks which have to come between pattern blocks of the threading draft. But the weft thread makes only a three thread warp skip, and pattern blocks can be written very large and they do over-lap each other to add interest to the woven effect of the article.

This News is going to attempt to show how to write key drafts and threading drafts based on the order of twills and some variations. Back issues of Handweaving News which contain more information on this interesting form of technique is contained in February 1940, November 1940, May 1941, April 1943, May 1944, and Sept 1945. These are available for 45¢ each if anyone wishes to have them.

Key drafts for these patterns are somewhat difficult to write to express the woven pattern exactly. This is due to the small two thread blocks necessary in writing the pattern threading draft and to the over-lapping of each of the pattern blocks. But the pattern effect drawing below the key draft can show how it is supposed to be woven, and how the pattern blocks overlap. For this, one square of cross section paper can be used for one pattern unit of four warp threads. If the key draft design is very large, one square of cross section paper can represent 3 or even 4 unit pattern blocks of four warp threads each. For the pattern block units, refer to February 1940 News if you are not already familiar with them.

At Figure No. 1 above we have the key draft for a threading draft based on the twill order, namely pattern blocks 1, 2, 3 and 4 following each other in succession. This key draft is for just one repeat for the full width of the loom, and can be expanded to full size as required for any article to be woven by repeating the pattern blocks as they occur. Compare this key draft with the pattern threading draft and the check draft below it on Page 2, and you will see that the 6 unit pattern block on harnesses 1 & 2 on the threading draft is just a 5 unit block on the key draft. In the same way the 4 unit - 1 & 2 units at the end of the threading draft can also be made a 5 unit block to balance the pattern effect on the key draft.

Draw vertical lines down from top to bottom of the sheet of cross section paper the size of each pattern block of the key draft. These lines will define the width of each of the blocks. Try to create designs on the paper within the limits of these verticals. You can repeat the block as few or as many times down as you wish. But the width of the blocks are always within the vertical lines. Figure No. 1 has all of its blocks drawn down square or "as drawn." This is not as interesting as to make them different widths as in Figures No. 2 and No. 3. But it does show relative size and proportion of the different blocks.

Figure No. 4 Threading Draft for Key Draft at Figure No. 1, 2, and 3.

At Figure No. 4 we have the threading draft and its check draft below written out to the full size of the key draft on Page 1. A to B is one repeat. B to D is a three thread block for the end to balance the 182 blocks at A. Note the 2 thread blocks at thread 20 and 22, and at thread 28 and 30. These must be added to make the pattern come out correctly. No extra threads need to be added between the 4&1 and the 182 pattern blocks.

Study carefully the following points about this threading draft:-
1. At the beginning at A, there are 6 of the 182 pattern blocks. From E to B there are 4 182 pattern blocks. If this pattern threading is used as a repeat, the 4 units at the end of the draft and the 6 at the beginning will make a 10 unit pattern block on 182.

2. There are 10 of the 263 pattern blocks. The 2 thread block at F is counted as a full block too. Five of these 263 blocks overlap the 182 blocks, and 5 overlap the 384 units.

3. In the same way, there are 10,384 pattern blocks. Five of these overlap the 263 pattern blocks in the same way, and 5 overlap the 481 pattern block units.

4. The same is true of the 481 pattern blocks. Notice how the 481 blocks join when the pattern is repeated. It is a good idea to write out two repeats of a threading draft you have made yourself. I hope you are all going to try this, if you have not done so already. Your check draft will show any mistakes, and care is needed to write these drafts correctly before threading them into the loom.

Short Method of Writing These Drafts is shown at Figure No. 5. The 15x means to repeat each pattern block unit 15 times before going on to the next 2 unit block. This is the simplest way to write these threading drafts. They follow the order of twill, namely pattern block 1, 2, 3 and 4. Each unit of the draft can be repeated as many times as desired. Here all of the pattern blocks have been written the same size for the full width of the loom, and there are only four of them.

But don't stop here. Try writing the pattern blocks of different sizes. Keep the same order of the twill and have no exact repeat for the full width of the loom. This gives you large blocks and small ones and permits much variation in the woven design.

If you can write these drafts up to a center, then reverse it back to the beginning in the same order for one complete repeat for the width of the loom. If you wish to use the threading at Figure No. 4 above, the thread on harness 4 at B, may be used as the center of the draft. Always watch carefully when you do this how you join the repeats. Draw out a check draft to be sure just what happens on the threading draft so your proportions will be good.

For an experimental sampler on a warp of 240 threads of 20/2 cotton, arrange the threading draft at Figure No. 4 as follows:-

<table>
<thead>
<tr>
<th>THREAD SELVAGE</th>
<th>Heddle Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3, 4, 1, 2, 3, 4</td>
<td>Selvage Group I</td>
</tr>
<tr>
<td></td>
<td>2x</td>
</tr>
<tr>
<td>Thread Group I - 3x20 -60''</td>
<td>2x</td>
</tr>
<tr>
<td>Thread 2 Threads 182-2''</td>
<td>2</td>
</tr>
<tr>
<td>Thread Group II - 3x16-48''</td>
<td>3</td>
</tr>
<tr>
<td>Thread 2 Threads 184-2''</td>
<td>4</td>
</tr>
<tr>
<td>Thread Group III- 3x20-60''</td>
<td>8</td>
</tr>
<tr>
<td>Thread Group IV - 3x16-48''</td>
<td>8</td>
</tr>
</tbody>
</table>
| B to D | 3 | THREAD EITHER 1ST OR LAST HEDDLE DOUBLE FOR A TOTAL OF 240 THREADS OF WARP.

March 1947 Nellie Sargent Johnson 12499 Meboota Ave, Detroit, Mich.
Ancient Peruvian Double Woven Cloth.

It was in March of 1934, that I first wrote up how to do double weaving on a four harness loom. This was the first time directions for this weave were written in the English language. The method described in this News is much simpler than that because the round stick has been left out. The effect of the technique is slightly different, but not enough to matter much.

The two photos above show an ancient Peruvian piece from my own collection, and a modern piece woven by Mrs. Helen Hill. The pattern for the ancient piece is given on the next page. The joy of this technique is the fact that it is possible to create one's own designs for this weave. Because any cross section paper design can be woven. Thus this weave has a great many possibilities for the creative weaver.

Directions for a sampler in this weave. For the first attempt in this weave it is best to practise and weave a sampler in carpet warp. This is coarse and one can easily see what they are doing and how the weave works. Thread the loom to twill, namely 1, 2, 3, and 4. Use a two color warp, thread a white thread on harness 1, blue on harness 2, white on 3, and blue on 4. Sley two warp threads in each dent of a 15 dent reed. The rule here is to sley the reed twice as close as you wish the finished cloth.

Tie-up On the new 6 harness folding floor loom the harnesses rise. Leave the plain weave treadles, the center ones A and B, tied as they are for ordinary weaving. Hitch up just one harness to a treadle for the other four treadles, namely 1, 2, 3, and 4. Use two feet to weave as necessary.

First practise weaving double plain cloth, light on one side and dark on the other.

To weave white or light on top: - Treadle 1 alone, throw shot of light weft in shed then " 1 3 2 , throw shot of dark " " " " 3 alone," " " light " " " " 1 3 4," " " dark " " " "

Repeat this over and over for a few inches until the method is clear to you. Weft for this can be same as the warp, blue for one weft and white for the other.

April 1947

NELLIE SARBENT JOHNSON 12489 MENDOTA AVE. DETROIT 4, MICH.
To weave dark on top, treadle 2 alone, throw shot of dark weft
4 alone, 1 throw shot of dark weft.
B, or 2&4 together, throw shot of light weft, use 2 feet
4 alone, 1 throw shot of dark weft.
B, or 2&4, and 1, throw shot of white weft.

Now for the pattern. Take Figure No. 1 below. Treadle 4, or 1&3, raises all the white warp threads up, with a flat pickup stick longer than the width of the warp, so over 2 warp threads or each black square of the pattern, and under 2 white warp threads for each white square of the paper pattern. For the first row of Figure No. 1, there are 13 white squares, so with the pickup stick go under 26 white warp threads. Next there are two black squares, so go over 4 of the raised white warp threads. Repeat all across the warp. Treadle 2 alone to change shed. Turn pickup stick on edge. Pass shuttle through shed thus made with dark weft. See drawing Figure 4, which shows how this shed looks from the side of the loom.

Change shed with treadle 4 alone. Push first weft in place with shuttle, with pickup stick on edge, pass second shot of blue weft through this shed. Push close with shuttle. These two shots if dark weft weave the dark square of the paper pattern. The pickup stick can be pulled out now, but I think it is easier to leave it in until after the next row is picked up with second pickup stick. If left in, push close to last row of weaving.

Change shed with treadles B, 2&4, which brings up all the blue warp threads, with a second pickup stick, so over 26 blue warp threads and under 4 blue warp threads for the width of the warp. Pull out first pickup stick. Turn second pickup stick on edge. Treadle 1 alone. Pass white weft through this shed. Push it close to last row with the shuttle. Treadle 3 alone, pickup stick on edge, pass second shot of white weft through this shed. Pull out the second pickup stick. Beat close with the reed. This weaves the light background on the paper pattern, and completes the first row of the pattern as shown. There are two shots of dark and 2 of light for each square.

For the second row of pattern, and each succeeding row, keep the same order as given in detail above, at 3 and then 4. But pick up with the pickup stick as indicated by the paper pattern.

The design at Figure No. 1 has the rows numbered from the bottom up. The solid dark line at the beginning is dark plain weave, and the next row is light plain weave. Put in before the pattern is picked up. It is important to note that the first pickup is under 2 warps for each white square, and over 2 warps for each black square of the design. The second pickup is just the opposite; over 2 dark warps for each white square, and under 2 dark warp for each black square of the design. Once this is understood, the rest is easy.

I would like very much to hear from guild members who try this. Let me know if you have any difficulty following the directions.
Handweaving News

"Flossa" Rug Knot

This is a pile technique called "Flossa" in Swedish. There are three different ways to use this knot. Flossa is a solid mass of knots, of course using different colors for the design as they occur. "Half Flossa" has just the design in knots on a plain weave background. While "Rya" is the same knot, generally with long loops, and more rows of the plain weave background between each row of the knots.

In the News for April 1940, a full description of the technique was given. And this is also available in the Lesson on Rug Knot, which is $3.50 and includes the loan of samples of the weave for two weeks for study. The News is 45¢ each. This knot can be used on any loom which has the plain weave shed. So those of you who have only the small portable Hearthside loom. Bags, small rugs, chair seats or stool tops are easily woven on this loom. For rugs, use home-craft cotton double for the knots and single for plain weave background. Tapestry wools for background and knots work up well too. In order to beat down closely, use a comb to pull the weft threads as close as possible. Mrs. Lois Corliss of South Haven, Mich recently gave me a very handsome piece woven of tapestry wools for a stool cover.

Design. Use a simple modern one. Each knot requires two warp threads. Do not make the knots right up to the edges. Leave 4, 6, or even 8 warp threads on each edge. Build this up with plain weave on each edge as is needed to compensate for the row of knots, as at Figure No. 1 and 2 above.

Materials.- If carpet warp is used for the warp, thread it double through the healds. Sley every other dent of a 12 dent reed double. We find this works very well. In choosing materials for this type of weaving, remember it is very permanent, so get those which are the best you can afford. Rug wools are best for weft for rugs, but may be hard to get or quite expensive. As substitutes for this, we have found cotton rug filler, home-craft cotton, candlewick cotton, can be used. Interesting color schemes can be made by combining shades of these materials with mercerized cotton No. 3. Rags carefully cut and dyed can be used for background if desired. But they should be carefully prepared.

Detailed directions for the technique were given in April 1940 News. To this we wish to add the method of adding extra rows of background weft as shown in Figure No. 3, so even up with the rows of knots. The number of rows to add will depend on how much room the knots take up. This diagram shows space above the knots. In actual weaving of course this would be entirely filled.

May 1947

Nellie Sargent Johnson 12489 Mendota Ave., Detroit 4, Mich.
DESIGN FOR A "HALF FLOSSA" RUG.

The design shown below was used for a "half flossa" rug which was begun at the Detroit Handweaver's Guild at International Institute last fall. It was woven on a carpet warp, 390 warp threads. Threaded double through the heddles of the harnesses and sleyed every other dent double in a 12 dent reed. Background weft, 3 skeins of heavy cream colored Rug Filler. Wound with this on the same shuttle was 3 strands of mercerized cotton No. 3, yellow-green, and 2 shades of light green. The knots were of cream colored Home-craft cotton yarn, use this double, and wind the same colors of green mercerized cotton with it as in the background weft. Four balls of the Home-craft cotton are needed.

Finished width of this rug, about 30", length woven 54" includes plain weave on ends, but not the fringes. There are 88 knots for the full width of the design with 9 double threads sleyed every second on the reed on each edge. Of course this can be woven on any pattern threading provided it allows a plain weave shed.

To begin this rug, weave 13 shots of plain weave with the cream Rug Filler. Then 3 rows of solid knots as shown. Put two rows of plain weave between each row of knots. In working out this design we found that 40 squares of the pattern design vertically will equals about 20" length of woven rug. This is a help to know if you are planning to make and weave a design of your own.

For a rug on the full width of the Heartside Portable loom, one would have to use single carpet warp. Full width of the 214 warp threads, would give 107. Taking 8 warps off each side would give 91 knots wide. This pattern calls for. This loom is set a little closer together than suggested above, so use finer background weft, as single Home-craft cotton with double for the knots.
THE FLOSSA RUG

ACCESSORIES:

Flossa Rod - (2) 3/8" steel bars, riveted together at the ends, 2 inches longer than width of rug.

Razor Blade in Holder.

Hammer or Beater - 4 teeth to inch, available in Canada only.

Rug Shears - $1.50 from Lee Yards, Elgin, Illinois.

SUPPLIES:

Cotton warp - 10-ply Butchers' cord, .95 lb., approx. 720 yds. per lb., available at:
J.P. PLEIFFER & SON, 200 N. Paca St., Baltimore, Md.

Linen warp:
1-1/2 Lea, .15 lb., 150 Yds. per lb.
10/5 Line Natural, .275 lb., 600 Yds. per lb.
Both available from:
FREDERICK J. PACE, 129 South St., Boston 11, Mass.

Wool for Knots, Salvages and Borders: 8/2 Rug Yarn, made by
BRIGGS & LITTLE, in New Brunswick, available in this country from:
TRANQUILLY STUDIO, Cornwall Bridge, Conn., at $3.60 lb.

Persian 3-ply Worsted Rug Yarn, 933 Yds. per lb., available from:
PATRIMONIAL, 312 East 95th St., New York 28, N.Y.
$5.50 lb.
DEYRANIAN, 245 Fifth Ave., N.Y 16, N.Y. at $5.00 lb.; over 5 lbs., $4.50 lb.

Background weft: Wool-nylon blend, .150 lb. from:
Textile Products, Delmont, N.C.

REFERENCES:

HANDBEAVER & CRAFTSMAN, Winter 1957-1958
Article: Knotted & Tufted Rugs, by Dorothy Bryan.

LOOK BOOK, April, 1951: The Flossa Rug

LOCHTERBLAD, Folder #10: The Rya Rug

MANUAL OF SWEDISH HAND WEAVING, by Ulla Cyrus, 1956.

THE GHIORDES KNOT (Turkish) or FLOSSA KNOT:
SIX HARNESS "HEARTHSIDE" FOLDING FLOOR LOOM

DESIGNED BY

NELLIE SARGENT JOHNSON

FOR

SEARS, ROEBUCK & CO.

WHAT KIND OF A LOOM TO BUY IS ALWAYS IMPORTANT QUESTION. A LOOM REPRESENTS PERMANENT INVESTMENT AND A FAIR AMOUNT OF MONEY. THE 6 HARNESS FOLDING FLOOR LOOM ABOVE IS A HAND LOOM DESIGNED FOR THE WEAVER. THERE IS NO POWER, AND NO FLY UTTLE ON THIS LOOM.

WHEN THE LOOM IS OPEN, IT IS 48" WIDE, 12" HIGH, AND 45" LONG FROM FRONT TO BACK. WHEN IT IS OPEN, IT WEIGHS 235 LBS. TO FOLD INTO A 22" LENGTH FROM BACK TO FRONT. OPEN THE NUTS ON THE SIDE UPRIGHTS, AND THE FRONT BRACES, AND PUSH DOWN ON SIDE WHEELS OF THE LOOM. THIS IS DONE VERY EASILY AND QUICKLY EVEN WITH THE WEAVING ON.

THIS LOOM IS A COMFORTABLE HEIGHT TO WORK AT, FOR EITHER A SHORT OR A TALL PERSON. ORDINARY DINING ROOM CHAIR IS JUST RIGHT.

THERE ARE 6 HARNESSES, 600 FLAT STEEL DOLLS, A 39" REED WITH 12 DENTS TO THE INCH, 6 TREADLES, AND 6 LAMBS. WIRES CONNECT DOLLS TO TREADLES. THESE ARE EASY TO CHANGE. YOU CAN TIE ONE LAMM TO A TREADLE, OR 5 IF YOU DESIRE.

