READERS of The Weaver may recall a recent article on designs for weaving on "opposites," using the familiar Rosepath of "Rosengang" threading as a basis for its development.

The current article presents a variation which is less commonly known and more fascinating and flexible in design, we believe, than the weave on opposites.

This weave is done entirely on single harnesses — that is, by depressing the threads of one harness only, at a time.

A four-harness table-type loom is recommended, therefore, for its accomplishment, at least until one becomes familiar with the technique of the weave. As the experienced weaver knows, in this type of loom, each harness is operated without any dependence or effect on the other harnesses whatsoever: an independence of movement which does not exist in the regular floor loom. For the benefit of the novice we remind him that the latter type of loom works by a system of balance — two harnesses which are up, opposing two which are down — for the majority of its weaving operations. The counter-balanced floor loom (using two sets of lams) such as described in the Edward F. Worst book, "Foot Power Loom Weaving," would do splendidly, as it can be "tied-up" for any unequal combination of harnesses; but few weavers are fortunate enough to have access to one of these looms!

The single harness designs can be done perfectly well on the regular floor loom, but the shed will not be as wide or clear, since the balance is one harness against three.

The following diagram gives the threading once again and the tie-up for the six-pedal, four-harness loom.

(See Diagram A)

Unlike the weave on opposites, it is not suitable for use where both sides of the material will show, as the wrong side is rough compared to the right, and, too, the long, loose over-shot threads make the wrong side of the design incomprehensible as well as the surface less durable.

The same kind of warp as suggested in the previous article will do nicely. It should be smooth and strong, and sleyed openly enough (not more than 10 threads to the inch) to allow the weft thread (which due to the single harness method will at no interval cover more than one warp thread at a time) a generous space in which to assert its color.

The choice of weft is also important. As stated in the first article, it must have body enough to cover the warp easily without hard beating and at the same time must be soft and springy in order to produce a supple fabric. A very fuzzy or fluffy weft thread will not be desirable because it will detract from the clarity of the designs.

The designs are, in our opinion, so traditionally and quaintly charming in effect that they deserve to be incorporated in a fabric of heirloom quality — linen warp, about the weight of "linen weaver" and a soft, fine quality wool of the tapestry type, for the weft. In case tapestry wool is used, unless very fine, two strands together should be heavy enough to cover the warp well; or as an alternate I should suggest a Germantown or Peasant type wool. At the same time it is possible that the average institution, for instance, may be limited to less expensive materials; therefore, for such use, an Egyptian cotton warp of, say, 16-4's and a 6-strand cotton filler as weft should produce beautiful effects provided the colors are well chosen.

And now we have reached the modus operandi of our designs.

The threading is simplicity itself: harness 4, followed by harness 3; then harness 2, and finally, harness 1. This order threading, i.e., Nos. 4, 3, 2, 1, is the only threading used in the designs throughout the development.

Note. — On the table loom, since the harnesses raise instead of lowering, the threading must be transposed. The easiest way to do this, in my opinion, is to think of the No. 4 lever, for instance, as being left up while the other three levers are depressed. This gives the same result as depressing the No. 4 harness on a floor loom; in either case the threads on the No. 4 harness are down, while those on the other three harnesses are up. Then, continuing the threading order, leave up lever No. 3 (press levers Nos. 1, 2, 4); then, leave up lever No. 2 (press levers Nos. 1, 3, 4); and finally leave up lever No. 1 (press levers Nos. 2, 3, 4).

In case of confusion, forget the harnesses and the mechanical devices by which they may be operated, and think only of the warp threads; those which are to be covered by the weft thread in making the designs must be the bottom threads when the shed is formed.

Unlike the development on opposites, the plain areas of color in this weave should be done after the usual manner of the plain weaving: i.e., harnesses 1 and 3, followed by harnesses 2 and 4; or another effect may be achieved by twilling the areas of plain color. The latter method (drawing down one harness at a time and in consecutive order) will keep the level and texture of the work exactly the same as that maintained throughout the designs; but the twilling effect may detract interest from the pattern areas and can cause uneven edges unless watched carefully. Unless a particular effect is desired we believe the normal plain weave to be more satisfactory for the plain areas.

