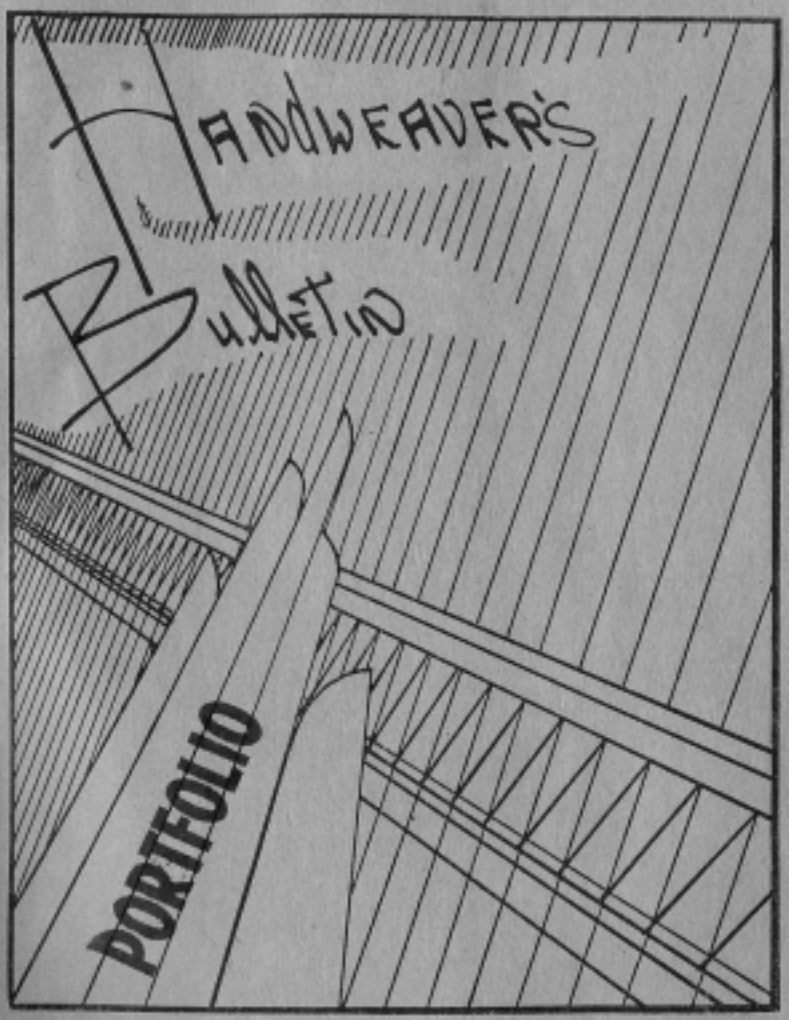

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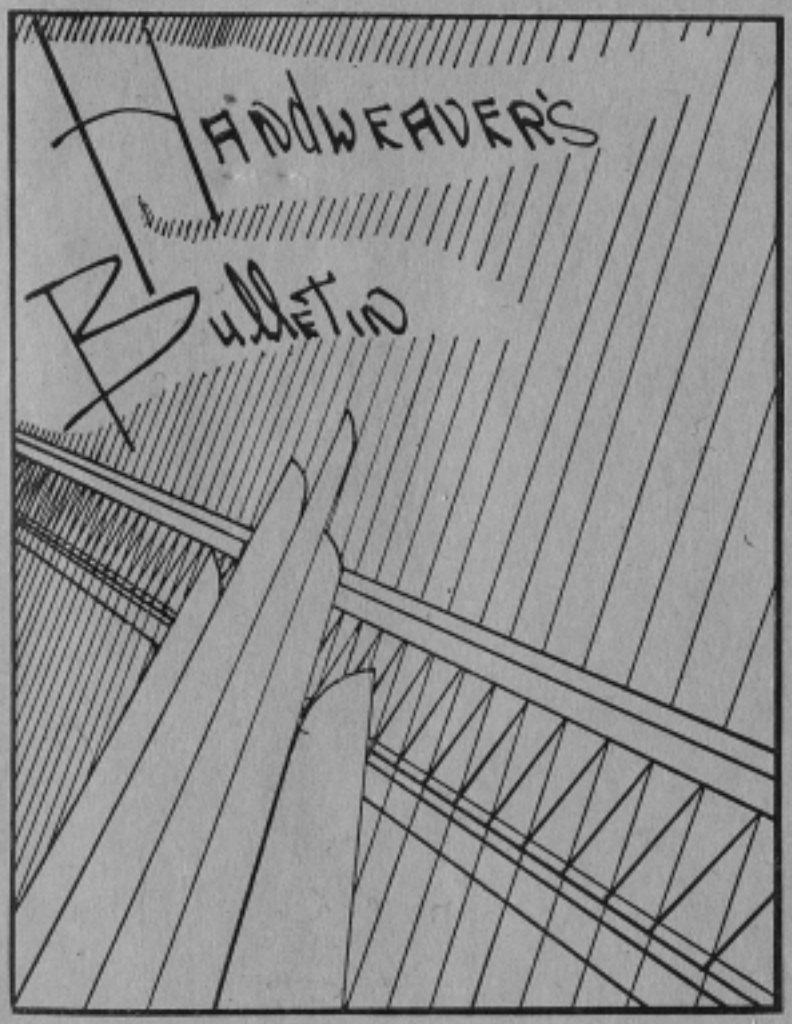


