

Interesting Ways to Use "Laid-in" Technique

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THERE are two large general classifications of hand-woven fabrics with regard to their pattern design. One which can be called the free-weaving techniques, and the other loom-controlled pattern. The free-weaving techniques include all types of weaving where the pattern design of the cloth is controlled entirely by the hands of the weaver, while loom-controlled pattern is dependent on the method used in the pattern threading of the loom. In the free-weaving techniques we have all forms of tapestry weaving, rug knots and pile techniques in their different variations, so-called embroidery weaving, Spanish stitch, laid-in technique, etc. The only requirement of these techniques is the ability to make a simple two-harness shed on the loom used. But the ultimate success of the fabric itself is much more dependent

on the skill of the weaver himself, and his knowledge and application of the principles of design and color in these free-weaving techniques, than it is in a pattern design which is controlled by the mechanical manipulation of the harnesses of a loom.

One of the simplest of the free-weaving techniques is the so-called "laid-in" method of decorating the web of the cloth while it is on the loom. It allows for much freedom of design, and is not nearly as slow to do as tapestry or some of the other free-weaving techniques. It may be woven on any loom which will give the plain weave. Some of my students have used it successfully even on a simple card-board loom for a bag or purse.

Any type of thread or yarn desired can be used for this type of weaving. There is only one general principle which it is well to remember with regard to your choice of materials, and this is that the effect is generally better if the colored pattern thread of the design being "laid-in" is somewhat coarser than the plain weave or "ground" of the fabric. Also the weaving should be more closely beaten up with the batten in the parts where the design is being put in, because the coarser pattern thread of the laid-in design will have a tendency to make a more open texture where the pattern is than in the plain weaving on the fabric.

At Illustration No. 1 is shown an example of the "Hit and Miss" laid-in technique, which may be used either as a table runner or an effective wall hanging. This was woven on Bernat's gold silk warp set 24 threads to the inch, with Bernat's tapestry wools in shades of red, with the plain weave background in two shades of Fabri yarn used together. Several shades of blue and blue-green tapestry yarn instead of the reds, or any other combination desired can be used. With this "Hit and Miss" technique, all sorts of odd yarns may be used together also. In this weaving no definite design is drawn out, but the pattern is carried out right with the threads as you weave. So it is possible to put in any design or color you feel like using. And here is a splendid opportunity to use your skill and ingenuity to obtain rhythmic flow and balance in such a piece of weaving. And you may be very sure, too, that no one will be able to exactly "copy" that particular piece of your weaving.

At Figure No. 1 is shown the graphic detail of the "Hit and Miss" method of weaving laid-in technique. This and the following description of the exact method of doing this technique was taken from the April 1936 issue of my monthly leaflet "Handweaving News": "Weave a heading of plain weave for the number of inches desired, and then start your colored threads as at 1 and 2 of Figure No. 1 detail drawing. One important point to remember, especially if you are using several colors, is to be sure and have

