A Study of the Relationship Between Borders and Patterns

Helen Daniels Young
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By Helen Daniels Young

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Published and Distributed by:

Two Cape Cod Weavers
P.O. Box 186
Brewster, Massachusetts 02631
PROJECT: A STUDY OF THE RELATIONSHIP BETWEEN BORDERS AND PATTERNS.

INTRODUCTION.

This particular project is to study the relationship of different types of borders to the main body of the Pattern. There are many ways of writing Borders for a textile and some of these will be considered here, with a few being chosen to combine with the featured Pattern. SWEET-BRIAR BEAUTY has been selected for this Project because, while its draft is a very elementary one, not only does it use all 4 Pattern-combinations but it has a simplicity which makes it suitable for a variety of uses. The Draft of Sweet-Briar Beauty has within itself, as we shall see, suggestions for more than one type of Border which would harmonize with its simple, all-over Pattern. It is unusual in that its half-tones form their own distinctive design, making what is commonly considered the wrong side of the cloth of equal value with the right side, as far as Pattern interest is concerned. Because of the short skips on the wrong side of the cloth it might be used for an upholstery fabric, when it is woven as yardage - that is, with no Border - on that side.

The use for which a textile is designed will determine whether or not it should have a Border around it. No frame will be needed for any material which is woven as yardage whether it is to be used for suiting, most drapery material, purses or upholstery since it is intended to be cut into different shapes. But any piece of Table-Linen, whether Table-Cloth, Mat or Napkin, or Rug or Wall-Hanging should have a Border to frame it so that it will be a complete Unit, self-contained. A Bordered Textile has a certain dignity, conveying the impression that it was thoughtfully planned, not that it was woven as the by-product of the left-over end of some warp. Such textiles with their well planned borders are like choice pictures for which we seek the proper frame to compliment them. This frame must be in just the right proportion to the picture it contains. If it is too wide it may dwarf the picture itself and if it is too narrow, it will appear inadequate. It it is too ornate in relation to the picture it will detract from it, over-emphasizing itself. It should, of course be of equal width all around the picture and would never be at just the top and bottom or at the sides.

Like a picture, any textile which is to be displayed as a unit on a table, wall or floor needs a frame which shows that it is complete in itself. There are some patterns which have in their design an outer edge figure which might be considered as a Border without further additions. Most true Borders, however, are planned to suit individual designs and are subordinate to them, having just the correct proportion. This proportion may refer not only to the width of the Border in relation to the over-all size of a Coverlet or a Table Mat but also to the general size-relation between the Blocks in the main Pattern and those in the Border. There should be in the Border some repetition of the type of design element which appears in the main Pattern so that one can feel the Unity between the two, but it is desirable to have a re-arrangement of the design parts so that the Border is not monotonous. Contrasts between Pattern and Border are interesting if well planned.
Some of the Standard Types of Figures for Borders which may be used for framing a textile are given below. In each corner of the textile the Border figure will be woven on the diagonal and will appear as a table, a Star, a Wheel or whichever Figure was chosen for the Border. But, in order to see how it will develop along the edge of the textile, as the main body of the Pattern is woven on the diagonal, it is sometimes necessary to draw down both the Border and the Pattern to be sure that the Border is a fitting one. In doing this, draw down several Pattern repeats so that the whole Pattern is well indicated, in order to see that the Border is properly subordinate to it. If one is trying to decide between several Borders, it is not necessary to draw down the main body of the Pattern again on a new page. Instead, draw down the Border design on the diagonal for one full repeat and then cut out the graph paper so that the diagonal line of the Border corner continues into that of the Pattern. Then, on just the Border strip, draw down the Pattern-combination repeats as they appear in the Pattern. That will show the Border figure which is most suitable for a given Pattern. This exercise (p. 7) is an ideal one to help any weaver develop an appreciation of the proper relationship between Pattern and Border. Below are listed some Figures which may be used with variations to form Borders. Threadings given here are for the Overshot Weave but the Figures may be used in other weaves by adapting the threading to other techniques. This is not to be considered a complete list of Border possibilities.

SOME STANDARD FIGURES USED IN DESIGNING BORDERS FOR INDIVIDUAL TEXTILES.

1. TWILL VARIATIONS are worthy of experimentation.
   a. A Twill Threading of 1-2-3-4- or 4-3-2-1 repeated for the right width will make as simple a Border as can be used. If the Pattern to which this type of Border is added, contains quite small Blocks in its whole repeat, then this Border is scaled to size. But in order to make it quite suitable there should also be in the Pattern some suggestion of a Twill type of diagonal line. The direction of the Twill threading will be determined by the direction of the first Pattern figure, though this is not an arbitrary rule. Be sure that the Twill repeat ends on the right harness to join the first Pattern Block correctly.
   b. Twill, reversed to form a Warp Herring-bone Border, is effective it is to be used as a Border for a Pattern with tiny Blocks.
   c. Twill, in a Goose-eye repeat, may be used with a Pattern containing diamonds.
   d. Twill and Star Border. This type is included here as an example of the over-ornate type of Border. It consists of a central Star between Twill repeats, reversed on each side. It makes a very busy pattern. Since such a Border is very conspicuous, the Pattern should be a simple one in this kind of frame.

2. OVERSHOT FIGURES in many variations of types and sizes may be adapted for use as Borders for textiles varying in size from Place Mats to Coverlets.
   a. A Diagonal Border, similar to a Twill repeat, may be used where the Twill itself would have too small Blocks. The Blocks in such a Border may contain 4 - 16 threads each and may be in an ascending or descending series of Blocks.

Diagram 1 - Diagonal for a Border. Repeat as needed. See p. 11 for an example.

Diagram 2 - Diamond for Border. Repeat as needed. See p. 12.
c. Tables are the simplest of all the Overshot Figures. They make very plain corner and Border designs. They may be written in a great variety of ways, as:

(1) On Opposites: as checkerboards with an even number of threads in each Block, from 2 - 16 threads. This is good for a Border when there are some Blocks on opposites in the main Pattern repeat. When the Blocks are large, more Tabby background will show. In Patch Patterns use Table Borders contrasting in size.

Diagram 3

A Checkerboard on opposites.

(2) On Opposites: with Blocks of contrasting size. 2-Thread Blocks alternate with large Blocks. Very little Tabby background shows so Pattern Weft Color is predominant. Remember this fact in designing for strong Color effects.

Diagram 4

Size Contrasts on opposites.

(3) Threads-in-common: as checkerboards with the same number of threads in each Block but with both Blocks sharing a thread-in-common. Half-tones around the Blocks add Color to the background, more Color to the whole textile and make the individual Blocks stand out less distinctly.

