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Hand Loomed Textiles for Upholsteries and Other Household Uses

By CHRISTINE FERRY

Weaving enjoys the unique distinction of being one of few handicrafts continuously perpetuated, regardless of race or culture, during the countless centuries since the day when an aboriginal ancestor discovered its possibilities, developed the first crude loom and drew from Nature's store for her materials. As time has passed, the simple intermeshing of perpendicular and horizontal threads has been elaborated upon, but the fundamental principles remain the same.

Although machine-woven textiles have largely supplanted those done on the hand loom during the years since home industries have been so extensively commercialized, there has always remained a place for the hand-loomed product when a fabric of special texture or coloring was needed.

Period styles of design in architecture, furniture and interior finish being naturally reflected in the character of the drapery and upholstery textiles of the same era, the interest in things of an Early American and Colonial nature, during recent years, has been very stimulating to the production of the hand woven fabrics of these periods.

Weaving is, however, by no means confined to things of an Early American or Colonial nature, and as the work has developed and professional decorators have become alive to the advantages of being able to secure a limited quantity of material especially adapted to individual requirements, a new era in weaving as a home industry has dawned.

Quite naturally, the wider range of threads now available for the purpose—the woolen yarns of varied sizes and twists and the lustrous, highly mercerized cottons—make possible a diversity of style in texture and design not hitherto obtainable. Because of this, the weaver with imagination, who is most ingenious in her use of color and design, will profit most by the opportunity afforded

in this revived industry.

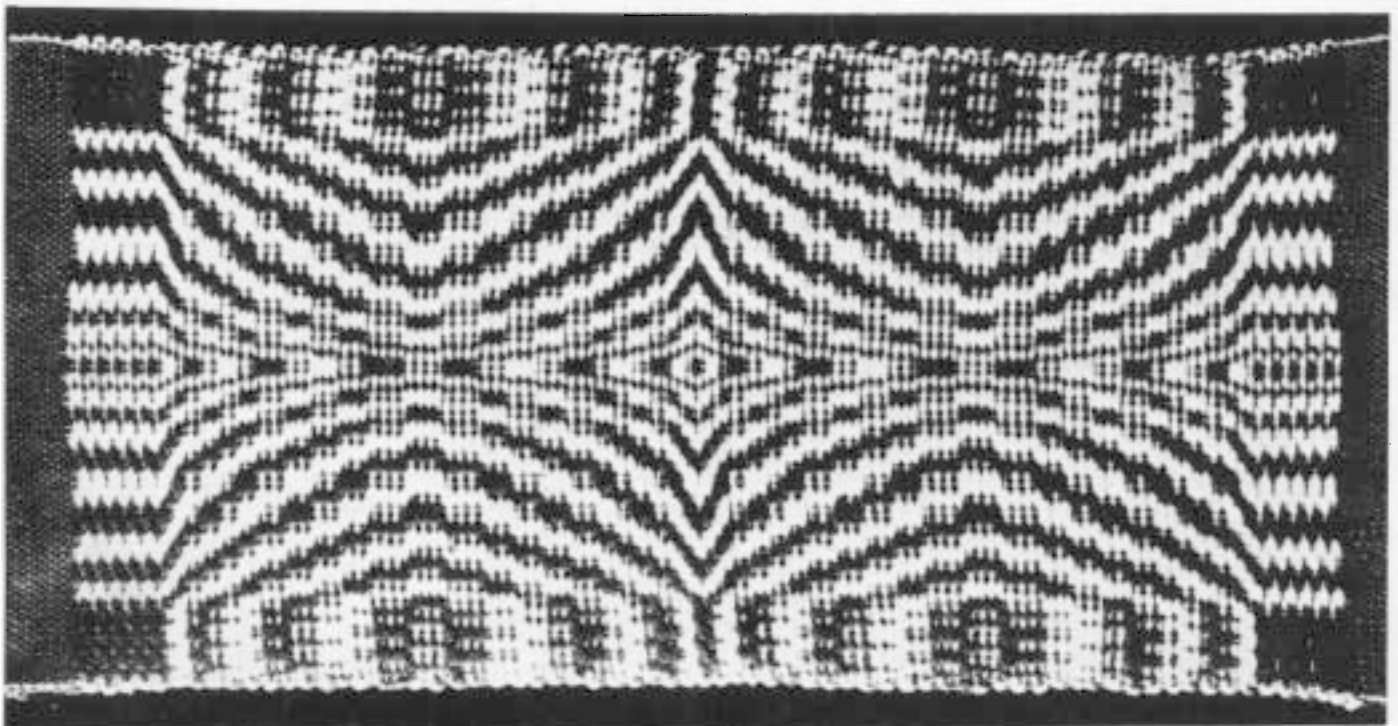
During recent years, down on the island of Nantucket, off the southern shores of Cape Cod, there has developed a home industry known as the Willow Cottage Weavers which, under the inspirational guidance of Mr. and Mrs. Melville B. Melendy, has produced textiles of unusual distinction, winning deserved recognition from professional decorators and private individuals of discriminating taste who appreciate the opportunity of securing upholstery fabrics and other material suited in color and design to the specific purpose for which it is to be used.

