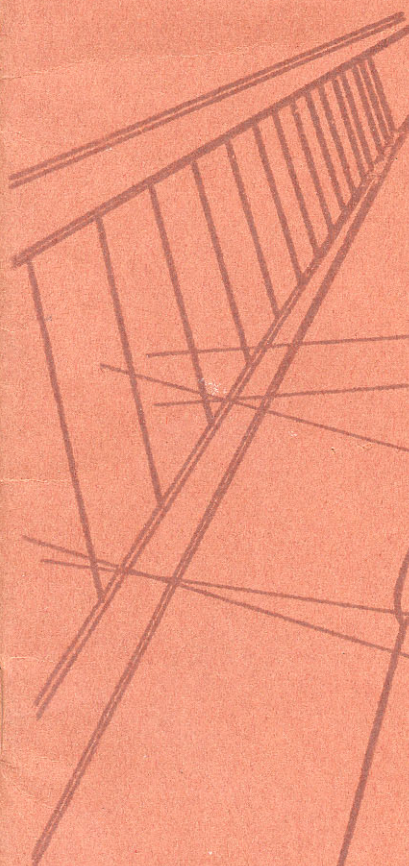
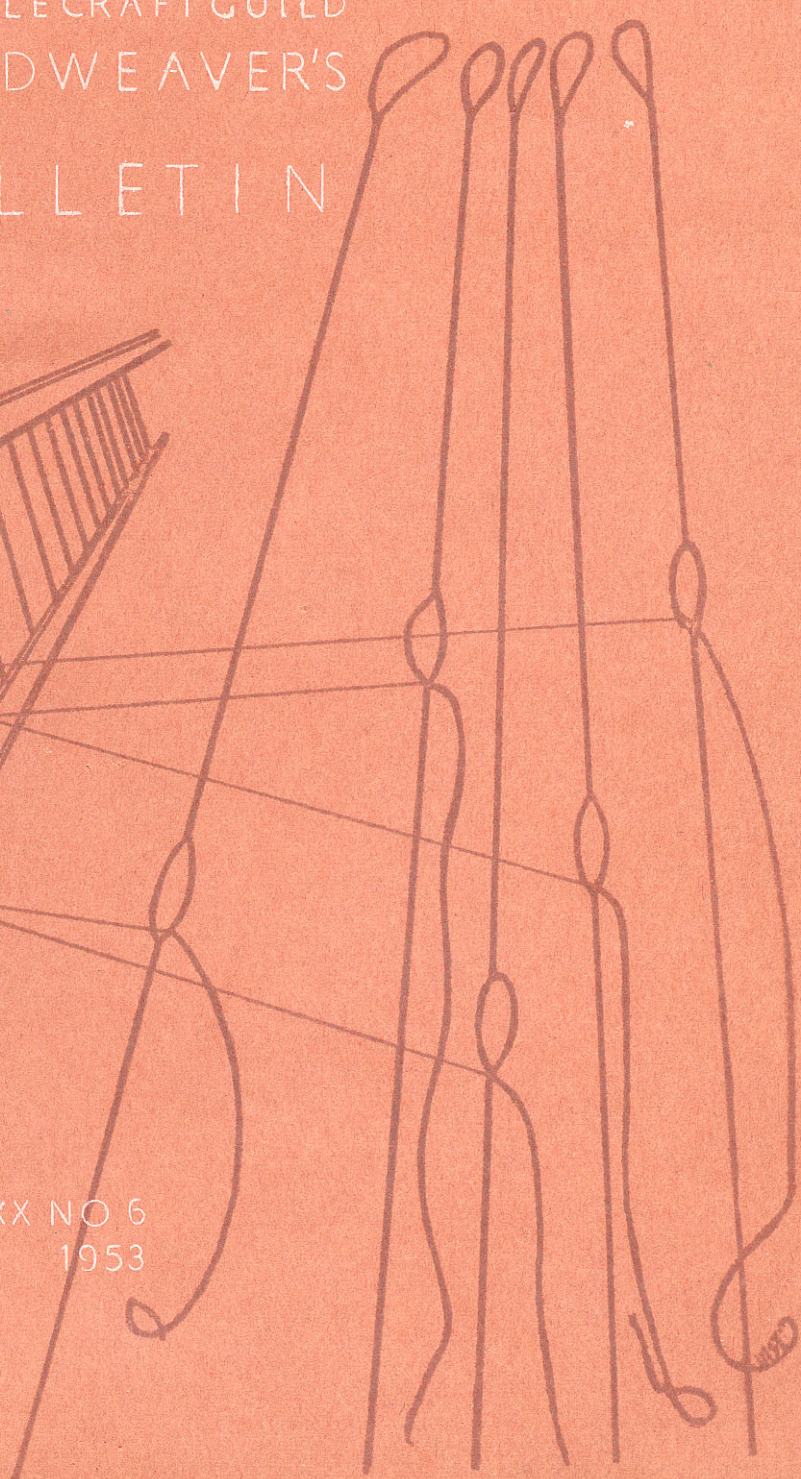