Diagram 5


(4) Threads-in-common: with Blocks of contrasting size. 3-Thread Blocks alternate with large Blocks. Little background shows, being partly covered by half-tones.

Diagram 6

Size Contrasts threads-in-common.

TABLES, drawn-down form the drafts in the Diagrams given above:

Diagram 7

3b 4b 5b 6b

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3b 4b 5b 6b

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Diagram 7

3b 4b 5b 6b

d. Stars and Roses: Both of these Figures may be woven from the same draft. Many hand-woven textiles have these Figures as part of their Pattern. This is true not only in the Overshot Weave, but also in Summer and Winter, Double-Faced Twill and simple Damask, and in the Double Weave. In Sweet-Briar Beauty, Stars alternate with a smaller figure to make the all-over Pattern. Here, as in the weaving of any Star figure, a Rose may be made by weaving the second Block on the diagonal first and the first Block will be woven next. (See p. 4, Diagram 8.)

We have said that this Sweet-Briar Pattern carries suggestions for its own Borders. One may decide that the Star at the outer edge of the Pattern might serve as a Border for the Pattern, just as it is with no further additions. This may be done, but the textile will have a more professional look with the addition of a well planned Border. Two versions of Star and Rose Drafts are presented here and the drawn-down Figures show how each results from the same draft. In the Star and Circle Border, page 13, a very imaginative Border is shown, with the idea taken directly from the Pattern itself. Study it to see how it was done.
d. Stars and Roses: (continued)

Diagram 8

A. Draft On Opposites

Have it firmly fixed in mind that roses as well as stars may be woven from the same draft. In planning the articles to be woven in Sweet-Briar Beauty from the work-sheets which follow, include at least one or two samples to be made with Roses instead of Stars. This will necessitate a careful study of changes to be made in the weaving of each Border also. (See p. 3, d.)

a. Wheels. Wheel patterns were favorites of the best Coverlet period and include such well known designs as Chariot Wheel and Snowball and Wheel. They have such freedom of design that it is hard to realize that they owe their perfect circles to the accurate way their component blocks are squared on the diagonal. The Draft, Profile and Drawn-down design of a typical Wheel Figure are given here. 4-Block Patterns make the best Wheels.

Since a Wheel is such a dominant Figure, it should be used as a Border Figure only where the main Pattern is a simple one. The Star & Circle Border on p. 15 shows how well such a type of Border combines with SWEET BRIAR BEAUTY.
COLOR PROBLEMS IN RELATION TO THE STUDY OF BORDERS AND PATTERNS.

PATTERN - SWEET-BRIAR BEAUTY      WEAVE - OVERSHOT

Next comes the question of what color or colors should be used in the Border Study Series. Suggestions will be made here about co-ordinating Color in the whole group of textiles to be woven, though the final choice is, of course, for each individual to make. As in any experiment, there should be certain controls. That means that in the studies to be made there should be as few variables as possible. The things which will be the same in all of the Studies are listed below:

1. The Weave remains the same in the first 5 or 6 textiles to be woven.
2. The Pattern is the same throughout the whole series.
3. The Articles to be woven are Mats and Napkins for each different Border.
4. The Color may remain the same (for purposes of comparison) for all of the pieces woven by one individual.

The following things may vary in the different warps:

1. The BORDERS in the different warps are the featured variants in this series.
2. The Width may vary slightly due to the difference in Border Designs.
3. The Pattern should be woven as a Star for one example each in the whole series but it is desirable to try weaving the Rose motif in two or three Mats which will be woven as extras somewhere in the series.
4. The Color may change in the Pattern weft after the Basic Reference Samples have been woven for each warp or different Border.

The following suggestions are offered as Color possibilities for the Overshot Textiles to be woven in this series.

1. The simplest Color Plan is to weave all of the projects in WHITE Warp and Tabby Weft. For the Pattern Weft one Color should be selected for the pieces which are to be used as notebook samples. Yellow is not recommended as its Value is too light to show the Pattern to its best advantage. If the color is different in each sample comparison between them is more difficult. The Mats and Napkins woven in one Color may form a Set for actual use as well as Samples.
*Note: If a White warp is chosen, make it with enough threads to be re-threaded for the widest of the 5 projects to be woven. Make the warp long enough for all of them and allow plenty of heddles on each side of the warp so that the Borders may easily be re-threaded. If a whole group is working on this project, two or three weavers might follow the suggestions in #1, which may be called the duty weaving.

In 4-Block Patterns there are three color-value areas to consider; the areas where the Tabby background shows without any touches of Pattern weft, the areas where the half-tones have tiny flecks of Pattern weft, the threads in common and then the full Pattern-Block color areas. The larger the Pattern Blocks, the more the color of the Pattern weft shows. If the Blocks are small, containing only 2-4 threads then the warp thread color changes the Value of the Pattern Weft Color.

*Remember that all of these remarks about Color in Overshot weaving apply not only to the main Patterns but also to the Borders which may be added to them. If the Border is of one type or has Blocks of sizes which contrast with the Pattern, then there will be different Color effects between Border and Pattern. This Color difference should be taken into consideration when planning a Border for any piece of weaving. It may be desirable to have such a difference in Saturation or Intensity if it adds to the contrast between Pattern and Border. These remarks about Color will seem clearer after some of the Borders given here have been woven and
Color Problems in Relation to the Study of Borders and Patterns.

2. It is highly desirable to make some ventures into Color weaving, using the idea of mixing colors as well as matching them. With this in mind, plan the whole group of Mats and Napkins before ordering the yarns.

   Two mats and two napkins would combine into a most interesting *Patio* setting for eight.
   a. Either 3 or 4 Colors may be used in the set. If 4 are used, keep one Color for all of the warps. Then use 2 different Colors for Pattern weft in the 2 mats and napkins to be woven for each Border. (Only 1 Color per mat!) For the next Border change one of the Colors, etc.
   OR b. If 3 or 4 harnomious Colors are used, select one of these to use as Warp Color for each of the 4, Bordered textiles. Shift the weft colors as desired. The Tabby will, of course, match the warp (though a suggestion is given for an experimental variation of that (p. 11, 3 b.)

3. COLOR SUGGESTIONS for a luncheon set to be used for screened-porch meals. (Such a set might be known as *Patio Partners for Pottery or Plastic Plates!* and if planned for Pottery would take its color scheme directly from that set. If these suggestions do not seem pleasing, try out combinations which do.

   a. Chartreuse
      Light Olive
      Dark Olive
      Dark Brown
   b. Pale Chartreuse
      Turquoise
      Deep Peacock Blue
      Maroon
   c. Light Olive
      Dark Chocolate Brown
      Pimento Red
      Famingo
      Dark Jade
   d. Silvery Grey

   Light Olive
   Dark Olive
   Deep Peacock Blue
   Maroon
PROJECT: A STUDY OF THE RELATIONSHIP BETWEEN BORDERS AND PATTERNS.

