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TEN PROJECTS ON A LONG-WARP

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The pathway to the maximum enjoyment of a handloom, with the minimum amount of routine annoyance, may well be the long-warp project—the long, versatile warp, threaded to a basic technique and pattern, on which innumerable different articles may be woven without changing the threading. Quality, versatility and dramatic simplicity are the keynotes for the long-warp project. With these factors well controlled, the handweaver may weave for months on a single warp threading without stagnation, and when the inevitable end of 40 or 50 yards comes, still have a dozen untried plans and ideas. The fortunate twoloom weaver does well to always keep one loom set up with a long-warp project, keeping the second loom for incidental projects.

A jack-type loom is perhaps most satisfactory for the long-warp project because of the complete control it gives the weaver over the sheds, but any good counter-balanced loom on which forced, off-balanced sheds may be made, is as good, though sometimes a little heavier to operate. One requirement is that the loom be equipped with a sectional warp beam, but most looms now days are.

The keynotes of quality and versatility lead the weaver who would do a long-warp project almost inevitably to Lily Mills cottons. Cotton is the most versatile and most widely used of all fibers, and from it the widest range of textiles may be made. The Lily cottons are of the highest quality, smooth, strong and practically knot-free, and they are available to the handweaver in an amazing range of sizes, types, and fast colors.

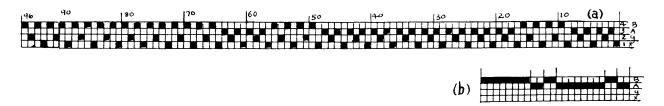
The long-warp, which is primarily a colortexture project, is most advantageously made of 24/2 cotton in a bright color, set at 36 ends per inch, 30 inches wide. By long warp is meant a warp 30 to 60 yards long, planned for weaving many diversified articles rather than for a single project. Such a warp must be sectionally beamed. Since the normal sectional beam is divided into 2-inch warp width sections, and the warping requires as many tubes of thread as there are warp ends in 2 inches, 72 2-ounce tubes of 24/2 cotton, or 9 pounds, are required. There is no economy in purchasing pound cones and rewinding the thread to spools for sectional warping, as this leads to waste, to weakening of the thread, to poor tension, and to a great deal of lost time for a saving of only a few cents. A warp 70 yards long, 30 inches wide, 36 ends per inch may be made from 9 pounds of Lily 24/2 cotton. However, the extreme length of 70 yards is not recommended. A warp 40 yards long is a good average. Keep the balance of the thread for weft, or share a set of warp spools with a weaver friend. The best beaming system is to fill the center section first (for 40 yards, 40 turns of the standard 1-yard sectional beam, or 54 turns of a 3/4-yard beam) then work toward the sides, filling one section on the left and one on the right until the 15 center sections are filled.

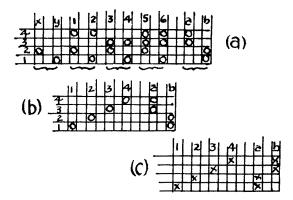
For greatest versatility, the long-warp project should be a color project. Select a bright, strong color for the warp, and for the basic weft have on hand a number of colors of 24/2to give a wide range of mixed colors for basic weaves and background. This will add more sparkle to the fabrics and eliminate monotony. Choose a color you like, but keep in mind that a clear, bright color will harmonize with more hues and shades for mixed colors, will give greater designing freedom, and will always be easy on the eyes. Avoid black or white for the warp as these are resistant to combination with other colors. Pastels or greyed colors, regardless of how beautiful in themselves, also limit the combinations and are apt to become tiresome before a long warp is woven off. Experience has shown that the following colors in Lily Article 314 are bound to be successful: Red (No. 438), Skipper Blue (No. 920), Light Green (No. 767), Burnt Orange (No. 1457). Yellow (No. 404) is good if crossed mainly with light colors, but Topaz (1458) is more versatile and may be used with either light or dark weft colors. The dark colors are successful and interesting to work on, the best being Rust (No. 1260), Maroon (No. 655), Navy (No. 522). If one does not wish to try a strong color, Steel grey (No. 539) is much better than black, white or natural, though it dulls colors combined with it in tabby, and emphasizes pattern colors instead of harmonizing them.

