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**Shuttle Craft Guild  
HANDWEAVER'S  
BULLETIN**

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Portfolio  
Edition

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The Shuttle Craft Guild  
 Handweaver's BULLETIN  
 Volume XXXII, Number 11  
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The Shuttle Craft BULLETIN, by Harriet Tidball, is published monthly by Mr and Mrs Martin Tidball, The Shuttle Craft Guild, Kelseyville, California. The Guild membership with regular edition of the BULLETIN is \$7.50 a year, with the PORTFOLIO-BULLETIN containing woven samples (three, this month) and other special feature, subscription is \$17.50 a year. PORTFOLIO subscriptions have now reached one-third of the full subscription list, and the number grows each month.

The very special price on the Shuttle Craft STYLES sheets, is our Christmas Gift to Guild members, so order as many sets as you wish -- for yourself, for your local Guild Library, or for your friends.

The sheets sent with the September BULLETIN were not intended as renewal notices, but to pass on to a friend. However, they are giving us a good loom survey, so we should appreciate your sending them in with the loom information checked, with or without renewal. Postcard notices are sent when renewals are due, credits noted.

NECKTIES for CHRISTMAS

The weaving and making up of neckties is a splendid and highly rewarding project for the handweaver who is a fine craftsman with the needle as well as at the loom. A necktie is cut from a piece of woven fabric which must be made of fine yarns so it will be firm and light weight. It must be perfectly crafted and well designed. In addition, although the cutting and sewing is very simple, the needlework must be handled with as much perfection as the weaving.

The string-tie, which is so popular now, is an excellent project for the handweaver because it is cut from a straight piece of fabric. The same is true of the bow-tie. These two styles will be taken up below. Directions for the standard cravat are given in Shuttle Craft STYLES Sheet #3, and need not be repeated.

Fabrics for the string-tie and the bow-tie should be fine and lighter weight than is required for the cravat style. They must be closely woven and a perfect warp-weft balance is required for good tying. Handsome sport ties may be made of 24/2 cotton, set at 36 ends per inch. The two yarns which are taken up here are Bernat Afghan, set at 30 ends per inch, and Royarn (orlon) 16/2, set at 30 ends per inch. Pent Yarn (2/18 French-spun Worsted) would no doubt be satisfactory at 27 ends per inch, but this fabric was not tested at this time.

First Necktie, The String Tie

This tie was made of 16/2 Royarn, set at 30 ends per inch. Three and one-third inches width was allowed for each tie, or 100 warp ends. The warp was made 600 ends (20 inches) wide, so six ties were woven simultaneously. The length

required is 48 inches, though this may be longer or shorter, according to individual pleasure.



A simple, effective design of three pairs of squares was woven in one end of the ties, with the main fabric of perfectly balanced tabby. The technique for the simple pattern was an adjustment of the Spot Weave, but this was handled as a 2-shuttle pattern weave instead of as a texture weave. The pattern weft was Bernat Fabri. The weave produces shadow patterns in tabby and leaves long weft floats on the under side of the textile, between motifs. These long floats would be impractical for many fabrics, but serve well for the neckties, since the weft is clipped close to the pattern (it is grasped too firmly to pull out) and obviates any thickening of the textile.

Three threadings were used: a 4-harness threading which produced two simple squares, a 5-harness threading which gave overlapping squares of greater interest, and a 6-harness threading which permitted the weaving of more elaborate pattern motifs. In our opinion, the simple motifs from the 5-harness threading were the most effective, and this is the motif shown in the PORTFOLIO sample.

100	64	36	
	4 4 4 4 4 4 4		4
		3 3 3 3 3 3 3	3
2 2 2 2			2
36 ends		36 ends	

Repeat the 1,2 for 36 ends, then thread the 28 ends to 1,3 and 1,4, and complete with 36 ends on 1,2. Each threading is sufficient for

one necktie, and may be repeated as many times as desired. The tie-up is:

4		4	4
3	3		3
2	2	2	2
1	1	1	1
	1	2	a b

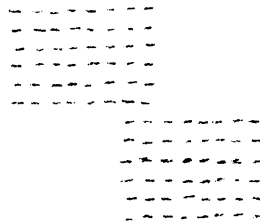
Weave with weft like the warp on the a and b treadles, and pattern weft of the desired color (Fabri) in the sheds made by treadles 1 and 2. Beat for a perfect tabby balance.