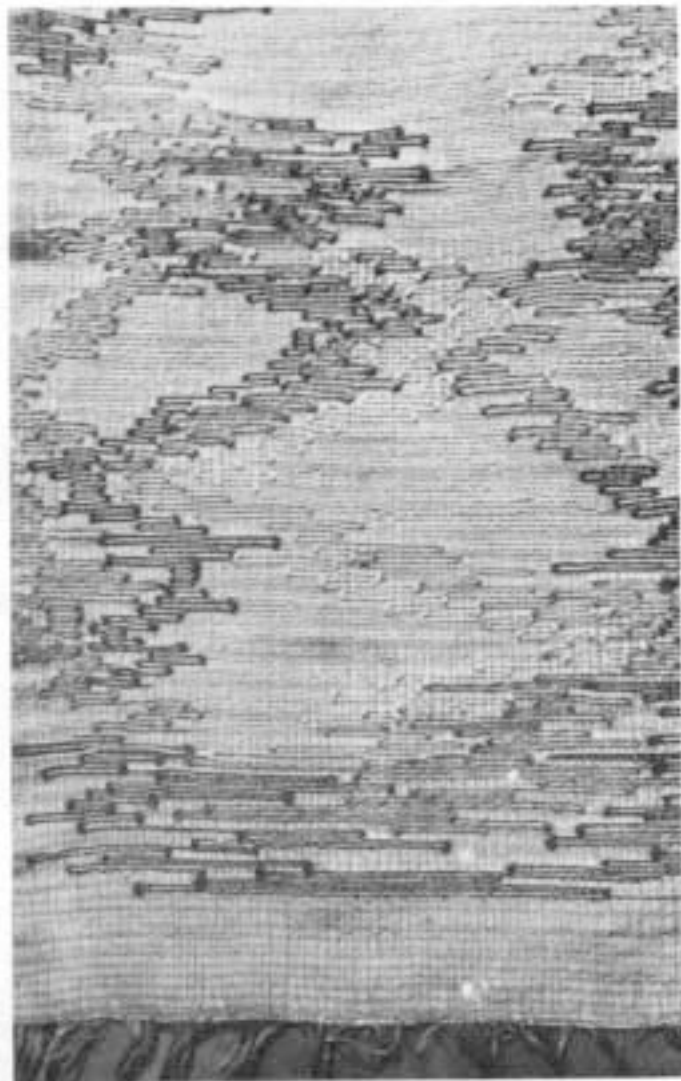


Illustration No. 1

all of your colored threads going in the same direction as your thread of the plain weave or tabby thread. Throw a shot of plain weave tabby from left to right, then in the *same* open shed lay in a thread of rose color as at 1, from left to right. Leave a space of several warp threads and lay in a second thread of green as at 2 of Figure No. 1, also from left to right. These two threads can be left to lie on top of the warp threads, or pushed below the warp threads as desired. Now change the plain weave shed, and throw a shot of the plain weave tabby from right to left all across the width of the warp threads. In this same shed, lock the rose thread around a warp thread to fasten it, and carry it also from right to left for any distance you wish, or to within a few warp threads of the green thread previously laid-in. Then lock the green thread around a warp thread and carry it from right to left for any distance you wish. The ends of the colors with which you began may be cut off after the weaving has progressed a short distance, and they are well beaten into the fabric. To finish a color, lock the thread around a warp thread, and carry it back in the same shed. Beat up well and cut off the end after the plain weave is well beaten up."

After you have woven the "Hit and Miss" laid-in technique, you may wish to try your hand at designing some simple squares which can be used for modern linens with a very excellent effect. At Illustration No. 2 is a photograph of a heavy linen runner of a luncheon set. This was woven on a warp of 15/4 linen set at 12 threads to the inch, with the squares "laid-in" with Bernat's real silk. The plain weave tabby was the same as the warp thread, 15/4 linen. The method of working the squares is shown in detail at