SHUTTLECRAFT GUILD
HANDWEAVER'S
BULLETIN



VOL XXX NO 6
JUNE 1953



The Shuttle Craft Guild
Handweaver's BULLETIN
Volume xxx, Number 6
June, 1953



EFFICIENT WARPING

What is the handweaver's greatest problem? Without a doubt it is the preparing, beaming and threading of the warp. These processes are commonly considered the drudgery of handweaving, the unpleasant necessity which often keeps the loom idle for long periods and reduces the pleasure the weaver has from his craft.

Many experienced weavers develop warping systems simply through repetition and practice, which are fast and efficient, and these weavers are apt to find as much pleasure in dressing the loom as in weaving. This should be the objective. Since we enjoy the things we do efficiently and well, the use of efficient and simple warping systems will enhance the attractiveness of the craft for anyone. With suitable warping equipment, the pleasures of good warping may be enjoyed from the outset.

There are two different approaches to warping as to other handweaving problems: that of the commercial weaver and that of the home weaver. The commercial weaver is concerned with specialization and speed, usually using only a limited variety of warps, but very long ones. Part of his business is

Published monthly in Virginia City, Montana, by Harriet and Martin Tidball, The Shuttle Craft Guild. Sent to all members of the Shuttle Craft Guild, with other publications, for the annual fee of \$7.50.

developing maximum efficiency. The home or amateur weaver has a more complex problem as he is using a wide variety of warps, most of them comparatively short, and is not as much concerned with speed as with perfection and ease. A warp which has perfect tension throughout, and in which each thread lies in perfect alignment without the twists which — cause such nervous strain during weaving, is the objective. In addition to this, most amateur weavers need to use systems which will permit them to warp their looms without an assistant. And everyone wishes to reduce the element of fatigue to the minimum.

The Shuttle Craft Guild has devoted a great deal of serious attention to warping problems and in the past years has, as far as possible, used every method which is described in books, and all equipment supplied and suggested. The standard methods are: (1) Beaming chained warps with a raddle, and threading from back to front, a process which requires the laborious chain preparation and the help of at least one assistant. (2) Sectional beaming with threading from back to front, a method which is easily handled without an assistant, but is appropriate to only certain, standard warps. (3) Beaming a chained warp which has been sleyed and threaded before beaming, a method which is slow and laborious but may be accomplished by one person unassisted, or may be done with an assistant.

The commercial weaver probably uses the raddle system most commonly, preparing the warp on a large warping mill or drum which is far more efficient, particularly for long warps, than the warping board with pegs. But the drum, usually 4 yards around, 5 to 6 feet high and 5 feet wide and costing over \$30 is not practical equipment for the average home weaver. So the home weaver uses the sectional system when possible (if his loom has a sectional beam) with the help of creel and tensioner. For

warps not suitable to sectional beaming, he uses a warping peg board and threads the chain before beaming. These methods require that he have an assortment of equipment, including several swifts which cost from \$7 to \$10 each.