Starting with a single loom in the woodshed of their historic Nantucket residence, as the field has widened, one loom after another has been added, until now two floors of a nearby cottage echo to the shift of treadles, the passing of busy shuttles through the warp sheds and the whack of beaters pressing the threads firmly together.

It need hardly be said that all this has been accomplished in a day, but as the weeks have lengthened into months and the months into years the infant industry has thrived and grown into a live business enterprise demanding the utmost of executive and creative artistic abilities, and the Melendys have had the satisfaction of seeing the products of their looms meet with deserved approval because of originality of design, beauty of texture, charm of color and perfection of workmanship.

As the business has grown, the details have never passed from under their personal supervision. The making of drafts, the selection of materials, the planning of color schemes and the careful inspection of the textiles woven by the little group have continued to meet with their attention.

Contrary to an almost universal belief on the part of the lay person that hand woven material of this nature is only to be associated with things of a primitive nature.



Bathroom Mats of this nature find ready market. Rough cotton is used for filler. The model is blue and white.

the Melendys have demonstrated that there is no limit to the possibilities of its use and that suitability for purpose is merely a matter of the proper combination of pattern and material, regardless of whether the furniture to be upholstered is Spanish, Victorian or Early American in character.

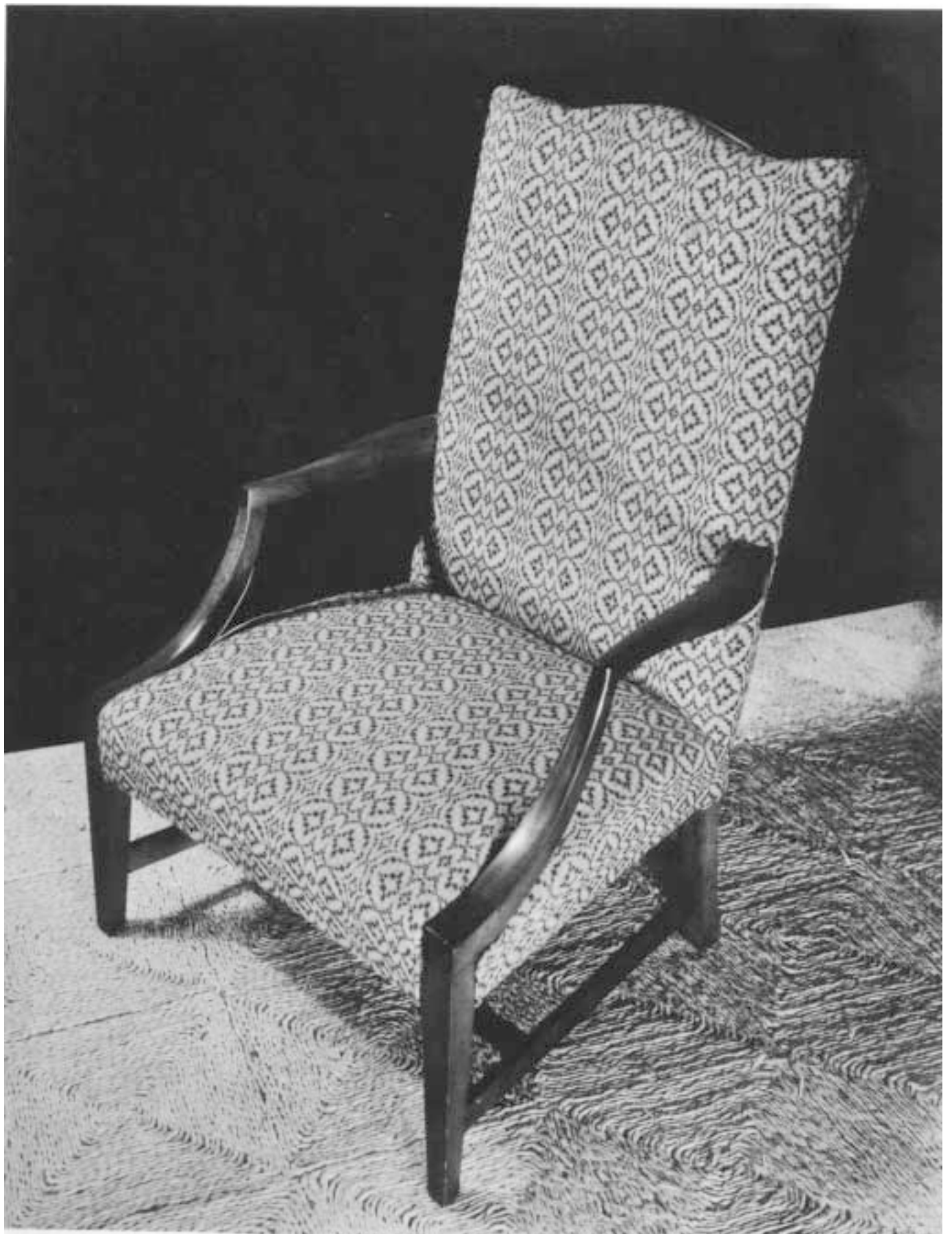
As a usual thing, woolen yarns, varying in size according to the effect which it is desired to produce, are combined with cotton warp threads in the construction of these upholstery textiles. Yet sometimes, as in the development of simulated haircloth effects, lustrous mercerized cotton threads are used for both warp and woof. woven with coarse cotton filler, floor rugs for which heavy rug wool is used and mats for table setups and other household uses, done in Colonial designs with mercerized

When a fabric of this nature is to be produced for a special purpose, it is of course necessary that the weaver be supplied with samples of the desired colors, other patterned materials used elsewhere in the furnishing of the room and the wall paper. She must be advised also as to the scale of the room and the style of the article of furniture which is to be upholstered — in short, every detail that will enable him to visualize the setting intelligently. With this information, a fabric can be developed in which the chosen colors are harmoniously blended in a pattern suited to its purpose.