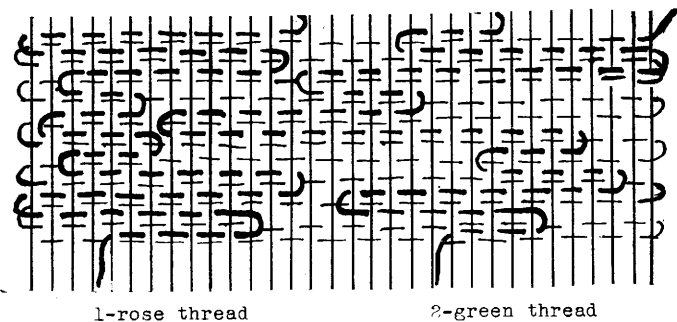


Figure No. 1
Detail of "Hit and Miss" Laid-in Technique

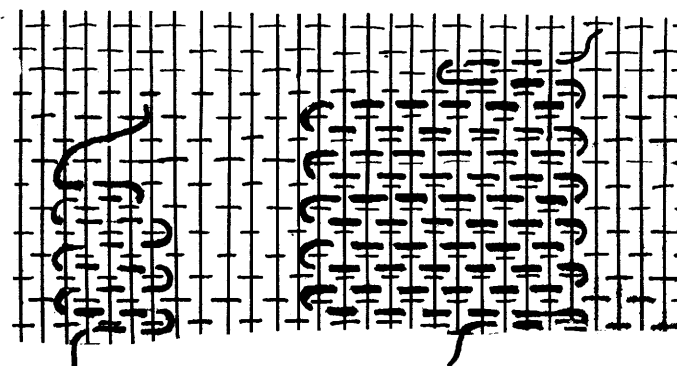


Figure No. 2
Detail of weaving squares in Laid-in Technique

Figure No. 2, also taken from my "Handweaving News" of April 1936. The method of working is exactly the same as in the "Hit and Miss" method, except that the design is kept to a definite figure, and not put in entirely as fancy dictates as you work on the loom. The pattern design of squares which you are following may be drawn out the actual size it is to be woven and pinned underneath the warp threads, or the warp threads may be counted for the necessary distances required for the laid-in squares. The plain weave thread of Figure No. 2 is represented by the fine line between the heavy lines of the colored pattern thread, and shows very clearly how to start and end the colored pattern threads, as well as exactly how the definite square is woven in.

Illustration No. 3 is a small wall panel woven of Bernat's 40/2 linen warp natural, with plain weave tabby of the same material. The colored pattern was laid-in with Bernat's heavy linen floss in tan, blue, rose, violet, yellow and green. The design is a tulip design based on the method of designing with the square as a unit. The photograph does not do this little piece of weaving justice, as the use of the different colors was very good indeed. This was woven by