THIS IS A "JACK" TYPE LOOM. WHEN YOU ESS YOUR FOOT DOWN ON A TREADLE THE HARNESS RISE TO MAKE A 4" SHED THROUGH WHICH THE SHUTTLE CAN PASS. THIS WILL ALWAYS BE THE SAME, IT CANNOT GET OUT OF ADJUSTMENT. IT IS ONE VERY GREAT ADVANTAGE OF THIS LOOM, THERE ARE NO CORDS TO SLIP OR TIE. TREADLES ARE WIDE, AND SET FAR ENOUGH APART EVEN FOR A MAN'S FOOT TO OPERATE.

THIS LOOM IS EASY TO WARp. IT HAS A SECTIONAL WARP BEAM DIVIDED INTO 18 SECTIONS. A SMALL THREAD GUIDE COMES WITH THE LOOM. BUT A SPOOL RACK SHOULD BE ORDERED FOR SECTIONAL WARPING. AND 24 SPOOLS OF CARPET WARP IS NEEDED, AS 24 THREADS ARE PUT ON EACH SECTION OF THE WARP BEAM AT ONCE, TO CORRESPOND TO ONE WARP IN EACH DENT OF THE 12 DENT REED. EACH SECTION HAS TO HAVE THE SAME NUMBER OF YARDS ON IT. SO ATTACHED TO THE HANDLE OF THE WARP BEAM IS AN INDICATOR WHICH WILL REGISTER THE NUMBER OF TURNS MADE. ONE COMPLETE TURN OF THE WARP BEAM PUTS ON 1/2 YARD OF WARP ON THE WARP BEAM. THERE ARE FIGURES ON THE INDICATOR FROM 0 TO 20. THUS 20 TURNS PUTS 10 YARDS OF WARP ON A SECTION. EACH SECTION CAN BE WARPed WITH ABOUT 40 YARDS OF CARPET WARP IF DESIRED TO PUT ON THAT MUCH. BUT BE SURE YOU GET IT ON EVENLY AND SMOOTH.

MANY WEAVERS LIKE A PLAIN BEAM. FOR SHORT WARPS, THIS IS AN ADVANTAGE SOMETIMES. THE BARS HOLDING THE WARP BEAM PEGS CAN BE REMOVED, AND THE PEGS TURNED INSIDE TO THE CENTER, AND A PLAIN BEAM RESULTS.

THERE ARE MANY THINGS WHICH CAN BE WOVEN ON THIS LOOM. YOU CAN WEAVE RUGS OF RAG STRIPS, OR YOU CAN BUY MAYSVILLE RUG FILLER, ALSO SOLD BY SEARS, ROEBUCK & CO. FINE WEAVING SUCH AS SUIT, DRESS, OR COAT MATERIALS, AS WELL AS LINENS, BAGS, CURTAINS, ETC., ARE ALSO POSSIBLE. THIS IS AN EXCELLENT LOOM FOR PLEASURE AS WELL AS PROFIT. FOR FURTHER INFORMATION OR INSTRUCTIONS, WRITE——

NELLIE SARGENT JOHNSON

WEAVING CONSULTANT, SEARS, ROEBUCK & CO.
Detroit Handweaver's Guild Announcements.

Fall Classes - Two special classes are beginning in September. One for beginners is to meet at International Institute, 2431 E. Grand Blvd., on Friday mornings from 10-12, starting on September 26th. Register for this class at the Institute. This group is limited to 12 people. Class fee is $15.00. The Hearthside Portable loom will be used by this group. Class will run for 10 weeks.

Advanced Class - Will meet at Mrs. Johnson's on Wednesdays from 10 to 12 A.M. This group is for those who wish to work on special problems on 4 and 6 harness looms. Several people have already signed up for this, so if you wish to be included, let us know AT ONCE. This group will be limited to 10; and class fee will be $18.50, for the 10 week period. The tentative date of this meeting of this group is September 17th.

Exhibit and Sale of Handweaving of Members will be held at International Institute, Old World Market on November 20, 21, 22, and 23. Any Guild member may submit their work for this sale. One thing, it must reach us before October 15th, so it can be marked and juried.

Important: Each article must be numbered on a small string tag. Put nothing else on this tag. We will give you a number and put this on the tag with the selling price. Please list all of your articles on a separate sheet of paper, with the price you wish to receive for each article. We will add 20% to your price for selling. If these directions are not followed, your articles will NOT be entered in the sale. Attach a string tag to each of your articles. Send your articles addressed to Mrs. Johnson, with return postage. Or we will return your articles by express collect. We hope we can send you a check instead of returning the weaving.

Traveling Exhibits of Handweaving are available for loan for a period of two weeks, as listed below, plus transportation charges.

1. Rare Ancient Peruvian Textiles $20.00
2. Modern Peruvian Textiles $15.00
3. Articles woven on Portable Hearthside Looms: Bags, curtains, upholstery, rugs, etc., in a variety of technique $5.00
4. Special exhibits of articles to help you with your own problems can be made up to suit your own needs. $10.00

Detroit Handweaver's Guild will be glad to send you an exhibit of their articles if you or your group wishes to send us one in exchange for ours. We are always happy to see how some of the ideas in Handweaving News have been used by others.

Nellie Sargent Johnson 12489 Mendota Ave., Detroit 4, Mich.

Guild Memberships are open to anyone who wishes to subscribe $3.00. For this they will receive Handweaving News, our monthly Instruction Leaflet, and also a Membership Card. They are eligible to join our classes and to submit their weaving in our Annual Sale. It is also our desire to give just as much help on weaving problems as we can. Let us hear from you also, if you have any ideas you would like to share with others too. We will write them up in Handweaving News.

Six Harness Folding Floor Looms are again available. A number of people have written us asking about this lately. These have to be ordered through the Sears Roebuck & Co catalog at present. We are hoping to have both the Portable and the 6 harness Hearthside Looms on display at the Guild Sale and exhibit at International Institute again as we did last year.

Special Lessons on Free-Weaving Techniques are available as listed below, for $3.50 ea. These lessons include the loan of woven samples of the weave for a period of two weeks study. This is a very helpful service, especially for those using the Hearthside Portable loom. All of these lessons can be used with this loom, except Lesson VI on the Double Weave, which requires 4 harnesses. All of the lessons can of course be used on a 4 or 6 harness loom.

Lesson I - Laid-In Technique

II - Spanish Weave
III - Flossa Rug Knot
IV - Peruvian Tapestry on Gauze
V - Peruvian Lace Weave
VI - 4 Harness Double Weave
VII - Brocading
VIII - Danish Weave
IX - "Bratten" Lace Weave
X - Lace Weave from Island of Cos

Reeds and Heddles - A number of people have asked us for finer reeds for the new six harness folding floor loom. A 12 dent reed comes with this loom. We can furnish a 39" reed in either 15 or 20 dents for $5.00 ea. Flat steel 10" heddles are $1.25 a hundred. These orders will be sent express collect unless otherwise specified.

Threads - Odd lot of Orchid linen thread. 16 one oz. bobbins, one pound to a box, $1.00 a box. Size 15/3. Fast color can be used either for warp or weft thread. A real buy.

No orders taken for less than one box. This thread is, at this price, cheaper than carpet warp. It can be used for warp or for weft, and is very lustrous and lovely when woven.

Make checks or money orders payable to Detroit Handweaver's Guild.
Two 4 Block Patterns.

This month I am giving two patterns which can be used as either four harness or 8 harness loom designs, depending on whether you use the over-shot draft given, or the 6 harness “Summer and Winter” pattern threading. To those of you who are new subscribers, I wish to say that much material which will be useful to you has been given in many of the past issues of the News. If you will write me what is of interest to you, and where you wish help I will be glad to include that material, or tell you where you can find it. I am trying to give what people ask for as much as I can, so write me about what you need.

Also do not forget that the Detroit Handweaver’s Guild is still planning to have a sale and exhibit at the International Institute, Old World Marketplace. We are counting on you all to contribute weaving for sale to make this a success. Last year we found that small inexpensive articles sold best. Let us hear from you by the 1st of September as to what you will send. It must reach us before Oct. 1, in order to pass our jury.

Both of the pattern effect designs that are given above were designed by Lillian Cowley, and are composed of two figures in one repeat, for a 4 block pattern. They will be useful for borders for towels, bags or luncheon sets, and offer much variety in the weaving.

 Warp 20/2 cotton, 420 warp ends.
 Weft mercerized cotton No. 20 for the plain weave weft, 6 strand cotton for the pattern weft.

Sley reed 15 dent, 2 threads in a dent.

How to Arrange Pattern at Figure No. 1 for the 4 harness loom. Threading draft on page 2, figure No. 3.

One repeat equals 60 threads.
420 divided by 60 1s 7x. So repeat the pattern draft exactly 7x for the full width of the loom.

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<th>Group 2</th>
<th>Group 3</th>
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<td>11</td>
<td>1</td>
<td>X 7-98</td>
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<td>2</td>
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<td></td>
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Regular 4 harness loom tie-up

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Treadle 1 A 2 B 3 4

The 6 harness folding floor loom is a jack type loom, the harnesses rise when the foot is placed on a treadle. Directions given are the order of using the treadles, on this loom.

Order of Treading—Treadle 1—once, 2-5x, 3-1-4-2x, 3-1, 2-2x, 3-4x, 2-1, 1-5x, 4-22, 1-3x, 2-2x, 1-2x, 2-2x, 1-3x, 4-2x, 1-5x, 2-1, 1-4x, 2-2 3-1, 4-2x, 3-1, 2-5x, begin at beginning for next repeat.

Use a shot of the plain weave weft after each of the above pattern weft shots. For this use treadle A, then B each time.
Many interesting borders can be woven on the pattern at Figure No.1, the threading of which is at the top of this page. You can try out the order of threading given and then make up borders of your own by using the treadles in any order you wish, and use each treadle as many times as you wish. Always use the plain weave alternately after each shot of the pattern weft.

Threading draft for Pattern No.2 is given at Figure No.4 above. For this, you can use the same threads as for Pattern No.1.

How to Arrange Pattern Threading Draft Figure No.4 for a Warp of 420 threads.

One repeat equals 76 warp threads.

Divide 420 by 76, to equal 5x plus 40.

To balance the pattern threading on each side of the center, we use one-half of 40, or 20 threads, at the beginning of the threading, and 20 more at the end of the threading.

So we will start to thread this pattern at E of the draft, thread from E to A, ending on the thread on harness 2 at A.

E to A = 20 warp threads
A to B 5x 76-380
A to E = 20
Total 420

Divide the threading into groups 1, 2, 3, 4, to make it easy to thread and to get the heddle count before you begin to thread.

Heddle Count

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<th>III</th>
<th>IV</th>
<th>Total</th>
</tr>
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<td>2</td>
<td>4</td>
<td>3 x 5 + 6 = 111</td>
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<tr>
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<td>5</td>
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<td>6</td>
<td>5 x 5 + 4 = 59</td>
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<td>20</td>
<td>16</td>
<td>420</td>
</tr>
</tbody>
</table>

The last column before the total is the E to A group which is repeated 2x, once at the beginning and again at the end of the threading.

Always use the groups when you are actually threading the loom. Count off the number of heddles in each group, and then thread it. Check it each time before you go on to the next group. If you do this, you will not make disappointing threading mistakes. It is poor, sloppy, craftsmanship to have a loom full of threading mistakes.

There is really no excuse for it, if you give the time and patience to be very careful during this process. This system may be new to some of you, but it will be worth your while to do things this way.

Order of Threading Pattern No.2

Treadle 1-1, 3x, 1, 2, 1, 1, 2, 1, 1, 5x, 2, 1, 1-1, 2, 1, 1, 3-1, 2-4, 1, 3-1, 2, 1, 1, 5x, 2, 1, 1, 1, 1, 3-1, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1.

This is one figure. The other figure is shown.

Treadle 4-9x, 3-1, 2, 1, 1-4, 2, 1, 1, 4-9, 4, 9x. For the complete repeat, begin again at the beginning of the threading order. Both of these threading will be useful for place mats or small towels.

Announcement of Weaving Exhibit at

Sears Roebuck Co., State St.

Store, Chicago, Ill April 21-25.

I am pleased to announce that from April 21 to 25, an exhibit of handweaving was held at the Sears Roebuck Co., State St. store. I had an opportunity to meet and discuss looms, threads, etc. with many of you at that time. More details of this will be given in the next copy of the News. It is always a pleasure to meet and know those with whom I have corresponded for a long time.

I would like to remind those of you who are new subscribers to the News that I like to have you write me about your weaving problems. If I know what you need I can make the News more helpful to you.

I recently had a very fine letter from Mrs. Week of Lincoln, Nebraska. She says there they have about 40 members of a weaving group, 25 of these very active. I would like to know of other groups, and have News of what they are doing.

June 1947

Nellie Sargent Johnson 12489 Mendota Ave., Detroit 4, Mich.
Algebraic Formulae for Draft Writing

During the course of the years, there have been several different methods given for the drafting of one's own threadings. I have always felt that one of the real joys of weaving was to be able to plan and make pattern drafts oneself.

So the other day when I received a letter from Miss Ada Dietz, of 324 Santa Ana Ave., Long Beach, Calif., saying that she had devised a new way of making drafts, I at once wrote to ask her if she would not write it out, and share it with others who might be interested, through Handweaving News. So here they are, just in time for the July issue—8 samples which are photographed above, and her notes on how to make the drafts.

To quote from Miss Dietz's letter, "You may be interested to know how I came to do this. I had always wondered why patterns were given the names they had. I had no names for most of my drafts. So one day, I decided I could transfer some formulas from Algebra to graph paper and weave them. First I tried the "Cube of a Binomial." This I had 240 threads on "Mary Jane's" spools, (the name she calls her loom) so I put a twill between each pattern repeat and at the end to make it fit. When woven I found the proportions were pleasing, and I liked its regular irregularity. After trying out different treadlings on this first one, I made one on the "Square of a Binomial," and then to the "Square of a Polynomial." They are unlimited polynomials that could be used, depending on the number of harnesses on the loom."

Exposition of the Method of Using the Formula: The Square of a Binomial, -(X + Y)^2 = X^2 + 2XY + Y^2. Take X as one unit, and Y as the second unit. For each X, put one warp thread on harness 1, and the 2nd on harness 2. For each Y, put one thread on harness 3, and one thread on harness 4.

Figure No. 1 "Square of a Binomial"

Figure No. 2 Threading used Sample 142

Arrangement of Pattern for the Loom:

<table>
<thead>
<tr>
<th>Thread Selvage</th>
<th>1, 2, 3, 4</th>
<th>4 threads</th>
</tr>
</thead>
<tbody>
<tr>
<td>One repeat is A to B</td>
<td>16 x 7</td>
<td>-112</td>
</tr>
<tr>
<td>B to L, center is written 1, 2, 3, 4, 3, 2, 1</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>D to E, 16 x 7</td>
<td>-112</td>
<td></td>
</tr>
<tr>
<td>End selvage 4, 3, 2, 1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>239</td>
<td></td>
</tr>
</tbody>
</table>

Use the regular 6 treadle tie-up of the harnesses. Treadle 1 tied to harness 3 & 4

Plain Weave is A " " " 1 & 3

For Sample No.1 above, use a plain weave shot after each shot of the pattern weft, in following order:

Treadle 1-6 times, 3-2x, 1-2x, 3-10x.

Repeat for length desired as shown.

July 1947

Nellie Sargent Johnson

12489 Mendota Ave., Detroit 4, Mich.
To weave Sample No. 2, "The square of a Binomial," Treadle 1 with alternating shots of plain weave, repeating for the length desired then Treadle 3, the same way.

To weave Sample No. 1, was of No. 10 mercerized cotton rose for the pattern and No. 20/2 cotton for the plain weave. In No. 2, weft was a blue and brown flecked boucle for pattern and fine nylon for the plain weave shots. A simple, but very effective piece.

"The Cube of a Binomial" \((x + y)^3\) equals \(x^3 + 3x^2y + 3xy^2 + y^3\). Samples No. 3, 4, and 5.

To explain how the formular works: \(x - a, x^3\) is written 1, 2, 1, 2, 1. If \(y - b, 3x^2y\) is written 1, 2, 1, 2, 3, 4, repeated 3 times, and \(3xy^2\) is written 1, 2, 3, 4, 3, 4, "3." Figure No. 3. Threading Draft of Above.

Figure No. 3. Threading Draft of Above.

Arrangement of threading draft for No. 3, 4, 5:

THREAD TAIL 1, 2, 3, 4 - 4 TIMES - 16
Then A to B, ONE REPEAT 48 THREADS - 48
Then TREADLE 1, 2, 3, 4, ONCE - 4
AGAIN A TO B, ONE REPEAT - 48
CENTER, HERRINGBONE OR 1, 2, 3, 4, 3, 2, 1 - 7
Then B TO A, ONE REPEAT - 48
TWILL 4, 3, 2, 1 - 4
AGAIN B TO 1, ONCE - 48
END WITH TAIL 4, 3, 2, 1 - 4 TIMES - 16
TOTAL 235 WARP

SAMPLER 3, 4, and 5 are all woven with the plain weave after each pattern shots.