In selecting weft colors, it is advisable to purchase several pounds of assorted colors on 2-ounce tubes, as it is impossible to gauge in advance what color effects will be achieved from crossing one color with another. Creating a color by crossing one warp color with a second weft color gives a color with greater sparkle and a textile with greater depth than if a single color is used for both warp and weft. Combinations which in the tube may seem outrageous often lead to the most interesting blendings. Therefore, the first step in weaving on the long warp should be the making of a sampler in plain tabby weave with at least two inches woven in each available weft color of 24/2. The sampler is then used as a designing reference in planning projects.

THREADING

The threading should be as versatile as possible, which means the Summer and Winter weave, the most versatile of all techniques for cottons. On a Summer and Winter threading, the widest varieties in texture, pattern and color combinations may be made, and almost any type of material may be incorporated as pattern weft. A simple, 2-block, 4-harness threading is good for emphasizing color and texture effects. Therefore, the advisable course is the use of a Basic pattern such as the one drafted below. The thread-by-thread draft is given at (a) and the Profile draft at (b). In using a basic pattern on a wide warp there is no necessity for making a symmetrical pattern arrangement. Simply start threading from right to left on both the draft and the loom, and repeat the draft until the warp threads run out, checking threaded groups for accuracy as the threading proceeds. A selvage is not threaded on Summer and Winter.





TIE-UP AND TREADLING

The full tie-up for the 4-harness Summer and Winter requires 10 treadles, as shown at tie-up (a) above. However, since most 4-harness looms have only 6 treadles, common procedure is to tie each of the first four treadles to a single harness in 1, 2, 3, 4 order, and make the 2-harness tabby combinations on treadles 5 and 6. (Treadles are numbered from left to right.) The pattern combinations are made by depressing two treadles simultaneously. The hand-operated table loom weaver will pull the lever for each harness indicated by an "o" on the rising-shed tie-up in a single vertical line, for each pattern combination. Both rising-shed (for jack-type loom) and sinking-shed (for counter-balanced loom) are given. All directions are given for the 10-treadle tie-up, so that the weaver may make the interpretation according to the type of loom being operated.

THE TEXTURE AND PATTERN VARIATIONS

Six main textures are woven on a Summer and Winter threading:

- (1) **Tabby**, which is woven on the two alternating plain-weave sheds, with weft identical in weight to the warp, and with exactly as many weft shots per inch as there are warp ends. A balanced fabric.
- (2) Plain Weave, which is woven on the two alternating plain-weave sheds with weft of different weight from the warp, or with fewer or more weft shots per inch than there are warp ends. An unbalanced fabric.
- (3) Pattern Texture, in which a separate pattern weft is used, a shot following each tabby shot, the pattern weft floating over 3 warp ends and under 1 throughout the extent of the pattern area.

- (4) Background Texture, like Pattern Texture except that the pattern weft floats over 1 warp end and under 3 for the extent of the background area.
- (5) Rotation Weave, woven with pattern weft only and no tabby. Each weft shot makes both Pattern and Background textures and sheds are used in specified, unbroken rotations, so that all warp ends are caught into the web at regular, closely-spaced intervals.
- (6) **Polychrome**, in which two-color effects are woven by the use of two differently colored pattern wefts combined with a tabby.

WEAVING DIRECTIONS

- (1) Tabby. Weft identical to the warp. Treadle a and b alternately, beating the weft for a perfect balance with the warp. (As many weft shots per inch as warp ends.)
- (2) Plain Weave. Any desired type of weft thread. Treadle a and b alternately, beating to give the desired texture.
- (3) Pattern Texture. There are many variations here. Woven with two shuttles, one carrying tabby weft identical to the warp, the other carrying a heavier pattern weft. Pattern texture across the entire warp width is woven on treadles x and y. Pattern texture in the Block A areas is woven on treadles 1 and 2 Pattern texture in the Block B areas is woven on treadles 3 and 4. With two treadles for each pattern block and another pair of treadles which weaves the two blocks together, several distinctly different texture effects may be woven:
 - (a) Single Tie-down Texture, woven by treadle x, treadle 1, or treadle 3, with tabby. The same effect is gained by alternating treadle y, treadle 2, or treadle 4 with tabby.
 - (b) Alternating Tie-down Texture, woven by alternating treadles x and y or 1 and 2, or 3 and 4 (with tabby).
 - (c) Paired Tie-down Texture is made by weaving with tabby in the order: a, x, b, x, a, y, b, y, repeated; or a, 1, b, 1, a, 2, b, 2, repeated; or a, 3, b, 3, a, 4, b, 4 repeated.
 - (d) The second Paired Tie-down Texture is made by weaving with tabby in the order: b, x, a, x, b, y, a, y, repeated,

and the same order for the 1 and 2 and the 3 and 4 pattern treadles.