Shuttle Craft Guild Virginia City, Montana
Volume XXIX Number 5 May 1952

The Shuttle Craft Guild
HANDWEAVER'S BULLETIN
Harriet Tidball, Editor

AN HEIRLOOM BLANKET

Almost every weaver wishes at some time to create an heirloom piece, some handwoven article of lasting beauty and function which may be used with pride, but will long outlive the weaver.

The ideal for an heirloom piece is a functional textile, the use of which is a reflection of conditions and ways of living at the time it was created, a textile of such simple beauty that its interest does not die with changing fashions, and a textile of such high quality that it will survive several generations of hard wear. Feeling that in this fast moving age the automobile is probably most characteristic, we have designed as our heirloom piece an automobile robe. The actual technique used is neither new nor peculiarly contemporary, but what weave is there, at least what weave of value, which does not have a long and honorable history? The surface design used is traditional though always contemporary, and the actual color pattern may be easily adapted to the fancy of the weaver. The quality of the fabric is such that it is bound to provoke an ecstatic reaction from any person who is truly textile conscious. One can hardly think of the time when this blanket would become shabby or worn.

This automobile robe is a true double fabric. It is made of two independent fabrics which are completely united into one fabric of double thickness, except at the ends where the two surfaces are woven separately to allow the hems to be turned in for extra strength and neatness. Wishing one gay and one somber surface, the Wallace Tartan (see SCOTCH TARTAN SETTS, a Shuttle Craft Guild pamphlet) in red, black and yellow was selected for the dominant side for the model blanket, and plain green for the reverse side. Any desired plaid or stripe arrangement may be used for either or both sides but boldness and simplicity lead to good design for such an article. Since the blanket would be equally

suitable, even sensational, as a davenport throw, the designer might wish to harmonize colors and stripe or plaid arrangement to a livingroom decoration plan. It might also be mentioned that this would make a remarkable fabric for a reversible coat.

Keeping in mind that this blanket is woven for durability and beauty, and that its accomplishment requires more than the average amount of time and weaving, only the highest quality materials should go into it. We used Bernat Fabri, at a warp setting of 48 ends per inch. A woolen yarn of the tweed variety would be suitable for a heavier weight blanket, but the fine worsted suiting yarns are definitely not recommended. Since two surfaces are woven, each surface must have it's own warp, and the setting for each surface should be that which gives a good, firm tabby, even though the weave is twill. Thus, a setting of 18 ends per inch for each surface, total 36, is recommended for Royal Society tweed; a total setting of 40 ends per inch for Handweaving Yarn Company tweed. The finished blanket, 36 inches wide and 76 inches long, when woven of Fabri weighs one pound twelve ounces. For tweed yarns the weight will be considerably more.

The complete interweaving of two independent surfaces requires 8 harnesses, though directions will follow for weaving a double surface on a single warp, which may be accomplished on 4 harnesses.

