

Practical



WEAVING

Suggestions

VOL. V. No. 2

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## NOTES ON THE "CRACKLE WEAVE"

by MARY M. ATWATER

The weave we know as the "crackle weave" is derived from an ancient and little known Scandinavian weave called "Jamtlandsvaev." As this seemed a somewhat inconvenient handle, I gave it a new one. The name was suggested by the texture effect which seemed to me to resemble the "crackle" in pottery, and this name has come into general use among English speaking weavers. As we are using the weave in a great variety of patterns and for many effects entirely different from the Swedish tradition it seems entirely proper to use an American name.

The weave is a four-harness weave, with some of the desirable qualities of the more elaborate American Colonial "Summer and Winter Weave", and has proved very useful for such fabrics as rugs, upholstery, drapery, bags and so on. It produces a closely combined fabric with no long skips, and hence a fabric with excellent wearing qualities—in this

respect far superior to the familiar overshot weave. There are other advantages: Many patterns are exactly the same on both sides, and even when the figure is not exactly the same, both sides are equally handsome. For many purposes this is very desirable. Also, as the size of the pattern blocks is not limited, as in the overshot weave, there is more freedom of design and the weave lends itself well to the modern type of pattern, which is more and more in demand.

The weave is composed of four pattern blocks, each block being written on three harnesses, as illustrated at (a) on Diagram No. 1. A study of these blocks will show that each block weaves on two different pattern sheds, and that each shed weaves across two blocks. The 1-2 shed weaves block 1 and also block 4; the 2-3 shed weaves blocks 1 and 2; the 3-4 shed weaves blocks 2 and 3; the 1-4 shed weaves blocks 3 and 4.

Drafts for this weave are somewhat diffi-

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cult to write and the following points should be noted: In writing block 2 after block 1 it is necessary to put in two additional threads to carry the weave. This is also necessary when passing from block 2 to block 3. No additional threads are required when passing from 3 to 4, or when passing from 4 to 1. Though the "unit" of the weave consists of four threads, a single unit block actually covers seven threads. This may prove somewhat confusing when working out the proportions of a pattern, as a two-unit block is not twice as large as a one-unit block, covering eleven threads instead of fourteen. Draft (b), Diagram No. 1, shows a twill succession of one-unit blocks and draft (c) is a twill succession of two-unit blocks, illustrating the above. These drafts are not of particular interest as patterns, though useful for borders.

It will be noted that there are no skips of more than three threads. If a four-thread skip is introduced by mischance it shows as a serious defect in the weave and special care must be taken to avoid this.

The overlapping of the blocks produces an interesting effect,—impossible in overshot weaving. Many of the Colonial patterns of "Snow-Ball" type that require six harnesses in the summer-and-winter weave may be produced on four harnesses in crackle weave. But as each shed weaves over two blocks, the only way to weave a block without overlapping is to omit one of the blocks and one of the pattern sheds. This is illustrated by pattern (f), Diagram No. 1, and pattern (g), Diagram No. II.

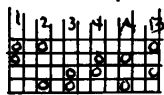
A wide variety of materials may be used for pieces in this weave—in general the materials suitable for overshot weaving. A somewhat wider spacing of the warp is, however, desirable, and a very coarse weft should not be used over a fine warp. For rugs use carpet warp set at 12 ends to the inch. For a heavy rug woven in very coarse material, thread the warp double—either two threads to the heddle or 1, 1, 2, 2, 3, 3, and so on. A  $10/2$  warp or a  $16/3$  may be set at 22 ends to the inch and a  $24/3$  warp at 27 or 28 ends to the inch.

All patterns in this weave are woven on the standard four-harness six-treadle tie-up as given on Diagram No. 1, though as noted above, for some patterns one or another of the treadle may not be used. The treadelings given on the diagrams are written as for the six-treadle tie-up, and must be transposed for looms tied to four treadles: for "treadle 1", 1-2; for "treadle 2", 2-3; for "treadle 3", 3-4; for "treadle 4", 1-4. Tabby 1-3 and 2-4. For table looms transpose as follows: for "1", levers 3-4; for "2", levers 1-4; for "3", levers 1-2; for "4", levers 1-4. Tabby 1-3 and 2-4.