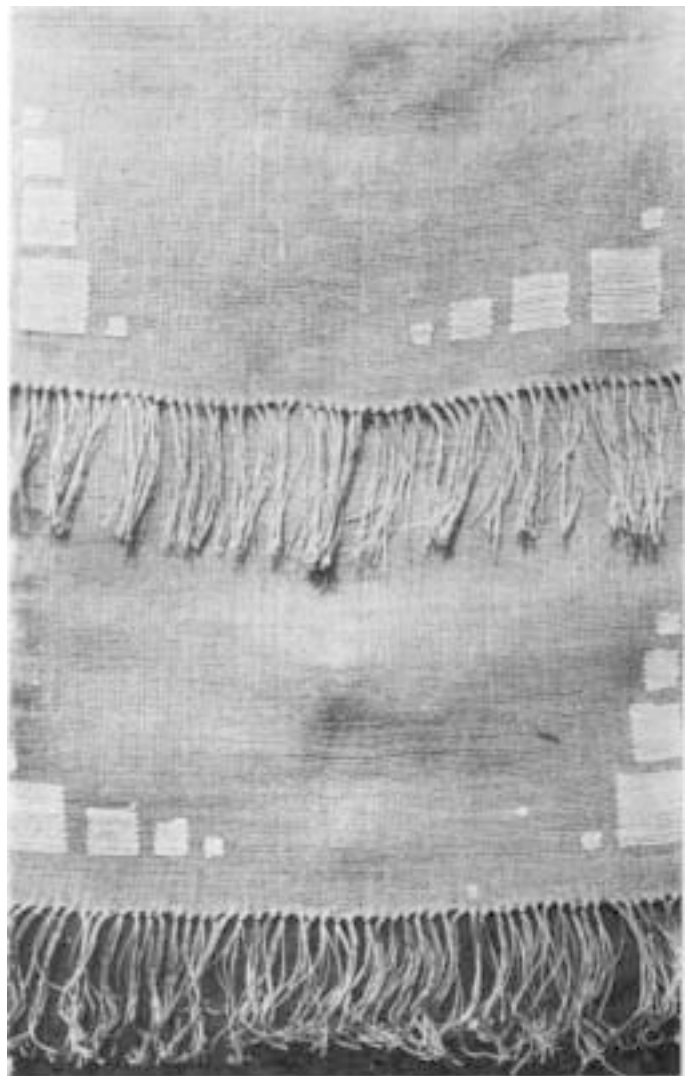


Illustration No. 2

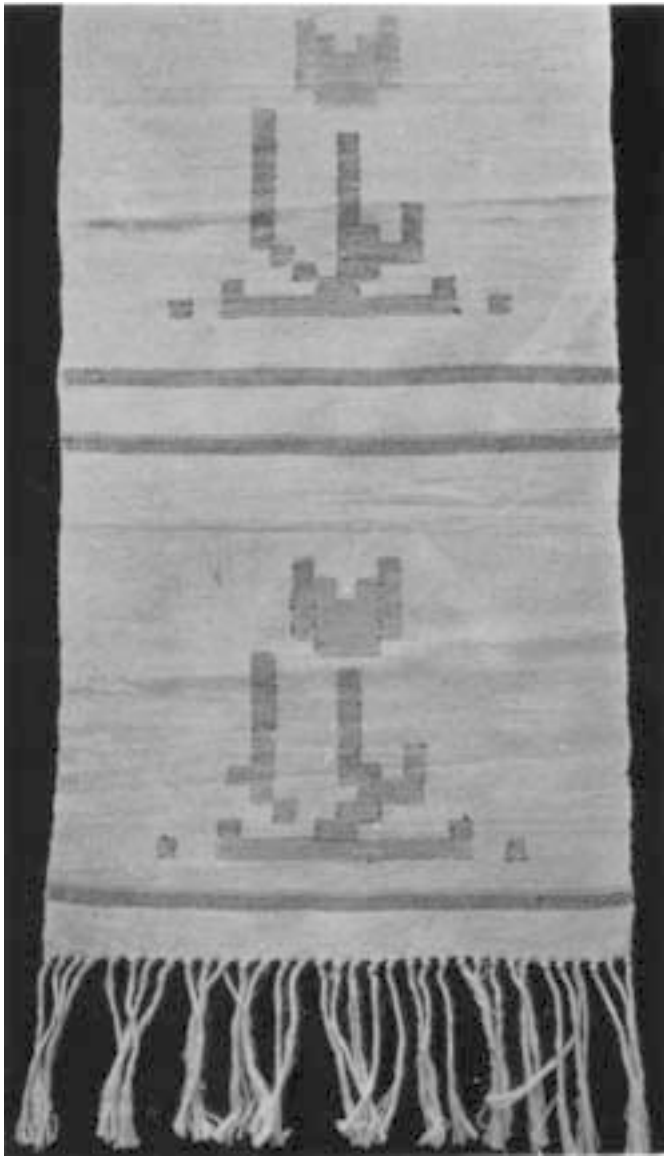


Illustration No. 3

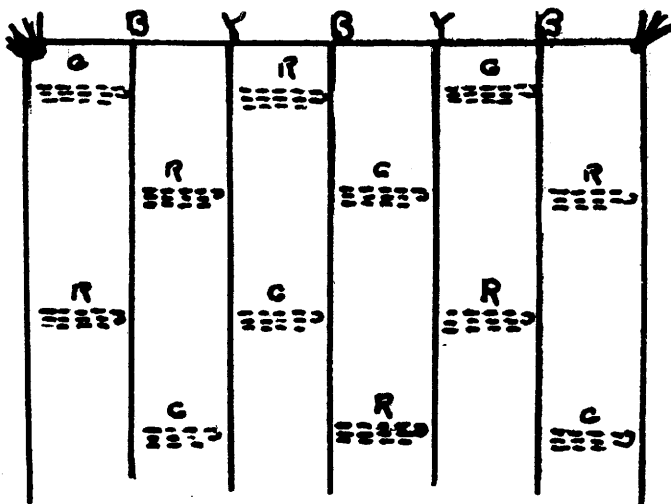


Figure No. 3

Detail showing arrangement of warp stripe colors and laid-in pattern design of Illustration No. 3

Mrs. Florence Anderson, one of the students in my class in creative weaving at Wayne University last spring, and was her first attempt at this type of weaving.