(e) Double Tabby Texture is woven by throwing both tabby **a** and tabby **b** between each pattern shot in the (a) (b) or (c) sequences.

In weaving the different pattern textures it is important to keep in mind that each one gives a different surface effect and so if a harmonious textile is to be gained only one texture treadling should be used for a single article or a single border. The resulting effect from mixed textures is that of an error in treadling order. Select the texture desired and maintain it to the end of the article.

- (4) Background Texture. This is the opposite of Pattern Texture, woven with two shuttles carrying tabby and pattern weft. Background texture automatically occurs in the non-pattern areas when treadles 1 and 2 and 3 and 4 are woven. Full background across the entire warp is woven in the same 5 sequences given above, but on treadles 5 and 6.
- (5) The Rotation Weaves. These are woven without tabby by using one shuttle carrying pattern weft, or two or more shuttles each one carrying a different color of pattern weft. Treadles 1, 2, 3, 4, are used in rotation throughout, the pattern effects being gained through the use of colors, as the texture is uniform. Several types of texture and pattern effects may be gained:
 - (a) Treadle 1, 2, 3, 4, with a single weft to give a uniform surface. The weft color may be changed after each cycle of 4 shots to give narrow weft stripes, or may be changed after several rotations to give weft stripes of any desired width. If the weft is as fine as the warp, a near warp coverage may be woven. A heavy weft gives an interesting warp thread-pattern and a soft fabric which drapes well. Interesting with novelties and metallics.
 - (b) Treadle Block A: 1—first color
 2—first color
 3—second color
 4—second color,
 repeat as desired.

A continuous repeat of this rotation will give vertical color stripes. Checkerboards or patterns may be woven by reversing the color order.

Treadle Block B: 1—second color
2—second color
3—first color
4—first color, repeat as desired.

The two pattern wefts may be identical in weight, or one fine and one heavy, one smooth and one novelty may be used, or one cotton and one 1/64 metallic or metallic guimpe. One of the colors may match or harmonize with the warp, or both of them may be different. Many color effects may be gained by weaving repeats of A followed by repeats of B: in alternating these carry one color continuously but change the second color each block; or drop one color and add one new one each time a block is changed.

(c) Shaded effects are made by using two pairs of closely related colors, always using them in the same sequence:

Treadle: 1—first color (dark)
2—first color (light)
3—second color (dark)
4—second color (light).

(d) Opposites. This weave gives a fairly spongy fabric with better draping quality than the pattern weaves with tabby. The patterns are in shadow effect rather than strong if two heavy wefts are used, but the pattern is strengthened if one color is similar to the warp.

Treadle (for Block A): 1—color 1 4—color 2; (for Block B): 1—color 2 4—color 1.

Treadles 2 and 3 may be used instead of 1 and 4, if desired.

(6) Polychrome Weaving. On 2-block, 4-harness threadings, polychrome gives pattern texture only, the patterns being formed by color rather than color and texture. Polychrome is woven with a tabby, but the tabby precedes each pair of pattern shots instead of each pattern shot. It may be woven in any of the five textures by always throwing two pattern wefts on two sheds after each tabby. The rule is:

Treadle 1 with color 1, followed by treadle 3 with color 2; Treadle 2 with color 1, followed by treadle 4 with color 2; Treadle 3 with color 1, followed by treadle 1 with color 2; Treadle 4 with color 1, followed by treadle 2 with color 2.

