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MODERNIZING OUR MOST USEFUL WEAVES, is the general subject for the next 12 BULLETINS. Every one of these is a 4-harness project, so our emphasis will be with the 4-harness weavers for the coming year. For most of these weaves, extensions will be made for multiple-harness use. But some of the projects outlined are so much better when threaded to only 4 harnesses, that no extensions will be given. But, to multiple-harness loom owners, don't feel that just because you have 6, 10, or 12 harnesses available you need to use them all the time. These additional harnesses are most valuable as a resource, to be used when the occasion demands.

HISTORY OF THE SUMMER AND WINTER WEAVE

The Summer and Winter weave has its roots deep in the traditions of early America, even though evidence of it is as elusive as a rare wild flower. The Colonial Overshot weave, characteristic expression of the self-sufficing pioneer home, is familiar to almost everyone, as it was woven in every home which contained a 4-harness loom. The more elaborate double-woven coverlet, professionally woven of home-produced yarns, and the expression of growing affluence in a new country as the expanding economy permitted the hiring of a professional to do some of the more complex household tasks, is perhaps even better known through surviving examples. Most of the double-woven coverlets are the elaborate Jacquards of the second quarter of the 19th century, produced durint that short period between the introduction of the Jacquard loom in 1824 and the beginning of the Givil War. More rare are the double woven coverlets of the period preceding this which are the direct ancestors of the Summer and Winter coverlets. These are characterized by bold, simple designs of the "snow-ball", "star", and "pine tree" type, built up on block threadings, designs such as those given in the John Landes plates. Few of these coverlets were actually woven at home, as they were produced by the complex double-threading long-eyedheddle method and a 3-block pattern required 10 harnesses, the more common 6-block pattern required 16 harnesses. ((For an explanation and drafts for the long-eyed-heddle technique, see FOOT POWER LOOM WEAVING by Edward F Worst, pages 191 to 229.) Few homes contained looms of sufficient elaboration to weave with the required complexity and few home weavers had sufficient technical understanding to do double weaving, so even these early double-woven coverlets may be assumed to be the work of the village professional weaver or the itinerant weaver. The household industries played their parts in the coverlet by spinning and dyeing the yarns, and the

weaver would weave the selected pattern, often adding the extra touch of the date and purchaser's name woven into the border.

The Overshot and double-woven coverlets are the ones we usually see when delving into Americana, and few of us have ever seen an authentic, early American, Summer and Winter Coverlet. But we have become familiar with the Summer and Winter coverlets because the few examples existing in collections and museums are of such extraordinary beauty that they have been widely copied.

Although it is easy enough to ravel a fragment of an ancient fabric to determine the way in which it was woven, the unraveling of the traditions behind the textile is more difficult as these are mixed with folk-lore and long forgotten stories. The most reliable evidence of the origin of the weave is found in the texture and design of the cloth itself, the way warp and weft were interlaced and the patterns which were characteristic of its application.

Following these two lines of investigation, one comes to the conclusion that some remarkably clever handweaver who had a thorough understanding of the technicalities of thread interlacement, took the designs of the double-woven coverlets, and adapted the double-threaded, long-eyed-heddle method to a simple, single-threaded technique which required fewer harnesses. The new technique, instead of requiring 4 base harnesses plus 2 addigional harnesses for each pattern block, required only 2 base harnesses and a single additional harness for each pattern block. Thus, a 4-block pattern could be woven on 6 harnesses, a 6-block one on 8 harnesses, and with a single threading. The patterns of the double-weave coverlets could be reproduced exactly, but a single-surface textile of unusual texture was produced rather than the simple textured, double cloth. The resulting lighter

weight fabric may or may not have been an advantage at that time, but it certainly has more application to present day living than the very weighty double textile.

Who is responsible for naming the technique Summer and Winter, we shall never know. But the name is a good one because its source is obvious. The weave produces a textile with two "right" sides since top and bottom surfaces are equally good, but the nature of the designs make one side predominantly dark and consequently suitable as a winter bed covering, while the reverse side is predominantly light and more attractive in the summer time. Summer and Winter is the name of the technique rather than of a pattern, as countless patterns can be created in it.

