

More Developments

BY ESTHER HOAGLAND GALLUP

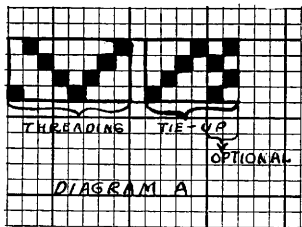
READERS of THE WEAVER may recall a recent article on designs for weaving on "opposites," using the familiar Rosepath of "Rosengang" threading as a basis for its development.

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.



(The fifth and sixth pedals are optional, the plain weave being done equally well, though not quite so quickly, we think, by the use of two pedals at a time.)

The texture of this weave is firm and smooth, entirely suitable for upholstery, cushions, table mats and hangings; but

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

NOTE. — On the table loom, since the harnesses raise instead of lowering, the treadling 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 treadling 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.

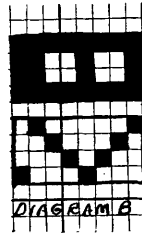
The design areas, also, in order that the sequence of plain and patterned spaces may present an unbroken edge line, must be carefully woven. This is especially important in a wall piece which is to be hung against a contrasting background. To keep an even edge it will be necessary to "go around" the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

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.

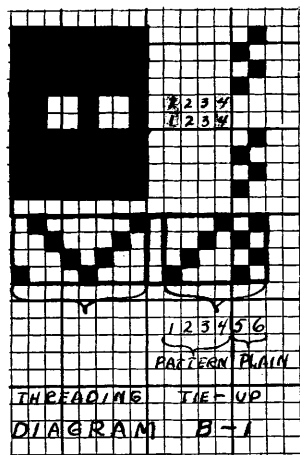
Now let us look at Diagram B. It is the simplest of all the single harness designs, and should be studied with the directions, which are as follows:

Plain weaving with black weft thread — 4 picks.
 Pattern treadingling { 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 treadingling through, once.
 Then do:
 Plain weaving with black weft thread — 4 picks.



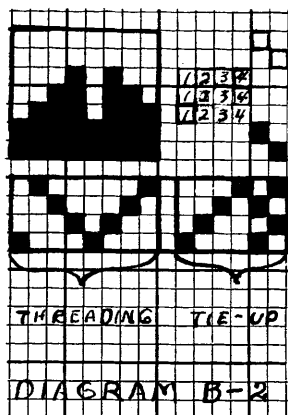
Now let us look at the same design with the key added for reading the color (and treadingling, incidentally, though the latter, it must be remembered, remains the same throughout the designs) (Diagram B-1).

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 de-

pendent 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 treadingling, 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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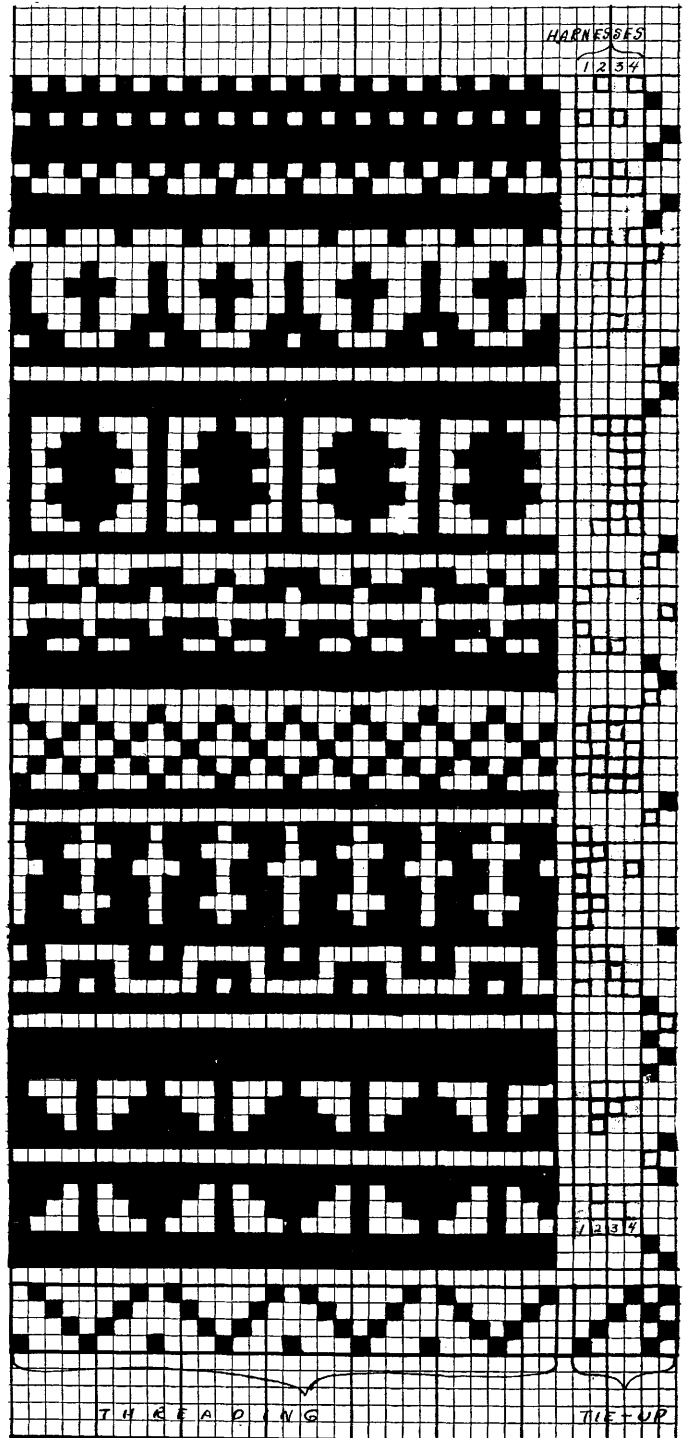
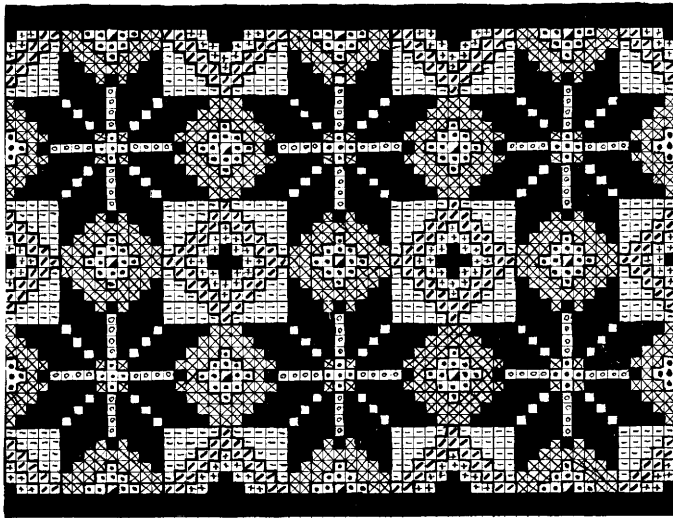