WEAVING A SAMPLER

The first project advised for the long warp is a sampler. The sampler should be generous, at least 11/2 to 2 yards long, and should illustrate all of the textures given above, pattern arrangements, experiments for all-over effects and for borders, different colors and color harmonies, the applications of a wide variety of weft materials. The weaving of samplers can be the best possible training in the use of color and in designing, so aim toward a wellorganized final piece which will be harmonized and balanced as to colors, proportions and groupings, a piece which will make an attractive wall hanging. As previously mentioned, the first step is weaving plain tabby stripes with different weft colors. Then weave all of the textures given above, introducing patterns of different complexity along with the textures. Include the Rotation Weaves and Polychrome, to familiarize oneself with the potentialities of the warp and threading. Use as many different types of materials as can be assembled, to learn how each is most advantageously employed. Suggested materials for pattern weft are: Pearl cotton Size 3 and Floss (Article 114). 10/2 cotton (Article 314), Soft Twist (Article 714), 20/6 Strand Filler (Article 914), Lily Weaving Wool (Article 110), Lily Novelty Yarns (Article 105) in both Size I and Size II, Lily Metallic Guimpe and 1/64 lurex (Article 305). Even the linens may be used in this technique, the singles weft yarn (Article 207) being most suitable. The other cottons: Carpet Warp (Article 414), Stranded filler (Article 514), and Four Strand Filler (Article 1014), may be incorporated for accents and strong effects.

Patterns are limited to the two blocks shown on the Profile, but an amazing variation may be made by alternating these two blocks in different proportions. Block A is always woven when treadles 1 or 2 are depressed; Block B is woven when treadles 3 or 4 are depressed. Treadles x and y combine Blocks A and B to weave continuous pattern texture, and treadles 5 and 6 combine the backgrounds for Blocks A and B to give continuous background texture. Patterns may be developed on squared paper, from a Profile draft, before weaving, but most weavers find greater pleasure in designing patterns directly on the loom by experimenting.

TEN PROJECTS FOR THE LONG WARP

(1) Aprons. Weave a tabby hem, slightly over twice the desired hem width. Weave pattern or texture borders to approximately one third or two thirds the total apron length,

placing the strongest colors and textures near the hem. Finish with tabby to the desired length. A tea apron may be 18 inches long, while full skirt length makes a dramatic dress apron. Mark the end of the apron by a tabby shot of a different color. For the waist band weave $\frac{3}{4}$ inch in tabby, a pattern border $1\frac{1}{2}$ inches wide, then 3 inches tabby for the facing. The band may be narrower or wider as desired. Throw another marking shot and then weave 3 inches in tabby for the ties. There are endless variations on the apron: small, large, gathered, pleated, bib, pinafore. Try weaving a cocktail apron with a shot of 1/64 metallic thrown in every shed with the tabby thread. Weave a generous sized apron in tabby, texture or plainweave variation and weave 10 inches in bold pattern for making enormous pockets. Fold up the hem of a heavy apron about 10 inches, stitch the fold up the selvages and several places between, to give a short apron with large pockets along the bottom. Styles, patterns, colors, weights, are endless.

- (2) Skirt. Skirts are designed like aprons, but two identical, skirt length pieces are made, with one waist band. The skirt may be made with unpressed pleats, gathered, or cut from a fitted pattern. Three lengths may be used for a very full skirt. If striking pattern bands are used, the skirt should be made longer than the average.
- (3) Dress Fabrics. A good sampler will suggest many textures which, if woven in yardage, would make delightful textiles for dresses, smocks, skirts, blouses, cotton suits, and above all the skirt with matching 2-yard stole. It is always wise to select a good, simple dressmaking pattern before actually weaving the yardage, and then design the weaving according to the requirements of the pattern, allowing about 3 inches per yard for shrinkage. (Some cotton fabrics are so elegant that dry cleaning is to be preferred.) One delightful dress fabric is plain tabby with stripes of different colored wefts, stripes separated by a single shot on treadle x or y of Novelty cotton Size I. Plan stripes wider at the hem, gradually decreasing in width to the top. Plain weave using Novelty cotton Size II makes a handsome, practical fabric, to which a little glitter may be added by throwing a shot of 1/64 metallic occasionally on a pattern shed, or by throwing the metallic in the same shed with the novelty weft. An unusual fabric has 5 shots of tabby followed by one shot of Novelty Size II on treadle x, repeated throughout; but use 4 different weft colors in organized rotation, changing the color after each Novelty shot.