Illustration No. 4 is the centerpiece runner of a linen luncheon set woven by Mrs. Schlater of Madison, Wis. Mrs. Schlater designed this to be used with her handmade pewter dishes, which she also made herself. It was woven of No. 14 grey linen set at 20 threads to the inch. The small drawing at Figure No. 3 shows how the colors were placed in the warp, and with the pattern weft which was Bernat's heavy linen floss. The lengthwise lines represent three threads of colored warp respectively, blue, yellow, blue, yellow and blue. These lengthwise threads of warp help to space the groups of colored weft threads which were woven of green and red alternately as shown on the drawing at Figure No. 3. The ends were plain-hemmed, and the small tassels of red, yellow, blue and green linen floss were made and fastened to each corner of this runner. The place mats were designed smaller, but followed the same general plan. The whole thing was very simple, but most effective especially with the well made pewter dishes with which the set was used.

Illustration No. 5 is an attractive bag mounted on one of my black bag frames designed especially for this. The warp was of Bernat's real silk set at 30 threads to the inch, with weft of black raw silk for the pattern, and fine black silk for the tabby weave between the pattern shots, and the opposite pattern shots of white silk. This bag was included, as it well illustrates the loom-controlled pattern, as it was woven on an eight-harness loom. But it could have been woven in laid-in technique, although the texture would have been slightly different. It also shows the principle of designing with the square as a unit, but the design could have been more free if it had been woven in laid-in technique.

At Figure No. 4 is a drawing of a simple border which can be used for linen towels. Use 40/2 linen warp and weft, with linen weaver for the inlaid pattern squares which may be woven in any desired colors. A colored hem to match the colors used for the inlaid squares is attractive. The squares may be woven all of one color, or shaded from dark to light. Much variety and interest can be achieved with this simple method of weaving.

Because of the ease with which designs can be created with the square as a unit for this laid-in technique, I am presenting at Figure No. 5 a page of drawings taken from my "Handweaving News" for January 1936, with additional comments as to how these can be used for a woven fabric in laid-in technique. At A is given the drawing of the design used for the linen runner illustrated at No. 2. The unit of

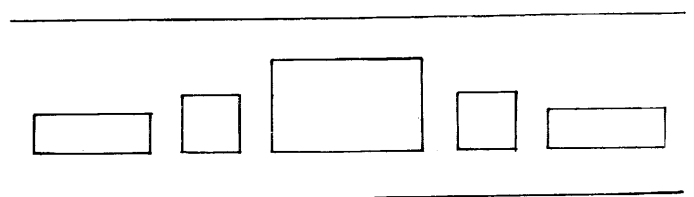


Figure No. 4

Arrangement for Towel Border in Laid-in Technique

this design is the square 1, the other squares being multiples of this in the progression of 1, 4, 9 and 12. You can take whatever size you wish for the dimensions of square No. 1 and make the others in proportion to this. The size of 1 in the woven fabric shown was $\frac{1}{2}$ inch. At B and C of Figure No. 5 are other arrangements using the squares as lines. B is effective when used as in Mrs. Schlater's runner at Illustration No. 4, but space the groups further apart and mark the place where they are to be woven with the lengthwise warp threads. These can be either in color, or black is good for many things. At D and E are two border designs for luncheon sets or linen towels. Fine white linen used for pattern of these squares, used against natural or grey linen for warp and plain tabby, give just enough contrast to be interesting and attractive. When weaving these squares, the threads of the warp can be counted for the sizes of the squares, or the design can be drawn out on paper the exact size it is to be woven, and then pinned underneath the weaving, and the laid-in threads put in according to this. Use either method, whichever is easiest for you. At F is an unusual way to divide up the area of a square. This design may be used as it is, or can be joined in several different ways as a repeat. If you make several tracings of this motif and put them together, you will get the effect of what may be done with it.

These suggestions for designing, with the square as a unit, should add much to make the laid-in technique of interest to you. For a very long time, it has been my contention that most handweavers are perfectly satisfied to copy and copy,