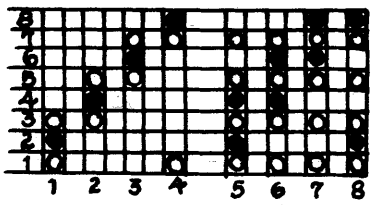
There are three methods for making a double cloth such as this. The method most commonly used on power looms is the carrying of a third surface or series of threads, commonly of fine cotton, which is known as the sewing warp. This warp is carried alternately between the top and the bottom fabrics to sew the two together. The second method is the throwing of separate shots of a sewing weft which will unite the two surfaces at specified intervals. Experiments with both of these methods showed that although the sewing thread was not evident on either surface, it made a slight pucker, or corrugation, which destroyed the smoothness of the surface. Another point against the use of independent sewing threads is that unless they are spaced as closely as

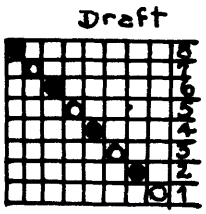
the two base warps, there is undue strain on the base threads which interweave the stitchers, reducing the wear resistance of the fabric. The system for uniting the two fabrics so that there was no distortion of either surface and so that the strain was equally distributed across the warp, was determined after many experiments. This system is shown on the tie-up draft. It ties each warp end of the under surface to the top surface in the rotation of each fourth warp end on each fourth weft shot. The sewing is made under weft floats so that one surface never shows through to the other.

Warping the Double-Faced Blanket: The warp was planned 38 inches wide, and two independent warp chains were made, one for each surface, each one with 912 ends. One chain was made of plain tartan green, and the second chain was made in the Wallace Tartan arrangement with red, black and yellow. Actually each warp was wound in four chains as several small chains are more easily handled than one large one. A wide warp of wool, so closely set, must be planned and beamed with care. Both warps may be beamed simultaneously on a single beam, but a raddle with half-inch divisions should be used for the spreader. One warp should be arranged in the raddle with 12 ends per division, and then the second arranged on top of it with the same spacing. If the warp must be beamed onto a sectional beam, use a warp-stick with dividers which correspond to the beam pegs at the back of the loom to clear the warp from the pegs. If the loom to be used is equipped with two warp beams, the beaming process is greatly simplified. Each warp may be individually wound on a separate beam and beaming a warp of 24 ends per inch presents no special problems. Raddle beaming was used for each warp for the experimental blankets set up in the Shuttle Craft Guild Studio because of the unusually long warp used. (Since the project required 1824 warp ends and is not undertaken lightly it seemed well to make the most of it by preparing for several blankets plus a coat length.) A warp length of 10 yards or under, with the use of a double warp beam could be threaded before beaming and handled by one person working alone. For this process sley and thread the first warp, being sure to space alternate heddles all the way across for

threading the second warp. Then tie the warp to the upper warp beam (making sure to carry it around the inside back beam if there are two beams) and beam by placing dowels in tabby sheds to act as tensioners. Next sley, thread and beam the second warp in the same manner, keeping the two layers separated by dowels or with stiff wrapping paper. The second warp should extend around the outside back beam to the lower warp beam. It is immaterial which warp is beamed first, though it seems more logical to beam the warp which is to lie on top second. It is quite probable that many weavers would prefer to weave a project of this type on a 20 or 24 inch wide warp and make the blanket in two strips. This should not reduce the interest of the article, but the weaver must be sure to plan the color stripes so that there will be no break in the plaid when the two strips are joined. Make the joining at the end of a color stripe so that it will be inconspicuous, and a blanket with a plaid on one side and a two-color stripe arrangement on the other is suggested to make the joining inconspicuous on both sides.

Draft, Tie-up and Treadling:





The draft and tie-up above are written with identical symbols to differentiate between the two surfaces of the cloth. The top surface of plaid is threaded on harnesses 1, 3, 5, 7, of an 8-harness twill; the under side plain surface is threaded on harnesses 2, 4, 6, 8. The top surface symbol is a plain circle, the under surface symbol a black circle. The tie-up is made to weave a left-hand twill on the top surface and a right-hand twill on the bottom surface. The opposite movement of the twills makes each surface pull against the other so that the fabric will always lie perfectly straight, having no tendency toward bias pull. The first four treadles weave the top surface, while

treadles 5, 6, 7, 8 weave the bottom surface. The treadling order throughout is 1, 5, 2, 6, 3, 7, 4, 8, and top surface weft is thrown when the left treadles are depressed, bottom surface weft when one of the right treadles is depressed.