- (4) Shirt Materials. Ideal for sport shirts for either men or women, the fabric should be woven in tabby. Current styles in sport shirts show dramatically wide, horizontal stripes which would tease any weaver's imagination. Use 20/6 (Article 914), or Novelty Size II for accents, and even introduce narrow pattern borders at regular intervals. A glance at the fashion magazines will provide substantial ideas.
- (5) Table Mats. Select one of the heavier textures in stripes or all-over pattern for a firm, strong table mat. Weave 20 inches and cut through the center warp-wise for two mats. Fringe or hem the mats all the way around, to give a final, laundered size of 13 by 18 inches. Strong stripes at one end, with a plain color for two thirds the length are good design. Or, more conventionally, one may weave stripes or borders at both ends. For harmonizing napkins, weave 15 inches in tabby, with or without pattern border, and fringe or hem all around the two resulting squares.
- (6) Buffet Rolls. Weave lapkins like the mats described above, but slightly narrower—12 by 18 inches. Weave 6 inches in tabby and cut into 6-inch squares. Make a hemmed or fringed pocket of the 6-inch square and stitch it to the lapkin, one inch in from the lower left corner. Attach a 16-inch cord to the right hand edge for a tie. The pocket holds one place-setting of silver for a buffet or barbecue.
- (7) Casual and Gift Table Pieces. Cocktail or tea napkins in sets are always popular small gifts. Cocktail napkins can be made from 6inch squares, or six oblong napkins may be cut from a 7-inch strip of weaving. Fringing 1/4. inch deep is the most satisfactory finish and the fringe may be hand whipped. Leaving the fringe unfinished is preferable to machine stitching. Tea napkins should be about 10 inches square, and three may be cut from a 10-inch strip of weaving. These are better with a tiny hem all around, to give a final size of 8 to 9 inches. Cocktail napkins should be gay and dashing, while tea napkins should be soft colored and pretty, harmonizing with china or pottery. Weave in tabby with a pattern border near one end, or with a group of borders, or with a wide border at one end and a narrow beading at the other. A pleasant gift is a tray cloth (weave a 22 to 24-inch piece to make two at one time) with a set of matching cocktail or tea napkins. For an invalid, weave a tray cloth with two or four harmonizing napkins, each of a different color or design. Special sets for holidays, such as bright red or green for Christmas with holly colors for pat-

tern borders, or pale colors with silver for New Year's, are always popular.

- (8) Curtains. For the informal room—bedroom, bathroom, kitchen, dinette, play room, study, recreation room—the 24/2 warp in a gay color makes ideal curtains. Bold, horizontal stripes emphasizing color and texture are popular now, so vary color stripes by using a different weft material for each one. This will give variation in light penetration which adds interest. For fine, light curtains, weave mainly in tabby. For heavier curtains use the texture weaves. Pattern borders are not effective in curtains through which light filters. This material is perfect for the currently fashionable double-sash curtains, and good for tie-back curtains.
- (9) Bath Towels and Beach Stoles. Luxurious size for bath towels is 30 by 60 inches, for Beach Stoles (towels) 30 by 72 inches, finished. Weave in one of the texture techniques using tabby like the warp and the Lily Novelty cotton Size I as pattern weft. Weave the texture on treadles x and y only, to give one highly absorbent surface. Color or pattern borders may be added, or the entire towel may be in awning stripes. Weave hems in plain weave with 20/6 for weft. These towels are high quality and become more absorbent with repeated washings.
- (10) Bags. Bag fabrics of all types may be woven on such a warp. Probably the most elegant is in the rotation weave using Lily Weaving Wool beaten to give a warp coverage. For dress bags use Pearl cottons, metallics and wools. For shopping and knitting bags use the heavy, rug or stranded cottons, carpet warp, and Novelty Size I. Almost any material may be used for fetching little draw-string bags. By weaving the correct length in texture for the bag and then weaving the same amount in tabby, both bag and lining may be woven in one piece. The 1/64 metallic makes excellent weft for bag linings.

In this article specific directions for specific patterns have been intentionally omitted. A long-warp project is a project for a weaver to "grow up" on. It is a medium for training the eye, the imagination, and the ingenuity of the weaver, so that by the time the final article is cut from the loom the weaver is a textile designer instead of a shuttle pusher. Do not be timid because of no previous training in designing and in color harmony. Working on such a project is the way to learn these things. Learning is largely a matter of doing, of trial and error, selecting and discarding, weaving and unweaving.



Weaving directions for the illustrated aprons. All of these designs are suitable for skirts also, and the borders may be used for other articles.