To weave Sample No. 3, Treadle 1-10x, 3-2x, 1-4x, 3-2x, 1-4x, 3-2x, 1-2x, 3-4x, 1-2x, 3-10x, CENTER, REPEAT BACK TO BEGINNING IN SAME ORDER.

To weave Sample No. 4, Treadle 1-10x, 4-2x, 3-2x, 4-2x, 1-4x, 3-2x, 4-2x, 1-4x, 3-2x, 4-2x, 1-4x, 3-2x, 4-2x, 1-10x; BEGIN AGAIN AT BEGINNING WITH 4-2x, REPEAT AS DESIRED.

To weave Sample No. 5, Treadle 3-10x, 4-2x, 2-2x, 3-4x, 4-2x, 1-2x, 2-2x, 3-4x, 4-2x, 1-2x, 2-2x, 3-2x, 4-2x, 1-10x, CENTER, REPEAT BACK IN REVERSE ORDER TO THE BEGINNING.

There are many other ways of weaving these threading drafts which can be devised. It is also possible to write the drafts just as they work out from the formulas, without adding the twill between each repeat as in the above drafts. Also as they work out from the formulas, they have no center. This seems to me to give a very modern effect, which could be used in many different ways.

One way to use this would be to either use warps of different kinds or of different colors for the pattern blocks. Here too is a large field for experiments with these.

July 1947 Nellie Sargent Johnson

"Square of a Polynomial" as at Samples 6, 7, and 8. This formula is \((x + y + z)^2 = x^2 + 2xy + 2xz + 2yz + 2x^2 + 2y^2 + 2z^2 + 2xzw + 2yzw + 2z^2w + x^2w \).

Figure No. 4. One repeat.

\[ x^2 + 2xy + 2xz + 2yz + 2x^2 + 2y^2 + 2z^2 + 2xzw + 2yzw + 2z^2w + x^2w \]

In this draft, we have the combinations for all 4 harnesses. So X is harness 162, Y is 243, Z is 34, and W is 146. Follow the units as they are written out on the above draft. There are unlimited polynomials which can be found in any Algebra. Also if desired these could be written using the units of the "Summer and Winter" weave, M's and O's, and the "Crackle" weave, for many different drafts.

Arrangement of Draft Figure No. 4 for a warp of 240 threads.

THREAD B TO A = 64 THREADS
Then D TO C = 56 "
C TO D = 56 "
A TO B = 64 "
TOTAL 239 "
LAST HEDDLE 18 THREADED DOUBLE TO USE THE EXTRA WARP FOR A TOTAL OF 240 THREADS.

As this is arranged there are two centers, but the draft could be threaded just as given without any centers, where the pattern would repeat back on itself.

Treading for Sample No. 6:

Treadle 4-6x, 3-2, 4-2x, 3-6x, 4-2x, 2-2x, 3-2x, 2-2x, 3-6x, 4-2x, 1-2x, 4-2x, 1-2x, 4-2x, 1-2x, 3-2x, 2-2x, 1-2x, 2-2x, 4-2x, 1-2x, 4-2x, 1-2x, 4-2x, 1-2x, 4-2x, 1-2x, 4-2x, 1-2x, 4-2x, 1-2x, 4-2x, 1-2x, 4-2x, 1-2x, 4-2x, 1-2x, 4-2x, 1-2x, 3-6x, 4-2x, 3-2x, 4-6x, CENTER, REPEAT BACK IN REVERSE SAME ORDER.

Sample No. 7 Treadle 4-6x, 3-2, 4-2x, 3-2x, 1-3x, 1-2x, 3-2x, 3-2x, 4-2x, 2-2x, 1-2x, 2-2x, 3-4x, 1-4x, 4-2x, 1-2x, 2-2x, 3-2x, 1-2x, 1-6x, CENTER, REPEAT BACK IN REVERSE ORDER TO THE BEGINNING ETC.

Sample No. 8 Only one shot on each shed, and NO PLAIN WEAVE BETWEEN IN THE FOLLOWING ORDER, Treadle 3, 4, 1, and 2. Repeat.

There is a great deal contained in a small space in this News. I hope I have made it clear, and that you will wish to try out some of these suggestions. Miss Dietz will be glad to hear from any of those of you who wish to ask her further about her new method of making drafts.

If there are others who wish to share some of their ideas, I do hope you will write to me.
Weaving on the "Hearthside" Table Loom.

Some Laid-In Technique.

This month I am going to describe for you some of the pieces which were made in one of my Wayne University classes. Most of these were made by beginners. As many subscribers for Handweaving News have two harness looms, or the Hearthside "Table" loom, it seemed as though this might be of much interest to many of you.

A very attractive large bag, shown above, was woven by Mrs. Irene Woodward in laid-in technique. The design is very simple and yet effective. Warp was dark brown carpet warp. Weft for the plain weave was also the dark brown. The pattern in laid-in technique was light green. Both wefts were of the "home-craft" cotton yarn. For this large bag frame, a 14" x 18" width of material was woven. The bag was about 15" deep. So you see it is rather large. All of the laid-in spots consist of 7 lines of pattern weft but they are not entirely symmetrical. They could have been placed a bit more irregular which would make a little better design, but the bag as a whole was very good looking. It was well mounted and will prove very serviceable, I am sure.

Bags must be well made. They should have a "smart" look, and not look home-made to be saleable. There are tricks which one has to learn to achieve this result. If you have a flare for style, bags are very saleable.

August 1947

Nellie Sargent Johnson

We made a long warp for the Hearthside table loom, about 15 yards, and began to experiment with widths of old neckties to weave over it. Neckties had been washed and cleaned. Then we cut them into long strips lengthwise the tie, about 3" wide. The ties are easier to cut if pressed well first.

Mix the different colors up well and do not weave long strips of one color. We did however separate light colors and the dark colors to give mixed colored bands of dark and light. Sew the ties together or they can be joined right on the loom. With care, this can produce splendid results.

It has always seemed to me to be a real accomplishment to weave something out of discarded materials which is a real joy to see. Did you ever see a soft woven drapery material woven from old neckties?

Well we had one this past spring that was very much admired by our exhibit of weaving at the State St. store of Sears, Roebuck & Co., when I was there this past April. Many times my students hear me say to be on the lookout for sales of good threads. Early last fall, I found some mercerized cotton in No. 10 size on balls, but khaki color. This was of course a dull and a very neutral color. Beige, grey, or linen color would also have worked well.

12489 Mendota Ave., Detroit 4, Mich.
The runner at the right on this page was designed and woven by Douglas Warren, another of my students at Wayne University during this past semester. It was woven on carpet warp. Natural hemp thread was used for the plain weave throughout the runner. The areas marked with a B were laid-in technique with three shades of blue green mercerized cotton No. 20 used as one weft. The N's were a of bright red mercerized cotton No. 20, just used double. This last was a very fine thread to use on this coarse material, but we did not wish it to show too much, but just for an accent. The vertical lines of this red thread were just wrapped around the warp thread up to the point where they continued horizontally. The actual lines themselves on the runner were not much thicker than that shown on the drawing. The N's stand for the places where no design was laid-in.

I wonder how many of our members have tried to do this laid-in technique. I have a very fine lesson on this which includes the loan of samples for two weeks study. Many have found this most helpful. Cost of this is $3.50 will those of you who do have any of my loaned samples, please return them as others are waiting for them. I am so busy I sometimes do not have time to remind people to return them, with a post card.

I am enclosing with this News some announcements of the 6 harness folding floor loom. Last fall we experienced some manufacturing difficulties, which we hope are all straightened out now. Many of you wrote and told me that your orders had been returned. The loom was out of production due to inability to get necessary wood and parts. Looms are coming through in fine shape now, in case any of you wish to place an order, it may possibly be a bit slow, but you will get your orders. If you have any difficulty, write to me and I will do the best I can to help out. I am just now in the process of re-writing the weaving instruction book for the floor loom. If any of you feel any part of that book is not sufficiently clear or easy to understand, or if you have any other suggestions, I should be happy if you would write to me.

I have just received an announcement from Miss Vera Kevit, of Victoria, B.C., Canada, saying the Victoria Hand Weaver's Guild is having an exhibit the 3rd, 4th, and 5th of July, in the Duke of Kent Room, Empress Hotel, Victoria. It gives me much pleasure to send them greetings and an exhibit of some of the weaving of the Detroit Handweaver's Guild. I wish I could drop in and see this.

Detroit Handweaver's Guild Exhibit

Will be held again this year at the Old World Market of the International Institute on East Grand Blvd, Detroit. I cannot give you the exact date, but I will have it for the next News. It will be as usual some time in November.

A number of subscribers have already written to me that they hope to send us something for this. If you intend to do so, please let me know by September 1st. And all articles should reach us not later than the 15th of October, so they can pass before our jury. It was our experience last year that small articles sold the best. We did not sell a single rug or a bag, and there were some very attractive ones.

When you send in your things, kindly state whether you would be willing to have your articles photographed and possibly written up in Handweaving News. Also please send return postage, otherwise they will be returned by express collect. If any of you have suggestions, either for the Guild Exhibit or for the News, please write.

August 1947
Nellie Sargent Johnson
12489 Mendota Ave., Detroit 4, Mich.
Different ways of writing a threading draft

The language of Handweaving

There have been several requests very recently for information concerning different ways of writing, and the manner of reading and interrupting threading drafts. So this month we will consider this. Also we are offering some Swedish books which are available at the prices as listed as long as our supply is available. And along with this, we are giving some translations which will help in the use of these Swedish books.

Different methods of writing drafts. At the top of this page are six different ways you can write a pattern threading. You will note at A) that figures are used. This means that one warp thread is put into the first heddle eye on harness 1. The second warp is threaded into the first heddle eye on harness 2. The third warp thread is for the first heddle eye of harness 3, and the next warp thread is put through the first heddle eye of harness 4. Then we have threaded a repeat of the twill threading, which is four warp threads. This is repeated for the full width of the warp in the same way.

At B) is shown four black squares. This is another method of writing exactly the same thing, and is often the method used by American weavers. At C) we have X's. At D) we have /'s. These /'s are often written just straight lines, but whether straight or slanting, they mean the same thing. Often no horizontal lines are shown on the draft and this sometimes makes the draft difficult to read if it is not carefully written out. On some of the old drafts of early American patterns we find this form of writing.

At E) are two different forms using notes. These are really circles with stems on them, or they can be just circles solid or open. As written here they can be used to express the use of two colors, one dark and one light color. At F) is a single line. This also is often a vertical line instead of a slanting one. This is more often used for 5, 9, or 10 harness twill threading, where four threads at a time are put on the twill.

We have adopted the use of figures for all of our threading drafts in the Detroit Handweavers Guild. They are very easy to write and to follow when threading, and it seems to us easier for most people to use.

List of Swedish books available.

Vavstolen Vol 1 and 2 $1.25 ea or 2.50
Vavboeken Montell-Glantzberg 4.00
Vavbok Palmgren 4.50
Vavbok Odlund 1.75
Flusknov och Finnvas Collin 1.25
Den Stora Vavboeken by Mary Block 15.00

All of the above books except the last one are on hand, and can be furnished as long as the supply lasts. We will be very glad to order the last book on the list if anyone wishes to have it. This is a very fine book with many colored plates in it.

Vavstolen, the first book listed, I am planning to use for texts for my own classes this fall. They are both bound books and have a great deal of interesting and useful information in them.

Checks and money orders for these books can be made payable to Nellie Sargent Johnson.

Six harness folding floor looms

Are now available. Order through the Sears Roebuck & Co catalog. The number of this is 4340. I shall be glad to send further information about this loom, if you wish it.
MEANING OF SOME OF THE SWEDISH WORDS IN THE VAVSTOLEN BOOKS.

ONE OF OUR GUILD MEMBERS HAS SUGGESTED THAT I GIVE THE TRANSLATION OF SOME OF THE WEAVING TERMS IN THE VAVSTOLEN BOOKS. IN THE BACK OF THESE BOOKS IS A PLACE TO PUT NOTES THAT WOULD BE A GOOD PLACE TO PUT THESE MEANINGS.

VÄVSTOŁ - Loom
VÅPBOM - Warp Beam
VARP - Warp
VARPTRÅDER - Warp Threads
SOLYGKRAFT - Harness Frame
SOLV - Peddle
VÄVSKED - Reed
RÖR - Dent or Slit of Reed
1 TRÅDER 1 SOLV - One Thread in a Peddle
2 TRÅDER 1 RÖR - Two Threads in a Dent
50 RÖR PÅ 10 CM - 50 Dents in 10 cm
6 DENTS TO ABOUT 1/2 INCH OF REED
3 TRÅDER RÖR - Three Threads in One Dent
1 TOMT RÖR - Skip 1 Dent

BOMULDSVÅRP - Cotton Warp
LINVÅRP - Linen Warp
ULLVÅRN - Wool Yarn
HALVELEKT - Half Bleached
BLEKT - Bleached
MATTVÅRP - Rug Warp
INSLAG - Weft Thread
SKYTTLAR - Shuttle
SOLYNING - Threading
MÖNSTER - Pattern
TUSKRAFT - Plain Weave
KYPERT - Iwill
ATLAS - Satin
STÅD - Selvage Edge
BÄR - Border
SKED - Sley
VARPOORDVING = Warping Order
TRAMPNING - Treading
DUBBELSPOLAT - 2 Wefts Spooled Together
TRANPÅS LIKA SOM SOLVINGNEN = Treadle the Threading Draft.

KULORT = Colored
BEIGE = Beige
BRUN, MORKBRUN = Brown, Dark Brown
RÖDT = Red
TEGELRÖTT = Tile Red
GULT = Gold or Yellow
VITT = White
LUJUSROSÅ = Light Rose
GRÅTT, MORKGRÅTT = Gray, Dark Gray
BLÅTT, LYSBLÅTT = Blue, Light Blue
GRÖNT, GULSPÎNT = Green, Yellow-Green
GRÅBEIGE = Grayed Beige

I BELIEVE THE ABOVE WORDS WILL BE HELPFUL TO THOSE WHO WISH TO USE THE SWEDISH BOOKS.

SEPTEMBER 1947

NELLIE SARGENT JOHNSON

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DIFFERENT WAYS TO INDICATE TIE-UP DRAFTS.

Figure No. 2
One harness tied to a treadle.

Figure No. 3
Two harnesses tied to a treadle.

Figure No. 4
Three harnesses tied to a treadle.

ABOVE WE HAVE THE REGULAR TIE-UP. THIS HAS TWO HARNESSES TIED TO A TREADLE. IN A "JACK LOOM" THE HARNESSES RISE WHEN THE FOOT PRESS ES DOWN A TREADLE. THE 6 HARNESSES FOLDING FLOOR LOOM IS OF THIS TYPE. MANY LOOMS ARE OF COUNTERBALANCED TYPE. THE HARNESSES SINK WHEN THE FOOT IS PLACED ON A TREADLE. WE USE ENTIRELY NOW THE REGULAR TIE-UP FOR A JACK LOOM AS GIVEN WITH THE FIGURES ABOVE. THIS IS ONE OF THE SECOND TIE-UP DRAFT ARE ONE OF THE COMMON WAYS TO WRITE THE SAME THING. IN THIS LATTER, NOTE THAT THE PLAIN WEAVE TREADLES COME ON THE RIGHT HAND SIDE. IT HAS ALWAYS SEEMED TO ME SIMPLER AND EASIER TO HAVE PLAIN WEAVE TREADLES IN THE MIDDLE.
THIS MONTH WE ARE GIVING SOME DRAPERY MATERIALS WHICH WERE WOVEN IN MY CLASS AT WAYNE UNIVERSITY THIS PAST SPRING. THE THREADING IS SIMPLER AS GIVEN AT FIGURE NO. 1. THE INTEREST IN THESE FABRICS COMES FROM THE USE OF DIFFERENT MATERIALS, AND FROM THE WAY THE PATTERN IS SLEYED IN THE REED.

DRAPERY MATERIAL NO. 1. THREADING NO. 1

HARP; - NO. 5 MERCERIZED COTTON
SLEY; - 15 DENT REED AS FOLLOWS, - ONE IN A DENT FOR THE FIRST 7 THREADS, SKIP A DENT, 3 IN ONE DENT, SKIP A DENT, 3 IN THE NEXT DENT, SKIP A DENT, 3 IN A DENT, SKIP A DENT. REPEAT ACROSS FOR THE WIDTH OF THE WARP, END WITH A REPEAT OF THE FIRST 7 THREADS FOR THE LEFT EDGE.

WEFT THREADS; - MERCERIZED COTTON NO. 5 LIKE THE HARP. PAMPAM COTTON A HEAVY NUB YARN, AND FINE RAYON BRAID.