Weave: 4 to 5 inches tabby on a, b alternated; then a, b, 1, repeated 6 times (or 7 times), a, b, 2, repeated 6 times (or 7 times), 1 inch tabby on a, b alternated, repeat figure on a, b, 1, and a, b, 2, 1 inch tabby on a, b, alternated, repeat figure on a, b, 1, and a, b, 2, weave balance of the 48 inches in tabby.

The 5-harness draft is a slight variation:

100	64		36	
		5 5		5
	4 4 4 4 4 4			4
		3 3 3 3 3 3		3
2 2 2 2			2 2 2 2	2
36 ends			36 ends	1

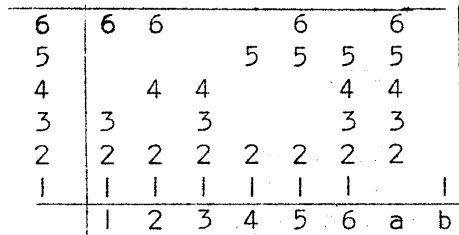
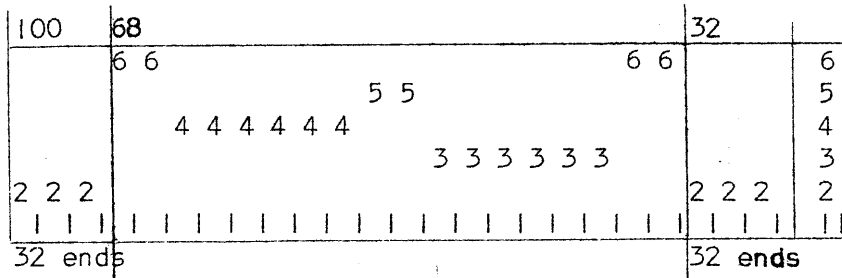
5		5
4	4	4
3	3	3
2	2	2
1	1	1
	1	2 a b



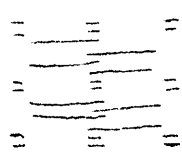
This is woven exactly like the 4-harness draft, so follow the weaving directions above. The only difference is that the pattern squares overlap by two pattern threads. A third treadle may be added, tied to harnesses 1-2-3-4 and used for two shots

between the two squares, to give the second figure shown.

The 6-harness draft permist considerable variation:

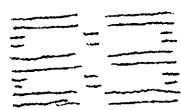


The same motif as for the 5-harness draft may be woven on treadles 1 and 2:



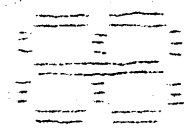
This motif is woven:  
treadle 3, 2 shots,

- 1, 1
- 2, 1
- 1, 1
- 2, 1
- repeat this once,
- 3, 2



This motif is woven:  
treadle 4, 2 shots,

- 3, 2
- 4, 2
- 3, 2
- 4, 2



This motif is woven:

treadle 5, 2 shots

3, 3

6, 2

3, 3

5, 2

All patterns are woven with both a and b tabby shots between pattern shots. The imaginative weaver may wish to make further motif variations, but keep in mind that the simpler the design, the more effective it will be on the necktie. Don't make a sampler necktie using several different motifs. This will simply look busy. However, one long, continuous design will often be effective.

#### DIRECTIONS FOR MAKING UP NECKTIES

First, clip the weft floats on the wrong side of the fabric. Before cutting the ties apart lengthwise, a special precaution must be taken for a fabric which frays badly, as does the orlon. In the exact center, between each two neckties, pull out two warp ends. Whip closely, along each side of this space, with fine thread, to prevent fraying. Then cut. If it seems advisable, whip twice: once in one direction, then from the opposite direction. Press the strip of fabric with a steam iron, or under a pressing cloth. Fold the strip lengthwise, right side out, and overcast the two edges together for 17 inches, with very loose, rather large stitches. Pull this whipped seam so it lies perfectly flat, with the two whipped edges just touching. Press this end very carefully with a steam iron, being sure that the pressed edges follow a single warp thread. The

tie must now be tapered to the narrower neckline, and one inch is allowed for this tapering. It is a good idea to baste at this point. Holding the fabric flat, instead of folded as at first, push the two edges until they overlap completely, making three full thicknesses of fabric. Baste down the center with small running stitches. Then whip the rough edge into place with small, firm, stitches to form a neat edge. Extend this narrow portion for 18 inches. Then allow one inch for tapering outward, and overcast the last 11 inches in the same manner as used for the first end. Press flat, and very firmly with a steam iron. This manner of whipping the edges together on the under side of the tie obviates any disfiguring thickness of the seams. The ends may be finished with a quarter-inch fringe, whipped neatly, a finish often preferred by handweavers because it gives a "handwoven" stamp to a necktie. Or the ends may be turned in very neatly, either straight across or cut to a point, and whipped closely. The wise weaver will allow one extra tie for practicing the make-up, as this requires a certain amount of skill and the first one may not be perfectly neat.