THE MODERN SUMMER AND WINTER WEAVE

Little could the ingenious inventor of the Summer and Winter coverlet technique have known of his great contribution to modern textile designing. Originally intended for one highly stylized use, the weave has proved to be the most adaptable, practical, versatile and beautiful of all the modern handweaving techniques. A weaver with a flair for the most modern of contemporary designing could work exclusively for a lifetime on the Summer and Winter technique, employing the full range of modern fancy threads, all the multiplicity of natural and man-made fibers, and the most subtle or the most flamboyant of colors which scientific dyeing has given, and could never completely explore the potentialities of the weave.

As a modern designing medium, the Summer and Winter weave, when it is thoroughly understood, can be adapted to almost any type of textile, type of yarn, type of color harmony, and pattern. It can

be woven appropriately as a very firm, opaque fabric, but it is also adaptable to open, transparent effects and to all the gradations between. It may be a single-material weave, a two-material weave, and it serves equally well as a foundation for threadtexture in either warp or weft or both, and as a means for combining many types of yarns. It may be woven in single color, two color, or many colors. It is adaptable to elaborate, florid patterns, to intricate or simple geometric patterns, and also to simple arrangements of mass and of flowing or static lines, and to all gradations between these. Although a structural weave -- that is, a weave in which the shuttle is thrown the complete width of the warp in sheds formed by the arrangement of warp threads on the harnesses -- it also serves as an admirable foundation for many excellent pick-up and brocade techniques. On Summer and Winter threadings may be woven textiles suitable for draperies, upholstery, table linens, suitings, dresses, and almost all other purposes for which handweavers weave textiles, provided a suitable interpretation is made. Certainly there is no technique used by the modern handweaver which has the complete versatility of the Summer and Winter, or is so rewarding for investigation. Even the name has taken on a new connotation. One weaver, adventuring in it for the first time, thought that the name Summer and Winter came from the fact that it was an around-the-year and universally useful weave.

There is one fundamental guide for the modern interpretations in Summer and Winter, and it is the same principle which should be the guide for all interpretive weaving in any technique. The simpler the pattern threading, the greater scope it provides for varied interpretations. If t e threading is made to one of the elaborate coverlet patterns as given in profile drafts in many weaving books, the weaver is limited to classical textures and to the symmetrical, traditional pattern and color use for

which the pattern was made. But if the loom is threaded to a simple arrangement of blocks of identical size or of only two sizes, regardless of how many harnesses are used, modern "effect weaving" becomes not only possible, but natural.

When the weave is looked upon as classical Summer and Winter of the coverlet tradition, there is little interest in it among 4-harness weavers. But when it is looked upon as a modern, interpretive weave, with the emphasis placed upon texture, color, and mass and line designs, the weave becomes as useful to the 4-harness weaver as to the multipleharness weaver. In fact, adventuring into the wide potentialities of texture and color arrangements usually produces far more imaginative and original effects if the pattern elements are reduced to the two blocks which are possible on 4 harnesses. The weaver then, being committed to simple patterns, does not become confused with many harnesses, treadles and pattern blocks, and can focus his attention on the creating of unusual effects.

REVIEW of the SUMMER AND WINTER TECHNIQUE

Summer and Winter is a Unit Weave. (See "Classi fication of Weaves", BULLETINS for August and September 1952.)

Each unit consists of 4 threads, the first of which is on harness I, the third on harness 2, and the 2nd and 4th on a pattern harness.

Thus, the order of threading is: 1, x, 2, x,.

In block A, x becomes 3, to give: 1, 3, 2, 3;

In block B, x becomes 4, to give: 1, 4, 2, 4;

In block C, x becomes 5, to give: 1, 5, 2, 5;

In block D, x becomes 6, to give: 1, 6, 2, 6;

And so forth.

Any unit may be threaded once, or repeated any number of times to form blocks of any desired size. Blocks may be threaded in any desired order as each

block functions independently of all other blocks.