TREADLING ORDER; - USE TIE-UP AS GIVEN ABOVE 17 SHOTS OF PLAIN WEAVE, A8 B8 NO. 5
TREADLE 2 - 14 - ONCE WITH PAMPAM YARN
2 SHOTS PLAIN WEAVE WITH NO. 5
TREADLE 3 - 14 - ONCE RAYON BRAID
2 SHOTS PLAIN WEAVE WITH NO. 5
TREADLE 2 - 14 - ONCE PAMPAM YARN
2 SHOTS PLAIN WEAVE WITH NO. 5
TREADLE 3 - 14 - ONCE RAYON BRAID
2 SHOTS PLAIN WEAVE WITH NO. 5
TREADLE 2 - 14 - ONCE WITH PAMPAM YARN
7 SHOTS PLAIN WEAVE WITH NO. 5. THEN WEAVE IN REVERSE ORDER BACK TO BEGINNING FOR COMPLETE REPEAT. COLOR MAY BE USED IN THE WARP IF DESIRED. BUT IT IS BEST TO KEEP ALL OF THE WEFT WHITE. THIS IS A VERY ATTRACTIVE HEAVY CURTAIN.

DRAPERY MATERIAL NO. 2. USE THREADING NO. 2

HARP; - TAN CARPET WARP
SLEY; - SLEY ONE, SKIP ONE FOR FIRST 4 THREADS
SLEY 2, 3, 2, ALL IN ONE DENT, SKIP ONE DENT. SLEY 1, 4, 1, IN ONE DENT. USE A 12 DENT REED. REPEAT FOR WIDTH OF LOOM, ENDING WITH 2, 1, 2, 1 ON LEFT SIDE.

WEFT; - THREE DIFFERENT COMBINATIONS OF WEFT ARE USED TO WEAVE THIS. SO 3 SHUTTLES ARE WOUND AS FOLLOWS, - SHUTTLE 1 HAS 4 THREADS WOUND AS ONE, JUTE YARN, BEIGE CARPET WARP, NO. 20 APPLE GREEN MERCERIZED COTTON, AND MING GOLD COTTON NO. 8
SHUTTLE NO. 2 IS THE SAME AS NO. 1, EXCEPT USE NO. 20 CORAL COTTON INSTEAD OF THE APPLE GREEN.
SHUTTLE NO. 3 IS THE SAME AS SHUTTLE NO. 2, BUT CORAL No. 20 MERCERIZED, NO. 8 MERCERIZED COTTON WHITE.

TREADLING ORDER;

SHUTTLE No. 1 WEAVE 6 SHOTS PLAIN WEAVE.
THEN SHUTTLE No. 2 - TREADLE 2 ONCE, TREADLE 4 ONCE, REPEAT THIS 4 TIMES.
SHUTTLE No. 2 WEAVE 6 SHOTS PLAIN WEAVE.
SHUTTLE No. 3 - TREADLE 2 ONCE, TREADLE 4 ONCE. THIS IS ONE COMPLETE REPEAT. DO NOT BEAT THIS TOO HARD. IT SHOULD BE A LOOSE WEAVE. THIS MAKES A VERY ATTRACTIVE CURTAIN. THERE ARE MANY OTHER WAYS TO WEAVE THIS. AND OF COURSE IT IS POSSIBLE TO USE OTHER WEFT COMBINATIONS THAN THE ONES SUGGESTED. THIS THREADING IS AN EXCELLENT ONE FOR EXPERIMENTING.
Suggestions for Baby Blanket or Carriage Robe for the Hearthside Portable Loom.

There are a good many weavers subscribing to the News who have the Hearthside Portable Loom. Just recently we received a request for information on the method of how to make a baby blanket on this loom. Some of my students have made very successful ones, so I am going to tell you how it can be done.

This would make a very good article for a specialty, for anyone looking for some article to sell. If well done, they are a lovely gift for the new baby, and one that the mother will always appreciate.

Materials. Wool is of course the usual yarn to use. For a summer blanket, cotton can be used, though it is never quite as soft and nice as wool. The New Fall and Winter Catalog of Sears Roebuck & Co. has some excellent wools designed especially for baby things.

Hearthside "Baby Soft" wool yarn is a three ply 100% virgin wool that is soft, light, and fleecy. Consult catalog for cost.

Hearthside Baby "Pompadour" is a 2 ply yarn, 75% wool, 25% rayon. The rayon thread gives this yarn a lovely luster. Both of these yarns are mothproofed. They are put up in 1 ounce balls of white, and baby blue and baby pink.

Hearthside Sports Yarn is a very useful 3 ply yarn. This comes in two ounce balls. And Hearthside Floss Twist Wool Yarn is a 2 ply yarn. Both of these yarns come in a large assortment of colors as well as the baby colors. Either of these would be good for scarves too. For a neck scarf, 10 to 12 inches wide, five ounces will make two scarves.

For a baby blanket, you will need about 8 oz for one blanket, seven ounces of white and one ounce of color.

Warped 214 threads of baby soft yarn 1/8 yds long for one blanket to finish about 36" long. Take great care not to stretch warp as you are putting it on the warping frame. Put it on very loosely.

Warping order: 16 pink, 3 white, 4 pink, 158 white, 4 pink, 3 white, 16 pink.

Thread the heald in same order. Wind warp on warp beam. Put in plenty of each stick when doing this. Keep warp at even tension. Tie warp to cloth beam and you are ready to begin.

Weft must be beaten very lightly. Just bring the heald up to the previous row each time. Weave about 14 shots of pink, or enough to about equal the edge width of color. Then 8 shots of white, and 4 shots of pink again. Weave rest of blanket all in white until the other end is reached. Then repeat the border in reverse.

Brocading. It is easy to brocade in initials or numbers. A cute trick is to brocade the year 1947, as designed below. This can be put in the center of the blanket or in one corner. The design finished will be about 2" high and 4" long. It makes a neater appearance on the back to make each number with a separate weft thread. Two shots of pattern weft with one warp beam put in plenty of each color square on the cross section paper design. The 9 is enlarged to show the detail of how the weft goes. Over two threads on top of the warp and under one warp for each square too. If the figures appear too squatty, put three weft threads in instead of just two.

Detail of the 4 and the 2 of 1947 below. Use a double weft thread for the figures.

Plan of the blanket with colored borders and figures placed in one corner.

First, I wish to give a few announcements concerning the DETROIT HANDWEAVER'S GUILD. It is time to renew your membership now if you wish to receive HANDWEAVING NEWS for 1948. As you know subscriptions for this run from January to January, and the cost is $3.00 a year. You can fill out the blank on the enclosed sheet if you wish, but do it right away so we can know how many we can plan on for next year. You will receive associate membership cards with the January 1948 issue of Handweaving News.

There are still a few of the Swedish Vavilk's left, at $2.50, if you did not order a copy. And I have a few copies of a very fine new book, "Monsterblad", also imported from Sweden. There are 3 volumes of this with a great many colored plates. This is $6.00 for the three volumes. We know you will find this a wonderful book to own, as the illustrations are very beautiful indeed.

Many of you probably have subscriptions to Craft Horizons which expire with the November issue. At our last Guild meeting, it was decided that each person would send in their own subscription this year, direct to American Craftsman's Educational Council, 485 Madison Ave, New York 22, N.Y. Subscription is $2.00 a year.

The six harness pattern given above was used for two different projects. The one on the right was woven by Marion Brown for upholstery material. And the one on the left by Von Heines, for a light sport jacket. Both were students in my class at Wayne University last spring.

The threading draft is shown at Figure No. 1. The 3 X above each section of the draft means to repeat that part 3 times, to equal 18 warp threads. The next 2X, means to repeat twice, for a total of 20 warp threads and so on for the width of the pattern repeat from A to B or 136 warp threads.

For the selvage, thread 1, 2, 3, 4, 5, 6, with 2 warp threads in each heddle eye, to equal 12 warp threads. Then from A to B, repeat 5X to equal 680 warp threads. For the end B to D thread 1, 5, 4, 3, 2, 1; two threads in each heddle eye to equal 14 warp threads. Thus the total width of the warp is 704 warp threads.

Sley a 12 dent reed with 2 warp threads in each dent. This gives a finished width of about 29" in the reed. Warp used was gold No. 20 mercerized cotton.

Explanation of the tie-ups. Figure No. 2 gives the tie-up for the upholstery material on the right. I hope the photograph will be clear enough so you can see how nice this really is.

On this tie-up, we have only two lamms tied to one treadle. The order of using the lamms is given below the double line at the bottom of the tie-up. So we have lamms 1 & 2 tied to Treadle 1 on the left. Lamms 2 & 3 tied to Treadle 2. Lamms 3 & 4 tied to Treadle 3. Lamms 4 & 5 tied to treadle 4. Lamms 5 & 6 to Treadle 5. And lamms 6 & 1 to Treadle 6. The order of weaving is just Treadle 1, 2, 3, 4, 5, 6. Put one shot of weft on each shed.

The O's on the draft represent the empty holes on the treadles. For this is planned for the new six harness folding floor loom which was designed by Mrs. Johnson for Sears Roebuck & Co.

There are many other tie-ups which can be used with this same threading, and of course also many different kinds of weft. In the News for November and December 1945, which many of you have, will be found some of these other tie-ups.

Weft - Use the following, four threads wound as one weft for this: Silver grey No. 5 mercerized cotton; pale yellow-green No. 20; light olive green No. 5; and slate grey carpet warp. On the gold warp this made a rather nice color scheme. And a good heavy, thick material for upholstery.

At Figure No. 3, we have the tie-up for material for a light weight sport jacket. This was woven with white 3 ply sport wool, which is of course rather fine yarn.

On this tie-up draft, we have three lamms tied to one treadle as shown. Again the O's on this tie-up draft are the holes on the treadles. And the figures are the lamms which are tied to the treadles. Note how the order of using the treadles starts at the right hand side. This is given just below the double line at the bottom of the tie-up draft. Thus in this case, we have treadle 1 on the right hand side of the loom. Reading the order of the treadling from the right to the left, we have first treadle 1, 2, 3, 4, 5, 6. Then the order reverses back to Treadle 2, and we use treadle 5, 4, 3, 2; or the same thing on the draft is 7, 8, 9, and 10. Then we start with treadle 1 again for the next repeat of the pattern. Use just one shot of weft on each of the pattern sheds given above.

Here we have an example of how very easy it is to do very different kinds of articles on the same warp and threading through the use of a different tie-up, and different weights of weft thread, or several kinds of weft either combined to make one thread of weft, or different kinds of weft used in each pattern shed.

Here is $3.00 for my Associate Membership in DETROIT HANDWEAVER'S GUILD and my subscription to HANDWEAVING NEWS FOR 1948.

Name ____________________________
Address __________________________
Date ______ City ________

Make checks or money orders payable to Nellie Sargent Johnson,
12489 Mendota Ave. Detroit 4, Michigan.

SOME TEXTURE EXPERIMENTS

These 6 harness threadings can be used very effectively for some experiments in textures.

Warp Variations

Here our aim is to use different kinds and sizes of yarns to see what interesting modern effects we may be able to achieve. And a good way to obtain an interesting experimental sampler is to thread one repeat of the pattern with each warp combination. This would make a sample about 6 inches wide in the reed, and as the pattern repeats 5 times, there would be 5 different combinations you could use. For first keep the color of the warp used to white, cream, or beige, or pale greys. Use a 12 dent reed.

Warp No. 1 - Use carpet warp 136 warp threads. Sley first 12 threads 2 in a dent, next 5 every other dent. Repeat until all warp in this is used.

Warp No. 2 - Use 73 carpet warp, and 64 mercerized cotton No. 20. Thread the twills with the carpet warp, and the rest of the threading with the fine cotton. Put the fine warp on the beam looser than the carpet warp, especially if you make a long warp. Sley the coarse warp one to a dent and the fine, 2 in a dent. Weave with the carpet warp and then with the fine. Try plain weave for several inches then twill, and other 6 harness variations as desired.

Warp No. 3 - Use 6 carpet warp, and 6 rayon or nylon thread about the same size.

Warp No. 4 - Use one carpet warp and one rayon thread for 18 threads for the twills, 4 carpet warp and 4 rayon for each of the other repeats. Sley 2 in a dent and one in a dent or any other manner desired.

Warp No. 5 - Now try adding a rough thread, put this on harness 1, and rayon and cotton on the other harnesses in any combination desired.

There are many other ways in which these variations could be woven. And also many other ways the warp could be threaded. This is the sort of experimenting which is very valuable. But do not be disappointed if they are not all masterpieces. You can learn what not to do this way as well as what is good to do. We hope you will wish to try some of these.

November 1947
Wouldn't you like to make some threading drafts of your own using twill, herringbone, and rose-path drafts, as a basis for this? It is fun to actually see your own ideas come out in woven material. The drafts given here show how to do this.

Figure No. 1 has four twills. The 5th twill, goes up to a center, and then reverses, or we can say, it is herringbone threading, with the center marked at C. In all of these drafts from A to B is one repeat; C is the center of the draft; D to B is the last thread for the end, used to balance the first thread of the pattern. At first it is easier to write your drafts up to a center, then reverse them right back in the same order, to make a complete draft.

To weave Figure No. 1, we will use the regular or standard tie-up. The figures at the side of the draft from top to bottom, indicate the treadling order. Only one shot is used on a shed, and the result is a diamond effect. You will see that this is, Treadle 1, 2, 3, 4, repeated 3X, then 1, 2, 3, 2. Reverse 4, 3, 2, 1, repeated 3X for the complete repeat.

All of these drafts may be woven on any of the twill tie-up drafts and of course in any order.

At No. 2, we have three repeats of twill, with the rose-path draft for the center. Weave this treadle 1, 2, 3, 4, repeated 4X, ending with treadle 4-1X. Then reverse back to the beginning for the complete repeat, in the same order. Remember where one treadle is repeated, more than once, to put a hot of plain weave between.

But all of these can be woven with just one shot on each shed without the plain weave.

No. 3 threading has two repeats of the twill, then one repeat of herringbone; with C, the center on harness 1, then the pattern is reversed right back to the beginning for the complete repeat.

No. 4 is twill, herringbone, and rose-path, with the center C on harness 1, then the pattern reversed back again for the complete repeat.

Take some cross section paper, 10 squares to the inch is a good size to use. Make up some of these combinations, using these 3 threadings. Repeat each as you wish. But write the threading up to a center, then reverse it back to the beginning in the same order.

Pattern Blocks are the combinations which each treadle weaves when it is used. Pattern block 1, is treadle 1, which weaves the harnesses 1&2. Treadle 2, is pattern block 2, which weaves 2&3. " 3, " " 3, " " 3&4. " 4, " " 4, " " 1&4. This is on the regular tie-up. These pattern blocks overlap each other by one thread each time, and are drawn on paper the same way. The detail of this is given on the next page.

Weaving "as drawn in", or as threaded, means that the pattern is woven in the same order the pattern blocks occur on the threading draft. Single lines of one space on the paper show where just one thread skips occur in the weaving. These drafts can be woven many other ways.
HOW TO DRAW WOVEN EFFECTS

At Figure No.1, we have one complete repeat of a threading draft we have made up of twill, rose-patch, twill. Then we put a thread on harness 4 for the center C, and repeated it right back. One repeat is from A to B. D is the last thread written to balance the pattern at the end. You can copy this if it is the first time you have tried to do this, or you can use your own draft if you wish. Two repeats are given.

Step 1. Draw a line right across the paper at every place where a 1 & a 2 occurs. This shows what will happen when you press down Treadle 1, if you have threaded your loom to this draft.

Step 2. Now draw a line right across the paper every place where a 2 & a 3 occur. This shows what will happen when you press down Treadle 2. You have woven two shots of weft across your sheet of paper.

Step 3. Now draw a line right across the paper every place where a 3 & a 4 occur. This shows what will happen when you press down Treadle 3. You have woven three shots of weft across your sheet of paper.

Step 4. The fourth line which you draw right across the paper will be placed where a 1 and a 4 occur. Now something else enters into this. We have some places on this draft where there are 3 threads on the 1 & 4 pattern block. When you come to these, you will draw a line 3 spaces long. You can draw just one line here, or this same pattern block can be woven twice. But if woven 2 times, put a mark of plain weave in between. This need not be drawn down.

At Figure No. 5, we have drawn out the full repeat of the pattern. The diagonal line from A to D is the line which governs how many times each shed is woven. Some people like to draw this line in first, and then carry out the pattern from that across the width of the paper. The numbers at the right side of the draw down are the threads used to weave this. This is woven "as drawn" or as the pattern is threaded into the loom.

Figure No.6 is a slight enlargement of rose-patch. The thread on harness 2 is the center of this draft. This would be a useful draft to use for texture experiments with different kinds of threads.

Figure No.7 has a twill, and reverse twill, the second reverse is turned up side down. It has no center, though it could be written to balance if desired.

Figures 8 & 9 are two more ways that a pattern can be written. These are not centered either. There are many more ways in which you can make up your own pattern drafts by this method. Try some of these, and draw them out. It can be fun.

Handweaving News

There have been a number of requests for information concerning warp pattern rugs. So this month we are going to try and give a few suggestions for this sort of weaving.

The most common type of warp pattern rug is called by the name of "Log Cabin." These are made up of two pattern blocks, and can be woven on a two or a four harness loom. Use regular carpet warp for warp, for these, in two colors. Sley 24 warp threads to the inch, or dark thread and 1 light thread of warp in a dent of a 12 dent reed. If you wish, you can set this at 30 threads to the inch, or 2 in each dent of a 15 dent reed. This last makes the weft thread show very little, except on the edges of the weaving. To weave these, you use a shot of heavy weft, and then change the shed and use a shot of the fine weft. To change the pattern, use either two shots of the heavy weft, or two shots of the fine, changing the shed each time.

