Wool Weaving

Draft 2

12 Dent reed, 2 threads in each dent.

Cotton warp, 20/2 white.

Weft, wool in 2 colors.

Binder, fine wool in neutral tone.

Thread loom - Begin at right with edge threads, (always using 2 threads together on outside edge) thread thru as many repeats of patterns as needed for width, allowing 49 threads on the left for reversed first unit of patterns, edge threads with 2 for outside thread.

Treading -

4(1-4) #
2(1-2) 2(2-3) 2(3-4) 2(1-4) 2(2-3) 2(1-4)
4(1-4) 2(1-4) 2(2-3) 2(3-4) 2(2-3) 2(3-4)
4(1-4) 2(2-3) 2(3-4) 2(1-4) 2(1-4) 2(1-4)
4(1-4) 2(3-4) 2(1-4) 2(1-4) 2(1-4)
2(1-2) 2(2-3) 2(1-4) 2(3-4) 2(1-2) 2(1-4)

Note:

For treading for table loom, use the opposite of each combination given or, in other words, read 4(1-4) as 4(2-3), 2(1-2) as 2(3-4), etc.
Wool Weaving

Draft 3

15 Dent reed, 2 threads in each dent.

Cotton warp.

Heavy wool weft.

Binder, cream mercerized number 20.

Thread loom - Begin at right, thread edge group 2 thread together in outside heddle. Thread border group 6, 8 or 10 times depending on width of weaving, thread center unit repeating a number of times, then begin at 41st thread of center units of pattern reversing thru the balance of unit and reversing thru the border unit, repeating as many times as on the right edge, reversing thru the edge threads putting 2 threads thru the last heddle.

Treading without borders on end -

1-4 #       2(2-3)
2(3-4)      1-2
2-3         4(2-3)
2(1-2)      3(1-2)
3(1-4)      3(1-4)
3(3-4)      3(3-4)
1-4         1-4
3(3-4)      3(3-4)
3(1-4)      3(1-4)
3(1-2)      2(1-2)
4(2-3)      2-3
1-2         2(3-4)    Repeat from #

Note:
For treading for table loom, use the opposite of each combination given or, in other words, read 1-4 as 2-3, 2(3-4) as 2(1-2), etc.
Linens I

Repeat of Pattern

Treadles

4-2
3-1
2-1

Linens II

Repeat

Treadles

1-2
3-1
4-1

3-2
Linen Weaving

Draft 1

12 Dent reed, 3 threads in each dent.

Bernat's linen warp.

Bernat's linen "Special" for weft.

Begin at right of loom in threading, and be sure to end with the same group of threads at left edge; add the group of threads for edge again at left. Two threads may be used in the last heddle, at each side for strength.

This pattern is good for luncheon sets and long runners.

The material for warp and weft should be the same size thread.

Treading.

Small group

\[
\begin{array}{ccc}
4-2 & 4-3 & 4-2 \\
1-3 & 2-1 & 1-3 \\
4-2 & 4-3 & 4-2 \\
1-3 & 2-1 & 1-3 \\
4-2 & 4-3 & 4-2 \\
1-3 & 2-1 & 1-3 \\
4-2 & 4-3 & 4-2 \\
1-3 & 2-1 & 1-3 \\
\end{array}
\]

Large space

4-3 & 2-1 alternating until you have 32 threads.

Note:

For treading for table loom, use the opposite of each combination given or, in other words, read 4-2 as 3-1, 1-3 as 4-2, etc.
Linen Weaving

Draft 2

15 Dent reed, 2 threads in each dent.

Bernat's linen warp.

A heavier thread for weft, with either linen warp or linen special for binder.

Thread loom with as many repeats of pattern as required for the desired width.

Be sure to end with the same group of threads you began with, so the edges will be the same.

This pattern is most attractive used with a white or cream warp and blue or other contrasting color for the pattern. It may be used with a fine cotton warp and fine wool weft for chair covering.