The Shuttle Craft Guild, with the help of a number of people, has finally developed a minimum group of equipment which will handle warping of all types, including sectional warping on a loom which has no sectional beam, and proves to give perfect warps with the minimum amount of time and physical effort expended. The equipment consists of two horizontal drums, one a 2-yard around warping mill with a friction brake, and the other a combination creel and multiple-skein holder. The only other equipment required is a standard tensioner, the Gardiner type being the most satisfactory. Each drum is held on removable side brackets so the entire equipment is easily dismantled for compact storage. The only awkward piece for storage is the 43" long, 2 yard around drum, but the manufacturer is now working on a plan for making this collapsible.

The starting point for developing the equipment was the unusual equipment and warping method given in the U S Indian Service book by Flora Dee Goforth, WEAVE IT YOURSELF. Use pointed out many modifications to increase the practicality and versatility of this for home use. The friction brake was suggested by Mr Zielinski, given in one of his recent MASTER WEAVERS on the plans for a horizontal warping drum which can be built at home. The fine structural modifications and other improvements have come from Mr E E Gilmore, who agreed to manufacture the equipment and has made several experimental models which he has tested and which have also been tried out in the Shuttle Craft Guild studio. Mr Gilmore has now developed the equipment to what we believe is its final form, and is manufacturing it with his customary high standards of craftsmanship. The price of

the complete equipment is \$37.50. The other piece of required equipment, the Gardiner-type tensioner, may be secured from Gilmore or Macomber for \$6.50. The Shuttle Craft Guild would be pleased to place orders for the equipment (please make checks payable to E E Gilmore) or it may be ordered directly. We always appreciate your mentioning the Shuttle Craft Guild when placing an order, as does the manufacturer, who wishes to know the source of his orders.

The horizontal warping drum may be used exactly like the large, professional warping drum or mill, for making chained warps from one or a group of tubes or skeins of material, and its use is far less fatiguing than is warping over pegs on a warping board. Another advantage is that the warping may be done, directly onto the warp beam without disturbing the thread order by making a chain and this warping process requires no assistant. But probably the best warping method for the equipment is that suggested in the Dee Goforth book, -- the preparing of a sectional warp with bouts of any desired width (the Dee Goforth book suggests using 1/4" sections, which is quite practical but takes longer than with 1/2" or wider sections) without using the divider pegs of a sectional beam. The method eliminates the necessity for a sectional beam on the loom, as the sectionally prepared warp is beamed onto a plain beam, though it may be put onto a sectional beam if a guide-board is used on the back beam. The elimination of a sectional beam on the loom can, in some makes of looms, reduce the cost of a loom from \$10 to \$20. The method cannot be used for beaming a warp directly on the warp beam, but is practical only because of the 2-yard circumference of the drum. It has worked very practically in making a long, 36-end per inch warp from 72 spools, to be placed on a loom which had no sectional beam, and of course its great advantage is that it does not necessitate a full 2-inch quota

of warp tubes, thus reducing the amount of warp material the weaver needs to purchase. One of the outstanding advantages of the method is that it may be carried out in entirety with the warper sitting in a relaxed, comfortable position. And the speed with which a warp may be made will astonish anyone who has warped by other methods.

The directions for the basic method of preparing a warp on this equipment follow. Further methods and variations will be presented in the next BULLETIN.

SECTIONAL WARPING with Small Sections and no Pegs

- (1) Arrange the equipment with the warping drum and the multiple-skein holder parallel and several feet apart. Between them place the tensioner, clamped (a large C-clamp is useful here) to a stool or small table, 28 to 32 inches high. Place the collecting board of the tensioner as far from the holder as possible, and the thread-guide end close to the warping drum, at one end of it. Place a low stool beside the tensioner, in front of the drum.
- (2) Place the desired number of skeins (usually not more than 15) on the multiple-skein holder. If tubes are to be used, set the peg in the end of the skein holder so it cannot rotate. Place tubes on 2 or more of the holder bars (each bar will hold 10 2-ounce tubes) in the positions where they will draw as nearly horizontally to the tensioner as possible.
- (3) Bring each thread from the holder through the collecting board of the tensioner alternate threads under-and-over and over-and-under the tensioner pegs to form a perfect cross between each two pegs.
- (4) Allow as much space in the thread guide as the

ribbon of warp is to take in the final warping, and sley the thread guide. For instance, 15 ends are to be warped at 30 ends per inch should be spaced evenly through $1/2''$ of the thread guide.