The tie-ups which control the sewing together of the two surfaces are on the first four treadles and are indicated by the solid black circles. It is plain from the arrangement that the sewing in each case takes place under a twill float. Two independent surfaces are woven if these sewing ties are omitted and treadle 1 is tied to 1-3, treadle 2 to 3-5, treadle 3 to 5-7, treadle 4 to 7-1. This procedure is followed for weaving the double hem at each end of the blanket, four inches being woven in plain double cloth. Then the stitcher ties are made and two yards are woven in the double thickness cloth. The stitcher ties are then let down and another four inches is woven double to complete the blanket. There is no change in the treadle or the shuttle order. The ends of the blanket are finished by simply turning in the two surfaces at each end and whipping or blind stitching them together. This will make a very sympathetic finish which is stronger and less disfiguring than an ordinary hem, and far superior to fringes. The hem will survive the lifetime of the blanket.

Special Cautions: Tension is one of the problems of a project such as this. If both warps are beamed together the problem is not a special one. However, since the bottom surface is a little more closely interwoven than the top surface there is a little more warp take up here which can be compensated for single blanket lengths by the use of a very elastic yarn such as Fabri. When one blanket is woven it must be cut off and the warp retensioned. The use of the double beam is advised if it is possible. When the warp is moved forward, the controls on both beams are released simultaneously. The bottom warp is then correctly tensioned and the top warp is tensioned to the bottom one. In order to make perfect tension adjustments it is necessary that at least the beam which holds the top warp be controlled by a brake arrangement rather than by ratchet and prawl. Because of the closely set warp, the forming of good sheds requires a strong warp tension.

Careful attention must be given to avoid narrowing-in the fabric during the weaving. There is always greater tendency toward narrowing when weaving a wide fabric, and with an elastic weft. Locking of the two wefts at the sides will give a neat selvage. When weaving the double hems, however, the locking of wefts at the selvages should be avoided.

Be sure to weave with an exact balance, throwing exactly as many weft shots per inch as there are warp ends. Judge the balance of weave with the tension on the cloth beam released. It will be found that a gentle beat is required for balancing the double woven hems; a much sharper beat is required to balance the stitched fabric. Perfection of fabric is simple to achieve for the top surface, but difficult for the hidden under surface. We feel that if the top surface is perfect, a few "squaw marks" may pass on the bottom surface. The greatest source of error on the bottom surface seems to be the depressing of two treadles at the same time, which indicates that weaving without shoes leads to greater accuracy. The "unweaving" of more than 3 or 4 shots is not advised, as this is hard on a closely set wool warp. If errors occur some distance back, cut the weft, close to each selvage, and pull it out. The smoothest and most accurate surface will occur if the weaving is perfectly rhythmical. Do not be afraid to weave slowly at the outset. Increase speed only when the rhythm is perfect.

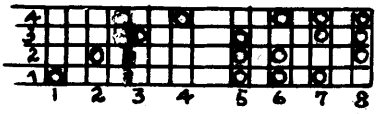
Always measure the length as the weaving proceeds with the tension of the cloth beam released. Even so it will be found after the blanket has been off the loom for a few days that there has been considerable take-up in both warp and weft. Two to three inches will be lost in width (according to how loosely the weft was thrown) and four to six inches lost in length. So be sure to allow for this. The only finishing required is steam-pressing the hems and steaming the entire blanket, but it should be taken to a cleaner for this.

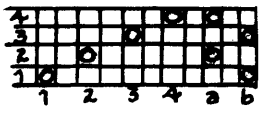
An Aside. One of the chief faults in most handweaving designing is the introduction of too many ideas into one textile.

DOUBLE FACED BLANKET for Four Harnesses

The four-harness weaver with a jack type loom or a counterbalanced loom on which forced, unbalanced sheds may be made, may weave a blanket in double faced twill. The project is much simpler than the two surface blanket, and it may be equally handsome, though not as great a technical feat. The double faced twill is woven on a single warp which is set as for 2/2 twill (30 ends per inch for Fabri, 24 ends per inch for Handweaving Yarn Company tweed, 20 ends per inch for Royal Society Tweed). Instead of weaving two separate surfaces, the process is one of putting two surfaces onto a single warp. The weave is 3/1 twill (over 3, under 1) for both surfaces, so the effect of the fabric is three-fourths weft and one-fourth warp. With the same warp showing on both sides, the warp color should be neutral to harmonize with two weft colors, one used on either side. Because of the strongly dominant weft, color designing in the warp is not practical and plaids are impossible; all color designing must be for weft stripes. The texture of this fabric is thicker, heavier and softer than that of the two surface fabric.

Threading, Tie-up and Treadling: The threading for the double faced twill is the same as for plain twill: 1, 2, 3, 4, repeated throughout.