Treadling

<table>
<thead>
<tr>
<th>2(1-2) #</th>
<th>4(2-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>3-4</td>
</tr>
<tr>
<td>3-4</td>
<td>1-4</td>
</tr>
<tr>
<td>2-3</td>
<td>1-2</td>
</tr>
<tr>
<td>1-2</td>
<td>2-3</td>
</tr>
<tr>
<td>1-4</td>
<td>3-4</td>
</tr>
<tr>
<td>3-4</td>
<td>1-4</td>
</tr>
</tbody>
</table>

Repeat from #

Note:
For treadling for table loom, use the opposite of each combination given or, in other words, read 2(1-2) as 2(3-4), 1-4 as 2-3, etc.
Linen Weaving

Draft 3

15 Dent reed, 2 threads in each dent.

Bernat Linen warp.

Heavier linen thread for weft.

Linen Warp for binder.

Thread loom - Begin at right hand side, thread edge, then border and as many repeats of center as needed to make the width weaving desired; reverse border, leaving off the last thread (1) of center repeat and continue thru the edge group of threads.

This pattern is good used 1 thread to each dent in the reed for window hangings.

Treading -

<table>
<thead>
<tr>
<th>2(3-4) #</th>
<th>2(4-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3</td>
<td>2-1</td>
</tr>
<tr>
<td>2-1</td>
<td>2-3</td>
</tr>
<tr>
<td>4-1</td>
<td>3-4</td>
</tr>
<tr>
<td>3-4</td>
<td>4-1</td>
</tr>
<tr>
<td>2-3</td>
<td>2-1</td>
</tr>
<tr>
<td>2-1</td>
<td>2-3</td>
</tr>
</tbody>
</table>

Repeat from #

Note:

For treadling for table loom, use the opposite of each combination given or, in other words, read 2(3-4) as 2(1-2), 2-3 as 1-4, etc.
Materials

Warp 20/2 is suitable for general weaving, where a fine warp is wanted, 24 to 36 threads to an inch. 1 lb. will make a warp 500 threads, 12 yards long.

10/2 for medium weight, 15 to 24 threads to an inch. 2 lbs. will make a warp 500 threads, 12 yards long.

Egyptian cotton makes a good warp but is harder to put on the loom.

Carpet warp comes in white, natural and colors for rug weaving - 5 lbs. will make a warp of 500 threads, 12 yards long.

Linen warp must be ordered carefully, be sure you ask for linen for warp as it needs to be a long fibre and well twisted, which makes it more expensive but the most satisfactory to buy. 40/2 is best for a linen warp for general use.

Weft - This may be a softer and more loosely twisted yarn; a larger size than the warp gives the best results.

For table covers and pillow covers a heavy perle No. 3 with No. 10 for binder. This gives quick results which are quite effective in making things for a summer home or cottage.

Mercerized cotton is best to use for one's first weaving.

Cotton chenille is good for bath mats, both for overshot and binder.

Baby Blankets and Crib Spreads

Weaving special for warp with shetland for weft, 15 threads to an inch.

If a basket weave is used, shetland or laurel is best, 12 threads to an inch

On a cotton warp, for a carriage or crib spread, use shetland, laurel or Lustrone in pattern weaving.

Home Spun for dresses and suits may be made with. Fabri for warp or home spun yarn for both warp and weft; a light colored warp and dark weft make a good mixture.

Rug Weaving in pattern on cotton warp, Bernat Rug wool gives good results.

Silks and rayon are best used on a fine mercerized cotton warp, as they slip and pull on silk warp.

 Addresses for looms and materials will be furnished upon request.
Swedish Embroidery Weave.

Cross stitch patterns may be used, and the weaving is done with the wrong side on top. No. 3 mercerized cotton is used for the pattern, and No. 10 for the binder.

Put in the desired amount of plain weaving, then, with a sail needle and a dark colored thread of No. 3 cotton, pick up 3 warp threads and drop 1, all the way across the warp. This divides the warp into the units used in the weaving and makes it very easy to place the figures. After the figures are placed and the first block is woven, the heavy thread is pulled out, as it is no longer needed. If it leaves a small space, the threads can be easily pushed together with the point of the sail needle.