(5) Tie the group of warp ends around one of the cross pieces of the warping drum, using the standard tie-in bow-knot as these must be untied later. Place this first group at one or the other end of the drum and sit on the stool in front of the drum.

(6) Turn the drum forward and down, winding the ribbon of warp onto the drum. Each complete rotation of the drum measures 2 yards of warp. Do not handle the warp ribbon during winding, as the tensioner will put the correct tension onto it and will guide each successive layer exactly on top of the previous ones. Continue turning until the desired number of ends have been wound.

(7) Cut the warp ribbon about 4" above one of the cross pieces. It is easier if one selects the cross piece just below the one where the tie-in was made (if wishing an even number of yards) as the tie-in allowance will fill the yardage. Grasp the group of warp, just above the cross-piece, and carry it around the entire bout, away from ones self on top, toward one on the back, and bring the end under this loop. This is merely to hold the warp ends in place.

(8) Make the next tie-in on the same cross piece, next to the first warp bout and toward the warper, and move the tensioner the distance of one warp bout toward the warper. Wind on the identical yardage and tie off in the same manner. In some cases, to avoid any piling of warp threads on adjacent ones, it is advisable to wind each bout half an inch from the adjacent one and after it is tied, turn the drum, pushing the bout over to its proper position on each of the 8 cross pieces. It is well to measure the

width of the total bouts after each few have been wound, to determine whether the width is exactly correct for the warp beam. If not, a little adjusting may be done to correct the width. At the center of the drum there is a $1\frac{1}{2}$ " distance of bracing around which warp cannot be tied. Bouts may be pushed across this, or this space may be left unwarp and it will make no difference on the warp beam if the beam is well padded during warping. One may wish to wind the warp on the drum a little more closely than it will be on the warp beam, just sufficient to compensate for this $1\frac{1}{2}$ ", but this is not necessary.

(9) When all the warp is wound, place the drum at the back of the loom, parallel to the back beam, and with the opposite side toward the loom from that on which the warper sat. This will make the warp roll off the top of the drum. Turn the row of warp ends toward the loom and tighten the friction brake so the drum cannot move.

(10) Loosen the warp from the drum, a bout at a time, starting at the center and working to one end and then to the other, tying the bouts onto the warp-beam rod. Tension the bouts as carefully as they would be tensioned onto the cloth beam. Be sure to carry the rod in front of the back beam before making the tie-in, so the warp will spread across the back beam. If the loom has a double back beam, bring the warp-beam rod between the two beams.

(11) Loosen the friction brake on the drum just enough so that the drum can turn, but will also give a good tension to the warp as it comes off. Then simply turn the crank to turn the warp onto the warp beam, inserting the usual beam padding as the warping proceeds. It is well to have the drum so oriented that the friction brake of the drum is at the same end as the warp beam crank, so that any necessary tension adjustments may be made from the

beaming position. It may also be necessary to use two pieces of 2 x 4 lumber (or some other brace) between the loom and the base of the drum to keep the drum from shifting position due to the tension of beaming. Any shift in position between the drum and the loom will disturb the tension on the warp beam, which cannot be allowed to happen. The drum is sufficiently stable that this seldom happens, but precaution is wise.

(12) Unfasten the tie-in knots from the drum and carry each bout around the back beam. Adjust the warp so that the ends extend about 10 inches beyond the front harness. The threading is done from back to front without a cross, as the warp ends lie in perfectly organized order on the warp beam and may be selected in this order from the back beam.