PATTERN - SWEET-BRIAR BEAUTY      WEAVE - OVERSHOT

Pattern shown here is *drawn-down*, in part, in order to find out which trial Border is most effective with the Pattern. A simple TWILL BORDER is given here.

For other Borders see next page. See also page 2, paragraph 1.
PROJECT: RELATIONSHIP OF BORDERS - PATTERNS

At Right - Scalloped Border, written as a Diagonal. Compare with TWILL. The Scalloped Border is excellent though very simple. There is Unity of Design here because of Block sequence and size. Hence Color Intensity is alike in Border & Pattern.

See Page 2, Diag. 1 and Page 11.

At Left - Diamond Border. This is too large for a Mat but would be very good for a Table Cloth or Coverlet.

See Page 2, Diag. 2 and Page 12.

See Page 2, paragraph 1 for method of using these 2 trial Borders.

The 2 Borders on this page should be carefully cut out and tried on the Pattern on Page 7, over the Twill Border at either the upper or lower right corners. Adjust so that the Diagonal line across Pattern and Border is continuous, joining at the small Pattern Figure at the right of the large Star.
PATTERN - SWEET-BRIAR BEAUTY    WEAVE - OVERSHOT
A 4-Block Pattern with a Draft written from an Early American Coverlet.

DRAFT - For the Pattern without a Border.

PROFILE - Without a Border.

WARP & WEFT PLAN: For WARP and TABBY WEFT, 20/2 Cotton in a Silvery Grey, or White.
For pattern weft, 5/2 Pearl Cotton in Flamingo and Dark Jade.
For REED, #15, Threaded at 2 Threads per dent.
399 Threads in Warp. Or, for wider Mat 475 Threads.
13 1/2 in. - Width of Warp in Reed. For wider Mat, 15 5/6 in.

THREADING PLAN:

THREADING PLAN:

WEAVING PLAN:

1. General Instructions:
This whole Project is a study of the Relationship between Borders and Patterns. First the Pattern without a Border will be woven On-the-Diagonal. Each one of the 4 Patterns which follows has a different type of Border. Before starting the making of warps, compare the Drafts and plan the weaving of each one so that as many details as possible are similar in the whole series. This planning should include the width and pattern, if any, of the hems; the Color co-ordination of the whole set and the manner of developing the Pattern. (p. 5)

2. Specific Projects to be Woven.
a. Weave Sample 1 completely On-the-Diagonal. This will be the KEY Sample in the series. Compare its yardage appearance with the Bordered samples.
b. Weave a Table Mat with a central, horizontal Pattern Stripe about 2 in. - 3 in. wide. Narrower Pattern stripes may be at the hem line, with the remainder of the Mat woven in Tabby. Be sure to plan the height of the Mat well. See sketch at 2B-1.
c. Weave Napkins for the Mats. Weave Tabby for all but the tiny Pattern Borders at the hem lines. See Diagram 2B-2
These Napkins look better if finished with hems on 4 sides.
* NOTE: These Mats are the only ones to be woven horizontally in the Series. All others are woven lengthwise on the warp.

3. Color Problems: Plan the Colors for the whole series NOW.
a. A White warp is the easiest choice for the whole Series - and the least challenging. If White is used, keep the Color of the Pattern Weft the same in all of the weaving.
b. See Color suggestions on page 5. Keep all of the warps in one Color, re-threading for the different Borders. Use the other two Colors as Pattern Weft to enliven the weaving. Page 6.
c. Or, choose 4 associated Colors, using a different one for each of the Bordered warps, and select two Colors for the Pattern for each project. Have a dark and a light Value in the Pattern Colors thus chosen. Page 6.
PATTERN - SWEET-BRIAR BEAUTY    WEAVE - OVERSHOT

DRAFT - For the Pattern with a Twill Border.

PROFILE - With a Twill Border Added.

WARP & WEFT PLAN: For WARP and TABBY WEFT, 20/2 Cotton in a Silvery Grey, or White.
For PATTERN WEFT, 5/2 Pearl Cotton in Flamingo and Dark Jade.
For REED, #15, Threaded at 2 Threads per dent.
395 Threads in Warp.
13 1/6 in. - Width of Warp in Reed.

THREADING PLAN:
A - B  5 Twill Repeats  4 Th. each x 2 = 40 Threads
B - D Central Repeat  38 Th. each x 8 = 304 Threads
D - E Balancer  11 Th. each x 1 = 11 Threads
B - A  5 Twill Repeats  4 Th. each x 2 = 40 Threads

\[395 \text{ Th.} + 30 = 13 \frac{1}{6} \text{ in.}\]

WEAVING PLAN:

1. General Instructions:
This 1st Border for Sweet-Briar Beauty provides a frame for the Mat but adds no beauty to the pattern. In order to take full advantage of any Border it is to be considered as a FRAME surrounding the whole Pattern. The Borders at the ends must be as wide as those at the sides. In weaving the Borders at the ends be sure to allow plenty for the hems. Notice that no extra Selvage is needed here as it is included in the Twill Border. In studying the Twill Border after it has been woven, note the diagonal lines of the Twill in the corners and the curved lines opposite the Pattern. Compare this Border with the Scalloped one.

2. Specific Projects to be Woven:
   a. Weave Sample 1 as a square on-the-diagonal, as a note book sample. Weave a second note book piece without any end Border, as a bad example!
   b. Weave 1 or 2 Table Mats, using a different Color (Flamingo and Jade) for each. There are four different Borders in this series so that an interesting set of 8 Mats in the two colors is possible, if the weaving is co-ordinated.
   c. Weave Napkins to be used with the Mats. This is the time to plan the Napkins for all of the series in order to have the whole set co-ordinated. Ideas are:
      1. Plain Grey Tabby, except for narrow Pattern Stripe inside a 1/2 in. hem line.
      2. Plain Grey Tabby with just the 3/4 in. hems in Twill, in Flamingo or Jade.
      3. Plain Tabby center with Twill Border around all edges. 2 Pattern-weft shuttles are needed and great care in keeping inner line of Border straight.
      4. All-over Pattern in Colors to match or contrast with the Mat Colors.