#### Second Necktie, The Bow Tie

This tie was made of Bernat Afghan, set at 30 ends per inch, threaded to 4-harness twill, and woven in twill-with-tabby in a special manner. Three colors were used in the warp, as follows

5 Sea Moss green	
1 Chantilly green	
1 Sea Moss	1 Gold
1 Chantilly	1 Sea Moss
1 Sea Moss	1 Gold
1 Gold	16 ends, repeated.
3 Sea Moss	



Black Afghan was used for weft, throughout, though any of the three warp colors would have given good results. The Standard tie-up was used:

4			4	4		4
3			3	3		3
2	2	2				2
1	1				1	1
	1	2	3	4	a	b

Sinking-Shed

4	4	4				4
3	3				3	3
2			2	2	2	
1			1	1		1
	1	2	3	4	a	b

Rising-Shed

The treadling order is the often-used twill-with-tabby, which normally gives a 63 degree diagonal twill line. The difference, however, for this fabric is that a lash, instead of a single shot, was placed in each pattern (or twill) shed. A lash is one shot across the warp, and then a return in the same shed, giving two shots in the shed. The order is:

treadle a, 1 shot (left to right direction)  
 1, 1 lash (right to left, and back)  
 b, 1 shot (right to left)  
 2, 1 lash (left to right, and back)  
 a, 1 shot  
 3, 1 lash  
 b, 1 shot  
 4, 1 lash  
 repeated throughout.

Since the warp and weft were balanced at 30 per inch, the twill diagonal is 70 degrees, and is hardly visible, partly because of the color interest in the warp. A very interesting pattern in the warp colors results, due to the fact that the light green and gold threads occur on harnesses 2 and 4 only.

Two problems had to be faced in the weaving of this fabric: that of beating to give a perfect balance between warp and weft without streaking the fabric, and that of placing the lash in the sheds efficiently. The beating was handled by weaving on a more loosely ten-

sioned warp than would have been used for tabby weaving; by bringing the beater forward gently, on a closed shed; by changing the warp position every three inches; and by weaving rhythmically. To make sure that the weaving was not carried too far before the warp position was changed, a little piece of pearl cotton was inserted in the right-hand selvage each time the position was changed, to serve as a signal. At more than three inches, the warp tension has changed sufficiently that weft streaking is inevitable with a soft fabric like this.

The problem of handling the lash was solved by the method best used in weaving basket, and for taking care of troublesome selvage problems. Unthreaded supplemental threads of 10/2 pearl cotton were placed at each edge of the warp. The 10/2 pearl was wound on two heavy spools, two yards of thread left dangling, and the thread half-hitched around the spool to keep it from unwinding further. The spools were hung over the back beam at either side of the warp, the ends carried straight through to the reed and sleyed in the dents just outside the warp, then fastened to the selvages around pins. These unthreaded ends lie permanently in a position which bisects every shed. When the first shot of the lash was thrown, the shuttle was caught as it emerged under the supplemental thread. when the shuttle was returned in the same shed it was thrown over the thread, which locked the shot at the selvage. The shed was then closed and both shots beaten into place at the same time. To be effective, these supplemental threads must tension themselves quite severely, so if the spool is not heavy enough, additional weights must be added. The supplemental threads are easily withdrawn after the cloth is cut from the loom. Heavy threads beamed with the warp will not serve the purpose, as the self-tensioning factor of the weighted spools is necessary. When weaving has progressed to the point where the spools reach the back beam, the thread must be loosened and more length released, and again half-hitched near the floor.

A 34 inch length of 3 inch wide fabric is required for making the bow-tie, size 15. Since this fabric does not fray badly, steam press the piece first, then cut, and whip the edges, using the black Afghan for the sewing. Make up the tie in the same manner, except using the following proportions:

7½ inches, whipped for full width,  
 ½ inch for the taper,  
 18 inches, narrow for neck,  
 ½ inch for the taper,  
 7½ inches, whipped for full width.

Add or subtract at the center for larger or smaller neck size. Turn the ends under and whip them neatly, either in a straight line or a point. This necktie will tie very neatly, and hold the knot without slipping.