For Rugs, the heavy weft can be of Rug Roving or Home-craft soft cotton doubled, or of rags. The fine weft can be carpet warp, or any fine thread you wish to use, as this scarcely shows at all. Rags can be cut from 1½ wide to 1½ depending on how heavy a rug is desired. Be sure and use fast color warps for this sort of weaving, as it is especially long wearing. These rugs cannot be woven on the portable Hearthside loom as the warp has to be set so very close together.

Planning a Rug. In this weave it is best to think in terms of inches for the sizes of the blocks. By this we mean that the whole width can be planned in inches, then reduced to the number of threads required to the inch. Thus a pattern block which had 48 threads would be 2" of width in the reed. Or if you used a 15 dent reed, it would take 60 warp threads to equal 2" of the reed.

Lengthwise stripes of one color, either light or dark warp, for width desired, can be planned for an edge border. It is often well to plan a selvage of warp the same in color as weft to be used.

For sectional warping of the 6 harness floor loom, use 46 spools of warp, 24 dark and 24 light for each section of the warp beam, for the required width of the rug.

Key Draft. At Figure No. 1 we have a key draft for a two block pattern. Of course any two block pattern you wish to devise can be used in the same way.

From A to B on this key draft should be about 6" for a good proportion for a border for a rug 30" wide. Count the cross section paper squares and you will see that there are 25 units. We will sley this rug with 24 threads to an inch, so 6 x 24 is 144 threads. If we use 6 warp threads for each unit we will have 150 warp threads for the 25 unit border. From B to C, the center, is 62 units, X 6 threads is...
362. Repeat A to B for the end border, 150 threads, making a total of 562 warp threads. For a wider rug, the center units could be made larger, or 8 threads could be used for one unit of the key draft, instead of 6 as given above. We have explained this at some length, so you will know that any number of warp threads desired can be used for one unit, and the proportions will be kept.

**Threading Draft.** Is very simple for a two block pattern. Here we have used two warp thread for each unit of the key draft. So write the pattern block 1, on harness 1,2,1,2,1,2. Use a dark warp on harness 1, and light warp on harness 2. For the second pattern block, use dark on harness 3, and light on harness 4, 3, 3, 3, 3, for each unit of the key draft. Figure No.2 shows the threading draft. The numbers above the units of 6 threads, indicate the number of times each unit is repeated for the full threading draft. The X's on the draft are for light warp threads and the figures are for dark warp threads.

**Tie-up** Treadle 2, tied to harness 1 & 4, of the regular 5 treadle tie-up, will weave one pattern block. And treadle 4, tied to harness 2 & 3, will weave the second pattern block. The order is Treadle 2, heavy weft; A fine weft; Treadle 2, heavy weft; B, fine weft. weave as many times as desired. Then treadle A with fine weft. For the next block Treadle 4, heavy weft, B fine weft; Treadle 4, heavy weft; A fine weft. weave as many times as desired. Then treadle B with fine weft to change the pattern for the next pattern block on Treadle 2. A is of course a plain weave treadle, and B also, of the regular loom tie-up.

Figure No.3 Complete rug Pattern - Two large all over figures.

**Tie-up** Center

| 17 | 30 | 30 | 30 | 30 | 30 | 30 | 16 | 16 | 16 | 16 | 50 | 16 | 16 | 30 | 4 |

Here we have at Figure No.3 a plan which one of our Guild members adapted from a Swedish draft in this warp pattern technique. It has a solid lengthwise striped border on each edge. The numbers above each of the units of the threading draft stand for the number of warp threads to be used for that unit. Just one-half of the complete repeat for the rug is given in the threading draft. The finished rug measured about 24" wide. Warp was set at 30 threads to the inch. Heavy weft was of white rags, and fine weft of carpet warp. Note that the edge threads of the border are light. The warp used for this was dark brown and cream so the edge warp was of the light thread. For a wider rug, the edge border could be made wider and the blocks of the rest of the pattern also increased as desired.

**Warp** For the two edge borders make a warp of 134 light threads and 158 dark threads. For the center of the rug, make 205 dark and 204 light threads, for a total of 701 warp threads.

Thread 1 thread in each heddle eye, and sley 2 threads in each dent of a 15 dent reed. Thread the border as given, then A to C, the center. There are 17 threads in this center pattern block, then the pattern is threaded from B to A, and then the border for the other edge.

March 1948
Before describing our project for this month, we wish to say a word to those of you who are beginning weavers. We are very glad to welcome you as Associate members of Detroit Handweaver's Guild. At the April meeting of the Guild, it was decided that Associate members could be active members by paying $2.00 extra. This will entitle them to be eligible to submit their weaving to the sale in the fall, to attend Guild meetings, and also any classes sponsored by the Guild. We are also planning some co-operative buying which we are sure will be quite a help to those of you who are active members.

Threads - Where to buy them. A number have asked me for a source for nylon threads. A very fine line of nice colors in two weights of nylon is available through Sears catalog. One weight is similar to a sport wool, and the other about like a knitting worsted. This would make grand couch covers, head scarves or neck scarves. And either weight could be used on the small portable Hearthside Loom as well as on the 6 harness loom. Order some of this material, I know you will like it. The Sears catalog number is 25 K 5659 - It comes in 2 oz skeins.

One of my own students has just ordered $50.00 worth of this material for drapes for his room in grey, beige, blue, wine, and red brown. It is shrink proof and moth proof too. This is to be woven on a carpet warp. More of this later if it interests you.

Another excellent thread which Sears has is the 2400 yd cone of natural cotton. This thread is a three ply, and I think, a No. 12. It has a lovely sheen, and works well set at 15 threads to the inch for luncheon sets or table covers. On the portable Hearthside loom it could be warped double and threaded through the heddle double.

Linens - Can be obtained from Hughes Fawcett & Co. 115 Franklin St, New York, N.Y. And we have also just received cards and price lists from R.J. Ederer, Unity and Elizabeth St. Philadelphia 24, Penna. Uncolored linens can be had from Salem Linen Mills, Salem, Oregon.

What size linen thread do you like best to use? And what do you weave most with this size? How large an order do you buy at once? What size spool or putup suits your needs best? I would appreciate hearing from you bout this. Will you please write me.

Four Harness Bronson Weave

The three block key draft and its pattern below are taken from an old Colonial linen piece owned by the author. There are many other ways of weaving this besides the one shown here, at Figure No.1. Also many other three block patterns could be used for this type of draft. It is interesting simple design and was used for a tablecloth in the old weaving. A towel border is shown at No.1.

June 1948   Nellie Sargent Johnson 12489 Mendota Ave. Detroit 4, Mich
Page 2. 4 harness Bronson Weave (continued)

Warp  No. 40 crochet cotton or linen 40/2. 300 threads six yards long for a luncheon set. Buy about 8 bails of cotton for this warp.

Sley  A 15 dent reed 2 threads in each dent to make a width of 13 1/3" in reed, and 30 threads to the inch.

Thread  One repeat of this pattern as written at Figure No. 2 has 30 warp threads. And it is really a diaper or double diamond design.

Tie-up  This threading has half of the threads on harness 1, and the rest on the patterns sheds 2,3,4. So one plain weave, A tabby, is tied to harnesses 2,3,4, and the other B tabby, is tied to harness 1 alone. B tabby is always used between the pattern shots of this weave.

Towave block 1, use treadle 1 tied to harness 3 and 4. For block 2, use treadle 2 tied to 2 and 4. Treadle 3 is tied to harness 2 and 3 to weave pattern block 3. Harness 2 alone on treadle 4 will weave pattern blocks all across the width. As shown above 4 shots of weft are used on each shed, and alternated with the B tabby shed. Plain weave is of course A and B as is usual, but the tie-up here is different.

Weft  used can be 40/2 linen or mercerized cotton on No. 10, or if coarser is desired a No. 5.

Characteristics of this Weave.

Short weft skips on one side and warp skips on the other side. There are no half-tone areas as in the regular Colonial over-shot patterns. This weave is especially suitable for fine linens. It could also be used for dress materials, or any article where a fine close weave is desired. It can be woven with just one shuttle throughout if the weft thread is all of one color.

6 harness Bronson Weave Threading Draft Figure No. 7

[Diagram of threading]

Figure No. 6 Key Draft and Pattern Effect

6 harness - 5 Block Bronson Weave.

At Figure No. 5 on Page 1, we have a photo of a 6 harness 5 block pattern Bronson Weave. This gives the same texture as the 4 harness 3 block pattern just described, but of course allows for more pattern variation with the use of the six harness loom. The key draft and the pattern effect is drawn out at Figure No. 6 below and the pattern threading at Figure No. 7. From A to G on this pattern draft is one half of the full repeat. C is the center of the place mat. This could be arranged in other ways and be effective.

Arrangement of Threading Draft.

<table>
<thead>
<tr>
<th>Thread</th>
<th>A to B once</th>
<th>8 warp threads</th>
</tr>
</thead>
<tbody>
<tr>
<td>B to D</td>
<td>4x 20</td>
<td>80 &quot;</td>
</tr>
<tr>
<td>D to E</td>
<td>12</td>
<td>&quot;</td>
</tr>
<tr>
<td>E to F</td>
<td>6x 8</td>
<td>48 &quot;</td>
</tr>
<tr>
<td>F to G</td>
<td>68</td>
<td>&quot;</td>
</tr>
<tr>
<td>G to C</td>
<td>4</td>
<td>&quot;</td>
</tr>
<tr>
<td>Then</td>
<td>G to A as above 216 &quot;</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>483</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

Warp  No. 30 or No. 40 crochet cotton

Weft  Can be of same material of 40/2 linen or 12/2 linen could be used. Weave 2 shots of weft on each pattern shed in weaving, and always the B tabby between the pattern shots.

Tie-up  It is not difficult to weave this with two feet. Tie one harness to a treadle and use the treadle combinations as shown on the tie-up draft. Plain weave is tied to harness 1 alone for one plain weave. And for the other use 2 and 3 treadle with one foot and 4, 5, and 6 with the other foot. This combination is not needed very much unless you weave areas of the Plain weave alone, without any pattern shots.

June 1948  Nellie Sargent Johnson  12489 Mendota Ave. Detroit 4, Mich
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June 1948  Nellie Sargent Johnson  12489 Mendota Ave. Detroit 4, Mich
Warp  No.40 crochet cotton or linen 40/2. 400 threads six yards long for a luncheon set. Buy about 8 balls of cotton for this warp.

Sley  A 15 dent reed 2 threads in each dent to make a width of 13 1/3" in reed, and 30 threads to the inch.

Thread  One repeat of this pattern as written at Figure No.2 has 80 warp threads. And it is really a disper or double diamond design.

Tie-up  This threading has half of the threads on harness 1, and the rest on the patterns shaded 2, 3, 4. So one plain weave, A tabby, is tied to harnesses 2, 3, 4, and the other, B tabby, is tied to harness 1 alone. B tabby is always used between the pattern shots of this weave. Toward block 1, use treadle 1 tied to harness 3 and 4. For block 2, use treadle 2 tied to 2 and 4. Treadle 3 is tied to harness 2 and 3 to weave pattern block 3. Harness 2 alone on treadle 4 will weave pattern blocks all across the width. As shown above 4 shots of weft are used on each shed, and alternated with the B tabby shed. Plain weave is of course A and B as is usual, but the tie-up here is different.

Weft  used can be 40/2 linen or mercerized cotton on No.10, or if coarser is desired a No.5.

Characteristics of this Weave.
Short weft skips on one side and warp skips on the other side. There are no half-tone areas as in the regular Colonial over-shot pattern. This weave is especially suitable for fine linens. It could also be used for dress materials, or any article where a fine close weave is desired. It can be woven with just one shuttle throughout if the weft thread is all of one color.

6 harness Bronson Weave Threading Draft Figure No.7

6 harness - 5 Block Bronson Weave.
At Figure No.5 on Page 1, we have a photo of a 6 harness 5 block pattern Bronson weave. This gives the same texture as the 4 harness 3 block pattern just described, but of course allows for more pattern variation with the use of the six harness loom.

The key draft and the pattern effect is drawn out at Figure No.6 below and the pattern

Warp  No.30 or No.40 crochet cotton
Weft  Can be of same material of 40/2 linen or 12/2 linen could be used. Weave 2 shots of weft on each pattern shed in weaving, and always the B tabby between the pattern shots.

Tie-up  It is not difficult to weave this with two feet. Tie one harness to a treadle and use the treadle combinations as shown in the tie-up draft. Plain weave is tied to harness 1 alone for one plain weave. And for the other use 2 and 3 treadle with one foot and 4, 5, and 6 with the other foot. This combination is not needed very much unless you weave areas of the Plain weave alone, without any pattern shots.

June 1948  Nellie Sargent Johnson 12489 Mendota Ave., Detroit 4, Mich
For those who have never tried leno or gauze weave, we are going to suggest that you make a sampler of some variations which we have found to be a good way to practice this interesting free weaving technique. For there are many ways it may be used.

Handweaving News for October and November 1939 contained some material on this same kind of weaving, and both of these leaflets contain valuable material which you may also like to have before the supply is exhausted.

Equipment for this weave. Any loom which will give you a plain weave shed can be used for this weaving. Thus a 2 harness loom of any kind may be used. We find the new small 12" heddle loom especially nice for the first time you try the technique. The metal heddle has about 8 warp threads to the inch, thus 108 threads of warp for the full width. This new loom is built of solid maple. It has metal ratchets and handles, is strong, durable and will give long lasting service. Price $12.50 plus a packing charge, if it is to be shipped, of $1.00 extra. A plastic netting shuttle is a great help for this technique. We have one 14" long for 75¢ each, if you wish one, also a 25" pickup stick for the same price.

Threads to use for this weave. For this sampler, you can use a carpet warp, or a 10/2 grey linen is also excellent to use on the above mentioned loom. For weft you can use the so called "Sugar and Cream" or Enterprise cotton over the carpet warp, or a 10/5 linen over the 10/2 linen warp. This linen combination is excellent for heavy place mats on this small loom. Of course finer warp can be used too on any other loom you wish, but you will find it much easier to learn how to do this, if you use a coarse warp and weft, at least until you are perfectly familiar with the technique.

After warping and threading the loom, weave a 2 inch heading of plain weave or tabby. End this heading so that for the next shed to be used, the edge warp thread on the right side of the loom will be up, when the shed is open. This is important if you are going to come out right with the weave.

Now we are ready to do the Single stitch as shown at Figure No.1 above. With the fingers, pull the right edge warp thread that is raised when the shed is open, to the left. Pick up on the flat pickup stick, the first 2 warp threads in the lower part of the shed. Bring these to the top, as the top warp thread is held to the left. Now allow onetop warp thread to lie next to the 2 picked up from the lower shed. Then pick up one warp in the lower shed again on the stick. Let one of the top warp threads slip to the right. Then pick up another warp in the lower shed, and let one of the top warp threads slip to the right. Do this for the width of the loom. This brings each warp thread picked up 2 threads away, and this is correct.

Now turn the pickup stick on its edge. Pass the weft through the shed thus made, from right to left side of the loom. Change shed and pass shuttle from left to right side of the loom. Now you can put in as many rows of plain weave as desired between each row picked up for the leno weave. But you must always end this plain weave so the next shed where the leno begins has the edge warp up on the right side of the loom. Then pick up the leno row as described above.

When passing the weft thread through the picked up weft rows, be sure and let the weft lie very loosely, or the edges of the weaving

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will pull in very badly. So watch this. If Much leno is to be woven, you can make this leno shed and tie it to a heddle rod. When you wish the shed it is simple tp just raise the extra heddle rod for the leno shed, and pass the weft shuttle through.

SINGLE STITCH ON TOP SHED ONLY.

At Figure No.2, we have another variation of this single stitch which is interesting. This is worked the same way, except that the "cross" is made with the top warp threads which are raised when the shed is open. The lower warp threads that are down when the shed is open are not used.

Open the shed. Have the first warp on the right edge up. Pull the first warp thread of the top shed slightly to the left with the left hand. Pick up the second warp thread of this same top shed on the pickup stick. Let the first warp thread slip so the first and second top warp threads cross. Do this all across the width of the loom. Turn pickup stick on edge and pass weft through shed thus made, from right to left side of the loom. Change shed and pass weft shuttle from left to right. Push this weft row down with the weft shuttle or pickup stick to get it down in place close to the picked up row. Now put in two more plain weave shots. Then repeat the picked up row again. Note that this makes the crossed group come right over the first row of picked up threads. Figure No.3 shows how the threads look as they are being picked up with the pickup stick. The single thread on this drawing is the warp thread in the shed that is down, and is not used.

Figure No.3
Diagram of Threads being picked up.

STAGGERED SINGLE LENO ON TOP WARP.

If you look carefully at Figure No.2, you can see the third row of the crossed threads are staggered above the first two rows. And this is a good variation too, it adds interest.

To do this, you end the plain weave as described before, so you have the shed open with the right edge warp thread up. Pull 2 of the top warp threads to the left; pick up the 3rd on the pickup stick. Then pick up one and one for the rest of the width of the loom. This staggering the row and makes the threads just opposite the ones of the first picked up row.