3. Color Problems:
a. When seen at a distance, the Color of the Twill Border is paler than that of the Pattern repeat. This is because the short Pattern skips and the Tabby background are equal in amount. In a white warp 1/3 of the Saturation is lost in the Border Color. Study the Intensity and Saturation in the other Borders to see that with larger Blocks there is no Color difference between Pattern and Border.
PATTERN - SWEET-BRIAR BEAUTY  Weave - OVERSHOT.

DRAFT  For the Pattern with a Scalloped Border (which is written as a Diagonal).

PROFILE - With Scalloped (Diagonal) Border Added.

WARP & WEFT PLAN:  For WARP and TABBY WEFT, 20/2 Cotton in a Silvery Grey, or White.
   For PATTERN WEFT, 5/2 Pearl Cotton in Flamingo and Dark Jade.
   For REED, #15, Threaded at 2 Threads per dent.
   420 Threads in Warp.
   14 in. - Width of Warp in Reed.

THREADING PLAN:

A' - A  Selvage  -  4 Th. x 1  =  4 Threads
A - B  Scalloped Border  -  45 Th. x 1  =  45 Threads
B - D  Central Repeat  -  38 Th. x 8  =  304 Threads
D - E  Balancer  -  11 Th. x 1  =  11 Threads
B - A  Scalloped Border  -  45 Th. x 1  =  45 Threads
A - A'  Selvage  -  4 Th. x 1  =  4 Threads

WEAVING PLAN:

1. General Instructions:
   The 3rd Border for Sweet-Briar Beauty is a very charming one. Notice that the Border here follows the same sequence and direction as the Twill Border. Compare this with the Diagonal Border given on Page 2, Diag. 1.
   Each Border may require a different type of Hem. Though, presumably all of the hems in this series have been planned to be alike, it may be interesting to see if the addition of a plain hem in Warp and Tabby Color will add or detract from the Border of each project.

2. Specific Projects to be Woven:
   a. Weave Sample 1 completely On-the-Diagonal, including the Border, for part of the series to be kept as a record of Border Studies.
   b. Weave a TABLE MAT with the Scalloped Border which makes a very satisfactory one for the pattern. Decide whether the Border’s width in relation to the amount of the pattern and the size of the Mat is pleasing. If possible, weave a second Mat using the second Color for the pattern. If Roses were woven instead of Stars would the Border effect be greatly changed?
   c. Weave Napkins to be used with the above Place Mats. Try making a plain Tabby Napkin with a narrow Pattern edge inside the hems, for one Napkin.

3. Color Problems:
   a. For Sample 1 use a Pattern Color which is similar in Value to others in the series.
   b. For Mats try out both Pattern Colors in two mats. For Napkins use Flamingo as Tabby weft with the grey warp and in the same weight, 20/2, with Pattern weft of the 5/2 also in Flamingo.
   c. The Color effect of Border and Pattern in regard to Saturation and Intensity will be alike since the size of Blocks in both is similar. There is more unity between Border and Pattern than there is in the Twill Bordered textile.
DRAFT - For the Pattern with a Diamond Border.

PROFILE - With Diamond Border Added.

WARP & WEFT PLAN: For WARP and TABBY WEFT, 20/2 Cotton in a Silvery Grey, or White.
For PATTERN WEFT, 5/2 Pearl Cotton in Flamingo and Dark Jade.
For REED, #15, Threaded at 2 Threads per dent.
401 Threads in Warp.
13 1/2 in - Width of Warp in Reed.

THREADING PLAN:
A' - A Selvage - 4 Th. x 1 = 4 Threads
A - B Diamond Border - 26 Th. x 2 = 52 Threads
B - C Balancer for - 6 Th. x 1 = 6 Threads
C - D Central Repeat - 38 Th. x 7 = 266 Threads
D - E Balancer for - 11 Th. x 1 = 11 Threads
C - B' Diamond Border - 26 Th. x 2 = 52 Threads
B' - A Balancer for - 6 Th. x 1 = 6 Threads
A - A' Selvage - 4 Th. x 1 = 4 Threads

401 Threads ÷ 30 = 13 1/2 in.

WEAVING PLAN:
1. General Instructions:
This 2nd Border, which appears as a Diamond in the corners, gives a feeling of unity between the main body of the Pattern and its Border. The repetition of the 1-2 and 2-3 blocks picks up the effect, though not the details of the larger Figure, the main Star; while the reversal of the 1-4 and 3-4 blocks adds an interesting feature. The Border has a certain feeling of importance in its own right though this does not detract from the over-all appearance of the individual Mats or Napkins since it does not introduce any really different types of Figures into the design. (See p. 8.)

Study the sizes of the Blocks in the Border, noting that the latter contains large, 8-thread Blocks like the Pattern, as well as small 3-thread Blocks. The 8-thread Blocks are placed in such a way that they make a figure, well balanced in regard to size relation, where Border and Corner join.

2. Specific Projects to be woven:
   a. Weave Sample 1 On-the-Diagonal as a note book sample in this series.
   b. Weave 1 or 2 Table Mats, as planned, studying the Border development.
   c. Weave Napkins to be used with the Mats, carrying out the design plans.

3. Color Problems:
   a. For Sample 1 keep the Color like that for all others in the series.
   b. For Mats and Napkins the use of both weft Colors, Flamingo and Dark Jade, will give both warm and cool Colors to match any pottery used.
   c. In this Border there will be no contrast in Intensity with the Pattern.
PATTERN - SWEET-BRIAR BEAUTY    WEAVE - OVERSHOT

DRAFT - For the Pattern with a Star and Circle Border (Edna's Favorite).

PROFILE - With Star and Circle Border Added.

WARP & WEFT PLAN: For WARP and TABBY WEFT, 20/2 Cotton in a Silvery Grey, or White.
For PATTERN WEFT, 5/2 Pearl Cotton in Flamingo and Dark Jade.
For REED, #15, Threaded at 2 Threads per dent.
399 Threads in Warp
13 3/10 in - Width of Warp in Reed.

THREADING PLAN:

A' - A Selvage - 4 Th. x 1 = 4 Threads
A - B Edge Block - 10 Th. x 1 = 10 Threads
B - C Circle Border - 48 Th. x 1 = 48 Threads
C - D Central Repeat - 38 Th. x 7 = 266 Threads
D - E Balancer - 11 Th. x 1 = 11 Threads
C - B Circle Border - 48 Th. x 1 = 48 Threads
B - A Edge Block - 10 Th. x 1 = 10 Threads
A - A' Selvage - 4 Th. x 1 = 4 Threads

399 Threads ÷ 30 = 13 3/10 in.

WEAVING PLAN:

1. General Instructions:
   This 4th Border for Sweet-Briar Beauty is distinctive. As it is woven on-the-diagonal, the open Circle makes a very interesting and unusual contrast on the right side with the simple, all-over Star Pattern. On the wrong side, the Rose in the Border stands out as the chief design-interest, while the half-tones, framed in a square motif, form a very distinctive pattern of their own. Be sure to note that the Star in the Border is drafted on the two Pattern combinations used in the smaller figure of the main repeat and this Star is separated from the pattern-repeat by a figure similar to the small figure, but drafted on different combinations - on those of the Star.