The full tie-up requires 8 treadles, 4 for weaving top surface and 4 for weaving under surface. The treadling order is 1, 5, 2, 6, 3, 7, 4, 8, repeated, with top surface weft used for the left 4 treadles and bottom surface weft used with the right 4 treadles. However, since most 4-harness looms have only 6 treadles, the tie-up may be made as shown at the right and two treadles depressed simultaneously for shots on treadles 5, 6, 7, 8. Thus treadle 5 becomes 2-b, treadle 6 becomes 1-a, treadle 7 becomes 4-b, treadle 8 becomes 3-a. A double fabric hem in plain weave may be woven on this fabric too. The treadle

order for the double weave is: 1, 7, 3, 5, and top weft is used on treadles 1 and 3, bottom weft on treadles 7 and 5. Care must be taken to beat the double weave very lightly, as there is always a tendency to weave this in a weft rep, which is much too bulkey for the hems. In weaving the double faced twill the beat must be sharp, in order to balance both surfaces. The balance involves throwing twice as many shots per inch as there are warp ends, to develop a twill line which extends at exactly 45 degrees. The suggested weft color arrangement is a plain color throughout for the under side, and color stripes as desired for the top side.

The double twill blanket is attractive if made of tweed yarn and if the fulling process for the finished textile is quite lengthy so that a considerable nap is developed. This nap may be increased by brushing one side of the blanket while it is still damp with a fine, steel wire, wool brush. The more primitive manner of brushing is with teasels.

The Use of DOUBLE WARP BEAMS

There is probably no feature which can increase the versatility of a good loom as much as having two warp beams as a permanent part of the loom. The most flexible arrangement for double beams is one sectional beam and one solid beam, and it imperative that one of these, preferably the solid beam, have a brake adjustment for tensioning rather than a ratchet and prawl. The sectional beam permits the warping of a long, single material warp, while the solid beam is used for shorter warps, heavy threads, novelty threads, or widely spaced warps. With two beams always in place, the weaver always has a choice available for meeting the immediate problem.

But more important than this, the textile designing horizon is broadened when two warp beams may be used simultaneously. Many of the more interesting textile problems involve the use of at least two different types of warp materials -- materials which may differ in strength, elasticity and weight, and which these differences make the warp mechanically difficult to weave if they are beamed at the same tension. Another warp tension problem which

may be overcome by the use of two beams is that which occurs when the take-up from the weave is greater for certain threads than for others. Such a warp and weave was given in the April Bulletin. Yet another problem is the addition of supplemental decorative warp threads to a long, plain warp. This may be handled by beaming the supplemental warp separately, and threading it through to the base warp when needed. A weave which may be handled in this manner is given in this month's STYLES sheet #22. A variation of this device is the substitution of one color or weight of warp stripe for another, during the progress of the weaving.

There are certain weaves which require the use of two warp beams if they are to be even attempted. One of these is the double-stuffer-rug, one of the finest rug techniques for the handweaver.

The double beam loom is ready to meet an emergency for the weaver who has only one loom and wishes to make a quick shift of projects. In fact, some weavers have found that a multiple-harness, double beam loom can actually serve as two looms. A project in progress may be cut from the loom, and the harnesses, reed and beam removed and stored for future use, while additional harnesses and the second beam are set up for a new project. If the beam is not removable, it is possible to lay the threaded harnesses and reed on the floor under the warp beam. Without extra harnesses, a cross may be put in an unwanted warp by inserting leash sticks in tabby sheds back of the harnesses; the warp is then rewound onto the beam for later rethreading.

A second beam may be added to most treadle looms. It should be set lower than the first beam, and farther back, so that the warps from the two beams will never touch each other. A double back beam is a requirement if two warp beams are used, as warp tension is not satisfactory if two warps touch each other. The second back beam is braced in back of the original one with one half to one inch between them, and it must be enough higher so that warps passing over both beams make identical angles between the beams and the heddles. In purchasing a new loom it is well to buy one which the manufacturer makes up with two beams, even if the second is added later.