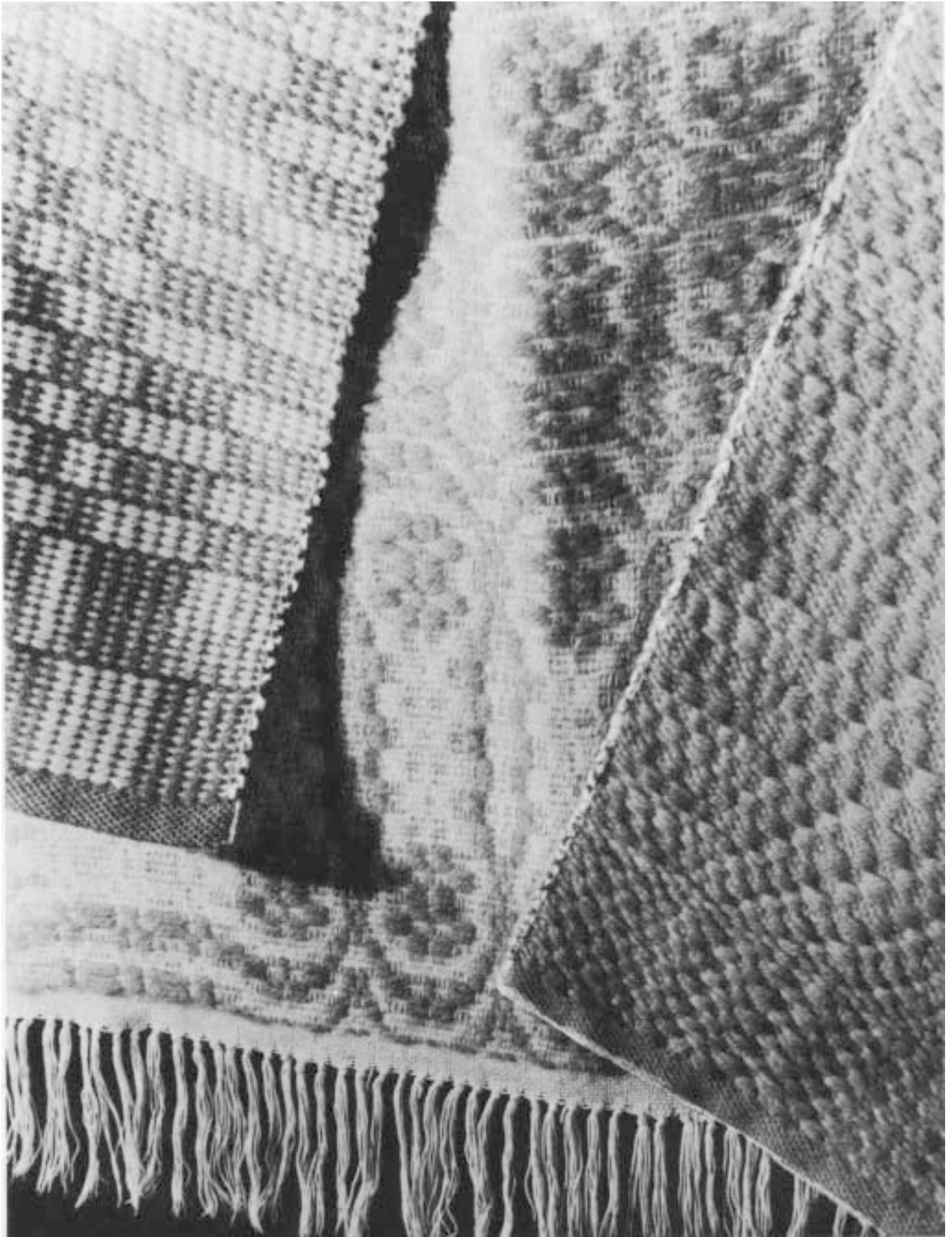
Aside from the upholstery textiles, bathroom mats cotton threads of various colors, are all products of these Nantucket looms that have proven popular with customers.