2. Specific Projects to be Woven:
   a. Weave Sample 1 completely On-the-Diagonal, including the Border, as a companion for the others in this series, making a square.
   b. Weave a Table Mat. This Star and Circle Border, very cleverly planned, is almost the perfect complement for this Pattern. Both its proportion and its design are excellent. If possible weave two mats, one with Roses instead of Stars, in both the Border and the Pattern repeat.
   c. Weave Napkins to be used with the Table Mats, following suggestions on p. 10.

3. Color Problems:
   a. For sample 1 keep the VALUE of the colors similar to those in the other samples for permanent records. If warp is WHITE, use Pattern Color exactly like all other samples.
   b. For Mats and Napkins use Flamingo for one set and Dark Jade for the other.
   c. The Border color will have the same Intensity and Saturation as the main pattern but its whole effect is lighter due to the Circle pattern which is open.
It happens occasionally that a weaver likes a particular Pattern in a weave which is impractical for the type of use to which it must be put, so that it is necessary to re-write the chosen Pattern in a more suitable technique. All of the Drafts which have been presented so far in this Study of Borders and Patterns have been in just one technique, Overshot. This was done in order to make a better comparison of the merits of the different Borders, since the only variable in the Study was that of the Border itself. It seems desirable, however, to extend the study of Borders a bit farther to see how the same Pattern, with one or two of the same Borders, will look in other techniques. This will show too what problems will arise in connection with re-writing the Patterns and the Borders in other weaves. In addition, it will give a chance for multi-harness weaving.

In order to simplify the process of transposing a Draft from one technique to another, the Profile of the Draft in the original technique, with its Border, must first be written - in Overshot, in this case. On page 11 we find the Profile of the Sweet-Briar Beauty with the Scalloped Border which is excellent for our purposes. Let us consider three techniques into which this may be transposed. We must know two things about any weave before we can start our problem. These two things are:

1. The Basic Unit of that weave, and 2. The Number of Harnesses required for the four Pattern Blocks of different denominations which the Overshot Draft contains.

Here is a table to show a comparison of three techniques which may be used nicely:

<table>
<thead>
<tr>
<th>Technique</th>
<th>Basic Unit</th>
<th>Blocks up to</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overshot</td>
<td>Basic Unit, 2 Th.</td>
<td>16 Th. wide</td>
<td>Blocks up to 16 Th. wide.</td>
</tr>
<tr>
<td>Summer &amp; Winter</td>
<td>Basic Unit, 4 Th.</td>
<td>unlimited</td>
<td>Blocks may be of unlimited size.</td>
</tr>
<tr>
<td>Double-Faced Twill</td>
<td>Basic Unit, 4 Th.</td>
<td>unlimited</td>
<td>Blocks may be of unlimited size.</td>
</tr>
<tr>
<td>Lace-Bronson</td>
<td>Basic Unit, 6 Th.</td>
<td>unlimited</td>
<td>Blocks may be of unlimited size, except for the practical reason that too large a lace area tends to sag.</td>
</tr>
</tbody>
</table>

The number of Harnesses required for 2, 3, 4 & more Pattern Blocks is listed here:

<table>
<thead>
<tr>
<th>Technique</th>
<th>Harnesses Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overshot</td>
<td>4 Harnesses for 2, 3, or 4 Blocks of different denominations.</td>
</tr>
<tr>
<td>Summer &amp; Winter</td>
<td>4 Harnesses for 2 Blocks, plus an additional Harness for each added Block of a different denomination.</td>
</tr>
<tr>
<td>Double-Faced Twill</td>
<td>4 Harnesses are needed for 1 Block, with 8 Harnesses required for a Pattern in D. F. Twill. 12 Harnesses are needed for a 3-Block Pattern and 16 Harnesses for a 4-Block Pattern.</td>
</tr>
<tr>
<td>Lace-Bronson</td>
<td>4 Harnesses are needed for 2 Pattern Blocks plus one more Harness for each added Block of different denomination. So for the 4-Block Pattern we are considering, 6 Harnesses are needed.</td>
</tr>
</tbody>
</table>

Therefore, all 2-Block Patterns in these techniques may be woven on 4 Harnesses except those for D. F. Twill which needs 8 Harnesses. But, for 4-Block Patterns in S & W and Lace-Bronson, 6 Harnesses are needed; with 16 Harnesses needed in D. F. Twill.

In this section of the Study on Borders we have transposed a 4-Harness, 4-Block Overshot Pattern, Sweet-Briar Beauty, with Scalloped Border into all three of the techniques listed above and the Pattern with the Star and Circle Border into the S & W technique. So we now have two, 6-Harness S & W drafts, a 6-Harness Lace-Bronson draft and a 16 Harness D. F. Twill draft. In making these transpositions from one technique to another, let us see what problems a weaver must solve in the process.
First, look at the size of the Pattern Blocks in the original Draft or Profile. It is easier to transpose a Pattern from one technique to another if the Blocks are all comparatively large or if all are composed of an even number of Units. In the Draft of Sweet-Briar Beauty the smallest Block consists of 3 threads (being a pivotal Block - i.e. a Block connecting two blocks of the same denomination) or 1 Unit. The largest Block contains 8 threads, or 4 Units. The Central Repeat of 38 threads is repeated 8 times with a total of 413 threads, counting all of the repeats in the draft. It is obvious that if this Profile was used, just as it is, as the threading draft for the S & W version of the Pattern, with no changes, there would be 826 threads in the warp since the S & W Basic Units are twice as large as those of Overshot. The same would be true for a Double-Faced Twill threading of the Pattern; 826 threads would be needed. The Basic Unit of Lace-Bronson is 6 threads, or three times as large as Overshot, so the warp for that weave, if threaded from the original Profile, would have 1239 threads. So it is easy to see that we must make some adjustments in transposing one type of weave to another.

Since it is important to keep as much of the character of the Pattern as possible we must change each part of the Pattern in proportion to the other parts. The different types of weaves into which the Draft will be transposed will obviously change its character in any event. Therefore, we must not omit any parts of the Pattern when we change the number of repeats in the Draft and the number of Units in a Block.