The pattern unit must be repeated times enough to make a square, always using a binder thread after each pattern thread. This square block represents a square in a cross stitch pattern.

The ends of the pattern threads may be run in underneath on the wrong side after the weaving is entirely finished, or may be tied off as you finish with each thread by weaving back over and under the three threads of the last pattern block. The latter way is the better way, and is used in the woven sample.

If you wish, the unit may be 2 threads up and one down, or 4 up and 1 down depending entirely on the number of threads to the inch in your warp.

If there are long skips from one part of the pattern to another, it is best to use separate threads for each part rather than to carry the thread across.
French

Laid-In
Problem 8

French Tapestry Weave.

Cross stitch patterns may be used, and the weaving is done right side up. No. 5 mercerized cotton is used for the pattern, and No. 10 for the binder. Each square in the pattern represents 2 threads. With the sail needle go over 2 threads and under 2 as many times as there are squares, in the 1st row in the pattern and come back on the alternate threads. Then beat and they will appear as a single row. Follow with a binder.

When necessary to put in a new thread and also at the beginning and end of the figure, drop the end of the thread through to the wrong side, and, after the weaving is finished, run them in underneath.

As in the Swedish embroidery weave, if there are long skips from one part of the pattern to another, it is best to use separate threads.

Problem 9

Laid-in Figures.

For these, too, cross stitch patterns may be used.

The thread used for these figures is the same size as that used for the rest of the weaving, and is laid in the same shed with the plain weave. The sample shows the method quite clearly.

The samples of these three weaves were woven on a warp set 24 threads to the inch.
Rugs.

Patterns for rugs should not have overshots longer than \( \frac{1}{2} \) inch, and they usually have a border on all four sides. With a simple center use an elaborate border, and with an elaborate center a simple border.

Carpet warp is used and is sleyed 12 or 15 threads to the inch.

To estimate the number of threads necessary for the warp, first find the number of threads necessary for the entire width, subtract the number of threads used in both borders from the total number and divide the remainder by the number of threads in one repeat of the center, in order to have complete repeats, with a remainder in draft 2 of 37 threads, and in draft 3 of 13 threads. This remainder is necessary in order to attach the left border correctly. As rugs pull in in the weaving, it is necessary to allow about 1 inch extra for this on all rugs except chenille on which an allowance of 2 inches should be made. In sleying put 2 threads through the first and last dents, and 1 thread through the other dents - this makes a firmer edge.

The weft materials may be wool rug yarn, cotton chenille, Rugro or rags. The latter should be torn 2 inches wide if of the weight of gingham, or 1 inch wide if of denim weight, for rugs in the plain weave. If figured rugs are to be woven from rags, the rags are cut \( \frac{1}{2} \) inch wide. With chenille use a chenille binder, but with the others the binder may be of carpet warp, except with the wool yarn, when a finer yarn of the same quality is sometimes desirable.

Rags for rugs should not be sewed together, but should be slanted on each end and the ends overlapped for about 1\( \frac{1}{2} \) inches. With the other materials let the old and new wefts overlap for the same distance.

Begin the rug with about \( \frac{1}{2} \) inch of plain weaving with carpet warp, then weave enough of the pattern color to turn back for a hem, then a shot of binder and then begin the border. Three inches to the yard should be allowed for
shrinkage between the borders. If a fringe is desired, put in only 2 shots of the pattern color, then a shot of binder and then the border.

Rugs should be beaten very closely in order to make a firm rug that will lie flat on the floor.

If the weft material is too heavy to turn back for the hem, weave 2 inches with the carpet warp and make the hem of that.

For the fringe, divide the ends of the warp into groups of from 3 to 5 threads each and tie in an overhand knot.

The drafts given are suitable for any of the materials mentioned. Draft 1 is a variation of the Honeysuckle. For draft 3 a 15 dent reed would be better than a 12.