The "normal" weaving for all pattern is similar to overshot weaving — repeat the pattern shot to square the block, with alternating tabby between the pattern shots. It should be noted that the number of shots as given in the written treadelings will not be correct for all combinations of material. Weave to produce the figure as illustrated.

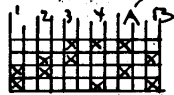
The normal weaving is best for all small patterns, but patterns composed of large

tie-up, rising shed



Tabby

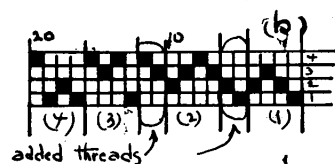
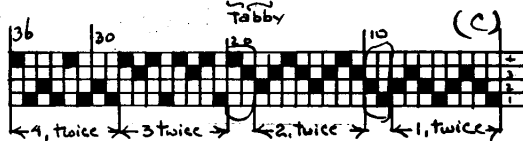
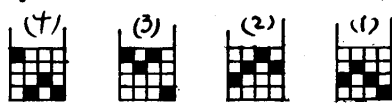
tie-up, sinking shed



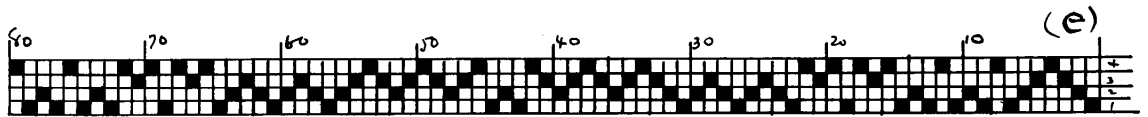
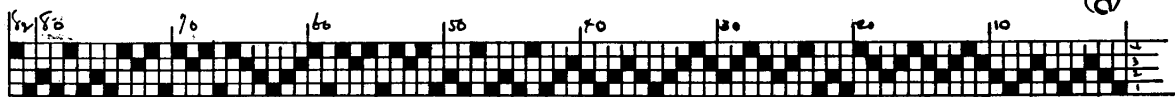
Tabby

Diagram No:1

(a)



added threads

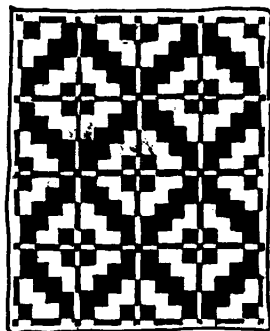


Weave (b): either tie-up  
treadle 1, 3 shots, or 5 shots  
" 2, 3 " " 5 "  
" 3, 3 " " 5 "  
" 4, 3 " " 5 "  
Repeat



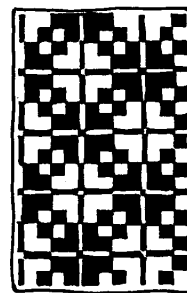
Weave (c)  
treadle 1, 5 or 7 shots  
" 2, 5 " 7 "  
" 3, 5 " 7 "  
" 4, 5 " 7 "  
Repeat

Weave (d) (Normal)  
Treadle 1, 2, shots  
" 3, 5 " " 5 "  
" 2, 5 " " 5 "  
" 1, 5 " " 5 "  
" 4, 5 " " 5 "  
" 3, 5 " " 5 "  
" 1, 2 " " 5 "  
" 3, 5 " " 5 "  
" 4, 5 " " 5 "  
" 1, 5 " " 5 "  
" 2, 5 " " 5 "  
" 3, 5 " " 5 "  
Repeat



Pattern (d)