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SINGLE LENO WITH SPANISH WEAVE.

Figure No.4 is an example of leno combined with Spanish weave. This particular piece is of fine silk, and the border of the veil of my Roumanian costume.

Figure No.5 shows the same stitch in a modern border for a towel, on a 40/2 linen warp. In this several threads are crossed instead of just a single thread.

This technique was described for the first time in this country in Handweaving News for September 1942. And if anyone wishes exact details of this, the above News is still available, as given on the list of back issues.
Lace weaves are interesting and unusual. They should be used more than they are by modern weavers. At the recent Michigan Craft Show were two attractive place mats which several people have asked me how to do. So this month we will give you two different ways of doing the so-called Brook's bouquet or it is really doing a backstitch with the shuttle on the open shed of the loom. This may be woven on any loom allowing the plain weave shed.

One of the mats shown was of plain weave blue linen with a simple border in this stitch at each end of the mat, just at the top of the hem, and just one row across the width. The other mat was of bleached white linen with the design worked out in a simple border pattern.

At Figure No.1 above is the stitch which shows two rows across the width of the loom. Then above these three rows combine the stitch with Spanish weave to form a square figure. And just above that 5 rows more also combining the stitch with Spanish weave, but using a diagonal instead of the square figure. Carefully look at Figure No.1 which we hope is clear enough to show what we mean.

Equipment.– A flat netting shuttle wound with the weft is the best kind of shuttle to use for this technique. It carries the weft along and also is used to pick up the backstitches. These shuttles are available for $1.00 each, if anyone wishes to have one. They may also be used for many other pickup weaves as well as this one.

Materials.– This is a free technique and may be used on any plain weave setup of the loom. Almost any weft materials can be used. The place mats at the show were we believe of 20/2 linen set about twenty threads to the inch, with the same for weft. The design was a simple one which we did not attempt to copy as it is easy to plan ones own out on cross section paper after working one row of pattern across the width of the loom to find out how many squares are needed for this width. When you plan a design, it is better to plan solid areas rather than just single stitches all alone. Also keep the design as simple as possible. Although it is easy to use squares or diagonals as in the above sample of the weave.

Method of Working this technique. First do several shots of plain weave for a heading. Then open the shed. Start at the right edge of the weaving. Pass the shuttle into this shed under 6 of the top warp threads. Bring it out of the shed on top of the warp. Then take it back over 3 of the raised warp threads. Then down into the shed again under the same 3 raised threads and ahead toward the left under 3 more of the warps. Pull the stitch tight. Bring the shuttle out of the shed, back to the right over 3, down under the same three, and ahead 3 more and so on. This has made two backstitches over 2 groups of three threads, and over the warp threads that are raised. Repeat this for width of the warp.

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Now weave, one row, three or five plain weave. You will find it necessary to put an odd number of plain weave to make the stitches come out right. Always start at the right side of the warp with the backstitches.

To plan a design where you do not wish the backstitch all the way across, count number of stitches in the width of the warp. Then make Spanish stitch up to the point where the next row of backstitches is to begin.

To weave the center square on Figure No. 1.

After weaving three rows of plain weave, count the backstitched groups on each side of the center. Take the shuttle into the shed up to the point where the first backstitch will begin. Change shed, carry the shuttle back to right edge. Change shed and put shuttle into shed up to the same point as before. This makes three rows of plain weave, or Spanish weave. Now make the backstitch as at first. Do 5 groups of these backstitches with the shed open if you wish to follow the pattern on the piece at Figure No. 1. Then do the plain weave on the left side of the center the same as in the beginning of this row. Now do three rows of the plain weave all across the width. Areas of the plain Spanish weave can be placed between the rows of backstitch as desired. And these may be of any desired size.

Do 3 rows with the Spanish weave on each edge and 5 groups of the backstitch with 3 rows of the plain weave between each of the backstitch rows, if you wish to follow the design of Figure No. 1.

The next row on Figure No. 1, which is the 6th row from the beginning, has 7 groups of the backstitches, and the Spanish weave plain weave on the right and left side of these is decreased on the right side and on the left side of the center by one group of the backstitch. In the same way the row above this has 9 groups of the backstitch with the Spanish weave on each edge still further decreased.

On the next row above this, the Spanish is decreased by one backstitch on the right edge. Then it is made over 4 groups, with 3 groups left out in the center; and Spanish Weave made over these. Continuing make four backstitches, then do the Spanish on the left side as in the beginning of this row. All of these rows have three rows of plain weave between them.

This sampler was made of coarse materials as they show up better. Carpet warp was used, and the piece was woven on the 2 harness heddle loom. Weft was of Enterprise cotton, or the so-called "Sugar and Cream".

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At Figure No. 2 is shown a variation of this same stitch which is most attractive. We will call this diagonal backstitch. Start at the right side. Make backstitch by going under just 3 warp threads, and back to edge after changing the shed. Then going into the shed again from the right carry the shuttle ahead under 3 of the threads that are up. Go back over these, and ahead over three more and so on for the rest of the row. Now put in a shot of plain weave all across the width of the loom from left to right. And then from right to left, which leaves shuttle on left side of width.

Now backstitch from left to right with the shed open, over 3 warps as before. But as you start this, make sure on this second row that the center warp of the first group is the warp not used on the first row of backstitches. Putting the backstitch in this position divides the previous row and makes a very attractive effect in the weaving.

When this second row of backstitches is done, you are on the right side again, now put in a row of plain weave from right to left, and then another from left to right.

On the right edge make the Spanish stitch to the point where you wish the first backstitch of this third row to begin.

It is important when you go back to the right edge on this Spanish weave stitch, to be sure when you change the shed, that you take in as the last warp of this group, the center warp thread of the previous row of backstitches. This is a bit tricky, so watch it. You want your first backstitch of this row to have as its center thread the warp that was down on the previous row.

This explanation may sound a bit complicated but the stitch is simple and easy to do. We hope this is clear enough so as not to present any difficulty. You can vary this in a manner that suits your fancy. If you do only one row of plain weave between each row of the backstitches, you will always start on the right side of the width.

Both sides of this material are very attractive. We have been doing this for the end of a runner with No. 20/2 linen set at 20 threads to the inch for warp and weft. In this material we used a backstitch using 5 of the warp threads instead of three as above described. And only one row of the plain weave between each row of the backstitches. This was very handsome. Then you use a large groups for the backstitches to be careful and not pull your thread that you are using for the backstitch too tight. If you get it too tight, the edges of the weaving will be pulled in too much.

Another Form of Bronson Weave.

Handweaving News for December 1942 and 1943 gave the structure and characteristics of two forms of the so-called "Bronson" weave. This month I am going to give another form slightly different in texture from either of these. It is similar to the lace weave, and makes an open effect which is excellent for luncheon sets and also for thin glass curtains. The first pattern at Figure No.1 would work out very well for curtains, and the other one is an unbalanced pattern the same key draft as was used in the News for July 1944 on Page 2. Refer to this in order to see the different ways in which it might be woven.

Structure of the Weave. This weave is a two block pattern arrangement for the 4 harness loom. It is very easy to design your own patterns too. The two units we have found most useful are threaded 3,4,3,4,3 and 2, for one pattern block. And 2,1,2,1,2 and 3 for the second pattern block. This is what we call a 5 and 1 threading. The same effect can be gained if the pattern block skips are written 2,1,2 and 3; and 3,4,3 and 2; or a 5 and 1 threading draft. This can be used for a coarse warp set far apart. The same way, 7 and one thread could be written for each pattern block, which would make a 7 and 1 threading draft, used of course instead of either the 3 and 1 or the 5 and 1 threading draft.

This 7 and 1 threading should be used for a very close setting of the reed. This is a one shuttle weave, and it is generally better to use weft which is about the same size as the warp.

Tie-up for this weave. Plain weave for this threading draft is the same as for regular over-shot weave, namely 1&3 for one shot and 2&4 for the other shot. Just below the threading draft at Figure No.3 on the next page, the woven effect has been drawn down, but this does not give much of an idea of the lace effect of the weave. However it is important to note on this, that there are three shots of plain weave between every shot of the pattern skips, and when the pattern block changes from one to the other only two shots of plain weave occur. Be sure to keep to this order when weaving. For a loom where the harnesses sink, the order of weaving is 134, 24,13,24 repeated for one pattern block. For the other use 124,13,24,13; repeated for the second pattern block. On the Structo loom use just the opposite or, 2 alone, 13,24,13 for one pattern block, and 3 alone, 24,13,24 for the other pattern block. Of course the pattern blocks can be repeated as many times as desired, but always remember that when you wish to change to the other pattern block, only use two shots of the plain weave before putting in the single shot of pattern weft for the next block.
Figure No. 1 Key Draft

Figure No. 2 Threading Draft for Key draft at Figure No. 1 above.

Figure No. 3 Pattern effect of the Corner of No. 1

On the draft above from A to B is the border. C is the center of the border. From B to D is 22 threads, this should be repeated for the center as many times as is necessary for the width of the curtain. Then thread from D to E for the end. If the same border is desired on the left edge, then thread from B back to A again.

The method of weaving this pattern is explained on Page 1.

At Figure No. 4 is the draft for an unbalanced pattern for a place mat. The border is from A to E. Thread this, then repeat from E to F 6 times. Then from F to G. Repeat from G to H, 3 times for the last 9 unit block on the end. The use of unbalanced drafts of this sort is a new idea. Do you like it?

Figure No. 4 Key Draft for Unbalanced Place Mat.

Figure No. 4 Threading Draft for the Key Draft at Figure No. 4

The above threading draft can be woven in a number of different ways to secure the effect as shown at Figure No. 5 and 6 Page 7 of the July News. This same threading draft may be woven in over-shot if desired.

Lesson on

How to Weave a Double Fabric in Pattern
on a Four Harness Loom.

by

Nellie Sargent Johnson.

The fact that a double woven fabric in pattern may be made on a four harness loom may be somewhat of a surprise to many. But it can be done, and is not nearly as difficult as you may imagine, once you have become familiar with the technique as it will be described for you in this leaflet.

This is an extremely old technique too, as evidenced by the fact that ancient Peruvian weavings show this same type of fabric. These cloths must have been woven on very simple looms, probably after some such method as will be described below. A typical Peruvian design, a bird figure, taken from an actual fabric at the Detroit Institute of Arts, is shown at Figure No. 1. These patterns are all very simple, and include geometric figures which represent fish, birds, the puma or cat, and human figures of men and gods.

Figure No. 2 is a fish motive. This design was adapted to cross section paper from some of those given in a leaflet on "Peruvian Art" by Charles A. Mead, published by the American Museum of Natural History. This is leaflet No. 46, and may be obtained from the Museum by anyone wishing a copy. Figure No. 3 is another bird design adapted from the same leaflet. Another interesting book which shows many of these typical designs in actual color plates is "Ancient Peruvian Textiles" by R. and M. D'Harcourt. Many of these illustrations are the tapestry technique, but there are several which show the double woven fabric.

It seems a long jump from these ancient Peruvian grave cloths to our own early American coverlets. But there is a very definite relationship between them. And it is of interest because it serves to show how very universal this weaving craft of ours is. Each type of fabric tells the story of its own period of history, and what tales they might relate for us if speech were possible. Figure No. 4 below is a photograph of an early American coverlet of this type owned by a friend of mine. It is dated 1830 in one corner and is woven in two strips 36" wide, seamed through the center. We have been accustomed to think of this particular type of coverlet as having been woven on a "Jacquard" loom. And those coverlets which do not show a center seam probably were woven on a Jacquard loom. This pattern was very lovely. The fine detail was beautifully worked out, and the whole coverlet was exceptionally well proportioned. It is quite safe to say that this type of coverlet was woven before the use of the "Jacquard" looms became very general. Also we can say that those coverlets which are woven full width with no seam probably were woven on a Jacquard loom, and in general show much more complicated designs.
Now a few words as to the type of patterns which may be used for this weave. Any design which can be worked out on cross section paper can be used for this technique, and it may be as simple or as complicated as desired. Two warp threads and two weft shots represent one block of the cross section paper design. Vertical lines, horizontal lines, and diagonal lines are the easiest to weave. The possibilities in these simple lines are shown at Figure No.5. Curves and circles are more difficult, and should be very carefully planned. Figure No.6 and 7 show small circles and a circular curve. The finer the warp threads, and the greater the number of warp threads to the inch, the easier it is to approach the real curve in the finished weaving. Figure No.8 at the bottom of this page shows how to shade an area from dark to light value. Some very interesting designs could be worked out in this method using very simple areas, making the interest in the design come in the variety of the dark and light values. It is very easy to date and sign this weaving, as all that is needed is a good cross stitch alphabet of letters and figures.

To design your own patterns for this weave, draw as you would for any clean cut sketch. Transfer this to cross section paper, and follow the outlines on the cross section paper with blocks as near the original outline as possible. The finer the cross section paper, the nearer you can approach your original sketch. Try to get good massing of areas, as too many fine lines weaken the effect of your design. Your original sketch is easier to follow, if you plan to make it correspond as nearly as possible to the size of the cross section paper you are using to expand it on, and also to the number of blocks which you wish for the width of your finished weaving. To explain this important point further: Plan two colored warp threads and two white warp threads for every block of your cross section paper. Thus if you have 150 blocks on your cross section paper, you will need to make a warp of 300 colored threads and 300 white threads. If you wish to transfer your original design to cross section paper with 10 blocks to the inch, which is a size easily read, your original sketch should be 15 inches wide. If you wish to transfer your original sketch to cross section paper with 20 blocks to the inch, your original design would only need to be 7\(\frac{1}{2}\) wide for 150 blocks of pattern width. I hope this is clear.

No extra equipment is needed for this weave on a four harness loom, unless one of the warps is of wool. Then a double warp beam is necessary as the take up of wool is different than for cotton and linen. An all wool, an all cotton, an all silk, or an all linen warp, may be used on any four harness loom. However you should always use one dark warp and one light warp, which together form the double fabric which is dark on one side with light pattern, and light on the other side with dark pattern.

Three simple sheds sticks are needed. These should be about two inches longer than the width of the weaving. One of these is called the pick-up stick for picking up the pattern threads, another a round stick with pointed end, and the third a flat stick about 1\(\frac{1}{2}\) wide. These are called pick-up stick, round stick, and flat stick.

The Structo table looms are ideal to use for weaving this technique, as it is so much simpler to use the levers than the treadles. If extra warp beams are desired they can easily be attached to any of these looms.
Now we are ready to thread the loom. The threading draft used is the regular four harness twill threading as given below. Thread harnesses 4 and 3 with all the dark threads, and 2 and 1 with all the white threads, and repeat all across the width of the warp. On a four harness loom with six treads, tie the four harnesses according to the tie-up draft as given. It will be necessary to weave with both feet on this tie-up with the trebleloom. For the sake of clearness, I will give the threading first for a treadle loom, and then for the levers of the Structo table loom.

Figure No. 9
For the first piece of weaving you try, it is best to use rather a coarse warp, and a very simple pattern. Make a short warp of 80 threads of white mercerized cotton No. 3, and 80 threads of blue mercerized cotton No. 3. Thread harnesses 4 and harness 3 with blue threads all across the width of the warp, and harness 2 and 1 with the white threads. Sley one thread in every dent of a 20 dent reed. This will give a width of about 8 1/4", and make 40 blocks of white threads and 40 blocks of blue. If you sley the first and last block double, you will have 39 blocks. After threading, sleying and tying up of the warp is finished, weave about 2" of plain tabby. The directions below are for this plain tabby in double weave fabric, which will be blue on one side and white on the other.

1. For plain weave with white on the top side of the weaving, bring down:

Treadles 1&6, or lever 2 of the Structo loom, throw a shot of white weft in top shed.

* 4, " " 123 " " " " throw a shot of blue weft in lower shed.

* 2&6, " 1 " " " " throw a shot of white weft in top shed.

* 3, or " 124 " " " " throw a shot of blue weft in lower shed.

Repeat as often as desired for the length.

2. For plain weave with blue on the top side of the weaving, bring down:

Treadles 3&5, or lever 4 of the Structo loom, throw a shot of blue in the top shed.

* 1, " " 234 " " " " throw a shot of white in lower shed.

* 4&5, " 3 " " " " throw a shot of blue in the top shed.

* 2, " 134 " " " " throw a shot of white in lower shed.

Enough of this plain weave should be practised so that you are perfectly familiar with it before trying the pattern weave technique.

