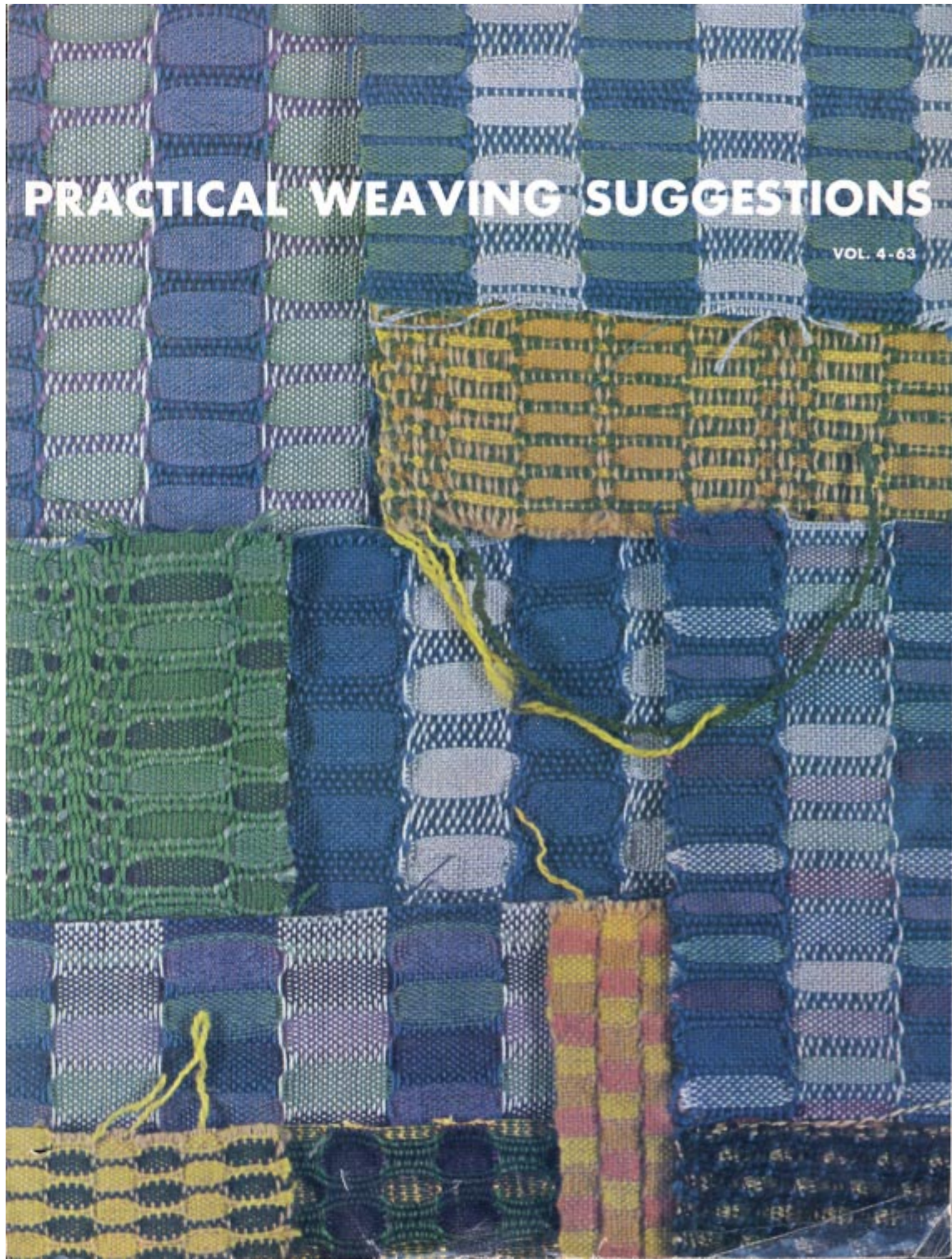


PRACTICAL WEAVING SUGGESTIONS

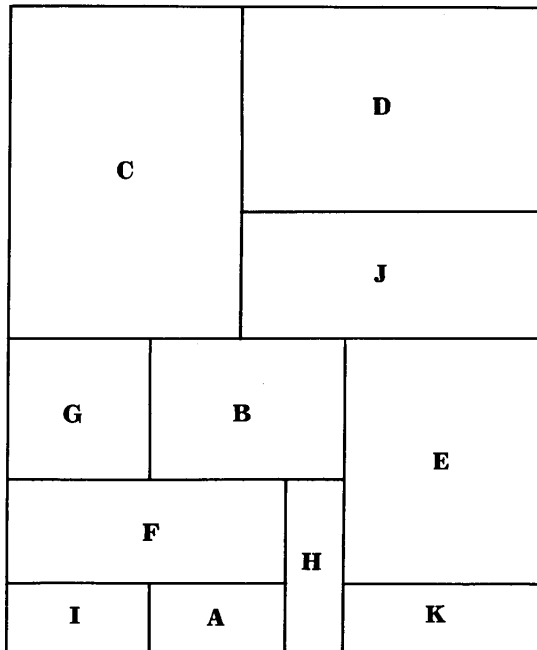
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DECORATOR FABRICS IN HONEYCOMB

VIRGINIA M. WEST

Most of the designs featured in this article are illustrated in color on the front cover. For easy identification of each design, please refer to the keyed diagram below.



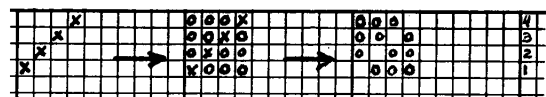
- (A) --- Project No. 1
- (B) --- Project No. 2 Design No. 1
- (C) --- Project No. 2 Design No. 2
- (D) --- Project No. 2 Design No. 3
- (E) --- Project No. 2 Design No. 4
- (F) --- Project No. 2 Design No. 5
- (G) --- Project No. 3 Design No. 1
- (H) --- Project No. 4 Design No. 1
- (I) --- Project No. 4 Design No. 2
- (J) --- Honeycomb on Summer and Winter
- (K) --- Honeycomb on Overshot or Crackle

The curving, undulating lines of the honeycomb weave have always fascinated me, but its three-dimensional quality I did not know about until I tried my first honeycomb sample. The honeycomb "cells" contract like dimples in a way that gives an effect of depth and shadows. It is almost an optical illusion — quite lovely and quite different from anything else in handweaving.

I found honeycomb to be exciting for decorator fabrics and yet completely practical for something like upholstery, where close interweaving is essential. Another of the delights of honeycomb is that so many gorgeous color combinations can be used on the same warp. I will describe my projects in detail, but first a brief explanation of the theory behind honeycomb.