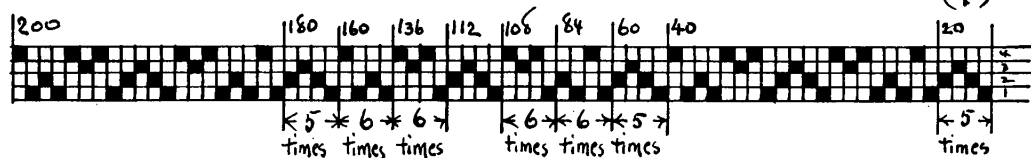
Weave (e) - Normal  
treadle 2, 2 shots  
" 4, 5 " " 5 "  
" 1, 5 " " 5 "  
" 3, 5 " " 5 "  
" 2, 5 " " 5 "  
" 1, 2 " " 5 "  
" 2, 5 " " 5 "  
" 3, 5 " " 5 "  
" 1, 5 " " 5 "  
" 4, 5 " " 5 "  
Repeat



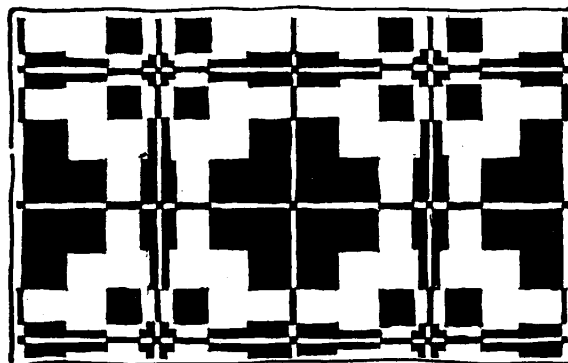
Pattern (e)

"Three Flowers"

(f)

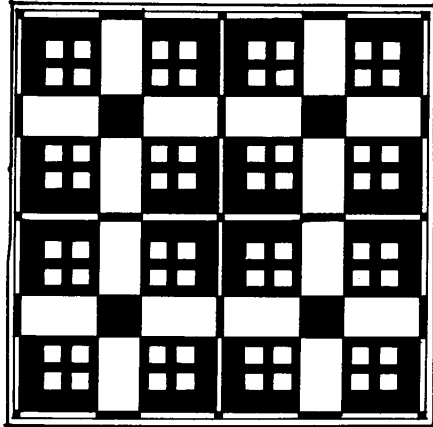
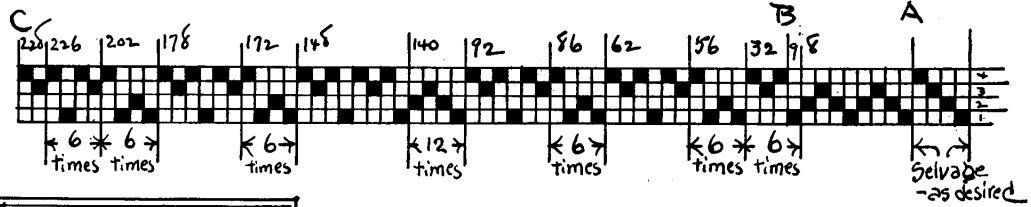


Weave (f) - Normal  
Treadle 2, 15 or 17 shots  
" 3, 3 shots  
" 4, 3 " "  
" 2, 3 " "  
" 4, 3 " "  
" 3, 3 " "  
" 2, 15 or 17 shots  
" 3, 17 or 19 " "  
" 4, 17 or 19 " "  
" 2, 3, shots  
" 4, 17, or 19 shots  
" 3, 17 or 19 " Repeat