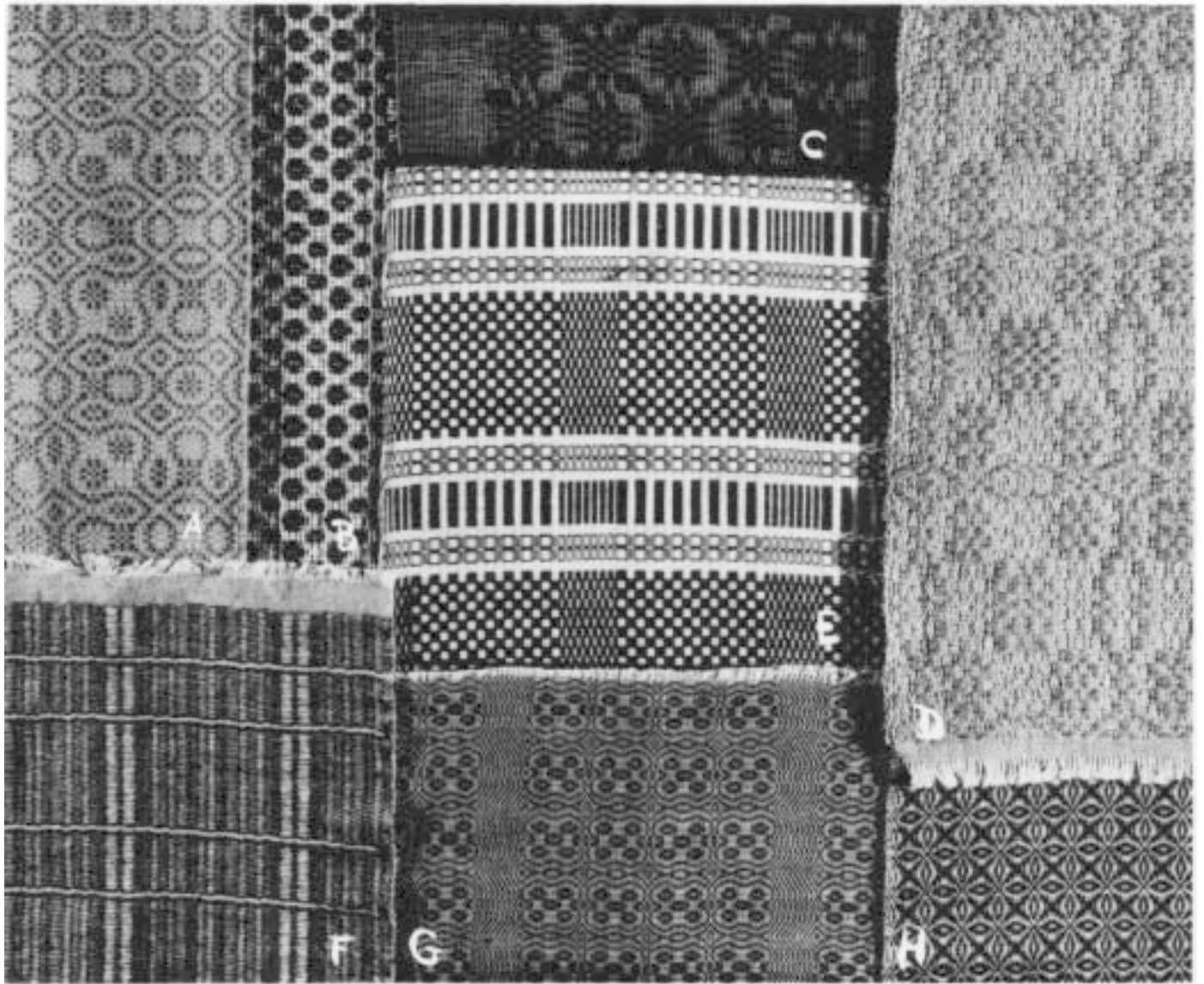
Sturdy table doilies of exquisite texture use lustrous twisted mercerized cotton, any preferred color, for filler in combination with 20/3 cotton warp. Cut edges are finished with a simple crocheted trim over a narrow hem.



Upholstery textiles patterned from old coverlet drafts are particularly appropriate for chairs of the Martha Washington type.



Closeups of three sturdy floor rugs that use rug wool for filler. The patterning is simple in the extreme.



Samples of upholstery textiles suitable for various purposes. (A) Done with mercerized cotton threads. Design in color on ecru ground. (B) Suggested by a bit of Spanish textile. Yellow cotton background patterned with coarse black yarn. (C) Simulated haircloth done with fine gold color silk warp and black filler. (D) Adapted from a coverlet draft. Wool weft and cotton warp. (E) An exotic piece done with fine soft threads in brilliant tones of red, green and gold in combination with natural. Algerian in character and good for sun room or porch furniture. (F) Modern in feeling and particularly useful for covering backs of large pieces of furniture upholstered in embroidered or patterned fabrics. Interesting blending of wide range of colors in fine woolen threads on cotton warp. (G) Striping is sometimes better than an all-over for large surfaces. (H) Small compact designs are good for small areas.