We all know that only two harnesses are required for plain weave. Therefore, using a four harness loom, we can obtain two "sets," or areas, or blocks, of plain weave. This is done by threading the first or "A" area 1,2,1,2,1,2 as desired, one time or twenty times, and the second or "B" area 3,4,3,4,3,4. In weaving, harnesses are used as in double weave to obtain two sets of plain weave, but instead of lying one over the other, they will be adjacent. On a counter-

balanced loom simply alternate harnesses 1 and 2 for the "A" block and 3 and 4 for the "B" block. However, you will find it much easier mechanically to weave honeycomb on a rising shed loom and to convert the tie-up from counterbalanced to rising shed, by filling in the spaces on the tie-up diagram.



Counter-balanced

Rising shed

x's generally denote counter-balanced.
o's generally denote rising shed.

These two sets of plain weave form the cells of the honeycomb and are woven with a weft about the same size as the warp. The cells are variously called depressions, pits and dimples. If you are an advanced weaver, or an astute beginner, you will recognize in the threading 1,2,1,2,3,4,3,4, no matter how many times each is repeated, the odd and even alternation of threads, which indicates that plain weave may also be woven across the entire warp. This third plain weave area is usually just one or two shots with a weft three to five times the size of the warp and forms the curving lines over the previously woven cells. These

are the "walls" of the honeycomb. The treading is to raise alternately the odds and the evens, the familiar 1-3, 2-4. Honeycomb has a definite right side; the wrong side is composed of weft skips of the cell that was not woven on the right side.

Here is the complete tie-up diagram. To make the directions as clear as possible, all treading will be given by harnesses.