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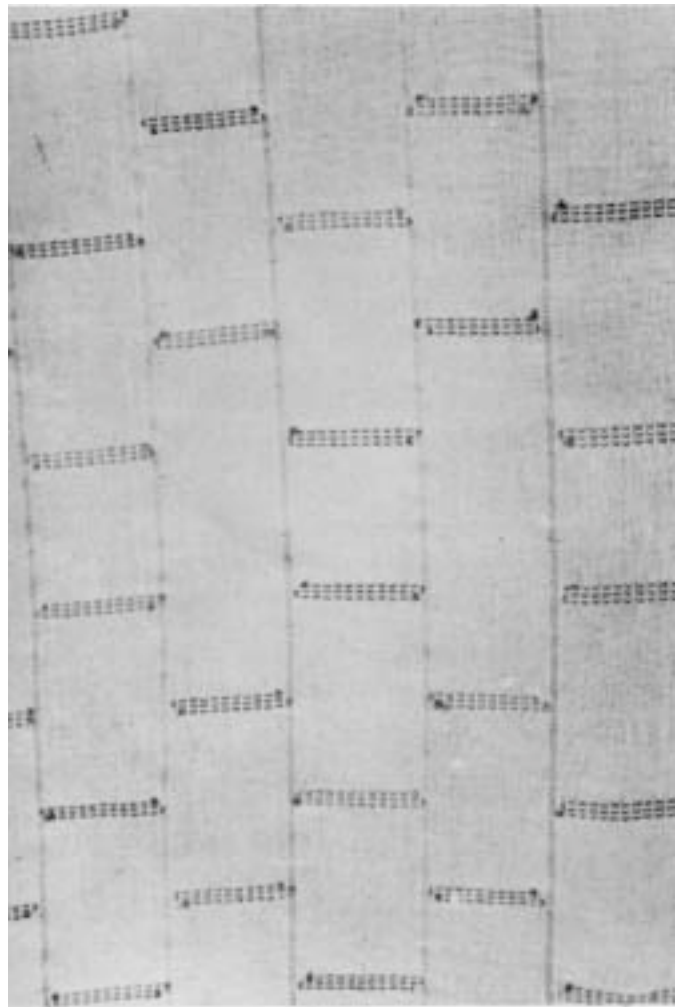


Illustration No. 4

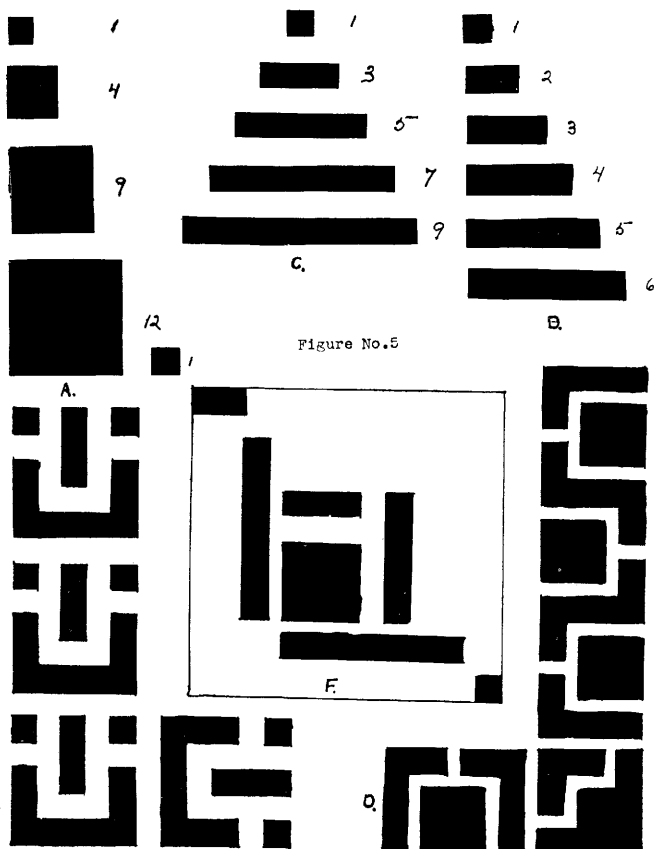


Figure No. 5

Designing with the square as a unit



Illustration No. 5

Questions and Answers

ADDRESS YOUR QUESTIONS TO MRS. MARY M. ATWATER, BASIN, MONTANA

Question: What weave can one use to cover the warp completely with weft?