## Diagram No. II

### Pattern "Cottage Windows", arranged for a Pillow-Top

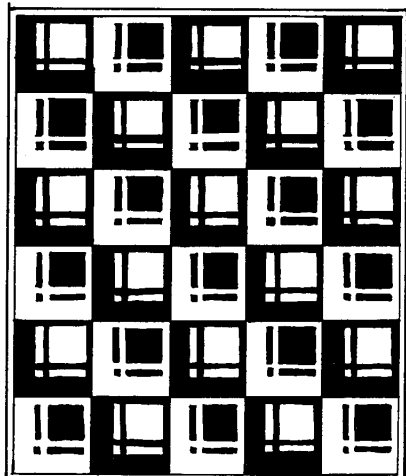
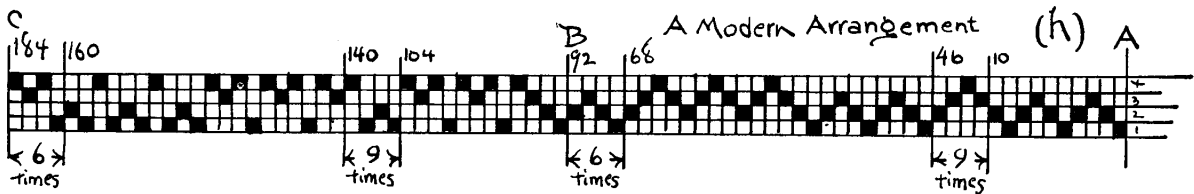


Thread:  
 Selvage 4 threads  
 A to C, twice 456 "  
 A to B, 9 "  
 Selvage, 4, 3, 2, 1, 4 "  
473 "

this pattern may be used as an all-over for drapery and upholstery fabrics

(Note that treadle 1 is not used in weaving)

Normal Weaving:  
 Treadle 2, 5 shots  
 " 1, 17 "  
 " 3, 17 "  
 " 4, 5 "  
 " 3, 17 "  
 " 4, 5 "  
 " 2, 37 "  
 " 4, 5 "  
 " 3, 17 "  
 " 4, 5 "  
 " 3, 17 "  
 " 1, 17 "  
 Repeat  
 End: 2, 5 shots



Thread:  
 Selvage, 1, 2, 3, 4, 4 threads  
 A to C, twice 368 "  
 A to B, 92 "  
 Selvage, 1, 4, 3, 2, 1, 5 "  
469 "

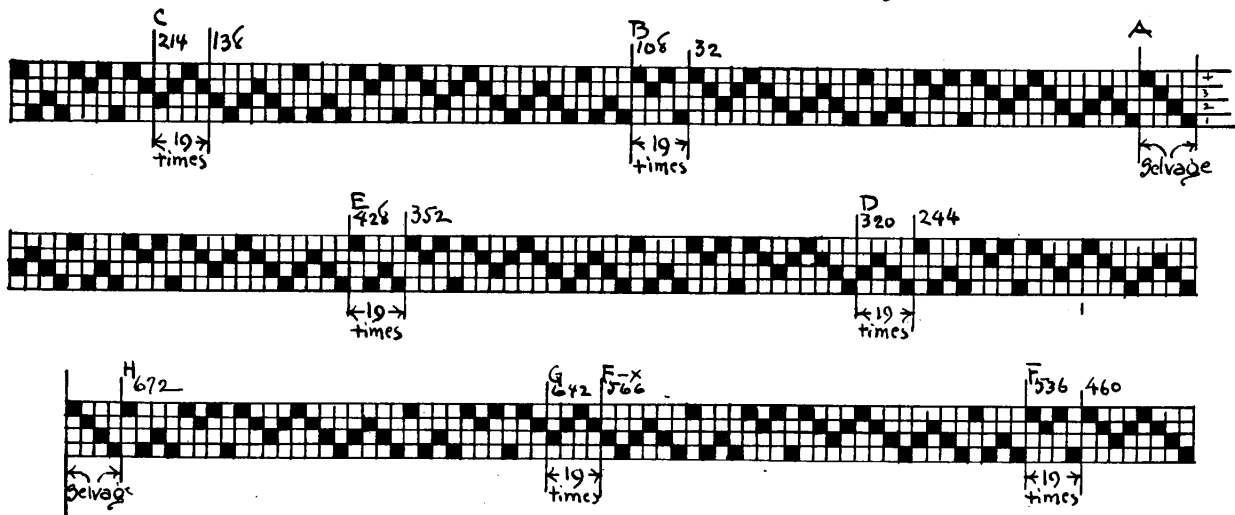
this pattern may also be used as an all-over for drapery and upholstery.