APRON I

Warp: Art 314, 24/2, Red (438).

Tabby Weft: Navy, Art 314, (522).

Pattern Weft: Art 714, Tuscan Wine (K-108), Ming Gold (K-17), Dark Green (K-59), Red (K-95).

Draft: 8 units of A, 8 units of B, repeated.

Woven with tabby throughout.

Weave:

 $4\frac{1}{2}$ " tabby for hem.

Border 1, Ming Gold Treadle 1 - 8 shots

3 - 8 shots

1 - 8 shots.

8 tabby shots

Border 2, Tuscan Wine Treadle 2 - 4 shots. 10 tabby shots

Border 3, Dark Green Treadle 3 - 2 shots

1 - 23 - 2

1 - 2 3 - 2.

14 tabby shots.

Border 4, Tuscan Wine Treadle 2 - 4 times. 6 tabby shots.

Border 5. Red

Treadle 3 - 2 shots 3 times 2 tabby shots

1 - 4 shots

3 - 2 shots ${f 3}$ times 2 tabby shots

8 tabby shots.

Border 6, Tuscan Wine Treadle 2 - 2 shots

4 - 2

2 - 2.

6 tabby shots.

Border 7, Ming Gold

Treadle 3 - 5 shots

1 - 6 shots

3 - 5 shots

12 tabby shots.

Border 8, Tuscan Wine

Treadle 1 - 1 shot

3 - 1

1 - 1

3 - 1

1 - 1.

6 tabby shots.

Border 9, Dark Green

Treadle 1 - 3 shots

2 tabby shots

1 - 3

3 - 2

1 - 32 tabby shots 1 - 3.

18 tabby shots.

Border 10, Tuscan Wine Treadle 4 - 4 shots. tabby as desired.

Waist Band

1/2" tabby.

With Tuscan Wine

Treadle 1 - 1 shot 3 - 1

1-1

2 tabby shots. With Ming Gold Treadle 4 - 2 shots

2 - 4

4 tabby shots. With Red

Treadle 4 - 1 shot

2 - 1

4 - 1

2 - 1

2 tabby shots. With Dark Green Treadle 4 - 4 shots 2 tabby shots. With Ming Gold

Treadle 4 - 2 shots

2 - 4 4 - 2

2 tabby shots.

With Tuscan Wine Treadle 1 - 1

3 - 1

1 - 1

 $2\frac{1}{2}$ " tabby.

APRON II

Warp: Burnt Orange (1457), Art 314, 24/2.

Tabby Weft: Maroon (655), Art 314, 24/2, and Dark Jade (1450).

Pattern Weft: Art 105, Size 2, used in double strand, Jade (N-501) and Copper Metallic 1/64, Art 305.

Weave:

6" tabby for hem, with maroon.

Border 1

With jade novelty

Treadle 2 - 1 shot

3 - 1 shot

alternate for 3".

Tabby with dark jade $\frac{1}{2}$ ".

With metallic Treadle 1 - 1 shot,

2 - 1

3 - 1

4 - 1

1 - 1



2-1. Tabby with dark jade $\frac{1}{4}$ ". With jade novelty Treadle 2-1

3 - 1, repeat $1\frac{3}{4}$ ". Tabby with maroon 2".

Border 2

Same as Border 1, but, 21/4" novelty 8 shots dark jade tabby 4 shots metallic 4 shots dark jade tabby 1" novelty. 3" tabby with maroon.

Border 3

8 shots dark jade tabby With metallic Treadle 1 - 1 shot

2 - 1

 $\bar{3}$ - $\bar{1}$

4 - 1

4 shots dark jade tabby. 2" tabby with maroon.

Border 4

Same as Border 3. 3" tabby with maroon.

Waist Band

Like Border 2 but, 1/4" tabby 11/2" novelty Border 3 repeated 3"/4" novelty. 3" tabby with maroon.

APRON III

Warp: Art 314, 24/2, Steele (539).

Weft Stripes: Art 314, 24/2 in colors: Rust (1260), Light Green (767), Yellow (404), Jade (501). Art 105, Size 1 in colors: Dark Green (N- 459), Light Green (N-501), Old Gold (N-79), Lt. Yellow (N-406). All novelty shots are on treadle x or treadle y.