For the pattern weaving, we will use the little Peruvian Fish design as given at Figure No. 2. And the six treadle tie-up as given on the tie-up draft at Figure No. 9 for a four harness loom. The directions as given below bring the pattern in white on the top side of the weaving, and in blue on the under side of the weaving. This little design is 23 blocks wide, and the center block at A is the 12th block. If you have 39 groups of two white threads each, or 39 blocks, the 20th group will represent the center or block 12 of your pattern design. Bring down treadle 6, or levers 1&2 on the Structo loom, which brings up all the white threads. Count from the right edge to the 20th group of two threads which is the center of your weaving. The first block of your pattern design is the 18th group, so pick this up with your pick-up stick, go over the next two groups, and pick up the 21st group. This gives just two groups of two threads each on the pick-up stick in front of the reed. Pull the reed forward so as not to disturb the pick-up stick, turn the pick-up stick on edge, and bring down tredle 5, or lever 3&4. Back of the reed, between the reed and the harnesses, insert the round stick in the lower shed. The threads will look as in Figure No. 11, if you look at them from the side of the loom. Pull out the pick-up stick, move round stick forward close to the reed, and bring down tredle 6, or levers 1&2. This brings up the threads so that they will look as at Figure No. 12. Put flat stick in the shed as marked at * on Figure No. 12. Slide the round stick back near the harnesses, and bring the flat stick in front of it close to the reed. Turn flat stick on edge as in Figure No. 13 at the top of the next page. In the shed thus formed, in front of the reed, throw a shot of blue weft, which is the first to be put in.
Beat up blue weft, pull flat stick out, leave round stick in as it is. Bring down treadle 3, or levers 124, put flat stick in again, turn on edge, and throw another shot of blue weft. Pull out flat stick, leave round stick in. Bring down treadle 5, or levers 3&4, and with the pick-up stick, pick up all the blue background threads, according to the pattern design, leaving one blue thread free on each side of the white pattern threads which you skip over. To say this differently, pick up the blue threads exactly opposite the white pattern threads you picked up first. Pull out round stick, and bring down treadle 6, or levers 1&2. Put round stick in lower shed as in Figure No. 11, pull out pick-up stick. Bring down treadle 1, or levers 234, put flat stick in as in Figure No. 12, slide flat stick forward, and push round stick back. Turn flat stick on edge as Figure No. 13, and throw a shot of white weft thread. Pull out flat stick, leave round stick in, bring down treadle 2, or levers 134, put flat stick in as before, turn on edge, and throw another shot of white weft. Pull out both the flat and round sticks. This completes one row of the block pattern design. And you will see that one row of the pattern is represented by four shots of the pattern weft, or two shots of blue and two shots of white weft. Now we are ready to pick up the second row of block pattern according to the pattern design. The above description of this technique may seem complicated as it has been written in very much detail, so every step can be followed easily. Below I will repeat exactly the same thing condensed into as few words as possible, so that the order may be easier to follow after you have understood the above detail.

Condensed directions for second row of pattern design:

Treadle or Strut Loom Levers:

6 " 1&2, with pick-up stick, pick up 6 center blocks of two white threads each.
5 " 3&4, round stick in lower shed, pull pick-up stick out.
4 " 1&3&4, flat stick in, throw shot of blue weft, flat stick out, leave round in.
3 " 1&2&4, flat stick in, throw shot or blue weft, flat stick out, leave round in.
5 " 3&4, pick up blue background pattern threads, pull round stick out.
6 " 1&2, round stick in lower shed again, pull pick-up stick out.
1 " 2&3&4, flat stick in, throw shot of white weft, flat stick out, leave round in.
2 " 1&3&4, flat stick in, throw shot of white weft, pull out both flat and round sticks, and we are ready for the third row of pattern blocks according to the design.

Now to briefly summarize the important points to consider when planning out a weaving project in this technique, first decide on the type of article to be made, the width desired, etc. Then the threads to be used, for the dark and light warp. The number of warp threads to use will be determined by the desired finished width of the article, or by the number of blocks in your pattern design. The size of your reed and the number of threads to sley to the inch will be determined by the kind of material and size of the threads used for the warp threads. Remember to treat the dark warp threads as you would a single warp, as it really makes a separate cloth, and the light warp threads as another separate cloth. And from this you can determine how to sley the threads and the size of reed to use, according to the size of the warp threads used. The list below will help to show you how to sley the different reeds to get the desired number of threads to the inch in the dark or light side of the finished cloth.

Sley a 12 dent reed: -
1 thread to a dent to give 6 threads to the inch for each side of the finished cloth.
2 " " " " " " 12 " " " " " " " " " " 4 " " " " " " 24 " " " " " " " " " " 6 " " " " " " 36 " " " " " " " " " " 8 " " " " " " 48 " " " " " " " " " " 10 " " " " " " 60 " " " " " " " " " " 12 " " " " " " 72 " " " " " " " " " " 14 " " " " " " 84 " " " " " " " " " " 16 " " " " " " 96 " " " " " " " " " " 18 " " " " " " 108 " " " " " " " " " " 20 " " " " " " 120 " " " " " " " " " "

In the same way, a 15 dent reed sleyed 1,2, or 3 threads to a dent will give 7.5, 15, and 30 threads to the inch respectively. And a 20 dent reed sleyed 1,2, or 4 threads to the dent will give 10, 20, or 40 threads to the inch respectively.

Plan your pattern design out on cross section paper, and allow two dark warp threads and two light threads for each pattern block in your design. This should include the number of blocks for the background, as well as the number of blocks of the design itself. The pattern weft used is the same thread as the warp, and consists of two shots of dark weft and two shots of light for each pattern block of your design, and beat up the weft so that you will have the same number of weft shots to the inch as you have warp threads to the inch. This technique should offer a most interesting field for anyone who wishes to produce interesting and unusual fabrics of modern design.

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SIMPLE DRAW LOOM WEAVING ON A
FOUR HARNESS LOOM.

BY
Nellie Sargent Johnson.

The study of the method of weaving with shed sticks, or a simple
draw loom pattern on a four harness loom is of interest for several reasons. First
it opens up an entirely new field for the creation of original designs. Second,
because of the simplicity of equipment; and third, because of its novelty in this
country.

This form of weaving, with the use of shed sticks, is an ancient tech-
nique, and is called by many different names in Europe. In Sweden it is often
named according to the district where it is made, but when less than eight sticks
are used, the most common name is "Upphamt" or "Smalandasav." As there is no name
for this type of weaving in this country, it can be called shed stick weaving or
simple draw loom weaving on a four harness loom, or still 'upphamt" if you prefer.

"Dragrustning" is the name given to this type of weaving in Sweden
when more than eight sticks are used. It is derived from the mechanical contriv-
aire which raises the shed sticks with their cords, so that the shed may be held
open as required without being held up by hand or by a leash rod. When more than
eight pattern shed sticks are used, the dragrustning serves also as a means of
keeping the weight of the sticks themselves off the warp threads. The dragrust-
nin a modification of a simple type of draw loom, and may have as many as
15 to 18 pattern shed sticks, which can be drawn up singly or in groups according
to the pattern desired. In Italy, this same method was used to weave the ancient
Perugian towels of Umbria, and this technique has recently been revived in some
of the schools for the blind there. At the Chicago Fair, linen towels were on
exhibit in the Italian building woven after this method.

Method I.

There are several ways of arranging the pattern shed sticks in the loom. The
one which I shall now describe for you, is one which I have worked out myself to
use the regular short eyed heddles which usually come on our looms. And the only
other equipment needed is a small frame placed high enough on the side uprights
of the loom to clear the beater, some cord with which to tie up the warp threads
to the pattern sticks, and 3/8" dowel rods for the pattern sticks long enough to
extend across the width of the loom, and rest on the small frame at the sides of
the loom.

Any two or four harness loom can be used for this type of weaving. Make a warp
of the desired width. If the loom is only a two harness one, thread up the plain
weave as usual. On four harnesses, any pattern threading can be used where there
is a plain tabby weave. At Figure No. 2 the herringbone twill 1, 2, 3, 4, 3, 2, and
repeat is used, but only one thread in each heddle eye, and not two as
would seem to be indicated by the draft. Sley the reed as usual, and tie up the
warp to the cloth beam. Now find the exact center thread of your warp, and plan
the center of your pattern to come on this thread. If you wish a plain tabby edge
on each side of the pattern weaving, leave as many threads as you wish for this
width before you begin to pick up the pattern on the pick-up sticks. Draft (A)
has 16 plain threads left as a border before the pattern is picked up.

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Now with a flat pick-up stick, in front of the reed, pick up two threads for each X of the pattern draft (A). Leave 18 plain threads, pick up 2, skip over 4, pick up 4, skip 2, pick up 10, skip 2, pick up 6, skip 2, pick up 6 etc. for pick-up stick No. 1 as shown on Figure No. 2. Then pick up the second, third and fourth rows of the pattern in the same way. When the four pick-up sticks are in all the way across the loom, turn stick No. 4 on edge. Back of the reed insert a leach rod in this shed. Turn this leach rod on edge, and in this shed, throw a shot of twine, from right to left. Fasten the twine to a warp thread on the right so that it will not slip through, and leave the ball out at the left. Then take one of the dowel rod pattern sticks, and starting at the right, tie up in groups of two threads for each loop, the threads on top of the leach rod, by bringing the loops of cord up over the pattern shed stick. These loops should be about 4" long, and as even as possible. To secure the twine on the stick, and keep the loops even, a strip of adhesive tape can be put all across the top of the dowel rod. This is pattern shed stick No. 4 as shown on Figure No. 2. Pull out pick-up stick No. 4. Turn pick-up stick No. 3 on edge, and tie up the pattern in loops in the same way. Do this for No. 2 and No. 1 until all four of the pattern shed sticks are tied up.

To weave, you simply raise one of the pattern shed sticks, throw a shot of pattern weft, then plain tabby. You can raise the pattern shed sticks in any order, and as many times as you wish, but always follow the pattern shots with plain tabby as in regular four harness over-shot weaving.

Draft (A) uses four pattern shed sticks and has many very interesting possibilities. From a to b on the draft are plain threads for the edge, from b to c is a pattern border, and c to d should repeat as many times as desired for the center of the pattern.

Description of Three Runners Woven on Draft (A).

No.1. Warp No. 20 mercerized cotton natural. Thread four harness herringbone twill. Sley reed 24 threads to the inch, 2 in each dent of a 12 dent reed. Pick up pattern on shed sticks using four sticks for Draft (A). The numbers 1, 2, 3, 4, in the description of the weaving, refer to the pattern shed sticks; - for instance 4-3x means raise pattern shed stick No. 4 three times, and throw tabby between each pattern shot.

Use Fabri yarn in dark brown, D Br, red orange, R 0, orange, orange-yellow, and yellow for the pattern weft shots, and tabby like the warp. Weave 2" of plain tabby.

Wide Border on each End; -
Dowel rod shed stick; - 4-4x D Br, 3-4x, 2-4x, 1-2x; 4-2x Y; 1-2x D Br; 1-4x RO; 1-4x 0, 1-4x OY, 4-2x Y; center, of wide border, repeat back in same order.

Weave 1" plain tabby.

For center continue; - 4-4x D Br, 3-4x, 2-4x, 1-2x; 4-2x RO; 1-2x Br, 2-2x, 3-4x, 4-4x; 1-3x RO; 4-4x, 3-4x, 4-4x, 1-3x; 4-4x DBR; 3-4x, 2-4x, 1-2x; 4-2x RO; 1-2x Dr, 2-2x, 3-4x, 4-4x; 1-3x RO; 4-4x, DBR, 4-1 RO; 3-1 RO; 2-1, 1-1, 4-1, 4-4x D Br; 3-4x, 2-2x, 1-2x; 4-2x YO; 1-2x D Br, 2-2x, 3-4x, 4-4x, 4-1 YO, 3-1, 2-1, 1-1, 2-1, 3-1, 4-1, 4-4x D Br; 3-1 RO; 2-1, 1-1, 4-4x DBR; 1-4x; 2-3x RO; 3-3x; 0; 4-3x YO, 3-3x; 2-3x RO; 1-4x DBR; 2-4x; 4-4x RO; 1-1, 2-1, 3-1, 4-1, 3-1, 2-1, 1-1; 4-4x DBR, 1-3x RO; 2-3x O; 3-3x RO; 4-1 RO; 1-1 YO; 2-1, 3-1, 4-1; - center, repeat back to first border in same order. This is a very handsome runner. Many other combinations of these colors are possible.

No. 2. Use dark green heavy linen floss and light green linen floss for the pattern weft shots, with either No. 20 natural linen or light green weaving special linen for the tabby shots. Weave 1½" plain tabby weave then Border (A), with dark green, one shot on each shed, raise pattern shed sticks; - 4, 3, 2, 1, 2, 3, 4; then 5 shots plain tabby.

Border (B), 4-4x DG; 4-1 LG; 3-3x DG; 1-1 LG; 2-3x DG; 2-1 LG; 3-1 DG; 3-3x LG, 4-4x; 1-4x DG; 2-3x; 3-4x LG; 4-1 DG; 1-1, 2-1, 3-1, 4-1; - center, repeat back in same order.

5 shots of plain tabby, then repeat border (A).

Border (C), 4-6x DG; 1-6x LG; 2-4x; 2-1 DG, 3-5x LG; 3-8x DG; 4-4x LG; 1-1 DG; 4-1, 3-1; 2-3x LG; center, repeat back in same order.

Border (D) is repeated for 10" for the center of the runner, raising the shed sticks as follows; - With light green once on each shed, 3, 2, 1-2x, 2, 1, 4-4x. This completes the directions for one half of the length. Repeat back in the same order for the other half.

Loom equipped with frame & hold up shed sticks. Figure No. 1

Draft (D)
Five Pattern Shed Sticks.

Draft (E)
Eight Pattern Shed Sticks

Draft (A)

Draft (B)

Draft (C)

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No. 3. This runner has a border all around, and pattern weft is dark brown, red orange, orange, yellow-orange fabric yarn for pattern weft, with beige fabric for tabby. Weave 1" plain beige tabby, then with D Br one shot on each shed, 1, 2, 3, 4, 3, 2, 1; 4-4x R O; with 0 one shot on each shed 1, 2, 3, 4, 3, 2, 1; 4-4x R O; with dark brown one shot on each shed 1, 2, 3, 4, 3, 2, 1. For the side borders turn back at the end of the border pattern on each side. Use one shuttle for the right and one for the left side. Do not carry the pattern thread all the way across the width, weave just the side borders. Use one strand of D Br and one of R O, weave 4-4x, 1-1, 2-1, 3-1, 4-1, 1-1, 2-1, 1-1, 4-4x; with double strand of R O, weave 3-1, 2-1, 1-1, 4-4x, 1-1, 2-1, 3-1, 4-1; repeat all of this for 1½", end with 4-4x. Then with one strand of R O and one of orange, one shot on each shed, 1, 2, 3, 4, 3, 2, 1, 4-4x; repeat this for 3½". With one strand of yellow and one of orange, one shot on each shed, weave 1, 2, 3, 4, 3, 2, 1, 4-4x, for 3". Repeat back to the beginning in the same order. This makes a runner about 15" in length.

Method II  How to Use the 10 harness Structo Loom for this Weaving.

This is by far the simplest and easiest method to use for this technique, and the 10 harnesses allow you to use an eight shed stick pattern. But you must make long eyed heddles for the loom. Use a different color of twine, carpet warp will do if you wish to use it, for each harness. This makes the loom much easier to thread than if you use all white for the heddles. These heddles can be tied on a little frame, and should be 8½" long, with eyes 2½" long. The distance at the bottom should be 3½" and at the top 2½" as shown on the small diagram of the heddle frame below. For Draft (A) as given, you will need 23 long eyed heddles red on harness 1, 26 blue on harness 2, 24 yellow on harness 3, 28 green on harness 4. This is for the border as given, and just one repeat of the center pattern. Plan the number of heddles for the complete pattern according to the number of warp threads used for the width you wish to make. Thread harnesses 9 and 10 in the regular short eyes, one thread alternately all across the width for the plain weave. Place your colored tied string heddles on the four front harnesses, for draft (A), and then bring two of the back harnesses through each harness where there is a cross indicated on the pattern draft. Leave the first 16 threads of the warp plain, thread the next two through harness 4 and 2; the next two through 3 and 1; the next two through 4 and 2; leave two plain for the empty space on the draft. The next two threads go through the long eyes of a heddle on harness 4, 3, 2, and 1 etc. This is very easy to do if you have colored heddles, as you can tell which harness you are threading. The wrong side of the weaving will be on top. To weave just bring down the levers of the loom in any order you wish, and alternate each pattern shot with a row of plain tabby.

Any of the drafts given on page 3 may be used on this loom, by equipping it with the long eyed heddles. Draft (C) is another four shed pattern, and can be used in many ways. It is similar to the more common of Swedish patterns. Draft (B) and (D) offer more interest in the way the pattern can be varied, and are both for five sheds.

Draft (B) is woven as follows: - 1-1, 2-1, 3-1, 4-1, 5-3x, 4-1, 3-1, 2-3x, 5-1; center, repeat back. This may be woven in many other ways by varying the order of raising the sheds. Draft (D) is woven as follows: - 3-3x, 4-2x, 5-1, 2-2x, 1-2x, 3-1, 4-1, 5-1, 2-2x, 1-2x, 2-2x, 5-1, 4-1, 3-1, 1-2x, 2-1, 1-1, 2-1, 1-2x, 2-2x, 1-2x; center, repeat back in same order.

Draft (E) is an attractive eight harness star pattern, and is woven one shot on each shed 8, 7, 6, 5, 4, 3, 2, 1; center, repeat back as desired. This is a very handsome draft to use and pick up only part of the pattern.

Method III. Long eyed heddles on any two or four harness loom.