In studying the two figures of which the Pattern is built, we find that the smaller figure, B-C, contains 10 threads while the larger one has 28 threads. The larger one is about 2 1/2 times the size of the smaller one and we must keep that size relationship in the adjustments we make. In the Border the Blocks are made of 2 Units each, or 4 threads. In changing to S. & W. a single Unit has 4 threads so we may rewrite the Border with Blocks of just 1 Unit. The figure from B-C also contains 2-Unit Blocks (4 Th.) which will become 1 Unit (4 Th.) of S. 9 W. The figure in C-D must be 2 1/2 times as large as that in B-C, so we may cut those Blocks in half where they have an even number of threads and reduce them proportionately where they have an uneven number of threads (for such blocks cannot be changed into blocks with an even number of threads in Overshot weave). The central Block of 3 threads must then be made over into a 4-thread Unit of S. & W. This will make a repeat of 48 threads, instead of 38, so that if the textile is to be about the same width, the number of repeats must be reduced from 8 to 6 times. Study both the Overshot Draft on page 11 and the S. & W. Draft on page 16. Also study the drafts in two techniques on pages 13 and 17.

It is not necessary to repeat the whole process of changing the same original Draft into the Lace-Bronson weave. The process is similar. It is obvious that, since the Lace-Bronson Basic Units are 3 times as large as those of Overshot, the direct writing of the Draft for the Lace weave from the Overshot Profile would make the Lace warp 3 times as large, or 1239 threads instead of 413 threads. Therefore, there must be a proportionate reduction in the size of the Blocks. Keep in mind that the larger figure should be 2 1/2 times the smaller one, then we can begin to reduce it to minimum size and after that build the larger one in relation to it; remembering that Lace Units are 6 threads. For the Draft resulting from transposition to the Lace weave, see page 19.

The same type of reasoning is applied to re-writing the Draft for the D. F. Twill weave from the original Overshot Profile. Remember that each Unit of this weave consists of 4 threads, written in a sequence like plain Twill on 4 Harnessed. But for each Block of different denomination there must be another set of 4 harnesses. For this Pattern with four Blocks of different denominations there must be 16 Harnessed. The problem of Pattern size is similar to that of S. & W., but here we are planning a Table-cloth instead of Place Mats, so there must be a Border of proper proportions for the double width of the Cloth. However, the main Pattern should be more prominent than the Border and there must not be such a reduction in the number of Pattern repeats that the Pattern is made subordinate to the Border. Try this problem before referring to the way it has been worked out in the Work Sheet on page 20. Refer back to page 11.
PATTERN - SWEET-BRIAR BEAUTY  
WEAVE - SUMMER AND WINTER

DRAFT - For the Pattern with a Scalloped Border. (See p. 11). 6 - Harnesses

PROFILE:

WARP AND WEFT PLAN:
WARP: For WARP, 20/2 White Cotton.
WEFT: For TABBY WEFT, 24/2 White Cotton or the equivalent in White Silk or Rayon.

For PATTERN WEFT, 5/2 Pearl Cotton in Color other than pastels.

REED: #15, Threaded at 2 Threads per Dent.
436 : Number of Threads in Warp.
14 1/2 in.: Width of Warp in Reed.

THREADING PLAN:

A - B - Selvage - 4 Th. x 1  =  4 Th.
B - C Border - 32 Th. x 2  =  64 Th.
C - E - Repeat - 48 Th. x 6  =  288 Th.
E - F - Balancer- 12 Th. x 1  =  12 Th.
C - B - Border - 32 Th. x 1  =  64 Th. (Reverse Border, but not order within the Units.)
A - B - Selvage - 4 Th. x 1  =  4 Th.

Width  =  436 Th.  ÷  30  =  14 1/2 in.

WEAVING PLAN:
1. TABBY: In a 6-Harness S. & W. Weave the Tabby consists of Harnesses 1 - 2 alternating with 3-4-5-6, to-gether, for the other Tabby. In addition to making plain cloth, they are used to form the background for the Pattern, alternating with Pattern shots in their own direction.

2. PATTERN: The BASIC UNITS of S. & W. weave consist of 4 threads. In a 6-Harness weave there are 4 different Units. Units of the same denomination may be combined to form Blocks of Pattern of unlimited size, because of the Tie-down threads (on harnesses 1 & 2 in each Unit). Patterns like this one are to be woven On-the-Diagonal with each Block squared. In either the Plain or the Crackle technique this means weaving 4 shots for every Unit in each Block. Read the instructions for the 3 chief S. & W. techniques; Plain, Crackle, and Bird’s Eye on the next two pages. To weave this Pattern, follow these directions:

For Border B - C

(4x in all)

For Pattern C - D

For Pattern D-E, where there are 2 Units on Harness 3 or 4 weave them with 2 Units as indicated above for B - D, following the Draft or Profile.
PATTERN - SWEET-BRIAR BEAUTY  WEAVE - SUMMER & WINTER

DRAFT - For the Pattern with a Star and Circle Border (Edna’s Favorite) 6 - Harness.

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<tbody>
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<td>B</td>
<td>A</td>
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<td>6</td>
<td>5</td>
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<td>4</td>
<td>3</td>
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<td>2</td>
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<tr>
<td>C</td>
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<td>4</td>
<td>3</td>
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<td>D</td>
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<tr>
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<td>3</td>
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<td>2</td>
<td>1</td>
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PROFILE

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<td>3</td>
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<tbody>
<tr>
<td>C</td>
<td>B</td>
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<tr>
<td>6</td>
<td>5</td>
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<tr>
<td>4</td>
<td>3</td>
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<tr>
<td>2</td>
<td>1</td>
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</table>

TIE-UP **

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<tbody>
<tr>
<td>B</td>
<td>A</td>
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<tr>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

WARP AND WEFT PLAN:

WARP: For WARP, 20/2 White Cotton.
WEFT: For TABBY WEFT, 24/2 White Cotton, very fine Silk or Rayon
For PATTERN WEFT, 5/2 Pearl Cotton in Color.

REED: #15, Threaded at 2 Threads per Dent.
452: Number of Threads in Warp.
15 in.: Width of Warp in Reed.

THREADING PLAN:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A - B Selvage = 4 Th x 1 = 4 Th.</td>
<td></td>
</tr>
<tr>
<td>B - C Border = 84 Th x 1 = 84 Th.</td>
<td></td>
</tr>
<tr>
<td>C - E Repeat = 48 Th x 5 = 240 Th.</td>
<td></td>
</tr>
<tr>
<td>C - D - Balancer = 36 Th x 1 = 36 Th.</td>
<td></td>
</tr>
<tr>
<td>B - C - Border = 84 Th x 1 = 84 Th.</td>
<td></td>
</tr>
<tr>
<td>A - B Selvage = 4 Th x 1 = 4 Th.</td>
<td></td>
</tr>
</tbody>
</table>

Width = 452 Th. ÷ 30 = 15 in.