- The threading may be, and is best, made from a Profile draft in which harnesses I and 2 are not indicated, as these are understood and only the pattern harnesses need be shown. Each square on one of the pattern spaces means one 4-thread unit with the pattern threads (x) on that harness. (See the thread-by-thread draft and the Profile for the same pattern given on on the top line of the draft sheet. Notice how much clearer the Profile draft is, and easier to thread from, once the 4-thread unit is memorized than from the full draft.)
- In making the treadle-harness tie-up, tabby <u>b</u> is formed by tying harnesses I and 2 to the same treadle, the one at the far right. The <u>a</u> tabby is made by tying all pattern harnesses to the same treadle, the second treadle from the right, regardless of how many pattern harnesses are employed.
- In the Skeleton tie-up, which ties each pattern block to weave alone, harness I is tied to the first treadle at the left, and harness 2 to the second treadle from the left. These two are the tie-down harnesses and are commonly called x and y. Tie-down x on harness I raises every 4th thread across the entire warp, and tie-down y on harness 2 also raises every 4th thread, but differently placed.
- Harnesses 3 and 4, and further numbers if more harnesses are used, are called pattern harnesses. Harness 3 controls the A block; harness 4 controls the B block; harness 5 controls the C block; harness 6 controls the D block; and so on.
- Pattern harnesses may be tied individually to separate treadles, or any combination of pattern harnesses may be tied together on a single treadle, to form overlapping blocks.

- One or the other of the tie-down harnesses must be lifted every time a pattern harness is raised. This may be done by tying one tie-down harness to every treadle to which pattern harnesses are attached, or by tying the tie-down harnesses individually to treadles i and 2 and operating a tie-down treadle and a pattern treadle simultaneously.
- In weaving, one tie-down harness (either 1 or 2) may be used alone (notice that the tie-ups on the draft sheet utilize only harness 1) or both tie-downs may be used in the same weave to give elaborate surface-texture effects. But whatever system is selected, that system must be used without deviation throughout the entire project at hand.
- The rule in treadling designs is, that when a pattern harness is raised, the blocks threaded on that harness will weave as warp or background tex ture; when a pattern harness is left down, the blocks threaded on that harness will weave as pattern or weft texture.
- The simplest Summer and Winter weaving follows the 2-shuttle Overshot method of a tabby shot followed by a pattern shot, throughout. There are many other systems, however, each based on definite rotations of tie-downs and tabby treadles. No-tabby weaves are also possible.
- To weave the classical Summer and Winter textures, tabby weft should be identical to the warp. Pattern weft should be soft and fine so that it will beat in without distorting the tabby foundation, but have sufficient spread to cover the pattern areas well. The warp setting and the beat must be carefully adjusted so that exactly as many tabby shots may be thrown per inch as there are warp ends. With the pattern weft added, twice as many shots are thrown per inch as there are warp ends.

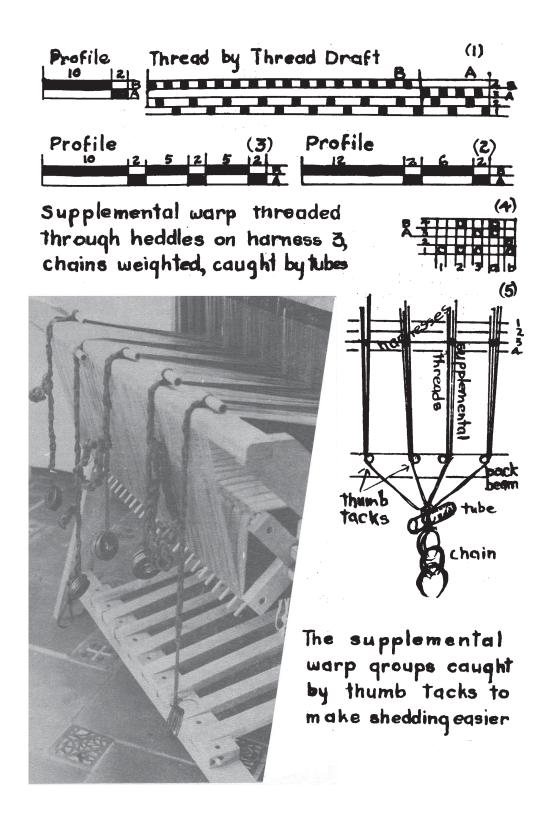
For modern, interpretive Summer and Winter, there are no limitations on materials or balance.