Normal Weaving:  
 Treadle 2, 17 shots  
 " 1, 5 "  
 " 2, 5 "  
 " 1, 29 "  
 " 2, 5 "  
 " 4, 17 "  
 " 3, 5 "  
 " 4, 5 "  
 " 3, 29 "  
 " 4, 5 "  
 Repeat

Either of these patterns may be made as much larger as desired by increasing the number of repeats under each of the large blocks. It is not advised to make them smaller, as they are not effective when reduced. The normal method of treadling is best if the figures are to be woven as illustrated, but many variations of treadling are possible. Pattern (h) may also be woven in the Italian manner.

## Diagram No. III

### Pattern "Rain on the River", a Modern design for Drapery



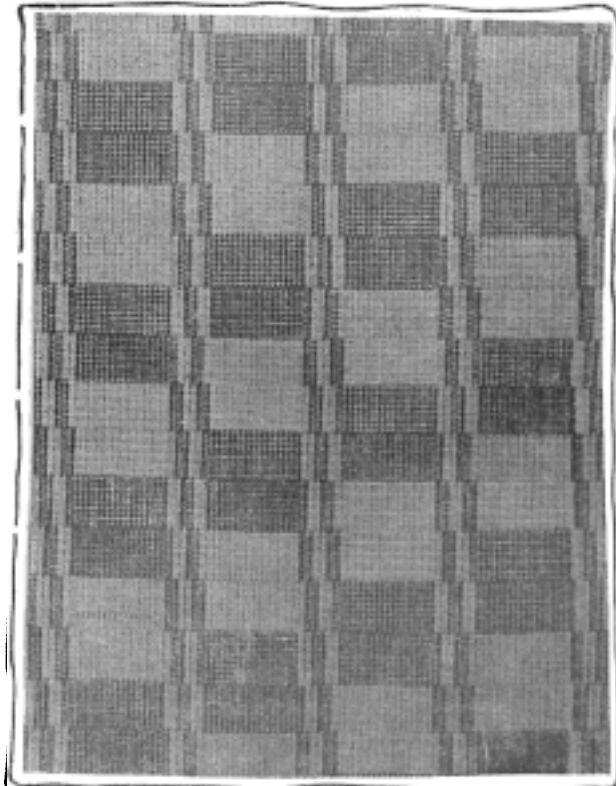
For a wider fabric, increase the number of repeats under the pattern blocks, or from G, return to C and continue to the end, or for as many pattern blocks as desired. For a narrower piece omit the last figure, ending at F-X and adding a twilled selvage as desired, or omit one or two repeats from each of the pattern blocks, this, however, changes the proportions of the figure. Do not omit more than two repeats.

For warp use \*10 perle cotton or a 1/2 unmercerized cotton set 22 ends to the inch.

For pattern weft: \*3 perle cotton; background weft - for "normal" or summer-and-winter effect, tabby like the warp; for Italian "no-tabby" treadling, as illustrated, use perle cotton No. 5. (Art. 114)

This pattern may be woven in the "normal" manner, or in the "summer-and-winter" effect, but the Italian style treadling is advised. For the special effect illustrated, repeat each block 10 times, giving 21 pattern shots. For a shaded effect weave the pattern shots in black, or in color 637, or color 655. Weave the first 12 blocks - three repeats of the treadling - with color 1416 for the (b-1) shots and color 773 for the (b-2) shots. Weave six blocks with (b-1) as before and alternate shots of color 773 and color 1261 for the (b-2) shots. Next weave six blocks alternating color 1416 and color 1447 for the (b-1) shots, and weave all (b-2) shots in color 1261. Next weave twelve blocks with all (b-1) shots in color 1447 and all (b-2) shots in color 1261. This illustrates the method of going from one color to the next. Shade the (b-1) shots from 1447 to 1456, to 574, to 908, to 85 - shade the (b-2) shots from 1261 to 402, to 1460, 1432, 1402.