WEAVING PLAN:

1. Tabby: In the S. & W. Weave, the tabby consists of Harnesses 1 - 2 for one pair and the other combination is formed by the remaining harnesses used together. With 6 Harnesses the alternating Tabbies are 1-2 and 3-4-5-6. These Tabby shots alternate with Pattern shots keeping their own established direction, regardless of Pattern changes.

2. Pattern: Pattern Blocks in S. & W. may be either single UNITS or any multiple of the 4-thread UNITS shown here. In each Unit there are 2 Pattern threads on the same harness. In weaving a UNIT we must use the Pattern Harness first with #1 and then with #2 Harness, alternating with the proper Tabby shots.

a. PLAIN S. & W. WEAVE is the simplest of the 3 main ways of weaving S. & W. Each UNIT is woven with 2 shots of Tabby and 2 of Pattern in alternation. Blocks are multiples of Units and must be woven to be square.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tabby</td>
<td>1-2 ← or 1-2 ← or 1-2 ← or 1-2 ←</td>
</tr>
<tr>
<td>Pattern</td>
<td>1-3 ← 1-4 ← 1-5 ← 1-6 ←</td>
</tr>
<tr>
<td>Tabby</td>
<td>3-4-5-6 → 3-4-5-6 → 3-4-5-6 → 3-4-5-6 →</td>
</tr>
<tr>
<td>Pattern</td>
<td>2-3 → 2-4 → 2-5 → 2-6 →</td>
</tr>
</tbody>
</table>
2. PATTERN: (continued)
b. CRACKLE S. & W. WEAVE: (The modernistic S. & W. method.)
The Crackle S. & W. Weave produces quite a different effect from either of the other two methods though it keeps the typical, short, 3-thread Pattern-Weft skips. In this method a choice is made between using Pattern Harnesses with either #1 or #2 of the tie-down Harnesses. Once the choice has been made, that harness must be used throughout the weaving of a textile. Since a slightly different effect results from each of these combinations of 1 or 2 with the Pattern Harnesses, it is advisable to try out the effect of each on a small sampler before starting on any project, labeling the sampler for future reference. Repeat Units as needed.

<table>
<thead>
<tr>
<th>Tabby</th>
<th>1-2 ←</th>
<th>or</th>
<th>1-2 ←</th>
<th>or</th>
<th>1-2 ←</th>
<th>or</th>
<th>1-2 ←</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pattern</td>
<td>1-3 ←</td>
<td>1-5 ←</td>
<td>1-6 ←</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tabby</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pattern</td>
<td>1-3 →</td>
<td>1-5 →</td>
<td>1-6 →</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OR

<table>
<thead>
<tr>
<th>Tabby</th>
<th>1-2 ←</th>
<th>or</th>
<th>1-2 ←</th>
<th>or</th>
<th>1-2 ←</th>
<th>or</th>
<th>1-2 ←</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pattern</td>
<td>2-3 ←</td>
<td>2-5 ←</td>
<td>2-6 ←</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tabby</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pattern</td>
<td>2-3 →</td>
<td>2-5 →</td>
<td>2-6 →</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

c. BIRD'S EYE S. & W. WEAVE:
The Bird's Eye Technique is also quite individual in appearance and in some ways is the most charming of the three methods. In this method the Tabby still keeps its established direction. The Pattern shots are paired, thus producing the Bird's Eye effect. Be sure to keep the direction of both Tabby and Pattern once these have been set up.

<table>
<thead>
<tr>
<th>Tabby</th>
<th>1-2 ←</th>
<th>or</th>
<th>1-2 ←</th>
<th>or</th>
<th>1-2 ←</th>
<th>or</th>
<th>1-2 ←</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pattern</td>
<td>1-3 ←</td>
<td>1-5 ←</td>
<td>1-6 ←</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tabby</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pattern</td>
<td>2-3 →</td>
<td>2-5 →</td>
<td>2-6 →</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'pattern</td>
<td>1-2 ←</td>
<td>1-2 ←</td>
<td>1-2 ←</td>
<td>Repeat as needed</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>'pattern</td>
<td>2-3 ←</td>
<td>2-5 ←</td>
<td>2-6 ←</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tabby</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
<td>3-4-5-6 →</td>
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<tr>
<td>'pattern</td>
<td>1-3 →</td>
<td>1-5 →</td>
<td>1-6 →</td>
<td>Blocks.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

It will be seen that 8 shots are needed to weave 1 UNIT of the Pattern so, as a rule, this is a better technique for textiles with predominantly large blocks. In this Pattern, however, it is most effective, possibly because the Pattern is so simple, despite the fact that there are small Blocks. In the squaring of large Blocks, fewer repeats may be used to square them. But in order to keep the pairing of the Pattern-Weft right, all 8 shots must be used for each unit woven.

In S. & W. Weave it is important that the Pattern-wefts lie close together, in order to give the Pattern a solid effect. This is done by using a Tabby which is smaller than the Warp threads. A fine silk or rceryon yarn is effective as it is soft and beats in well. Also such yarns have a gleam which is pleasing and quite subtle. They add richness and take away the cottony look.
PATTERN - SWEET-BRIAR BEAUTY  WEAVE - BRONSON-LACE

DRAFT - For the Pattern with a Scalloped Border.  (See p. 11)  A 6-Harness Weave.

PROFILE

WARP AND WEFT PLAN:
WARP: 40/2 White Linen for Warp.
WEFT: 40/2 White Mercerized Linen for both Tabby and Pattern Weft.
REED: #15, Threaded at 2 Threads per Dent.
380 : Number of Threads in Warp.
12 2/3 in.: Width of Warp in Reed.

THREADING PLAN:
A - B - Selvage  2 Th. x 1 = 2 Th.
B - C - Border  24 Th. x 3 = 72 Th.
C - E - Repeat  72 Th. x 3 = 216 Th.
E - F - Balancer 18 Th. x 1 = 18 Th. x 1
*C - B - Border  24 Th. x 3 = 72 Th.

380 Threads : 30 = 12 2/3 in. wide.

(Selvage here is in Patt.)

*Note: in reversing the Border, do NOT reverse order of threads within the UNITS.