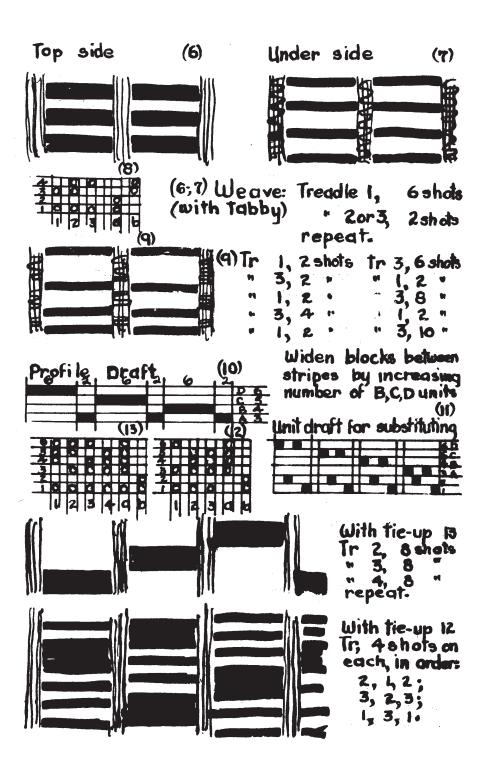
SUMMER AND WINTER with WARP STRIPES

Only one of the innumerable variations possible with Summer and Winter is presented here -- a variation which is definitely modern and has no relationship to the classical interpretations of the weave. The approach will probably be a new one to most weavers, and we hope it will be a useful one.

This unusual weave is the coordination of two types of yarn and two or more colors of yarn in the warp threaded to Summer and Winter blocks. Coordination of color stripes and pattern blocks is important here, as warp stripes which are not synthesized with the pattern blocks, or threading units, give an unsympathetic hit-and-miss effect. One of the most effective warp-stripe designs is made by selecting a thread heavier than the warp thread and in a contrasting color, or a novelty thread, and substituting it for the pattern-harness thread on one of the pattern blocks, across the entire warp. The example we selected was a base-warp of size 20 pearl cotton (Lily Article 114) which is 20/2 mercerized, in grey, set at 30 ends per inch, threaded to the draft shown at (1). Pearl cotton #5 in burnt orange was used as the stripe material, threaded on every harness 3 heddle of the entire warp, which is the A blocks. This warp could have been planned in advance and the heavy colored threads beamed with the warp. But instead of this the warp stripes were inserted as supplemental threads for a single project on a long warp. The original grey warp threads on harness 3 were not removed, but the decorative threads were simply drawn through the harness 3 heddles on top of the base-warp threads.

The supplemental warp was prepared by making 5 individual chains, 10 yards long, with 24 ends of the #5 pearl in each. After the grey base warp was threaded, sleyed and tied in, these supplementa I





threads were threaded through the harness 3 heddles, sleyed in the same dents as the base-warp threads which went through the same heddles, and tied-in in groups of 4 ends. The small chains thus hung over the back-beam of the loom. These were prevented from unchaining by inserting empty thread tubes in the last loops. The chains were knotted to shorten them so that the ends hung at least 6 inches above the floor. Weights, consisting of groups of large iron washers were hung at the bottom of each chain to provide automatic tensioning. Determining the amount of weight required to tension each chain requires some experimenting, as no two designing circumstances are exactly the same. This set-up is illustrated by the photograph. The sketch at the right of the photograph indicates the method used to arrange the threads for weaving. The supplemental warp groups were unchained to about 6 inches below the back beam; a thumb tack was put into the back beam directly behind the heddles holding each group of 4 supplemental threads. This expediency was necessary to make the shedding easy. For the person who does not wish to put a row of thumb tacks into the back beam, another method may be used. The supplemental warp may be made in groups of four threads and each group wound on an empty 2-ounce

tube. A half-hitch around the tube will prevent the unwinding of the thread. Make the half-hitch carefully, in the manner shown at right, or it will not serve its purpose. Slip one large iron washer over each tube for weighting individual groups. Since these small groups of threads have a tendency to twist and to entangle with each other, the former method is less troublesome.