Questions And Answers

By MARY M. ATWATER

(1) QUESTION: *Is it possible to make weaving profitable?*

ANSWER: Yes. A good many people are doing it.

(2) QUESTION: *How should one go about weaving in order to make it a business?*

(3) The first thing to do is to learn to weave. This sounds self-evident, but a good many people overlook this very thing.

Next, it is necessary to develop the project along business-like lines. It is possible, of course, to make pin-money by weaving this and that as fancy dictates and depend on chance or one's friends for sales, but it is quite impossible to make a real profit in this way. To make a business of weaving it is necessary to decide on a special product, and to do a lot of experimenting to find out just how to make this thing at the lowest cost in time and material, and how it can be made to be most attractive to purchasers. It is not one's own taste but the taste of the buyer that is of first importance. The thing must be standardized and produced in commercial quantity so that it can be marketed.

But this is only half the problem, and for many people the easiest half. It is not enough to produce an excellent and saleable article at a reasonable price, it is just as important to find or make a market. Some people sell their product to the shops, on a contract for so many yards or so many articles a month. Some people have shops of their own and sell locally or to tourists. Some people sell through agents who tour the country. Which plan to follow depends on many factors — the type of product to be marketed, the chances for local sales, and so on. Each weaver must work this out for himself. But it cannot be left to chance. It must be definitely organized on a business basis.

(4) *What type of weaving is most profitable?*

In my opinion the best line from the point of view of profit and for a full-time business is in the making of upholstery fabrics and drapery. However this requires expert weaving and those who engage in this work should also have skill in design and cleverness with color and textures. It is not a line for a beginner.

Many people do well in the weaving of tweeds and dress-fabrics. This is much simpler weaving than upholstery.

Blankets — baby-blankets, or "Afghans", or automobile blankets also offer good possibilities.

Some people specialize successfully in linens — towels, table sets and so on. Quite a large business has been built up in the southwest on hand-woven neckties.

The lines that appear to offer least in the way of profit are ordinary rugs — high-grade rugs in tufted weaving are a different matter — ; coverlets, and bags. Ordinary rugs are too easy to make and too many cheap ones are on the market; coverlets are too difficult to sell; bags take very skillful work in the finishing and the weaving is the smallest part of the manufacture. It is hard to sell these things at a price that returns a satisfactory profit.

To turn out a standardized product in marketable quantity is a job of work and not simply an interesting pastime. Weaving can hardly be both things, so one must choose.

Of course there are other ways to turn a knowledge of weaving to profit besides the making and selling of hand-woven fabrics. One may teach weaving, or use weaving in occupational therapy, or write books and magazine articles about it.

But for any of these activities the fundamental thing is to know how to weave. Weaving is a technical business and requires technical knowledge. Other necessities are a good loom and good materials. Without these things nobody can weave happily, pleasantly or well. And if not well, why weave at all?

I don't mean to make this sound discouraging — far from it. One does not have to weave for years in order to weave well. There are many simple kinds of weaving that a beginner can manage easily enough, and fortunately instruction is available almost anywhere in these days. There are a number of excellent looms on the market, and a great variety of beautiful yarns is available. But before you take lessons make sure that the teacher knows how to weave; before you buy a loom make certain that it is a good loom, intended for weaving, and not just something somebody wants to sell; and when you buy yarns be careful to get honest yarns, well spun and well dyed. Anybody can do these things and anybody can weave. Anybody can make a profit at weaving, too, by going about it in a businesslike way.

Some Variations of Spanish Weave

By NELLIE SARGENT JOHNSON

(Special Instructor of Weaving, Wayne University, Detroit, Mich.)