The top of the piece may be woven with all background shots in color 1402. Of course any other set of graduated colors may be used in this manner.



"Rain on the River"

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blocks may be woven in two other ways that give interesting variations of effect. They may be woven in the summer-and-winter manner: Weave block 1 with alternating shots on treadles 1 and 2; block 2 with alternating shots on treadles 2 and 3; block 3 with alternating shots on 3 and 4; block 4 with alternating shots on 4 and 1. Tabby as usual. The Italian "no-tabby" method of treadeling gives an entirely different effect and a very pleasing texture—suggested especially for drapery. The background in this weave is woven with alternating "opposite" pattern shots in a background color or colors, as given in detail below. A single background color may be used, but a livelier effect results if two background colors are introduced. The material used for the pattern shots should be in the darkest and most important color, and in a material a little heavier than the material used for the background. The two background colors may be strongly contrasted in shade but should not be too far apart in "value", and should be a good deal lighter than the pattern color. The treadeling follows: (no tabby)

Block No. 1

treadle 1, pattern color, (p)  
treadle 2, background 1, (b-1)  
treadle 1, (p)  
treadle 4, (b-2)  
Repeat as desired for size of block  
End, treadle 1, (p)

Block No. 2

treadle 2, (p)

treadle 3, (b-1)  
treadle 2, (p)  
treadle 1, (b-2)  
Repeat as desired  
End, treadle 2, (p)

Block No. 3

treadle 3, (p)  
treadle 4, (b-1)  
treadle 3, (p)  
treadle 2, (b-2)  
Repeat as desired  
End, treadle 3, (p)

Block No. 4

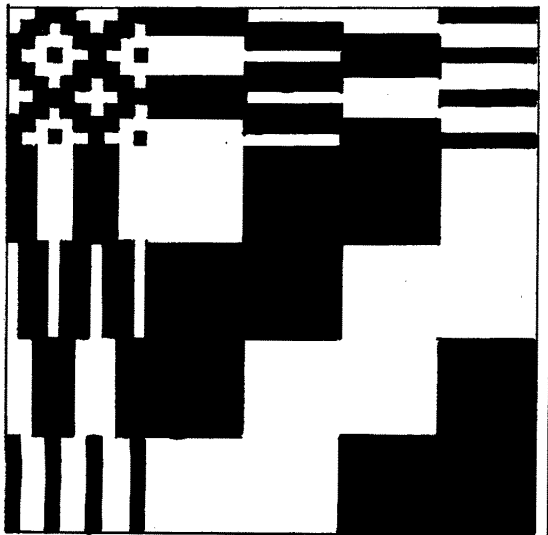
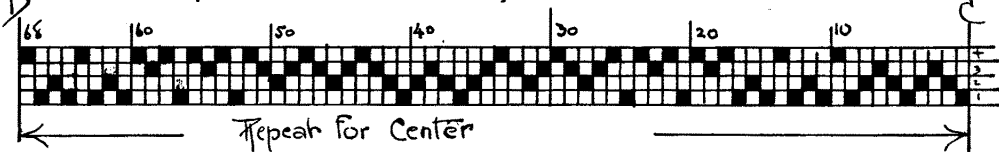
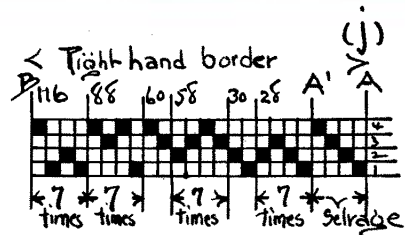
treadle 4, (p)  
treadle 1, (b-1)  
treadle 4, (p)  
treadle 3, (b-2)  
Repeat as desired  
End, treadle 4, (p)

This method of weaving is used in the overshot weave by Italian weavers. The crackle weave appears to be unknown in Italy. The summer-and-winter method of treadeling is American Colonial. Neither method is used in the Scandinavian Jamtlandsvaev.