2	3	4	5	6	7	8	9	10
2	3	4	5	6	7	8	9	10
2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9

By this time you will note that the threading is identical to Monk's Belt, which

is a two-block "on opposites" pattern. In fact, honeycomb may be woven on any Monk's Belt draft you may already have on your loom, or Overshot, or Summer and Winter, or Crackle. More instructions will be given for this later.

It will add to your general understanding of the weave if you know how to devise your own draft and how to treadle it, as explained in paragraphs three and four. You will be setting up a two-block "on opposites" pattern, referred to as Monk's Belt, but treadled in a special way so as to produce the honeycombs. For this reason honeycomb is not generally classified as a separate weave, rather as a method of treading.

BEDSPREAD

PROJECT NO. 1

My first project in honeycomb was an ambitious one — a bedspread for my college-age son. His redecorated room and new built-in furniture called for something special in the way of a bed covering.

I had on hand some **LILY Art. 114, Mercerized Cotton**, size 20/2, in a purplish navy and in green, slightly less than a pound of each. I set this up in $\frac{1}{2}$ " stripes, on a seven yard long warp, 41" wide, 40 ends per inch. After narrowing in and allowing for shrinkage, the 41" will come down to 39", the perfect size panel for the top of a standard size single bed. After weaving the fabric measured six yards, and when I cut it off the loom, I found I had about 12" more shrinkage. I cut the yardage exactly in half into two equal panels 39" wide. The first panel was for the top of the bed. The second panel was cut down the middle, the cut edge reinforced on the sewing machine and seamed to each side of the center panel. Thus there were only two seams necessary, plus a hem at the head and one at the bottom. I found that I did not need to hem the selvages — they were perfect as they were. I contemplated using cording but found that anything except a simple seam detracted from the beauty of the spread.

The spread is eminently practical since the dark warp does not show soil, and the little dimples or cells are gem-like in effect. I would like to use the same setup in somewhat lighter colors for coverlets for my daughters' room.

Here is the complete story. All threads used are **LILY Art. 114, Mercerized Cotton**.

Thread:

Right selvage 1324.

Purple Navy No. 637, 20/2 Threaded 1,2,1,2,1,2, etc. 10 times in all (At 40 threads per inch this equals $\frac{1}{2}$ ").

Green No. 459, 20/2 Threaded 3,4, etc. for $\frac{1}{2}$ " or 10 times.

This is repeated, the two colors alternating, for 41". Left selvage 1324.

Treading:

Harnesses 13, 24 with **Perle 3, Emerald No. 429**.

Harnesses 134, 234 five times with **Perle 10, Violet No. 407**.

Harnesses 13, 24 with **Perle 3**, as above.

Harnesses 123, 124 five times with **Perle 10, Yellow No. 404**.

SOFA PILLOWS

PROJECT NO. 2

My next honeycomb project was for sofa pillows for my white naugahyde sofa, and I knew I could give my imagination free rein as far as color. Again I used **LILY Article 114 Mercerized Cottons**, and the warp was size 10/2 in 1" stripes of light and dark blue, set 24 per inch, 17" wide. Allowing an inch for narrowing in, the final fabric is about 16" wide. Each design was woven a yard long. This gave me a pillow, after shrinkage and seams, 15" square. Shredded foam proved to be the most satisfactory stuffing. Each pillow has a lining of unbleached muslin which was made separately from the handwoven outer covering.

Threading draft:

10/2, Skipper Blue No. 920 Threaded 1,2 12 times (1").

10/2, Blue, No. 992 Threaded 3,4 12 times (1").

Repeat eight times, then end with:

No. 920, threaded 1,2 12 times to balance.

A right and left selvage of 1,3,2,4 will prevent two selvages from forming at one side or the other, an interesting phenomenon, but not always desirable.

Design No. 1

Treadling:

Perle 3 No. 920

Harnesses 13, 24.

Perle 10/2 No. 920

Harnesses 134, 234 seven times.

Perle 3 No. 920

Harnesses 13, 24.

Perle 10/2 No. 992

Harnesses 123, 124 seven times.

Repeat for pillow length.

Note that the weft colors are the same as the warp and are used to make large, oval cells of pure light blue and dark blue. Two heavy tabby shots are used between each cell.