THREADING Without a Cross

To thread the heddles, dismantle the front part of the loom, removing the breast beam, beater and cloth beam, if possible. The threader sits in a chair directly in front of the harnesses. Although there are many systems for threading, here is an easy one. Start at the right of the loom and work toward the left. Count off the heddles required on each harness for a complete pattern repeat, or for several if the draft is short. With the left hand, pick up a group of warp ends (perhaps 2 or 3 inches of warp) from the right hand side and hold them at tension, to the left of the group of heddles which has been selected. With the tip of the threading hook working just above the lower heddle bar, pick off and push slightly to the right the first heddle to be threaded. Place the threading hook through the eye of the first heddle and reach through to the tensioned ribbon of warp and pick up the first warp end with the hook. Watch the thread order as the warp comes off the back beam

to be sure that the correct thread is selected. Pull the warp end through the heddle and push the heddle to the right. Select the second heddle from the lower heddle bar with the hook and push it to the center of the working space and draw the second warp through it. By this method, the left hand holds the bout of warp ends under tension and the right hand holds the threading hook. The hook does the heddle selecting and the actual threading, and a minimum number of motions are involved. This method requires a little practice for perfecting, but once the technique is mastered, it leads to very rapid and easy threading. By counting off in advance the exact heddles required for a specified distance of threading, the check is made automatically if the draft and the heddles finish simultaneously. By selecting the heddles from the bottom heddle bar, the chance for error is reduced and the heddles move more freely.

A NEW FIBER for Handweavers

Ever since the war weavers have been clamoring for the new fibers. Nylon was introduced in 1940, and since the war a number of other man-made miracle fibers have been introduced through the textile trade. Some of these in small, unreproducible quantities have come to weavers through round-about ways, mainly through job-lotters, but none of the new fibers has been generally available through reliable sources to any except the trade, and a little to the retail knitting yarn business. At last Lily Mills Co, Shelby, N C, is offering one of the new fibers, a half nylon, half vicara blend called 'nylkara' to their handweaving customers. The yarn is available in 18 colors, black, white and grey, on 2-ounce tubes, 350 yards per tube, 2800 per pound.

Vicara is not a synthetic but a regenerated fiber, as synthetics are of mineral origin, whereas

is a protein, extracted from corn. Because of its qualities of extreme softness, moisture absorption, susceptibility to dyes and the crimp which is added to the fibers, vicara is used chiefly in blends, to enhance these qualities in other fibers. It is combined with cotton, wool, rayon and others, and the present blend with nylon seems a happy one which gives a very strong, inelastic yarn of unusually soft texture. The manufacturer's claim that the fabric woven from the blend of vicara with nylon resembles cashmere certainly seems justified. The yarn should prove a good wool substitute for the person who has wool allergies, and because of its non-irritating softness it is recommended for baby blankets and other articles.