#### AN EIGHT-HARNESS TWILL FABRIC

This is a handsome fabric of which a sample is given on page 8, Volume 34, Fall 1955, AMERICAN FABRICS. It is given here because, in addition to being a fabric of unusual charm, it was the starting point for the designing of the previous necktie fabric. The colors shown in the AMERICAN FABRICS sample are:

5 medium green-blue  
 1 dark green  
 1 green-blue  
 1 dark green  
 1 green-blue  
 1 wine  
 3 green-blue  
 1 wine  
 1 green-blue  
 1 wine  


---

 16 ends, repeated.

It was thought that this would serve well as a tie fabric, in Afghan set at 30 ends per inch. However, weaving proved that the fabric was too soft for the handloom at this setting, and it could not be woven without weft streaks. Therefore the weave was changed to the one given previously, for 4 harnesses. This weave is practical, however, for Afghan set at 36 ends per inch, for Pent yarn set at 30, or for Fabri set at 28. Though these fabrics were a little too heavy for neckties, they would serve beautifully as light-weight suitings or dress fabrics.

The tie-up is:

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

All black was used for the weft, and the treadles operated in 1,2,3,4,5,6,7,8-order, repeated. The same beating precautions should be taken in weaving this fabric as for the Afghan necktie fabric.

#### CAUSES OF and SOLUTIONS FOR WEFT STREAKING

The previous fabric brought to the fore a problem which troubles many handweavers: that of weft streaking. Too often the handweaver is only partly aware of weft streaking while the weaving is in progress, and continues weaving, thinking the streaks will steam out of the final fabric. Rarely, if ever, will this happy circumstance occur, and the weaver is left with a costly, unusable fabric. In order to eliminate weft streak

the weaver must concentrate on its slightest indication, determine the cause, and consciously eliminate it. Below are listed a number of causes, with the corrective measures which can be taken.

(1) The use of a new type of warp material.

Oddly enough, this is a cause which is more apt to occur with an experienced weaver than with a beginner, especially if the weaver has woven many yardages in some other type of material and has developed a "feel" from previous experiences. To jump into an altogether new type of material, one which must be handled differently and has a different "feel" necessitates a good bit of experimental weaving on the new warp, under rigid discipline, developing the new touch, and the new rhythm required. The developing of the feel of the new warp is particularly trying if the change is from such extremes as from tweed yarns to fine worsteds, particularly French-spun worsted or a yarn like Afghan which is very soft. Allow several extra yards of warp for mastering the touch before starting to weave an important yardage.

(2) Inappropriate beating technique. As all good weavers know, each fabric requires its own special beat, and the appropriate beat for any particular warp and technique must be determined at the beginning of each new project. Know in advance exactly how many weft shots must be placed per inch. In the largest proportion of fabrics this will be the same number as there are warp ends per inch. Cut several pieces of brightly colored pearl cotton, 2 inches long. Place one in a shed, at the selvage. Weave the number of shots required for one inch and place another marker in the last shed. Repeat twice. Loosen the warp and measure between these four markers. If the distance between markers is not exactly one inch, the beat must be adjusted and the process repeated until the perfect beat and rhythm of weaving are well established. Packing the weft (weaving more shots per inch than there are warp ends) will create

more streaking than any other factor.

(3) Too tight warp tension. Correct tension will differ with different materials and techniques. A tension which is either too soft or too heavy will cause streaking, the soft tension because it reduces the weaver's control, the strong tension because it encourages weft packing. The only way to determine correct tension for the project is to experiment with different warp tensions, being careful to weave rhythmically and place the weft correctly for each. Test the "bounce" of the warp with the palm of the hand, against the idle warp and against an open shed.

(4) Excessive narrowing, causing fell to curve up at selvages. This may be a direct result of a too tight warp tension. Or it may be caused by poor bobbins, by dragging of the weft from the shuttle, by drawing the weft too sharply, or by beating while holding a slight tension on the weft. Discipline will usually correct these faults, though in extreme cases it may be necessary to add supplemental threads at the edges, as described on page 9, to hold out the edges. Never adopt such expedencies as doubling the threads at the edges, making the selvege threads of heavier material or slewing them more closely, or of threading a tabby selvege on two extra harnesses, as these measures will create more problems than they cure.

(5) Too wide a warp setting for the technique being used, or the yarn. This was the problem met in the twill fabric for this BULLETIN. Either of the two methods used here offer a solution: change the tie-up to give a more closely interwoven textile, or re-sley to a closer warp setting. A warp setting which gives a good tabby fabric will probably be too open for weaving a good 2-2 twill, and much too open longer floats as given in the tie-up on page 11.

(6) Weaving too far before changing warp position.