The design areas, also, in order that the sequence of plain and patterned spaces may present an unbroken edge line, must be carefully woven. This is especially important in a wall piece which is to be hung against a contrasting background. To keep an even edge it will be necessary to "go around" the end warp thread with the weft whenever the threading order leaves out the extreme end thread.

Color plays an enormously important part in the creation of beautiful textiles, and these designs are no exception. But here, as in all design, the color can be supremely lovely only if it maintains unbroken the rhythmic balance of dark and light throughout the fabric. After the technique of the pattern has been acquired we think it a wise plan to sketch or indicate in a general way the balance of dark and light to appear in the finished weaving.

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These areas of dark and light may be broken up and varied in themselves, by color and pattern changes, provided the initial balance of the piece is not destroyed. Subtle color changes (which keep the same value of darkness or lightness) often add interest to large plain areas without breaking up their unit as a whole. For the most part the patterns themselves require a dark and a light element in each in order to bring out the design.

Now let us look at Diagram B. It is the simplest of all the single harness designs, and should be studied with the directions, which are as follows:

Plain weaving with black weft thread — 4 picks.

Pattern threading

- Pedal 4 with black weft thread
- Pedal 3 with chartreuse weft thread
- Pedal 2 with chartreuse weft thread
- Pedal 1 with black weft thread

Repeat the pattern threading through, once. Then do:

Plain weaving with black weft thread — 4 picks.

Now let us look at the same design with the key added for reading the color (and threading, incidentally, though the latter, it must be remembered, remains the same throughout the designs) (Diagram B-1).

Or, saying the identical thing in the old diagrammatic way, Diagram B-1A:

But — and here is the charming surprise — the designs do not look like Diagram B-1A. When woven, the beater packs down the threads; there is no binder to separate them; hence, the result is like Diagram B-1!

In order that the designs shall appear as they really do when woven, we have hopefully devised the following diagram or key (the same as employed in Diagram B-1) which we believe the average weaver will have no difficulty in using. A complete analysis of the next design (Diagram B-2) is as follows:

In Diagram B-2 the plain weave is indicated as two picks, only (of, say, a moss green); though, of course, the width of the plain band is entirely dependent on the pleasure of the weaver. Following this and reading from right to left on the diagram, the next step of the border begins the pattern threading, and is:

- No. 4 with moss green
- No. 3 with moss green
- No. 2 with moss green
- No. 1 with ivory

The next step is:

- No. 4 with ivory
- No. 3 with moss green
- No. 2 with moss green
- No. 1 with ivory

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(Continued from page 4)

And the final step of the pattern is:

No. 4 with ivory
No. 3 with ivory
No. 2 with moss green
No. 1 with ivory

Completing the border, the plain weave with ivory, is indicated for two picks.

Note. — Any of the borders — the above, for instance — may repeat each complete step of the pattern treadling two or more times, depending on the desired size and height of the border. For example: The simplest treadling of Border B-2 is written above. An expanded treadling might be:

<table>
<thead>
<tr>
<th>Plain weave with moss green — 8 picks.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First step of border</td>
</tr>
<tr>
<td>No. 4 with moss green</td>
</tr>
<tr>
<td>No. 2 with moss green</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second step of border</th>
<th>Repeat through 2 times</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 4 with ivory</td>
<td>No. 3 with moss green</td>
</tr>
<tr>
<td>No. 2 with moss green</td>
<td>No. 1 with ivory</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Final step of border</th>
<th>Repeat through 2 times</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 4 with ivory</td>
<td>No. 3 with ivory</td>
</tr>
<tr>
<td>No. 2 with moss green</td>
<td>No. 1 with ivory</td>
</tr>
</tbody>
</table>

Plain weave with ivory — 5 picks.

All of the remaining designs (Diagram C) will be given using this key. In general, each step of the patterns, because of the arbitrary limitations of the graph paper on which they are done, will be represented as occurring only once — and the plain weave areas in proportion. We think that by thus representing them, the true relation of width to height in the borders can best be shown. When the weaving is started the relative sizes of the warp and weft will determine quickly the number of repeats of each step necessary for the desired effect.

Colors, unfortunately, can be suggested in these diagrams only by an approximation of values in black, white and half tone.

But the writer hopes the material may prove inspirational and in some way provide that stimulus from which many new and lovely fabrics will result.