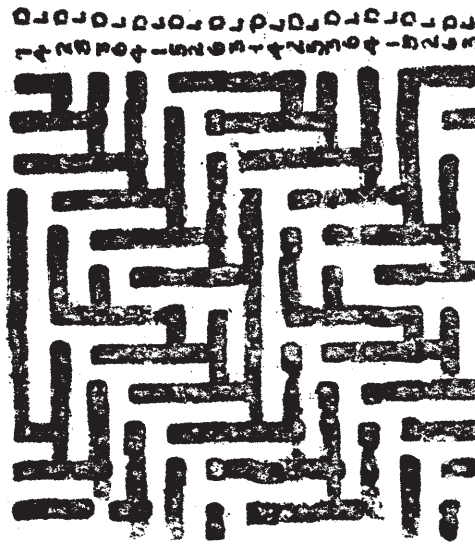
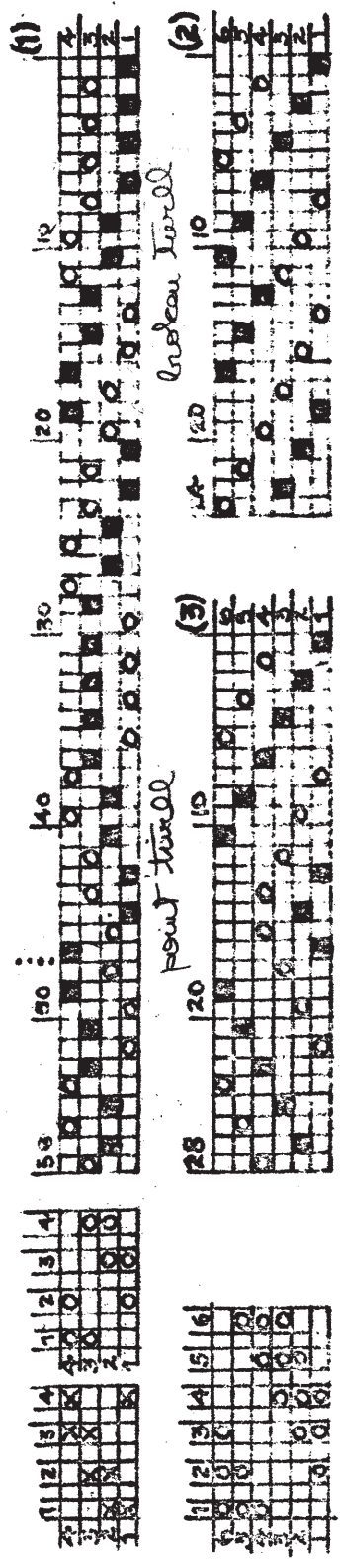
Do not confuse vicara with vicuna. Vicuna is the hair of the small vicuna llama which lives in the Andes at above 16,000 feet and the animal must be killed to secure the fleece. Vicuna is the world's most soft, fine, luxurious and expensive natural fiber. Vicara is the product of the Virginia-Carolina Chemical Corporation.

The nylkara was woven in tabby weave at warp settings of 15 and 20 per inch. The 20 per inch warp wove to a natural balance and has a firm texture, though the cloth is rather thick. It would serve excellently for sport jackets, coats, upholstery or afghans. The finished fabric weighs about 7 ounces per square yard. Set at 15 ends per inch a good tabby fabric is produced, but one which must be beaten carefully so as not to over-balance the weave. The fabric is soft and has splendid draping qualities. It would be suitable for dress fabrics, draperies, stoles and probably bed spreads. The yarn warps and weaves perfectly. In fact, it was as easy to handle as silk, which has seemed to be the easiest natural material to handle on the loom. It would be excellent yarn for a beginner in handweaving. Although there was no warp break-

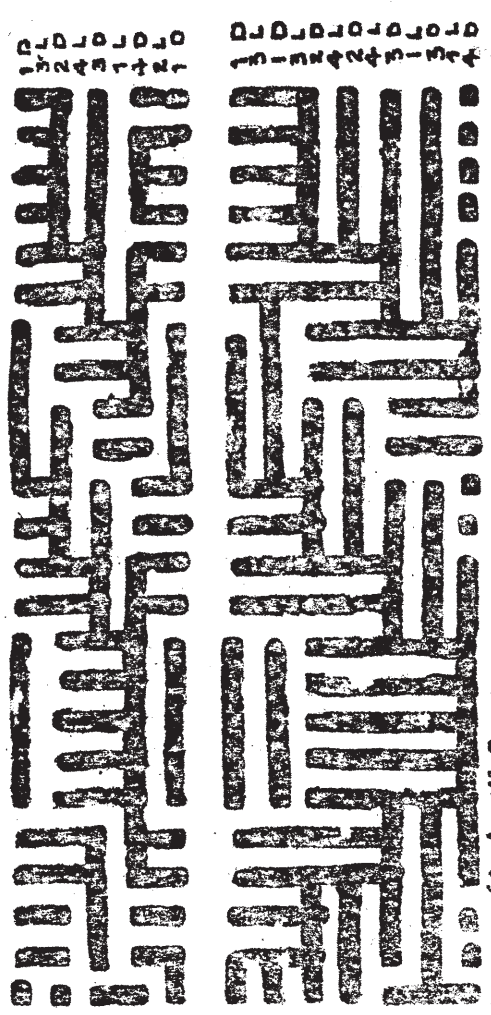
age, a few knots occur in the thread and these inevitably pull out in the heddles, requiring repair. The finished fabrics washed beautifully and became softer in washing. Although there are claims that the yarn does not shrink, careful measurements indicated a shrinkage of 2 inches both warpwise and weftwise in the fabric set at 15 ends per inch, and shrinkage of 1 inch per yard in both directions in the fabric set at 20 ends per inch. But the final texture of both fabrics was delightful and weavers are certainly going to enjoy this new yarn. Samples of both 15 and 20 per inch fabrics are in the PORTFOLIO for June, one washed, one unwashed.