Answer: This is not so much a matter of weave as of choice of material and setting of the warp. A number of weaves may be used. The warp should be coarse and set much farther apart than for ordinary weaving and the weft should be rather finer than the warp. The correct warp-setting cannot be given, as this depends on the material used.

A fine warp may be used if one wishes, but a number of warp-ends must be threaded through the same heddle, or through heddles on the same harness. The latter is the better practice as the threads tend to twist together when several are drawn through the same heddle. For instance, thread: 1, 1, 1, 2, 2, 2, and so on.

The warp should be stretched tighter for this form of weaving than for ordinary weaves, and the weft must be very firmly beaten up. As the take-up is all in the weft, plenty of slack must be allowed in the weft or the fabric will tend to narrow in. If this is permitted it will become impossible to beat firmly enough and the weave will be ruined. A template may be required to keep the web out to the correct width. There are, however, draw-backs to the use of a template and this should be avoided if possible.

The plain weave, woven in this manner, produces a heavy ribbed fabric with the ridges running lengthwise.

Pattern weaves may be used, also. The ordinary overshot weave, however, is rather impractical as the fabric is not closely enough combined over the pattern blocks to be durable. "Summer and Winter" weave and the "Crackle" weave give good results. Weave "on opposites" in two colors. For instance, if the weave is crackle weave and the first shot is on the 1-2 shed, follow it with a shot in the other color on the "opposite" or 3-4 shed. Repeat these two shots as may be required for the pattern block. An occasional shot in a fine tabby thread may be used in this form of weaving and helps to keep the warp-threads from bunching together and helps to keep the web out to the correct width. The tabby

should not show. Weave four or six or even eight shots of "opposites" between the shots of tabby. The same technique may be used in Summer and Winter weave. If the pattern block is, say, on shed 1-3, weave all the other harnesses for the "opposite" shot. A tabby may be used at intervals as explained above.

An interesting Scandinavian weave in which the warp is covered is produced as follows: Use a coarse warp, set far apart, and thread either plain twill or the "Bird-Eye" or "Rosengang" pattern — 1, 2, 3, 4, 1, 4, 3, 2, and repeat. Sink a single harness for each shot of weft and weave harnesses 1, 2, 3, and 4 in this succession throughout. The pattern effects are produced in great variety by using different colors for the different shots. The face of the fabric will be firm and hard, but there are skips on the back that make the wrong side unsightly. This is a good weave for upholstery and similar fabrics, but not for pieces in which both sides are in evidence.

It must be borne in mind that all unbalanced fabrics of this order are much thicker and heavier than fabrics woven with warp and weft approximately alike in kind and number of ends to the inch.

Question: How may one produce a fabric in which the warp completely covers the weft?

Answer: This effect may be produced by setting the warp very close together and using fewer weft shots to the inch than there are warp-ends in the setting. Many primitive fabrics have this structure; also a type of mat characteristic of Scandinavian weaving and recently described in *THE WEAVER*, is of this order. The weave is not very popular among American weavers — possibly because the preparation and entering of the warp is much more troublesome than for an ordinary warp, and because it is very difficult to open the sheds. A great range of pattern effects is possible in warp-face weaving, however, and perhaps we should use it more.

A form of warp-face weaving less troublesome than the similar weave on an ordinary loom is "Card-Weaving."

INTERESTING WAYS TO USE LAID-IN TECHNIQUE

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over and over again, rather than even attempt to try to work out anything which is really their own. There is much real pleasure in creating your own designs, and this is entirely lost if you continually copy what someone else has done. Find new ways of using designs, new ways of using color, new ways of using both old and new yarns and threads. All of these things help to increase your own development and growth. The interest in handweaving is steadily growing,

THE WEAVER

and in time fabrics of real value and beauty, produced by the handweaver in her own home, for her own pleasure and use, can have a substantial influence even on commercial fabrics produced by machine, by mass production for mass consumption. Because, if I am to judge by any of the results I am achieving in my weaving classes, even the most simple weaving and principles of design which are being experienced by many of these people for the first time, serve to stimulate not only their interest in fabrics, but also to make them more thread conscious, as well as design conscious. All of which will eventually do much to influence their selection of the fabrics which they purchase for use in their homes.