Design No. 2

The second design is a variation of the first, changing the weft colors to jade and violet and using only one tabby shot of the Perle 3. The treadling changes somewhat in order to avoid the heavy tabby weft and the 20/2 weft from lying part of the way in the same shed. The shift of weft colors changes the entire appearance of the fabric, almost obscuring the fact that there are two shades of blue in the warp.

Treadling:

Perle 3, Violet No. 407

Harnesses 24.

20/2, Medium Jade No. 1449

Harnesses 123, 124 seven times.

Perle 3, Violet

Harnesses 13.

20/2, Violet No. 407

Harnesses 234, 134 seven times.

Design No. 3

This variation of honeycomb treadling makes a unique fabric.

Treadling:

Perle 3, No. 920

Harnesses 123, 24, 123.

20/2, No. 1449

Harnesses 134, 234 five times.

10/2, No. 992

Harnesses 124, 123 four times.

Perle 3, No. 920

Harnesses 134, 24, 134.

10/2, No. 992

Harnesses 123, 124 four times.

20/2, No. 1449

Harnesses 234, 134 five times.

Design No. 1:

One of the thrills of weaving honeycomb is the multitude of colors that can be combined on any single warp. Here is one of my favorites. Small oval cells, a warm, rich blend of blues and greens, are formed. The emerald warp creates a vertical interest periodically every 3".

Perle 3, Medium Jade No. 1449	Harnesses 1&3.
20/2, Purple Navy No. 637	Harnesses 234, 134 five times.
Perle 3, as before	Harnesses 2&4.
20/2, Green No. 459	Harnesses 123, 124 five times.
Perle 3, as above	Harnesses 1&3.
20/2, Dark Jade No. 1450	Harnesses 234, 134 five times.
Perle 3	Harnesses 2&4.
20/2, Purple Navy	Harnesses 123, 124 five times.
Perle 3	Harnesses 1&3.
20/2, Green	Harnesses 234, 134 five times.
Perle 3	Harnesses 2&4.
20/2, Dark Jade	Harnesses 123, 124 five times.

Design No. 2:

Do you know the Egyptian ankh — the symbol of a long life? The motif in this design resembles the ankh and alternates in light blue and dark blue.

Perle 3, Emerald No. 429	Harnesses 1&3, 2&4.
10/2, Skipper Blue No. 920	Harnesses 123, 124 six times.
Perle 3, as above	Harnesses 1&3.
Art. 214, 20/2 Blue No. 25	Harnesses 234, 134 three times.
Perle 3	Harnesses 2&4.
10/2, Skipper Blue	Harnesses 123, 124 six times.
Perle 3	Harnesses 1&3, 2&4.
20/3, Light Blue	Harnesses 134, 234 seven times.
Perle 3	Harnesses 1&3.
10/2, Skipper Blue	Harnesses 124, 123 three times.
Perle 3	Harnesses 2&4.
20/2, Light Blue	Harnesses 134, 234 seven times.

Design No. 3:

This design was created on the loom, using the treadling given below, but letting the color dictate the number of repeats each time. There was no overall pattern. At the end of 30" of weaving, it looked like it might make an interesting wall hanging, so I wove in a stick and a heading. When it was cut off the loom, I unravelled the other end to make a fringe. It was accepted at a recent Smithsonian craft show and subsequently sold, so I have no sample.

Perle 3, Emerald No. 429	Harnesses 1&3, 2&4.
10/2, Skipper Blue No. 920	Harnesses 123, 124 six times.
Perle 3	Harnesses 1&3, 2&4.
10/2, Skipper Blue	Harnesses 123, 124 six times.
Perle 3	Harnesses 1&3, 2&4.
Art. 714, 10/3, Talisman No. 62	Harnesses 134, 234 eight times.
Perle 3	Harnesses 1&3, 2&4.
10/3, Talisman Green	Harnesses 134, 234 eight times.
Arrange repeats as desired.	

UPHOLSTERY

PROJECT NO. 4

For the upholstery samples I used a warp of **LILY Art. 110, Weaving Wool, Beige No. 90.** Gray No. 87 would have worked equally as well since a neutral one color warp is called for. It was set at 24 ends per inch.

Right selvage: 1324.
 1,2 five times. }
 3,4 five times. } Repeat for width desired.
Left selvage: 1324.