The SHADOW WEAVE

As a fine weave for this new type of yarn, we have selected the Shadow Weave. This is a technique which is based on the 2-harness, 2-color Log Cabin, but is extended to multiple-harnesses with increased pattern potentialities and very unusual texture. It resembles in some ways the Scandinavian warp-faced weave used for rugs and sometimes known as Mattor from the Swedish word for rugs. But this unusual development of the weave was devised by Mary Atwater and introduced through the BULLETIN in 1942. In the May issue of that year was the suggestion that the technique be kept "a bit of a mystery" within the Shuttle Craft Guild membership, something which is possible because the weave is very difficult to analyze from the textile. It was treated further in the BULLETINS for April 1942, and May and June 1943, all long out of print. But the initiatives of ten years ago are few as there were but few copies of these Bulletins printed, and the weave is of sufficient interest that knowledge of it should now be general. Many inquiries in the past year about the Shadow Weave have lead me to as many promises that it would be taken up soon. This month we shall make merely an introduction, with details to follow.



Draft (2) twill fashion



Draft (1) twill fashion, above; in blocks, below.

Three drafts in Shadow Weave are presented. A glance at these shows that it is a 2-color technique and the light and dark colors are alternated throughout. The 4-harness draft gives a block development, while the 6-harness drafts are a broken twill and a point twill. The broken twill (draft 2) gives a most unusual texture in a fabric of extraordinary interest. (A sample of this, and of the 4-harness draft, are in the PORTFOLIO for June.) The 4-harness drafts in this technique are suitable for the counter-balanced loom, as they are woven on the standard twill tie-up. The tie-up for the 6-harness drafts is the 3-3 twill tie-up which gives 3 threads up and 3 down in progressing order.

The treadling order for any of the Shadow Weave threadings is so simple that detailed treadling directions are unnecessary. For weaving-as-drawn-in simply follow the draft exactly. For instance, for the first draft the order would be: treadle 1 dark, treadle 3 light, repeated 4 times; treadle 2 dark, treadle 4 light, twice; treadle 3 dark, treadle 1 light, twice, and so on, exactly as the harnesses are threaded. For draft (2) the treadling order is: 1 dark, 4 light; 2 dark, 5 light; 3 dark, 6 light; 4 dark, 1 light; 5 dark, 2 light; 6 dark, 3 light; and so on through the draft. Treadling variations may be made within the boundaries of the rhythms of the draft.

The weave produced is primarily tabby, but figures are outlined by 2-thread floats of light or dark. The texture has the Log Cabin characteristic of patterns contrasting horizontal and vertical hatchings. The 2-thread float around the edges of figures adds a shadowy accent which accounts for the very suitable name, the Shadow Weave. These also bring an unusual texture into the fabric which is stronger in the drafts built on twills than those built on blocks. The diagrams indicate the structure if woven in black and white coars yarn set 10 per in.

THE SHUTTLE CRAFT GUILD CEYLON FUND

The fund which was introduced to Shuttle Craft Guild members last month for the purpose of purchasing an American loom for the village workshop of Dr Edith Ludowyk-Gyomroi in Menikdiwela, Ceylon, is meeting with joyful success. I wish there were space to quote the many statements which show the weaver's appreciation of his craft and his desire to share his good fortune in being a handweaver. A typical response is, "A most worthy project, and one which gives us an opportunity to repay for some of the help we have had along the way, to share as we have been shared with." Worthy of a little thought is the note from Mrs Lee Stout, Jr who says, "What a magnificent gesture -- the Ceylon Fund. We are proud and happy to be a part of such an inspiring project, both from our side of the world and Dr Ludowyk's as well. I have often wondered how we would make out among our fellow men around the world if we had more craftsmen, and fewer crafty men! The craftsman like the musician and like many other artisans has a 'language' common to all like craftsmen, and the self-discipline necessary to his worthwhile accomplishments is also a factor which commands respect and admiration. And those are the very elements of peace in anyone's language."