One of the most common causes of weft streaking. For all but the very coarsest projects, the warp position should be moved at least every 4 inches. For delicate materials, 3 inches is better, and in some cases 2 inches is best. The width of the loom's weaving space does not determine the length one can weave without moving the warp, though with a narrow shed, weaving may progress farther than with a wide shed. Warp tension increases as the fell nears the beater, and produces a streak due to reduced texture density. Avoid this by changing the warp position more frequently.

(7) Incorrectly balanced harnesses, or improperly set beater.

If the loom is out of balance due to incorrect structural design, there is little the weaver can do to correct this. If the loom is the counter-balanced type, rehanging the harnesses may correct the fault. If an adjustable beater is in the wrong position, readjust it to the correct position. (There is really only one correct position for a beater, regardless of the type of material being used, so making the beater adjustable is an unnecessary addition made by some loom manufacturers.)

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CHRISTMAS GIFTS FOR THE HANDWEAVER

The Shuttle Craft Guild has many items which will make fine Christmas Gifts for any handweaver. With each order for Christmas Gift mailing, we shall send a special greeting card with a handwoven swatch.

With each gift membership in the Shuttle Craft Guild, the subscriber will receive \$1.00 renewal credit on his own next renewal, if the subscription is for the regular BULLETIN edition; if the subscription is for the PORTFOLIO edition of the BULLETIN the sender will receive \$2.00 renewal credit.

We are making one special gift price offer: the complete set of 48 STYLES sheets for \$3.25, instead of the regular price of \$4.50. These project sheets which are attractively printed directions for 48 different 4-harness handwoven articles, would be especially nice for the new weaver. All orders received up to December 23 will be honored at this very special price.

The textile magnifying glass, which is \$4.00, would make a most acceptable Christmas gift, as this excellent professionally mounted lense is packaged in a genuine pigskin case.

Further gift suggestions are:

India Ink Fountain Pens for Drafting, \$3.50 each;  
Two sizes: #1 fine line, and #3 heavy line.  
Cheskin Color Wheel, \$5.00  
FOUNDATIONS FOR HANDWEAVERS, the Shuttle Craft Guild's latest publication, \$7.50.  
HANDWEAVER'S INSTRUCTION MANUAL, \$3.50.  
THE WEAVER'S WORD FINDER (encyclopaedia), \$2.50.  
THE INKLE WEAVE, \$2.00.  
THE SHUTTLE CRAFT BOOK OF AMERICAN HANDWEAVING, by Mary M Atwater, \$6.00.  
BYWAYS IN HANDWEAVING, by Atwater, \$8.50.  
ART IN EVERYDAY LIFE, by Goldstein, \$8.50.

All of these items will be gift wrapped, and every effort will be made to carry out any special mailing orders. Postage will be pre-paid anyplace in the United States.

SYMPATHETIC RAISING of UNTIED HARNESS -- Question

Question: "I have a 6-harness Summer and Winter threaded on my loom. When I depress the a tabby, hooked to harnesses 3-4-5-6, harness 1 also raises and I have to reach up with my free hand and push it



down.. It slows my work and prevents my developing a rhythmical action. What is the solution?

Answer: Evidently you are using a single tie-down: harness 1. When you raise all of the pattern harnesses, all of the treadle-lam connections on the pattern treadles loosen, so that the weight of the treadles is supported on the lam for harness 1. You have a sufficient number of pattern treadles tied that their combined weights are sufficient to raise harness 1. There are two solutions for this. The first is to give additional weight to harness 1 by hanging something heavy to it (we sometimes use iron bars attached with scotch tape, though for overhead jack looms we hang groups of heavy iron washers to the bottoms of the harnesses), sufficient to compensate for the weight of the treadles. The other solution is to attach the tie-down, harness 1, to a separate treadle at the left, and operate all pattern combinations with two feet. Almost all multiple-harness weaves, except those based on twill threadings, require some additional harness weighting. This is particularly true of Summer and Winter, and even more of the Bronson weaves, for which harness 1 needs extra weighting even for 4-harness threadings, often. The weaver may find this the case when weaving the threadings given here for the First Necktie.

THREADBENDER NOTICES: A correction for the September 1955 BULLETIN, top of page 11. The double negative should be eliminated and the sentence read: "As long as the tension is released ---." The Coddie Products Co, 8238 Bay Pines Blvd, St Petersburg, Florida, have developed a new line of fine shuttles and pick-up sticks. And through Dec 31, 1955 they are offering their splendid 2-harness looms at a discount of 15%. Next month we shall send a new, detailed list of RECOMMENDED SOURCES, including looms, and a subject-matter list of available back BULLETINS. HOME STUDY COURSE, Part II is now complete and available. This is on 4-harness, balanced weaving.