As weaving progresses and warp position is changed, the supplemental chains are unchained. The extra warp puts an additional strain on harness 3, and for certain jack-type looms it is necessary to weight the harnesses to insure complete recovery on shedding. This is not necessary with counterbalanced looms. There is a warp take-up problem with the heavy threads which in some cases makes it advisable to use this supplementary chain method, or to beam the extra warp on the second beam if the loom is equipped with two warp beams. (The two-beam method is definitely recommended over the supplemental chain method, for those fortunate weavers who have a double-beam loom.) There is considerable take-up of the supplemental threads beyond the take-up of the base warp, if the weft is firmly placed, so the beaming of the two warps together necessitates very loose weaving.

Three different, simple Profile drafts, each one suitable for the supplemental thread weaving, are given on the draft sheet, with two different patterns and treadling directions for Profile (1). These treadlings will give the weaver a start, but the weaving is so simple that personal variations are easily devised. One draft is given for 6-harness threading, with two designs and treadlings. Multiple-harness weavers will do well to give particular attention to this 4-block, 6-harness draft, as it is one of the most versatile and attractive threadings there is for contemporary designing in many other Unit Weave techniques as well as for Summer and Winter. (The PORTFOLIO edition contains samples of the 4-harness weave and the 6-harness weave.)

From the designing point of view, the supplemental warp ends serve several purposes. One of the most important is the obviating of one of the serious faults of any two-shuttle weave when used for alternating pattern and tabby bands or for pattern borders

for a plain-weave article, -- the lack of continuity or harmony between the border and the plainweave areas. The supplemental warp stripes provide a vertical harmony throughout an entire textile. The narrow stripes form an integral part of the patterns, but they extend through the tabby areas likewise, unifying the all-over design. They also serve to give the effect of polychrome weaving without the weaver having to actually do the complicated polychrome treadling and working with several shuttles. Whenever the third harness which carries the supplemental weft is raised, the supplemental threads appear on the surface of the textile. When a pattern shot is thrown on a shed which leaves the supplemental threads (harness 3) down, the colored threads are covered by pattern weft on the surface, but appear on the under side. If the third harness is left down throughout the weaving, all of the supplemental threads are consistently covered, but the effect on the top surface is that of a texture change to a cord-like fabric; while on the under side the supplemental threads are in evidence throughout the textile.

CURTAINS in WARP-STRIPE SUMMER AND WINTER

This technique is particularly appropriate for informal curtains for kitchen, dinette, recreation rooms or children's rooms. The method adapts well to the use of many colors in either the warp or weft or both. The continuity of the warp stripes gives a designed rather than a banded effect to the weft stripes.

For curtains in cotton, a wider than normal warp setting is suggested. Use 20/2 cotton set at 25 ends per inch (sley 2, 1, alternately in a 15-dent reed), or 24/2 cotton set at 30 ends per inch. Weave with tabby weft like the warp, or different. Balance the warp and weft, or weave unbalanced, as

desired. It is evident that this is a very free technique, and the only limitation is the type of fabric the weaver wishes to make.

For more formal curtains, use different weights and types of materials, but make them monotone — all white, all natural, or all the same light color. The technique does not adapt itself well to strong color for monotone, which requires light filtering through it for the best effects.

If weaving kitchen or dinette curtains, weave a luncheon cloth on the same warp, but eliminate the weft pattern borders except as very narrow stripes. And while you are at it, why not a couple of aprons to match your kitchen curtains?

The August QUESTION and ANSWER

Question: What is a Squaw Mark?

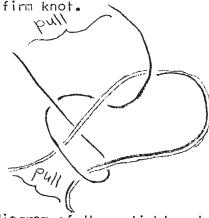
Answer: A Squaw mark is a flaw in the weaving which is not caused by an actual error. The most common cause for Squaw marks is an improperly balanced harness which occasionally forms an inaccurate shed, so that the shuttle passes over a few warp ends which it should pass under. Another cause for this is a loose warp end, or a group of loose warp ends. Or the catching of one end of a harness on something. Anything which causes an inaccurate shed may be the source of a disfiguring Squaw mark in the textile. Although no error should ever be allowed in any textile, it does not pay to be too fussy about an occasional Squaw mark. In fact, it is said that the name originated in the one imperfection which it is supposed that Indian squaws placed intentionally in any textile, "to let the devils out." But if the same type of squaw mark appears at the same place more than once, it indicates a structural fault which should be corrected immediately.