This method is fully described in Miss Helen Allens new book, "American and European Handweaving," and was the method which she suggested for me to use, the first time I worked out this technique from the Swedish books. Use heddle eyes for the regular harnesses of the loom, pick up the pattern with a flat pick up stick as in Method I. Turn this pick-up stick on edge, and insert the leach rod back of the harnesses, turn it on edge, insert the twine and tie up the dowel rod shed sticks. In this case, the frame to hold the dowel rods should be placed at the back of the loom.

Method IV.

Thread the loom, either a two or a four harness, to weave the plain weave. Then using flat pick-up sticks, pick up two threads for each block of the pattern, until you have 15 pick-up sticks in. Then turn each one on edge in its turn, put in a leash rod, and proceed to tie up each of the groups of two threads of the pattern to a dowel rod shed stick. Or if you prefer you can put loops of cord on each of the dowel rod shed sticks, and after putting in the threading for the plain weave, thread two threads through each of the loops according to the pattern for the 15 sticks, as if they were harnesses. The shed sticks can rest on a simple frame to hold them up off of the warp threads as shown on the loom in Figure No. 1, and this frame can be set either to the back of the loom, or to the front. If on the back, the regular loom harnesses must be equipped with long eyed heddles.

If very much weaving is to be done in this technique, it would be quicker to have the loom equipped with small pull-eyes and cords to raise the shed sticks, rather than holding them up by hand and using a leash rod to keep the shed open.

The pattern shed sticks can be raised singly or in any combination desired. The designs drawn out on cross section paper at the right, show some of the possibilities for this type of weaving.

The method of using long eyed heddles on a four harness loom is used in the Swedish books which I studied, and are listed below. The short eyed heddles, and the placing of the shed stick dowel rods in front of the loom harnesses, is an original arrangement which is more satisfactory to use, where the distance from the breast beam to a point back of the harnesses is too great for an easy reach. Also the equipping of the 10 harness Structo loom with long eyed colored heddles, is an arrangement of my own. This is very easy to do, and eliminates the shed stick dowel rods, unless you wish to use a pattern of more than 3 sheds. In this case, extra shed sticks can be added, and a frame easily attached to hold them up. The setting up of this technique on the Structo loom is the fastest way to weave it.

Reference Books used in this Study.

Vavbok by Sigrid Palmgren, Vol II. Swedish Textiles by Emilie Walterstorff.
Skansk Konstvänförening by Maria Collin. Peasant Art in Sweden, Studio Publication.
American and European Handweaving by Helen Allen. (This book just recently published is the best book on weaving techniques that I know. Miss Allen is an outstanding authority on weaving, both ancient and modern. Price of this book $2.50, includes postage. The bibliography alone is worth the cost of the book. It has been my good fortune to know Miss Allen personally for several years, and it gives me much pleasure to announce her very worth while book.)

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OPEN WORK LACE WEAVES FROM

THE

GREEK ISLAND OF COS.

by

Nellie Sargent Johnson.

The textiles which will be described in this leaflet were loaned to me for study in January 1935, by Mrs. Adele Weibel, Curator of Textiles at the Detroit Institute of Arts. They come from the Greek Islands, and are both of much interest and very unusual. The fabric shown at Figure No.1, is woven all of cotton, and has the open work border on three sides only. It was probably a runner or shelf cover.

Figure No.2 shows a very handsome fabric. It is very sheer and soft, and woven of "wild" silk, or from silk which has broken its cocoon, and hence has been spun. Mrs. Weibel says that this lovely textile came from the Greek Island of Cos. This fabric contains three different weaving techniques, and between these pattern borders, are stripes of a darker, heavier silk, which gives an unusual variation of the texture of the plain weave. These stripes do not show at all in the photograph. The two stripes at (A), use one of the simplest stitches of drawn work. This can be done on the loom, either with the shuttle or a large needle. At (B), is the type of laid-in technique which is different from any which I have ever seen before. For this thread a little heavier than the background should be used. The open work or lace weave design at (C), is the same as the border in Figure No.1 above. This type of weaving might easily be either a development or variation of the tapestry technique, as the slits make the pattern. It is simple and easy to weave, but rather slow. In her new book, "American and European Weaving," Miss Helen Allen, calls this open work technique, as at (C), "Demon-desh." She shows a cotton fabric which came from Asia Minor, and as far as I know, this has not been described in any other book.

The linen runner at Figure No.3, is one which I wove myself, and will be described in detail. Due to the fact that the linen is so much heavier than the silk used in Figure No.2, the laid-in technique of the borders (B) and (D) does not show well. But the large drawings will show this on page 2, as the actual weaving is described.

Warp 40/2 natural linen, 360 threads, set in reed 24 threads to the inch.
Weft, No.18 white linen for plain tabby. Heavy linen floss, cream color, for open work weave, laid-in weave, and for pattern stripes in plain tabby as described. Other materials can be used if desired, but the runner at No.3 will be described exactly as it was woven.
Weave 22 shots plain tabby for the hem with No.18 linen.
Needle Border (A) Figure No.3 Page 1.
Thread a needle with cream floss long enough to reach across the width of the runner. Fasten the end securely into the selvage edge on the right. Put the needle under the 4th, 5th, and 6th threads as shown at (A) of Figure 4. Push the point of the needle down, then toward the right, so the threads will twist over each other, as at B. Pull the needle through the twisted threads to the left. Repeat for the next 5 threads, and so on all across the width. Fasten securely on the left selvage. Weave 12 rows plain No.18 tabby.
For the pattern stripes of plain tabby, weave 6 shots cream, 3 shots No.18, 3 shot cream, 3 shots No.18, one shot cream, 18 shots No.18.

Directions for Special Laid-in Technique using Pattern at Figure No.5
Take 4 short lengths of cream floss, one and 5/8 inches from each edge, in an open (A) tabby shed, lay in one piece of the floss for a distance of 1/", as shown at AB of Figure No.5. This takes up 7 of the raised warp threads, if you wish to count the threads rather than measuring them with the tape measure. Three inches from each of the first two lengths of cream, put in the other two in the same way as at AB. Change to the B tabby shed, then bring each of these four threads right back to A where they started. Throw a shot of No.18 tabby all across the width changing to the A tabby shed, then change to the B tabby shed and throw another shot of No.18 tabby. Carry the cream floss right over these last two tabby rows, and lay in two more rows for a distance of 1/" with each length. Then two No.18 tabby, repeat again. At C start another length of cream and carry the first length right over to F. Continue according to Figure No.5, ending and adding another length of the cream floss as necessary for the pattern. In order to have the pattern come out exactly right at the center K, it is necessary to count the warp threads. The old weaving does not show this exactness of detail, and it is much easier to measure than to count the threads. Repeat the striped border as given at first after Figure 5 is woven. Then 8 shots of No.18 tabby, one row of the needle border again, then 12 shots of No.18 tabby, and we are ready for the border of Open work weave on Page 3.
Directions for the Open Work Weave.

Beginning at the right of the material, pick up groups of six threads each, with a shuttle full of dark thread. Go over and under these all across the warp. This serves to mark off the groups of six threads each, so they can be easily counted for the placing of the pattern design. This marking thread is shown at 1 of Figure No. 6 at the top of this page. The 31st group of six threads is the exact center of the width of the material on the loom. Raise the A tabby shed, and lay in a short length of cream floss. This will be under only 3 of the raised threads. Count off 7 groups of six threads each from the 31st group, and in the 8th group, lay in another cream thread under the 3 raised threads of the group. Count off 7 more groups in the same way, until you have laid in 7 groups of the cream thread in the same way. Beat up close, these threads are shown at 2, in the diagram at the top of the page. Then in the same A tabby shed, lay in the cream floss for the length of the 7 groups of six threads each, between the single groups just finished. This is shown at 3 at the top of this page, but these threads will be right beside the ones just laid in, on the same line. At 4 is shown three rows of the tabby thread as it has been started at S. As you work each length of the color, pull in the thread a little to make the slits between the threads show more, as these slits form the design. No threads are left out, as might seem to be indicated by the drawing. To fasten in a new thread for another group lap it well over the last thread in the same shed, change the shed and continue with the new thread. Later cut off the ends close to the material. The pattern design at No. 6 is an enlarged detail of one motif of the runner shown at Figure No. 1 on Page 1. Two repeats are given. Each block of the cross section paper, represents two warp threads. Start at the center as marked for the 31st block, and do all your counting from this, so you will come out evenly on each edge. You will have as many as 28 separate ends of color on some parts of this pattern. Always be sure and keep all of these threads going the same way, from left to right, or from right to left, according to the change of the tabby shed, then none of them will be omitted. Do 7 shots of plain tabby for each group of six threads, then add or take away the threads as necessary for the next blocks of the pattern. When the open work border is finished, weave 12 shots of plain tabby with No. 18 linen all the way across the width. Repeat the needle work border, then 8 shots plain No. 18 tabby. Repeat the plain colored stripes, then 8 shots more of No. 18 tabby. Then do three repeats of the laid in pattern as given below at Figure No. 7. Then finish to the center with stripes as desired for half of the length. Then repeat the borders back to the beginning.
This technique, which is similar in texture to what is known as the "Bronson" weave, was originated by Mrs. Bratten. Because of its unusual possibilities for freedom of design and its opportunity for individual creative weaving, I am writing about it, with Mrs. Bratten's kind permission. Although similar in texture to the Bronson weave, it is much more free, and will appeal to those who do not want to be limited by the mechanics of a harness loom. It can be woven by inserting a shed stick heddle rod, on any loom which allows for the plain weave.

The design for the open work can be planned out on cross section paper for any article which you desire to weave, and the blocks of the design should be arranged to correspond to the number of pattern blocks according to the number of threads for the width of the material on the loom. A warp of 240 threads allows for 38 pattern blocks with 6 threads on each side allowed for the plain edge. Most of the designs given on Page 3 are planned for a warp of 240 threads, and may be woven on the little 8" Strucko loom. In the same way, a warp of 420 threads would call for a design with a width of 68 pattern blocks, and a warp of 600 threads would use a design 98 blocks wide. Now a word as to the type of design best suited to this weave. Clear cut, simple pattern with not too much detail look the best. Single separated blocks or single lines should be avoided as much as is possible. When you do use a pattern of this sort, the effect of it is better if the background is woven in the lace weave and the pattern in the plain tabby. In fact, I myself like the effect better when the background is woven in lace weave, and the pattern in the plain tabby.

Almost any kind of yarn may be used for this weaving, but 40/2 linen for warp and weft, set at thirty threads to the inch is excellent for table linens, cocktail napkins, chair back sets etc. And for glass curtains No. 20 mercerized cotton set the same in the reed is most effective. I recently designed a blouse with lace weave pattern on the sleeves, and front, in all silk which was particularly nice, and very different and unusual. For the best effects in this weave, I like to use warp and weft of the same kind of yarn and the same color.

Method of weaving "Bratten" lace weave technique. As mentioned above this technique may be woven on any loom which allows a plain weave shed, or may be woven on a loom already threaded to a pattern threading. It is not entirely necessary to add a heddle rod to make the extra shed, as this may be picked up for each row with a pickup stick, but as I think the ease and rapidity of weaving is increased by adding the extra heddle, I will describe this procedure in detail. Set up your loom as usual, weave a few shots of plain tabby weave. Then with the (A) tabby shed open, the shed which you open to throw your shuttle from right to left, with a black pickup stick, skip the two threads on the edge of the threads that are up and pick up on the stick the third thread. Then skip two threads and pick up the next thread all across the width of the loom. Be sure that you have your (A) tabby shed open and pick up the threads on the top of this shed. Turn your black pickup stick on its edge.
Method of Inserting the Heddle Rod.

At the right is shown a diagram of the method of inserting an extra heddle rod to raise the special shed for this weave. A is the black pickup stick turned on its edge. B is the dowel rod which serves as the extra heddle, and on this is shown looped cord which is just threaded on the rod after having been tied in a continuous string of loops on the form shown at C. To make this frame C, take a piece of board about an inch thick, 8" long and 2" wide. Bore two holes the same size as the dowel rod shed stick B, and in these insert two pieces of dowel rod about 4" long to stand upright. This little frame can be fastened to a table with clamps. Tie the cord tightly around one rod and then the other until sufficient number of ties have been made for the number of threads picked up on the black pickup stick. Slip this continuous looped knotted cord off the dowels, and insert it all across the loom in the shed made by the black pickup stick. Then take the heddle rod B, and bring up a looped cord between each thread to be raised by the rod as shown. If you are planning to do much of this type of weaving you will find this type of tying in an extra heddle very convenient. Another method is shown at E. This was described in July 1936 Handweaving News for the setup of the picture frame loom, and may be used instead if desired. If your loom is equipped with long eyed heddles, you can pick up the desired shed on a wide stick on the back of the loom back of the harness, and turn it on its edge when the shed is required, but for this your heddle eyes should be about an inch long to get a good shed.

Method of Weaving the Open work Technique.

Weave a plain tabby heading for a hem. To weave the open work texture all across the loom:—End your plain tabby with a shot from left to right. Raise your heddle rod for the special shed, and in this throw a shot of weft all across the loom to the left. Change tabby shed, and throw a shot of plain tabby weave from left to right. Raise the heddle rod again and throw a shot of weft all across the loom to the left in this shed. Change tabby shed, and throw a shot of plain weave from left to right.

This completes one row of open work squares. Repeat until familiar with this.

Pattern Weaving in Open work Technique.

Any cross section paper pattern may be used for this weaving. But large areas look the best. Single squares or single lines are not especially effective. Only one shuttle is necessary, and if you are working on light colored warps a black shuttle is an excellent tool. All pattern counting should be done with the plain tabby weave shed open as if to weave from right to right, and with the special heddle rod raised. Count the spaces of your pattern, and center your pattern with the center block on the raised heddle rod on the loom. For the first row of your pattern count on each side of this center, so your pattern will come out evenly on each edge of the weaving. The patterns on Page 3 were designed especially for the 8" width of the No. 240 Struclo loom, and require 38 spaces for their width. If you wish your pattern in plain weave with the open work background, go over each pair of warp threads with your shuttle in the raised heddle rod shed for each white space of your pattern, and go under each pair of warp threads for each black square of your pattern. For background in plain weave, and pattern open work, reverse this.
Designs for Weaving "Bratten" Lace Weave Technique.

To weave the simple border at A of pattern No. 3 on this page:
End with a plain weave tabby from left to right.
Change shed, raise heddle rod. From the right with a black shuttle in the shed which is raised by the heddle rod, go over 3 pairs of warp threads, then under 4 pairs of warp threads, over 1 pair, under 4 pair, and so on in repeat all across the loom for the first row of the pattern. Change shed, weave plain tabby from left to right. Change shed, raise heddle rod, and pick up the same warp threads as in the preceding row. Change shed, tabby weave from left to right. Change shed, tabby weave from right to left. Change shed and tabby weave from left to right. This completes one row of the pattern.
Be sure and put in the three shots of plain weave between each two rows picked up for the pattern.
Continue according to your cross section pattern.

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Explanations of Designs on Page 3.

"Bratten Open Lace Weave."

No. 1.

This pattern is one sent to me by Mrs. Bratten. She writes me that it came from an old French book of cross stitch designs. I wove this particular piece with a grey linen with little nubs of color spun into the thread, red, yellow, blue, green etc, on a 40/2 warp. It was most effective as a small end table runner. It was woven on the small No. 240 table loom, but any of these designs could be made twice as large by allowing 2 pattern blocks on the loom for one of the black squares on the cross section paper.

No. 2.

At the right is a photograph of the two little dancing figures of pattern No. 2. It may serve to give some idea of what the texture looks like, when the lace weave is used for the background, and the plain weave forms the design. I like this texture better than when the pattern is in the lace weave, and the background is plain. This particular piece was woven all of 40/2 linen natural for the warp and weft.

No. 3.

The simple borders A, B, C, are all good patterns to use to try out the technique for the first time you attempt to weave this "open lace weave" technique. E is an effective pattern for the front of a blouse made of all silk for the warp and weft. Many interesting arrangements of this design can be worked out and it can be used for a number of different kinds of articles.

No. 4.

This is a good design for an end table runner or for a small wall hanging if it is worked out in color. It would also make an effective border for the bottom of a border for glass curtains if the pattern was arranged as a repeat.

No. 5.

This pattern was arranged for a linen luncheon set woven on a warp of 420 threads. Weave the design as given with the plain weave in the pattern and the lace weave for the background. The squares in the corner can be used only once on the whole place mat as shown, or can be repeated in the opposite corner on the other end. It is effective either way. The bands on the sides of the design can be repeated as a continuous line, or broken up as desired for the length as desired.

No. 6.

Here we have another design which can be used in many other ways as well as for a small table runner.

The design on Page 1 at the top of the page, makes a very effective small runner. Or the widest width can be used, and the triangles repeated on the sides as often as desired for the length, and an attractive luncheon set place mat can be woven. A plain weave center with the border in lace weave and the black squares in plain is especially effective in this pattern.

Many other ways can be devised to use these designs in effective ways. And you will find it most interesting to work out and use your own designs for this particular type of weaving. And I hope those of you who subscribe for this leaflet will feel free to write to me if you have any difficulty in working out the weave from these directions.