Directions for threading:

Draft 2.

Thread right border, then the number of repeats necessary for the center, ending the last repeat with the 6th thread from the end, then thread the left border backwards to the beginning of the draft.

For a wider border, make as many additional repeats of the last 14 threads of the border as is necessary when threading, and in weaving, make the corner a perfect square as shown in the draft by weaving more repeats of the given treadling.

Draft 3.

Thread right border, then the number of repeats necessary for the center of the rug, ending the last repeat with the 13th thread, then thread the left border backwards to the beginning of the draft.
<table>
<thead>
<tr>
<th>Draft 1</th>
<th>Draft 2</th>
<th>Draft 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Border 2(1-2)</td>
<td>Border 3(2-3)</td>
<td>Border 1-4 Center of rug 3-4</td>
</tr>
<tr>
<td>2(2-3) Repeat for the</td>
<td>3(1-2)</td>
<td>3-4 1-4</td>
</tr>
<tr>
<td>2(3-4) desired width.</td>
<td>6(1-4)</td>
<td>2-3 1-2</td>
</tr>
<tr>
<td>5(1-4)</td>
<td>3(1-2)</td>
<td>1-2 2-3</td>
</tr>
<tr>
<td>Center of rug 5(3-4)</td>
<td>2(2-3)</td>
<td>1-4 3-4</td>
</tr>
<tr>
<td>5(2-3)</td>
<td>3(1-2)</td>
<td>3-4 1-4</td>
</tr>
<tr>
<td>5(1-2)</td>
<td>6(1-4)</td>
<td>6(2-3) 2(1-2)</td>
</tr>
<tr>
<td>5(2-3)</td>
<td>3(1-2)</td>
<td>7(3-4) 1-4</td>
</tr>
<tr>
<td>5(3-4)</td>
<td>2(2-3)</td>
<td>7(1-4) 3-4</td>
</tr>
<tr>
<td>5(1-4)</td>
<td>3(1-2)</td>
<td>7(1-2) 2-3</td>
</tr>
<tr>
<td>6(1-4)</td>
<td>6(1-4)</td>
<td>7(2-3) 1-2 #</td>
</tr>
<tr>
<td>Repeat for the length</td>
<td>3(1-2)</td>
<td>7(3-4) 6(1-4)</td>
</tr>
<tr>
<td>desired, then reverse</td>
<td>2(2-3)</td>
<td>7(1-4) Repeat for</td>
</tr>
<tr>
<td>the border on the other</td>
<td>3(1-2)#</td>
<td>1-2 desired length,</td>
</tr>
<tr>
<td>end, omitting the 5(1-4)</td>
<td>6(1-4)</td>
<td>2-3 then reverse,</td>
</tr>
<tr>
<td>of the last repeat of</td>
<td></td>
<td>3-4 beginning at</td>
</tr>
</tbody>
</table>
| the center. | | #1-2 and go-
| | | ing backwards |
| Center of rug 3(1-2) | 1-4 | 6(2-3) at # and going |
| 3(2-3) After weaving | 2(1-2) | 7(1-4) |
| 6(3-4) the last repeat | 1-4 | 7(3-4) backward to the |
| 3(2-3) of the center, | 3-4 | 7(2-3) beginning. |
| 6(1-2) weave the second | 2-3 | 7(1-2) |
| 3(2-3) border beginning | 1-2 | 7(1-4) |
| 6(3-4) at # and going | 7(1-4) | 7(3-4) |
| 3(2-3) backward to the | 7(3-4) | |
| 3(1-2) beginning. | 7(2-3) | |
| 6(1-4) | 7(1-2) | |
| Repeat for desired | 7(1-4) | 6(2-3) |
| length. | 7(3-4) | |
Color.

A color scheme is a group of colors, harmoniously related to each other and which is suitable for use in design or materials.

We study color in order to think as well as feel color and apply it to our hand woven articles. The more we think about color the greater the development of our color sense.

Primary and secondary colors and the sensations they suggest should always be kept in mind in planning materials for interior decorations.