GUILD-MEMBER CONTRIBUTION

From Miss Margaret Newman, a handweaving teacher, come the directions for tying a weaver's knot. As Miss Newman's method is much simpler and easier than many methods, many weavers will be pleased to adopt it.

- Step I. Hold a loop of one thread between thumb and forefinger of the left hand.
- Step 2. With the right hand, pass the other thread under the loop from left to right, over the loop and the thumb from right to left, behind the long end of the left hand thread, up through the loop.

Step 3. Pull the two interlocking loops into a



The diagram of the untightened knot illustrates the stages of Step 2 clearly. A weaver's knot is the smallest, tight knot which can be made. It is a form of the bowline. The weaver's knot is used wherever it is necessary to tie a knot in a warp thread. It is the knot which stands the chance of going through the heddles and reed without coming apart or impeding the weaving.

The 1955 BATEMAN EXHIBIT

Dr Bateman, whose exhibit of samples of unusual tec hniques and weaves had such a successful tour this year, is now preparing the schedule for the 1955 round. So many people who have had the exhibit once wish to have it again for further study that Dr Bateman is adding a Part II exhibit. Part I which contains about 150 generous size samples of weaves in many techniques, with particular stress on the new weaves which Dr Bateman introduced, is available to new subscribers. Part II contains about 130 samples, mainly in the Boulevard, Bateman Blend and Tag Weaves. These weaves should have more meaning this year, as they were published for the first time in the Shuttle Craft BULLETINS for February and March 1954, and the Bulletins are available at 35¢ each for Guild members, 50¢ each for non-members. The exhibits are study projects and therefore are of greater interest to individuals and to small study groups than to large Guilds. But Dr Bateman's designing is so excellent and his craftsmanship so perfect that the samples are worth seeing even if they are not studied. If you wish to be placed on the Exhibit schedule, send the fee of \$10.00 to Dr William G Bateman, 2501 S 116th Street, Seattle 88, Washington. Dr Bateman will then schedule you to have the textiles for four days and will send full information.

THE HARNES CAPACITY OF LOOMS, Continued from July,

A question has arisen as a result of the statement which ended the July loom article which recommended to the beginner the purchase of a "good, strong, treadle-operated, two-harness loom." Where can such a loom be purchased? We have been using such a loom, and have found it so satisfactory that we can recommend it. The loom is the "Coddie", made by Coddie Products Co, 3238 Bay Pines Blvd, St

Petersburg, Florida. Of particular interest in this loom is the beater action which makes the reed hit the fell in a perfectly vertical position. This corrects the faultcommon to most small looms of having such a small beater arc that it is difficult to produce a good textile. The loom is available in several widths, 20 inches and under, and to operate as a table or a treadle loom. For information, write to Mrs Delma L Jay, business manager, and your mention of the Shuttle Craft Guild would be appreciated.

The next problem in loom selection for the beginning weaver is that of the person who has satisfied himself that his interest in the craft is serious and wishes to have more adequate equipment. At this point even more than at the previous stage, the purchase of the cheqpest equipment proves to be the most expensive method. The attitude which carries the greatest economy is that of selecting a loom which is sufficiently strong, accurate, light in operating and versatile that it will be adequate for all the weaving which any one person will ever wish to do. Few weavers realize at this stage how far their weaving interests will reach, or how much they will wish to do as the years pass, so usually the equipment should exceed in versatility the initial ideas of a new weaver.

Harness capacity becomes an important consideration here, and the loom type. The two types are counterbalanced, in which the harnesses are hung in pairs and can be operated only in pairs; and jack, in which each harness is individually controlled. Because the 4-harness counter-balanced loom is easy and inexpensive to construct, it has been considered almost standard equipment for the handweaver beginning. But thousands of handweavers have had the experience of taking instruction, or buying weaving books and periodicals, only to find that the weaves which attract them most cannot be done on the counter-balanced action. This action has the advantage, though, in the

best counter-balanced looms, of ease of action and practically noiseless shed changing. But many loom manufacturers are frustrating the main reason for the counter-balanced loom by pricing it almost as high or even as high as a good jack-type loom. Therefore, more weavers are buying jack looms now, and availing themselves of greatly enlarged designing potentialities.