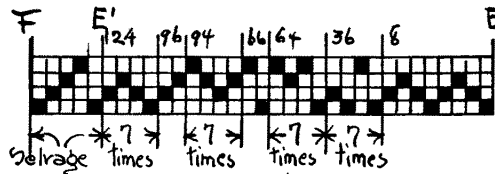
The patterns selected for this leaflet have been chosen as typical, and also because they have proved especially useful among the many patterns that have been published from time to time. Of course the pattern possibilities are practically unlimited, and it is hoped readers will be interested in writing their own designs.

# Diagram No. IV Two Patterns for Rugs

Warp: Carpet warp set at 18 ends to the inch.  
 Pattern weft: Rug yarn. (Art. 814), or heavy. (Art. 614)  
 Tabby 1/4" Filler. (Art. 1014) " " (Art. 814)

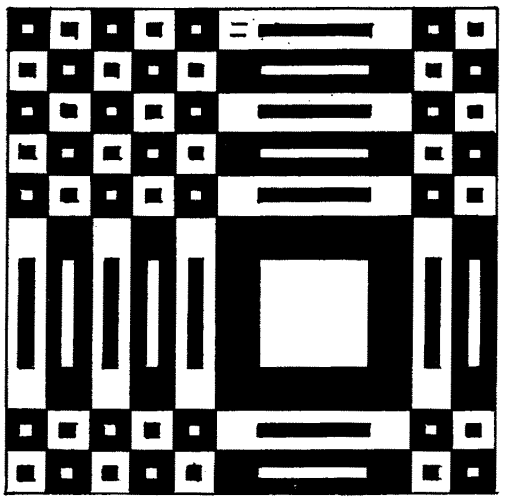
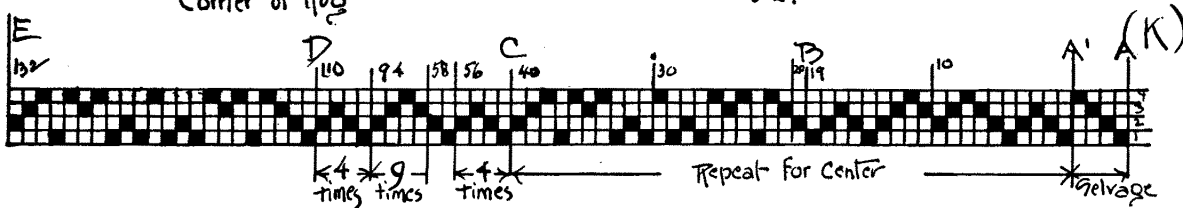


Corner of Rug



Thread:		Normal Weaving: Border
A to B	120 ends	Treadle 2, 19 shots
C to D, 4 times	272 "	" 1, 19 "
E to F	129 "	" 4, 19 "
	521	" 3, 19 "

Or thread:		Center	} Repeat for length
Selvedge	4 ends	treadle 2, 3 "	
C to D, twice	136 "	" 3, 3 "	
A' to B	116 "	" 4, 3 "	
E to E'	125 "	" 1, 3 "	
D to C	136 "	" 4, 3 "	
Selvedge	4	" 3, 3 "	
	521	Border, reversed	



Corner of Rug

Thread:		Weave: Border	} Repeat for length desired
A to E	136 ends	treadle 2, 3 shots	
A' to C, twice	80 "	" 1, 3 "	
A' to E	132 "	" 2, 3 "	
A' to B	19 "	" 4, 3 "	
Selvedge	4 "	" 3, 3 "	
	371	" 4, 3 "	

Rug 31" wide in the reed.

This rug is attractive when woven in two pattern colors, as dark and light green. Weave all treadle 1 and 2 shots dark, all 3, and 4, light.

Repeat the first six blocks as required for center.



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