WEAVING PLAN: This is a one-shuttle weave like most Linen Weaves.

a. There are two Tabby sheds which alternate to form plain weave: "A"')2-3-4-5-6)
The "A" Tabby also alternates with the Pattern Shots.
"B" (1)
b. PATTERN: In a 6-Harness Lace-Bronson Draft there are Pattern Blocks of four denominations. The BASIC
UNITS of these Blocks are given here, (below). Each UNIT contains 6 Warp Threads and must be woven with 6
Weft threads also. In this draft from D - E there are 4 Blocks which contain 2 UNITS each. These 2-Unit Blocks
must be woven with 2 repeats of the Unit, in order to square the Blocks.

c. To weave the Units given above, 6 Weft-shots are needed for each Unit in a Block. The 6 shots needed for each
Unit of the Lace Weave are:
1. "A" Tabby (2-3-4-5-6)
2. Pattern Treadle
3. "A" Tabby
4. Pattern Treadle
5. "A" Tabby
6. "B" Tabby (1)  Note that the "A" Tabby is used with the Pattern in
alternation in every other shot. There are 2 Pattern
shots, both on the same Treadle in a given Unit. The
last Tabby shot on "B" makes the window between
the units when there are several units in a Block.
d. The actual shots to use in weaving the four different units are as follows:
2. 1 - 3 Pattern  2. 1 - 4 Pattern  2. 1 - 5 Pattern  2. 1 - 6 Pattern
4. 1 - 3 Pattern  4. 1 - 4 Pattern  4. 1 - 5 Pattern  4. 1 - 6 Pattern
PROJECT: A STUDY OF THE RELATIONSHIP BETWEEN BORDERS AND PATTERNS

PATTERN- SWEET-BRIAR BEAUTY (TABLE CLOTH & NAPKINS).  WEAVE - DOUBLE-FACED TWILL.

DRAFT.

TIE-UP.

PROFILE OF NAPKIN DRAFT.

WARP AND WEFT PLAN:  [FOR NAPKINS].

WARP:  50/2 White Linen.

WEFT:  50/2 or 40/2 White or Natural Linen.

REED:  #20 at 2 Threads per Dent.

660 : Number of Threads in Warp.

16 1/2 in. Width of Warp in Reed.

THREADING PLAN: (FOR NAPKINS).

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<tbody>
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<td>A</td>
<td>A'</td>
<td>B</td>
<td>A'</td>
</tr>
<tr>
<td>A'</td>
<td>B</td>
<td>C</td>
<td>A'</td>
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<td>A'</td>
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<td>D</td>
<td>B</td>
</tr>
<tr>
<td>A'</td>
<td>D</td>
<td>A</td>
<td>A'</td>
</tr>
</tbody>
</table>

A - A' - Selvage 1 unit of 4 Threads 4 Threads x 1 = 4 Th.
A' - B - Border 8 units of 4 Threads 32 Threads x 3 = 96 Th.
B - C - Pattern 27 units of 4 Threads 108 Threads x 4 = 432 Th.
C - D - Balancer 7 units of 4 Threads 28 Threads x 1 = 28 Th.
D - A' - Border 8 units of 4 Threads 32 Threads x 3 = 96 Th.
A' - A - Selvage 1 Unit of 4 Threads 4 Threads x 1 = 4 Th.

Width = 660 Th. ÷ 40 = 16 1/2 in.
PATTERN - SWEET-BRIAR BEAUTY.  WEAVE - DOUBLE-FACED TWILL.

PROFILE - FOR THE TABLE CLOTH with a Scalloped Border. (See p. 11). A 16-Harness Draft

<table>
<thead>
<tr>
<th>D</th>
<th>C</th>
<th>B</th>
<th>A</th>
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WARP AND WEFT PLAN: (FOR TABLE CLOTH, 49 1/5 in. Finished Cloth about 48 in. wide when seamed).
WARP: 50/2 White Linen.
WEFT: 50/2 or 40/2 White or Natural Linen.
REED: #20 at 2 Threads per Dent.
984 : Number of Threads in Warp, (for 1/2 of Width of Table Cloth. Weave 2 lengths).
24 3/5 in.: Width of Warp in Reed, (for 1/2 of Width of Table Cloth).

THREADING PLAN: (for TABLE CLOTH).
A - B - Border - 40 UNITS x 4 Threads - 160 Threads x 2 = 320 Th. (8 in.)
B - C - Pattern - 27 UNITS x 4 Threads - 108 Threads x 6 = 648 Th. (16 1/5 in.)
C - D - Balancer - 4 UNITS x 4 Threads - 16 Threads x 1 = 16 Th. (2/5in.)

984 Th. ÷ 40 Th. = 24 3/5 in.

WEAVING PLAN:

This is a typical, one-shuttle, Linen Weave. Each 4-Thread UNIT is threaded on 4 Harnesses, like a plain Twill. For every UNIT found in the Profile (or Draft), 4 Pattern Weft shots must be woven in order to square each BLOCK. If this 4-shot sequence is not followed, it upsets the Pattern-weft direction and causes a very obvious mistake. For both the Napkins and the two lengths of the Table Cloth, weave enough extra border to allow for the turn-under as well as the hem, planning about 1/2 in. for hems on each end. Make allowance for this extra amount in planning the warp lengths.

For the TABLE Cloth two lengths must be woven, using great care as the weaving proceeds to keep a record of the lengths of the different parts of the pattern in the first half, so that the second half may be like it in order that the Pattern will match perfectly when the two halves of the cloth are finally joined. Use fagotting for the joining.

Either DOUBLE-FACED TWILL or simple DAMASK may be used in weaving the Table Cloth and Napkins with no change in the tie-up. The techniques are varied merely by a difference in the sequence of treadling: a broken Twill sequence being used for the Damask.

For D.F. Twill, follow the Pattern as written on-the-diagonal, using either 1-2-3-4, 5-6-7-8, 9-10-11-12, or 13-14-15-16 in the order in which the Blocks are given in the Draft and for the same number of repeats indicated in the Draft (or Profile). For the Napkins, weave the lower Border the same width as the side Borders (plus amount for hems); next square the Pattern repeat (it may be a trifle longer than square to allow for shrinkage on the loom and in laudering but the Pattern must balance at either end); then repeat the Border in reverse for the same size as that at the other end. (Use the same principle in weaving the Table Cloth but with more repeats, of course.)

For simple Damask, the tie-up may be exactly the same as that for D.F. Twill, but the treadle sequence must be a broken Twill and is as follows; with each sequence following the order and number of UNIT repeats as shown for each Block in the Draft (or Profile): 1-3-2-4- or 5-7-6-8 or 9-11-10-12 or 13-15-14-16. The weaving of the Damask textile must follow these sequences for each unit of each BLOCK as given on the Profile (or Draft), with the 4 shots repeated completely for each UNIT, to square the BLOCKS.
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