Design No. 1:

This is a radically different way of weaving honeycomb, has a delightful three-dimensional effect and makes a firm upholstery. When the tension is released after weaving, you will notice lengthwise ribs, very attractive and different. The weft skips on the underside form a kind of padding. I would like this upholstery on a Danish modern arm chair either in the three colors used here or in your favorite combination of two or three related shades.

Notice that only the cells of the honeycomb are treadled — no heavy tabby at all is used. You will find this the slowest weaving of all the projects, but very worthwhile.

Art. 110, Dusty Rose No. 49	Harnesses 123, 124 four times.
Ming Gold No. 17	Harnesses 134, 234 four times.
Green Gold No. 67	Harnesses 123, 124 four times.
Dusty Rose	Harnesses 134, 234 four times.
Ming Gold	Harnesses 123, 124 four times.
Green Gold	Harnesses 134, 234 four times.

Design No. 2:

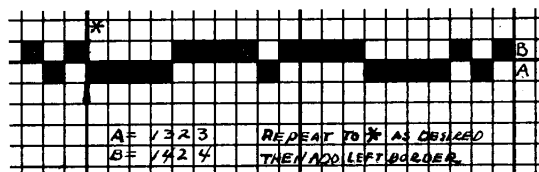
This design departs from the traditional honeycomb in that the heavy tabby weft is not used. Instead the same color and weight of thread that is used for weaving the cells is again used for the tabbies around each cell. It seems to give a more rhythmic flow to the design. The firmness of the sample testifies to its practicality for upholstery. Some people will prefer the underside.

Notice also that the tabbies lie in the same sheds as the first and last sheds for the cell. Thus little "teeth" of the warp tend to frame each cell.

Color No. 1—Emerald No. 62	Harnesses 13.
	Harnesses 123, 124 four times.
	Harnesses 24.
Color No. 2—Green Gold No. 67	Harnesses 13.
	Harnesses 134, 234 four times.
	Harnesses 24.

HONEYCOMB ON SUMMER AND WINTER

Honeycomb can be woven on Summer and Winter with most satisfactory results. Try the treadling given below on the Summer and Winter pattern you may now have on your loom, or use the following draft, given in profile form for the sample as photographed. By varying the treadling, beautiful, imaginative sunset effects can be made. Create your own design on the loom.



Warp: **LILY Art. 110 Weaving Wool**, Beige No. 90 set 24 per inch.

Treadling:

Art. 105, Green Boucle No. 459 Harnesses 34.

Art. 110, Green Gold No. 67 Harnesses 124, 34, 124.

Green Boucle Harnesses 34.

Art. 110, Ming Gold No. 17 Harnesses 123, 34, 123, 34, 123, 34, 123.

The photograph may not show the true beauty of this sample, nor tell how firm and substantial it is — perfect for upholstery.

HONEYCOMB ON OVERSHOT OR CRACKLE

Honeycomb may be woven on any Overshot or Crackle draft although the results are somewhat different since there are four blocks of pattern in each of the techniques. The honeycomb cells do not stand out in direct contrast to each other as they do in the two-block "on opposites" draft. The treadling is for four blocks:

The "A" block is treadled 234, 134 as many times as threaded.

The "B" block is treadled 134, 124 as many times as threaded.

The "C" block is treadled 124, 123 as many times as threaded.

The "D" block is treadled 123, 234 as many times as threaded.

The tabby should alternate between each block or cell and may be heavy or the same as the warp.

The sample photographed was woven by a student, Helene Bress, on Crackle Weave Fantasy from Marguerite Davidson's *A HANDWEAVER'S PATTERN BOOK*. (Incidentally there are many pictures of overshot drafts treadled in the honeycomb method in this book.) Only two of the blocks are treadled in this sample, and it is striking in the use of metallic in the honeycomb cells. The warp is black 20/2 mercerized cotton, and the fabric is ideal for an evening purse.

Here is the treadling:

Art. 114, Perle 3, No. 920 Harnesses 13, 24.

Art. 305, Natural and Gold Harnesses 123, 124 five times.

Perle 3, as above Harnesses 13, 24.

Natural and Gold Harnesses 134, 234 five times.

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