THE ZIG-ZAG WEAVE

Edna Olsen Healey.

This issue of Practical Weaving Suggestions introduces an interesting technique that is little known to weavers in this country. It is one of the Swedish Drall Weaves, pronounced "Drell." There are many types of Drall Weaves and if you are interested in knowing more about them consult the Manual of Swedish Handweaving by Ulla Cyrus.

The draft shown here is one of the Simplified Drall Weaves and is sometimes called the Zig-Zag Weave, as in the shiny blocks two weft pattern shots are tied down in the middle, the diagonal lines of the threads making a bow effect. This shows clearly when being woven, but when beaten up firmly the zig-zag effect is not very noticeable, particularly when woven of fine linen.

This threading is a two block pattern, one shiny and the other dull and the fabric is reversible. The blocks can be any size you wish and need not be woven square, but can be oblong or stripes and can be adapted to any two block profile. Many of the eight and ten harness twill or damask block patterns can be used for this technique, or you can easily design your own patterns. This can be a one shuttle weave, all in one color, or it can be a two shuttle weave with the pattern shots in one color and the tabby shots in another. It is NOT a fifty-fifty weave. In fact, there are more than twice as many weft shots per inch as there are warp ends. For instance, the Cork mat woven with Lily 20/1 ply linen required 72 weft shots to square each unit of 29 ends.

The first mat, in Aqua, shows the large dull and shiny squares in what might be called the traditional two block pattern. The white warp is subdued. This size block was chosen because it can be used for either mats or tablecloths.

The second, in Crabapple and White, was woven on the same threading but with two shuttles, Crabapple on the pattern treadle and white on the tabby treadles. Here the white warp shows clearly and adds contrast to the colored blocks.

The third mat, in Silver Grey Linen, shows how the large block can be used with the small block as a divider. With this threading nearly all of the surface is shiny and it has a damask like quality.

The fourth mat, of Cork Linen, shows still another threading, a damask type block pattern. This too was woven with only one shuttle.

The mats were woven in the dinner size since many people today want a mat "large enough to hold everything" but they can be easily adapted to the smaller size. While the mats pictured are woven in color they are equally lovely when woven in white or natural. A cotton warp is often used for this technique, but for real quality use a 40/2 ply linen for warp with a 20/1 ply for weft.

The fifth sample, shown on page eight, was woven with floss on the same threading as the silver grey mat. This weight fabric is suitable for bags and pillows and even for bedspreads.

Numbers six, seven, and eight, also shown on page eight, are small all-over upholstery patterns. By enlarging the size of the pattern blocks they could be used for drapery fabrics, also several colors could be used in the warp for interesting effects. By using fine weight textured yarns with a finer tabby other interesting fabrics could be developed.
Here are some important points to keep in mind when weaving this technique.

A firm beat is required and since this is really an “on opposite” weave the material draws in more than on regular fifty-fifty weaves; therefore, the warp must be planned for a wider width in the reed to allow for draw-in and shrinkage.

NEVER weave more than 2 inches before moving up the warp. If you do you will find that your edge threads will draw in too much and break.

When threading the reed the 20/2 ply cotton or the 40/2 ply linen is set at 30 threads per inch, two threads in a dent in a 15 dent reed INCLUDING the selvage threads. If the end threads are set closer than 2 per dent they will break.

Four shots of weft are needed to complete a pattern sequence.

**TO WEAVE**

Start with a tabby for turn-in using treadles 3 and 4 and finish with the shuttle on the left ready for the pattern shot.

**TREADING**

- Pattern from the left on count 1
- Tabby treadle (4) from the right 2
- Pattern from the left 3
- Tabby treadle (3) from the right 4

It is wise to fill several shuttles before you start to weave so that when a thread runs out you can start another without losing your count.

It is important when squaring blocks to weave them slightly longer than their width, so that they will be square when off tension. The blocks in the Aqua mat measured 1 7/8 inches in the reed and were woven 2 inches long.

When weaving end borders be sure to weave one extra pattern for hem turn up plus tabby for turn-in.

Keep in mind when designing that the blocks can be of any size and they need not be treadled square.

**FINISHING.**

Remove from the loom, stitch and cut apart.

Since the hems are very narrow (the width of a border pattern unit squared) the turn-in must also be very narrow. Therefore, it is wiser not to attempt to hem the mats until they have either been laundered, or at least dipped in cold water until thoroughly wet, hung over a rod to drip and while still very wet ironed with a moderately hot iron until dry. High heat cooks linen. Then trim off the machine stitching leaving a narrow tabby turn-in and hem carefully.

It is most important when laundering to be very careful not to crease or wring the linen, since creases that are put in at the time of the first washing are almost impossible to remove.

The possibilities of this technique are endless and I am sure you will enjoy working with it.
BASIC DRAFT FOR THE ZIG-ZAG WEAVE - a 4 harness Simplified Drall Weave.

Right border
18 threads

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<tr>
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A Block

There are 10 threads in this unit and they are repeated as often as necessary to make a block of the size desired. At the end of the last repeat the circled thread on Harness 1 is OMITTED.

B Block

There are 10 threads in this unit and they are repeated as often as necessary to make a block of the size desired. At the end of the last repeat the circled thread on Harness 4 is OMITTED.

Repeat A and B blocks as often as desired and then balance with an A block.

Left border
18 threads

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<thead>
<tr>
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<tr>
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</table>

TIE UP

Left foot  | Right foot.
-----------|-----------
| 4 | 4 |
| 3 | 3 |
| 2 | 2 |
| 1 | 1 |

Treadles 1 2 3 4

TREADLING

For tabby turn-in, treadle 3 and 4 alternately, ending with shuttle on the left.