THREADBENDERS for May

When potatoes were $1.00 a hundred pounds, when a good automobile could be purchased for $500, when one could see Ethel Barrymore from a balcony seat for 25¢, the Shuttle Craft BULLETIN cost $5.00 a year. Times have changed. No reminders are needed, as they are all about us. Although the Shuttle Craft Guild makes a strong effort to keep abreast of the times and to grow with changing fashions, the obvious change in the price level is one bit of evolution which we have tried to close our eyes to. The greatly increased membership during the past five years has helped us overlook the increase in basic costs. During this period when your Bulletin has continued at its "depression" price level, its services to you have been increased, its size in number of words per Bulletin has been greatly expanded, and the subject matter which it brings you is broadened. Photographs have been added, and other special features. You now have the assurance of knowing that every project which the Bulletin presents has been worked out in full scale in the Shuttle Craft Studio, all of the pitfalls have been discovered, eliminated if possible, or at least called to your attention, and in most cases a number of experiments are discarded before exactly the right one for the purpose is found. All of the additional work which these added services involve have necessitated the expansion of personnel from a "one woman business" to a full time job for four people. Finally the printer, the engraver,

the paper manufacturer, and always the groceryman, have caught up to us, and we must face the reality that the cost of Guild membership must be increased. It long ago became evident that our new publication, Shuttle Craft STYLES, which was introduced in July 1950 could not be continued at the $1.50 subscription rate for Guild members, so with the third series due to start in July, we were faced with the decision of discontinuing it or raising the price to $2.50. In view of the increasing popularity of the STYLES, and the fact that only a handful of Guild members do not subscribe to it, we have decided to continue it at $2.50 a year and to include it in the Guild membership.

Therefore, starting September 1, 1952 membership in the Shuttle Craft Guild will be $7.50 a year and all Guild members will receive both the BULLETIN and the STYLES sheet each month, 12 issues of each for $7.50. Subscriptions will be accepted at the $6.50 per year rate through August. Anyone whose subscription is due during 1952 may send an advance subscription at this old rate. But no subscriptions or renewals can be accepted after August at $6.50, and no 1953 renewals can be accepted at the old rate.

Since June is the renewal month for the STYLES, the June BULLETIN will contain a schedule for coordinating STYLES subscriptions with your Guild membership month.

We feel certain that Guild members will understand the necessity for this change, and we assure you that we shall continue to give you "your money's worth."

Correspondence Course News: Certificates for the successful completion of the Basic Course have been issued to Mrs Ruth Currey, Miss Marion Bowen, and Mrs Ruth Walker. The Master Weaver certificate has been awarded to Miss Natalie White. Miss Ruth Lathrop Sikes has also earned the Basic certificate. A review of the files shows eight students who have almost completed certificate requirements, so we hope to be mailing several more before spring gardening takes weavers from their looms. A new leaflet describing the Course of Instruction for Home Study

and listing all material included with the Course has been printed. Send for this if you are interested. The Home Study Course is an excellent summer project.

Inkle Weaving: In this season of planning vacations don't overlook the fact that an Inkle loom can be a delightful vacation companion. An excellent article on Inkle Weaving by Mrs Atwater is included in the Spring issue of HANDWEAVER AND CRAFTSMAN. I was greatly interested by a comment on the craft made by Guild member Mrs Arthur Hinckley which is worth quoting. "I've been inkling merrily for two summers at our boathouse built at the water's edge of the lower Niagara. Often at night I sit in the dark on the wide window ledge and my long bands grow longer without a sound. It is the quietest weaving of all, I can do it in the pitch black night and disturb no one. The loom goes out in the boat while my husband fishes on the bar or drifts in the twilight. And I have used it flat on my back in bed." There is good news about the latest Shuttle Craft Guild booklet, THE INKLE WEAVE. Though the pre-publication price was $2.00, announcement was made of a probable publication price of $2.25. But we find that the $2.00 can stand. If you have not adventured into this branch of weaving, don't delay.

The Apron illustrated in the Lily Mills winter advertisement in HANDWEAVER AND CRAFTSMAN, and CRAFT HORIZONS was from the Shuttle Craft Guild. Only the weft color arrangement was described. The apron was woven on a 24/2 navy blue warp set at 36 ends per inch. The base weft was topaz 24/2 and the blended color stripes as described were of 20/6 Soft Twist. The entire apron was in Tabby. The drapery illustrated in the Lily Mills autumn advertisement was also from the Shuttle Craft Guild, some years back. It is given in the Bulletin for April 1947.

PORTFOLIO CONTENTS Sample from the 8-harness double blanket. Photograph of the full blanket.
STYLES SUBJECT A Barbecue Apron for men, in bright red, with black over-plaid.

Harriet D Tidball