Weave:

(Tabby in 24/2. Dividing shots in novelty.) 51/4" tabby—rust (for hem) 1 shot dark green novelty, 13/4" light green tabby 1 shot yellow novelty, 1" yellow tabby 1 shot light green novelty, 11/4" jade tabby 1 shot dark green novelty, 13/4" rust tabby 1 shot old gold novelty, 11/4" light green tabby 1 shot light yellow novelty, 1½" yellow tabby 1 shot light green novelty, 1" jade tabby 1 shot dark green novelty, 3/4" rust tabby 1 shot old gold novelty, $6\frac{1}{2}$ " jade tabby.

Waist Band:

Weave:

1/4" rust tabby
1 shot light yellow novelty,
1 1/4" yellow tabby
1 shot light green novelty,
1" light green tabby,
1 shot dark green novelty,
1/2" rust tabby
1 shot old gold novelty,
3 1/2" tabby for back of waist band.



APRON IV

Warp: Art 314, 24/2, Navy (522).

Tabby Weft: Same.

Pattern Weft: Art 914 (20/6) in colors: Red (438), Orange (402), Yellow (404), Emerald (429), Dark Green (459), Blue Green (1455), Skipper Blue (920), Wine (1416).

This Apron is made cross-wise of the material. It has 7 spectrum stripes 2" wide, separated by 4" of navy tabby. The pattern stripes are woven with tabby, but with only one shuttle, the pattern weft and tabby, in each case, being the same.

Weave:

4" tabby with Navy Blue 6 shots red (Art 914) on tabby Orange:

Treadle 1, tabby b

1, tabby a

1, tabby b

1, tabby a

Yellow:

Treadle 3, tabby b

3, tabby a

Emerald: Same as Orange Dark Green: Same as Yellow Blue-Green: Same as Orange Skipper Blue: Same as Yellow Maroon:

Treadle 1, tabby b 1, tabby a

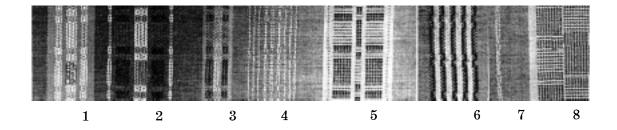
Then repeat the entire color

succession in reverse. Repeat the tabby and pattern stripes 7 times. End with 4" tabby in navy blue. Weave plain navy for the waist band.



SAMPLER

Warp: Art 314, 24/2, Burnt Orange (1457).Tabby Weft: Mainly 24/2, Rust (1260).Pattern Weft: Art 714 in colors, Art 914 in colors.	3 - 1 4 - 1 4 tabby shots 1 - 1
Border 1: Light Green 24/2 tabby, Pattern Weft Art 914, Yellow (404) 1/4" tabby in light green 24/2 Treadle 1 - 1 shot	2 - 1 2 - 1 1 - 1 ½" tabby.
2 - 1 2 - 1 1 - 1	Border 2: With rust 24/2 tabby, Pattern Weft Art 914 Yellow (404), Brown (549)
4 tabby shots 3 - 1 4 - 1 4 - 1 3 - 1	Treadle 1 - 2 shots, yellow 6 shots tabby $ \begin{array}{c} 1 - 1 \\ 2 - 1 \\ 2 - 1 \\ 1 - 1 \end{array} $ Twice, with brown



 $\left.\begin{array}{c} 3-1\\ 4-1\\ 4-1\\ 3-1\end{array}\right\} Twice, with yellow\\ 4 \text{ tabby shots}\\ 1-1\\ 2-1\\ 2-1\\ 1-1\end{array}\right\} Twice, with brown\\ 6 \text{ tabby shots}$

1 - 2 shots, yellow.

Border 3: With light green 24/2 tabby, Pattern Weft Art 714, Dark Green (K-59), Med. Gr. (K-61)

3 tabby shots

Treadle 1 - 1 shot 2 - 1 shot 3 - 1 4 - 1 3 times, with med. green 2 - 1 1 - 1 3 Twice, with dark green 3 - 1 2 - 1 3 Twice, with dark green

3 tabby shots.