Primary colors: yellow gives light.
red suggests blood, fire and warmth.
blue, - cold and ice and when used in a room makes it appear larger.

Secondary colors: green, composed of yellow & blue, gives light and coolness, cheer and restraint.
orange, composed of yellow & red, gives both light and heat and needs other colors to modify it, and includes reds, buffs and many wood colors.
purple, composed of red & blue; fire and ice destroy each other and give a dark and shadowy color.

First we may use any one of the primary with white, black or grey.

Second we may use an indefinite number of values of one color called a monochromatic color scheme; it is always safe but often lacks interest.

Third we have complementary color schemes, harmony thru contrast; the eye is better satisfied with a group of colors. Complementary colors are the strongest possible contrast to each other, they have nothing in common and intensify each other when used together. They should be used by combining small spots of the full strength of one color with tints or shades of the other or with a white, black or grey background.

Fourth we have what is called a color triad; one cannot take any three colors but one's choice must be at equal intervals from each other on the color scale, as red-orange, yellow-green and blue-violet; the three colors may be used together in any value or intensity and with white, black or grey and can be depended upon to produce harmony.
If you are near a museum, go and study the wonderful soft full colors of the Italian velvets in reds and greens. From the Spanish one can obtain designs for embroidery weaving for bags. Brussels Tapestries give soft blending of colors. Persian carpets and rugs, Coptic and Peruvian tapestries for color schemes.

If you choose colors which harmonize with your warp, they will usually harmonize with each other.

A line of black or prussian blue will often bring out your pattern and colors to good advantage.

Suggested color schemes.

Greyed blue and grey green with small areas of red.

Blue violet grey, red violet grey and yellow.

Orange grey and its complement blue on light tan warp.

Grey green with tint and shade of red violet on natural warp.

Grey yellow green, blue green and blue.

Orange with a tint and shade of blue green.

Yellow orange, orange, grey blue and a shade of green blue.

Yellow orange, yellow green, tint of green blue, grey blue and a shade of brown.

A tint and a shade of grey green and medium brown.

A tint of yellow, jade green, a shade of orange and a shade of blue.

Golden yellow, yellow brown and grey blue green.
Weaving Bibliography.

Atwater, Mary M. Shuttlecraft Book of American Hand Weaving. N. Y. Macmillan 1928

Barlow, A. History and Principles of Weaving. 1879

Blount, Mrs. G. Story of Home Spun Web. 1913

Collin, Marie Vara Hemvavnacler. 1929

Crankshaw, W. P. Weaving. London, Sir Isaac Pitman & Son, 1924


Earle, A. M. Home Life in Colonial Days. 1913

Encyclopaedia of Textiles Published by E. Weyhe, 1927

Glazier, R. Historic Textile Fabrics. 1931


Goodrich, Frances L. Mountain Home Spun. New Haven, Conn. Yale University Press, 1931

Hall, Eliza Calvert Book of Hand-Woven Coverlets. Little, Brown and Company, 1912

Hooper, Luther Hand Loom Weaving. London, John Hogg, 1910


House Beautiful Old Woven Coverlets, May 1917

Industrial Arts Magazine Oriental Rug Effects, November 1919 Drawing-In and Pattern Drafts, March 1920
Kissel, M. L. Fabrics from Primitive Looms. N. Y. Macmillan 1918
Landes, John A Book of Patterns for Hand Weaving. Compiled by Mary M. Atwater.
Little, Frances Early American Textiles.
Thomson, W. G. History of Tapestry. 1906
Woolman and McGowan Textiles. N. Y. Macmillan 1920


The Handicrafter Published by Emile Bernat & Sons. Jamaica Plain, Massachusetts.

Magazine

Dyeing Bibliography

Mairet, Ethel M. Vegetable Dyes. S. Dominic's Press. 1924
Pellew, Charles R. Dyes and Dyeing. N. Y. McBride, Nast & Co. 1913
Pope, F. Whipple Methods in Dyeing.