FOR BORDER

1st unit  treadle 2, 4, 2, 3, until unit is square  
2nd unit  
" 1, 4, 1, 3,  "  "  "  "
treadle these two units until pattern in the corner is square, then add another unit for the back of the hem, which will be turned under.

For A Block  treadle 2, 4, 2, 3  
For B Block  treadle 1, 4, 1, 3.
THREADING PLAN FOR AQUA MAT No. 1

One shuttle.

Materials:
Warp Lily Art. 214, Mercerized Cotton, size 20/2, White.
Set 2 ends per dent in a 15 dent reed.
Weft Lily Art. 207, Linen, size 10/1, Aqua 53.

This mat required almost three ounces of 10/1 linen for weft.

THREADING

<table>
<thead>
<tr>
<th></th>
<th>Right selvage</th>
<th>Right border</th>
<th>A Block</th>
<th>B Block</th>
<th>A Block</th>
<th>B Block</th>
<th>A Block</th>
<th>Left border</th>
<th>Left selvage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,3,2,1</td>
<td>4 threads</td>
<td>18</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>repeated</td>
<td>18</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>72</td>
<td>4 times</td>
<td>6 times</td>
<td>6 times</td>
<td>minus last thread</td>
<td>repeated</td>
<td>4 times</td>
<td>4</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>447 threads.</td>
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</table>

This was almost 15 inches in the reed and the finished mat measured 14\% inches after laundering. Blocks are 1\% inches in the reed and were woven 2 inches to allow for tension and shrinkage.

For a smaller mat leave off one repeat of the border on each side. This will give about 13\% inches in the reed and weave down to 13 inches.

THREADING PLAN FOR CRABAPPLE AND WHITE MAT No. 2

Two shuttle weave.

Materials:
This mat was woven on the same threading as the Aqua Mat.
Lily Art. 207, Linen, size 10/1, Crabapple 1458 was used on the pattern shuttle.
Lily Art. 214, Mercerized Cotton, size 20/2, White was used on the tabby shuttle.
This was woven in the overshot manner, that is, pattern shot with color and tabby shot with white.
THREADING PLAN FOR SILVER AND GREY LINEN MAT No. 3
One shuttle weave.

Materials:
Warp  Lily Art. 214, Mercerized Cotton, size 20/2, White.
Set  2 ends per dent in a 15 dent reed.
Weft  Lily Art. 207, Linen, size 20/1, Silver 1446.

This mat required a little less than two ounces of 20/1 linen for weft.

THREADING
Right selvage  4, 3, 2, 1  4 threads
Right border  18 threads two times  36
The following 2 units were threaded 7 times
A  Block 10 threads 4 times = 40 minus 1  39 threads
B  Block 10 threads 1 time = 10 minus 1  9 threads

7 times  48 threads  336

To balance
Repeat A Block  10 threads 4 times = 40 minus 1  39
Left border  18 threads two times  36
Left selvage  1, 2, 3, 4.  4

455 threads

THREADING PLAN FOR CORK LINEN MAT No. 4
One shuttle weave.

Materials:
Warp  Lily Art. 214, Mercerized Cotton, size 20/2, White.
Set  2 ends per dent in a 15 dent reed.
Weft  Lily Art. 207, Linen, size 20/1, Cork 645.

THREADING
Right Selvage  4, 3, 2, 1  4 threads
Right border  18 threads three times  54

First Unit
A  block 10 threads 3 times = 30 minus 1  29 threads
B  block 10 threads 1 time = 10 minus 1  9
A  block 10 threads 3 times = 30 minus 1  29

67

Second Unit
B  block 10 threads 3 times = 30 minus 1  29
A  block 10 threads 1 time = 10 minus 1  9
B  block 10 threads 3 times = 30 minus 1  29

67

These two units total 134
and are repeated once more 134

Then to balance the pattern the first unit of 67 threads is repeated 67
Left border  18 threads three times  54
Left selvage  1, 2, 3, 4  4

451 threads
THREADING PLAN FOR DARK ROSE DESIGN NO. 5

Materials:
This sample was woven on the same threading as the Silver Mat. Weft Lily Art. 114, Mercerized Floss, Dark Rose Pink 458. This weight would make interesting bags, pillows and bedspreads.

THREADING PLAN FOR UPHOLSTERY DESIGN NO. 6

Materials:
Warp Lily Art. 314, Cotton Warp, size 20.2, Taupe 1431.
Set 2 ends per dent in a 15 dent reed.
Weft Lily Art. 714, Mercerized Soft Twist, Ming Gold 17.
A Block 10 threads 3 times = 30 minus 1 29 threads
B Block 10 threads 3 times = 30 minus 1 29 threads
One pattern sequence was woven on each block.

THREADING PLAN FOR UPHOLSTERY DESIGN NO. 7

Materials:
Warp and setting as above.
Weft Lily Art. 114, Mercerized Pearl Cotton, size 10, Tarragon 1411.
Two pattern sequences were woven on each block.

THREADING PLAN FOR UPHOLSTERY DESIGN NO. 8

Materials:
Warp and setting as above.
Weft Lily Art. 714, Mercerized Soft Twist, Leaf Beige 91.
Three pattern sequences were woven on each block.
Textured threads could also be used on the pattern shuttle with a fine tabby for interesting pillows, bags, upholstery or drapery fabrics. For drapery fabrics the threading units could be enlarged.

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