Border 4: Tabby of 24/2 rust, Pattern Weft Art 714, Medium Green (K-61)

Treadle 2 - 1 shot 4 tabby shots Treadle 2 - 1 shot 4 tabby shots

4 - 2 shots, tabby between

3 tabby shots

4 - 2 shots, tabby between

3 tabby shots 4 - 2

4 tabby shots

4 - 1

4 tabby shots

2 - 1

4 tabby shots

2 - 1 shot.

Border 5: Tabby of 24/2 light green, Pattern Weft Art 714 Dark Green (K-59)

4 tabby shots

Treadle x - 1 shot

4 tabby shots

2 - 12 shots

4 tabby shots

4 - 4 This is the center. Repeat in reverse.

Border 6: Woven without tabby. Pattern Weft Art 714 Skipper Blue (K-27), Ming Gold (K-17)

(Rotation Weave)

Border 7: A beading, with 24/2 rust tabby, Pattern 714, Burnt Orange (K-21)

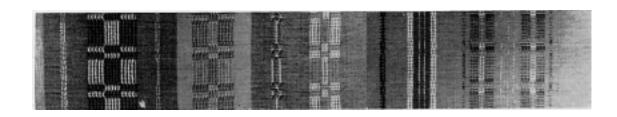
Treadle 1 - 1 shot

3 - 1

1 - 1

Border 8: Opposite Weave with no tabby, though tabby edging is of 24/2 light green. Pattern Weft, Art 714, Dark Green (K-59), Medium Green (K-61)

Treadle 1 - 1 shot, dark green 4 - 1 medium green 9 times, Treadle 2 - 1 shot, medium green 9 times 3 - 1 shot, dark green 9



Border 9: A beading with no tabby of 714 Burnt Orange (K-21)

Treadle 2 - 1 shot

3 - 1

2 - 1

Border 10: Polychrome. Tabby 24/2 rust, Pattern Weft Art 714, Ming Gold (K-17), Skipper Blue (K-27)

Treadle 1 - 1 shot, blue

3 - 1 shot, gold one tabby shot

Treadle 1 - 1 shot, gold

3 - 1 shot, blue one tabby shot

Treadle 1 - 1 shot, blue

3 - 1 shot, gold one tabby shot

Border 11: Polychrome with Double Tabby.

Tabby of 24/2 light green, Pattern
Weft Art 914 brown (549), Med.
Green 714 (K-61)

Treadle 4 - 1 shot, medium green

2 - 1 shot, brown tabby **a**, tabby **b**

Treadle 4 - 1 shot, brown

2 - 1 shot, medium green 3 times tabby a, tabby b

Treadle 4 - 1 shot, medium green

2 - 1 shot, brown tabby **a**, tabby **b**

Border 12: Polychrome, same colors as Border 11.

Treadle 4 - 1 shot, medium green

2 - 1 shot, brown one tabby shot

Treadle 4 - 1 shot, brown

2 - 1 shot, medium green twice, one tabby shot

Treadle 4 - 1 shot, medium green

2 - 1 shot, brown one tabby shot

Border 13: Shadow Pattern. Tabby of Art 914, dark green (459), Pattern Weft of 24/2 yellow.

6 tabby shots in dark green

Treadle 1 - 6 shots

2 tabby shots

3 - 4 shots

2 tabby shots

1 - 6 shots

6 tabby shots

Border 14: No-tabby beading, Pattern Weft Art 914, rust (1260)

Treadle 3 - 1 shot

2 - 1

3 - 1

Border 15: Tabby, 24/2 Burnt Orange and Red, Pattern Weft Art 714, Chamois (K-9), Art 914 Crange (402)

Treadle 3 - 1 shot) twice, with Chamois,

1-1 shot) and Orange tabby

4 shots red tabby

2 - 1 shot with Orange 914, red tabby

4 shots red tabby

2 - 1 shot with Orange 914, red tabby

4 shots red tabby

3 - 1) twice, with Chamois,

1-1) and orange tabby.

Border 16: Tabby topaz (1460) 24/2, Pattern Weft Art 714 in turquoise (K-36) and Bluebonnet (K-30).

Treadle x - 1 shot, turquoise

4 - 2 shots, bluebonnet

4 tabby shots

2 - 6 shots, bluebonnet

4 - 4 shots, turquoise

2 - 6 shots, bluebonnet

6 tabby shots

4 - 1 shot, turquoise

4 tabby shots

2 - 1 shot, turquoise

4 tabby shots at Center, then repeat in reverse.