There is no problem of harness capacity in counter-balanced looms, as the structure of these looms determines that they have either 2 or 4 harnesses. But when the loom has the independent, jack operated harnesses, the only limiting factor on the number of harnesses the loom can have is the combined harness weights as reflected in the treadle action. Of course the more harnesses a loom has, the more costly the loom becomes. However, the cost of 2 or 4 additional harnesses beyond the quota of 4 is slight when compared to the entire loom cost. Therefore the economical purchaser will anticipate his eventual harness needs and purchase at the outset the full quota which he feels he will ever wish.

For some unknown reason, the 8-harness loom has been looked upon as the epitomy, and standard equipment for advanced weavers. This attitude might be attributed to the colonial coverlet tradition, as the elaborate coverlet designs often require eight harnesses. But in view of modern textile designing, the eight-harness loom seems almost an anachronism. There are few techniques which can be woven on 8 harnesses which cannot be woven on 6, and usually with the greater advantage of simplicity. Contemporary designing lends itself to 6 harnesses much better t than to 3. The weaver is not so confused by complications of a mechanical nature when weaving on 6 harnesses, can more easily grasp the systems for making tie-ups and treadling rotations, so that the attention may be focused on actual designing instead of operation. So why not the 6-harness loom?

Thread be Noter

My dear Guild member:

News LETTER

With all of the weavers putting their energy into trying to keep cool, or off at one of the summer weaving sessions, there seems to be little news, certainly not enough for a separate letter. We're having a fine weaving time here, with time off for occasional swimming, boating, croquet games, or just sifting in the cool evening, watching the sunset over the lake. But we've had several unusually interesting weaving projects too. Ruth Wheelock who is studying with us for 8 weeks, brought with her a remarkable old notebook kept by a professional weaver of wool fabrics, between 1849 and 1856. The faded brown ink on yellowed pages, with drafts and tie-ups and an occasional glued-on tiny piece of fabric, are not easy to interpret. But Miss Wheelock has put most of them into present-day form, made structural diagrams of the textures, and sampled those which are of particular interest. She is now weaving a Harris tweed coat fabric for the woman who gave her this family heirloom, from one of the drafts. Most of the drafts require 9 to 12 harnesses. Another project, with a 6-week student, has been the working out of a suitable course for a college and an adult education program, with a completely new approach to the teaching of weaving to beginners. Several beginning students have been interested "guinea pigs" for this. Along with this, progress on the Tartan and Twill revisions can be reported.

We hope you like this new approach to the BULLETIN, which puts everything into one cover. With the elimination of the STYLES as a separate sheet, we can bring you more instruction in the BULLETIN. The STYLES are now available as a complete series of 48 project recipes, for \$4.50. Now, off to our planning and yarn ordering for autumn and winter weaving.

Sincerely yours, Junist Tidball

The first sample is woven on the 4-harness threading by the treadling directions given. The reverse side is as interesting as the top side, and some may like it better. However, on the sample it gives a rather messy effect, due to the manner in which the pattern weft threads pair. The pairing of pattern wefts in any tabby based weave is caused by the relationship between the tabby and the pattern weft. Using the succession of tabby followed by pattern, both in the same direction, the system of pairing may be changed by simply entering the pattern weft on the opposite side of the warp from that which gave an undesirable effect.

The sample with blue weft is the 6-harness threading woven thus: six shots with harnesses I-3-4 raised, six shots with harnesses I-3-5 raised, six shots with harnesses I-3-6 raised. By weaving in this simple treadling order, but making systematic variations in the block proportions, very interesting, flowing arrangements of blocks may be woven. The under side gives some good designing ideas too.

As it happens, both samples were woven on the same 6 harness threading. For the 4-harness interpretation harnesses 4-5-6 were tied together on one treadle to weave as though all harnesses were threaded on only one. This adaptability to simple and complex design is one of the advantages of 6-harness threadings.