Our report of progress for the month, through May 28. \$140.50 has been received toward our goal of \$300.00. Contributors are: Max Prussak, Mrs Winnifred Jones, Miss Jane Money, Miss Nathallie Fitzgerald, Mrs Fred Ballinger, Mrs William Van Allen, Miss Irma M Gall, Miss Ruth Lathrop Sikes, Mrs Robert W Laylin, Mrs Roger Jenkins, Mr Boris Veren, Mrs Marian Blocher, Mrs Mary Alice Frye, Mrs Lee Salter, Mrs Lee Stout Jr, Miss Lillian Tubb, Mrs Jean Fisher Mackey, Mrs Richard Templin, Miss Kathleen Hanigan, Mrs H M Shattuck, Miss Esther P Mead, Mrs Marjorie Brody Michael, Miss R Maude

Bradley, Arthur H Sprague, an anonymous gift, the Twin City Weavers Guild of St Paul and Minneapolis, and the Southern California Handweaver's Guild. Contributions ranged from \$1.00 to \$10.00 except for the Southern California Guild who generously contributed \$30.00.

As there is now sufficient money in the Fund to make the down-payment on the loom for Dr Ludowyk, I am sending this amount to Mr Macomber, with full confidence that within the five months required for the manufacture of the loom we shall have reached our goal of the \$300 required for loom, equipment, shipping to the other side of the globe, and duty.

Book Review -- HOW TO WEAVE LINENS, Edward F Worst

The reprint of the long out-of-print book, HOW TO WEAVE LINENS, by Edward F Worst, is good news to many handweavers. This book, originally published in 1926, has been reprinted by the Bruce Publishing Co, Milwaukee, and is available through the Craft and Hobby Book Service (Coast Route, Monterey, Calif) and other dealers who specialize in handcraft books, at \$5.50. Mr Worst started this very complete book at the beginning by telling how to plant and grow flax, how to prepare the fibers, and how to spin linen yarn. Working diagrams are given for constructing all equipment required, from harvesting through weaving. It is truly a book for the person who wishes to carry linen weaving through all its stages in the way it was done in colonial homes. Along with special instructions for the weaving of linens, there are many drafts and patterns particularly suited to linen weaving. The drafts are in standard graphic form and tie-ups and treadlings are complete for each. A large section is devoted to variations of the M's and O's technique, as this is one of the few linen weaves which can be accomplished on a counter-balanced

loom with the standard tie-up. Particularly interesting is a 3-harness draft called the Samantha Rutledge Pattern. As considerable space is devoted to the 5-harness Bronson Spot weave patterns so much used in Colonial times, Mr Worst gives instructions for converting a 4-harness counter-balanced loom for this type of weaving. The largest group of weaves are those done on multiple harness twills, point twills, and extended point twills, a technique in which Mr Worst was a true master. He carries his directions through the standard, 10-harness Damask, but makes the common error of also calling the 8-harness double broken twill Damask. Both the photographic illustrations and the diagrams are excellent, and it hardly seems that a book on handweaving could be more clearly presented. Some of the special directions for weaving linens, however, may be disregarded by the modern weaver who uses commercially-spun yarns, as there have been such advances in preparing linens in the last decade that linen weaving is no longer the problem it was when handspun yarns were used. Along with the technical improvements in linen yarns many new ways for using linens have been developed in this last decade, particularly since the development of the Oregon flax industry and the advancements in the dyeing of linen, and this modern aspect is naturally missing from the 1926 book. But Worst gives a comprehensive foundation in the traditional linen weaves which is valuable to any serious handweaver.

Harriet D Tidball