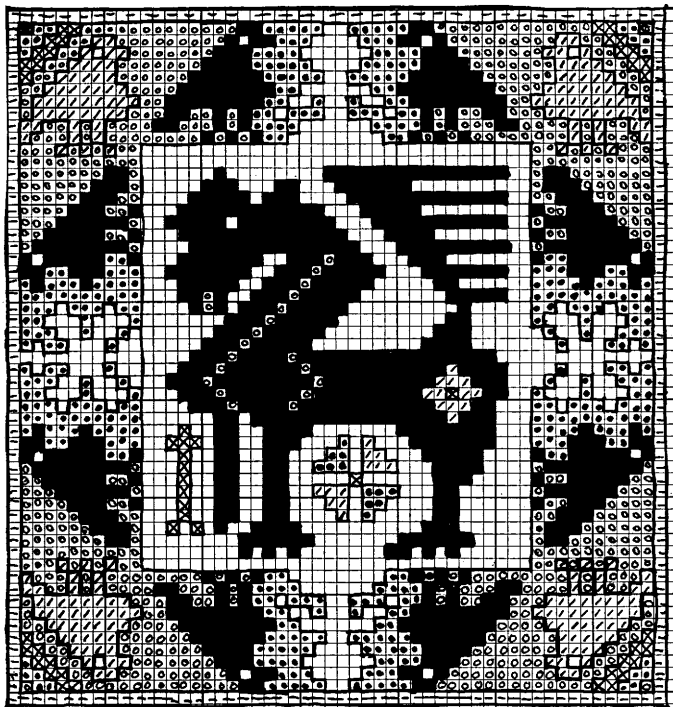
DIAGRAM C



PATTERN NO. 3
 PEASANT WOOL-236 WARP THREADS - 1 SQUARE=4 WARP THREADS
 ■ GREEN-183 ■ BLUE-191 ■ RED-186 ■ BLUE-192 ■ RUST-179
 ■ BLACK-196 ■ TAUPE-199 □ NATURAL-197 □ BUFF-168

The design of the Viking was made by Mr. Gene Johnson, and appears in print for the first time. The other pattern designs are adaptations, by the author, from old Norwegian books and weavings.

A description of the "Viking" is as follows: the weaving measures about 23 x 40 inches, required 180 warp threads, allowing one warp thread to each square on the graph paper and a No. 8 reed was used. One illustration shows the front of the weaving and the other illustration shows the back of the weaving before any of the ends were clipped off. These ends were purposely left on for the entire length of the weaving so that the photograph might give some idea of what the technique looks like during the process of



PATTERN NO. 4
 FRENCH TAPESTRY WOOL-108 WARP THREADS - 1 SQUARE=2 WARP THREADS
 ■ Y. RED-823 ■ OL. GREEN-683 ■ YEL. GOLD-943 ■ POW. BLUE-655
 □ CREAM-557 ■ ANTO. BLACK-806 ■ SAGE GREEN-894

weaving. At one place in the weaving of the boats 66 bobbins hung from the loom. There are 23 colors in the design and it will be necessary to translate the design numbers into the color numbers of the Bernat's Tapestry wool: (1) Gobelins Blue 855, (2) Bottle Green 634, (3) Bottle Green 632, (4) Tete De Negre 676, (5) Gothic Red 646, (6) Greenish Gold 943, (7) Red 765, (8) Golden Brown 903, (9) Golden Brown 905, (10) Gothic Red 647, (11) Yellow Green 866, (12) Olive Green 684, (13) Terra Cotta 924, (14) Terra Cotta 925, (15) Powder Blue 652, (16) Wood Brown 627, (17) Golden Brown 906, (18) Leaf Green 616, (19) Reseda Green 952, (20) Reseda Green 954, (21) Gold 502, (22) Golden Brown 904, (23) Gold 504.

MORE DEVELOPMENTS

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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 treading two or more times, depending on the desired size and height of the border. For example: The simplest treading of Border B-2 is written above. An expanded treading might be:

Plain weave with moss green — 8 picks.

First step of border	{ No. 4 with moss green No. 3 with moss green No. 2 with moss green No. 1 with ivory	Repeat through 2 times
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Second step of border	{ No. 4 with ivory No. 3 with moss green No. 2 with moss green No. 1 with ivory	Repeat through 2 times
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Final step of border	{ No. 4 with ivory No. 3 with ivory No. 2 with moss green No. 1 with ivory	Repeat through 2 times
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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.