It was in the spring of 1928 while putting on an Exhibit of Handweaving at the Woman's Exposition in Convention Hall here in Detroit, that I first saw what is now generally known as Spanish weave technique. In the booth next to mine was an Exhibit of Roumanian costumes and textiles, and among these I discovered a pair of handspun handwoven linen pillow-cases. On each of these was a wide border of leaves and grape design with the background carried out in the Spanish weave. Then in the May-June 1930 copy of the Handicrafter, appeared an article on this weave by Mrs. Gertrude Howells, of State College, telling how she had discovered the technique on an ancient bit of Weaving in Spain, and of her experience in learning how it was woven. My own students, particularly those who like best to work with linens, have derived much pleasure from the use of this interesting form of weaving. And on account of this, I wrote it up for my monthly leaflet Handweaving News in March 1937, explaining a number of other uses we had made of the original method of working the technique. Several other interesting ways of weaving are also presented here.

At Figure No. 1 is shown a very old silk scarf head-dress. This was of very fine silk and was brocaded with small figures of a heavier silk. The thread with which the Spanish weave border was woven was heavier than that used for the body of the scarf, but the same weight as that used for the figures. The actual width of the Spanish weave border was about an inch. Note especially here how long the slanting stitch is between the groups of warp threads. One fault commonly seen in our way of working the technique is that the warp threads are not pulled close enough together in the working and so this slanting stitch does not show enough to be as decorative as it should be. Of course there are some ways of weaving this stitch so the slanting stitch is not meant to show, and that is all right too, but if the effect is to be a *lacy* one, the weft thread *must* be pulled tight enough in each group of warp threads to pull them close together. I mention this as in the drawing at Figure No. 2 showing the method

of weaving, this is not very clear.

At Figure No. 3 is an illustration of actual weaving

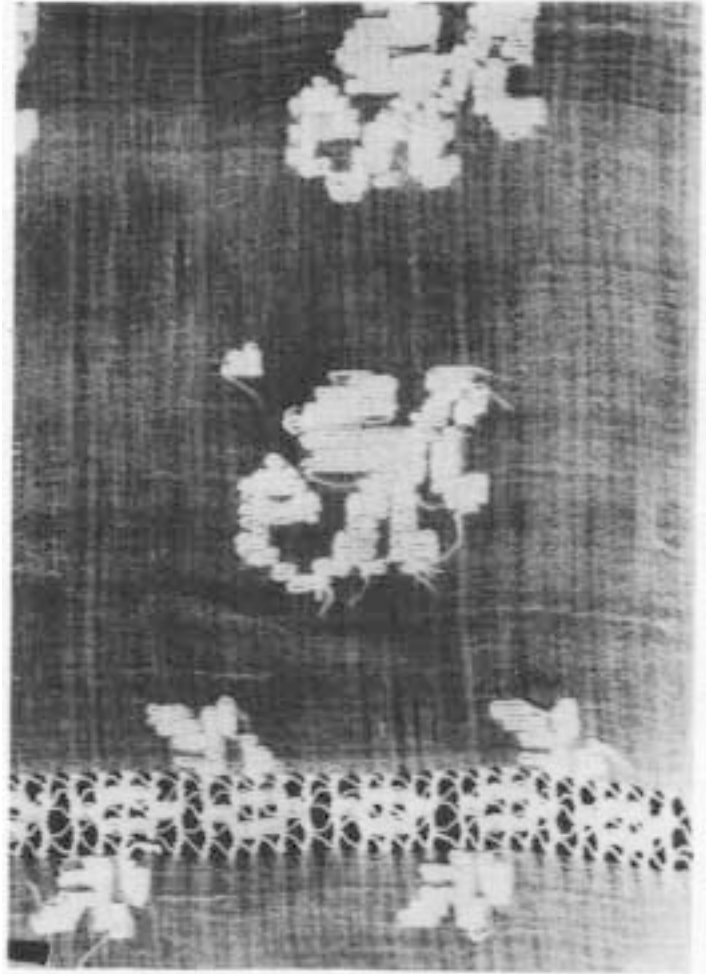


Figure No. 1
Photo of silk head scarf, with border in Spanish weave.

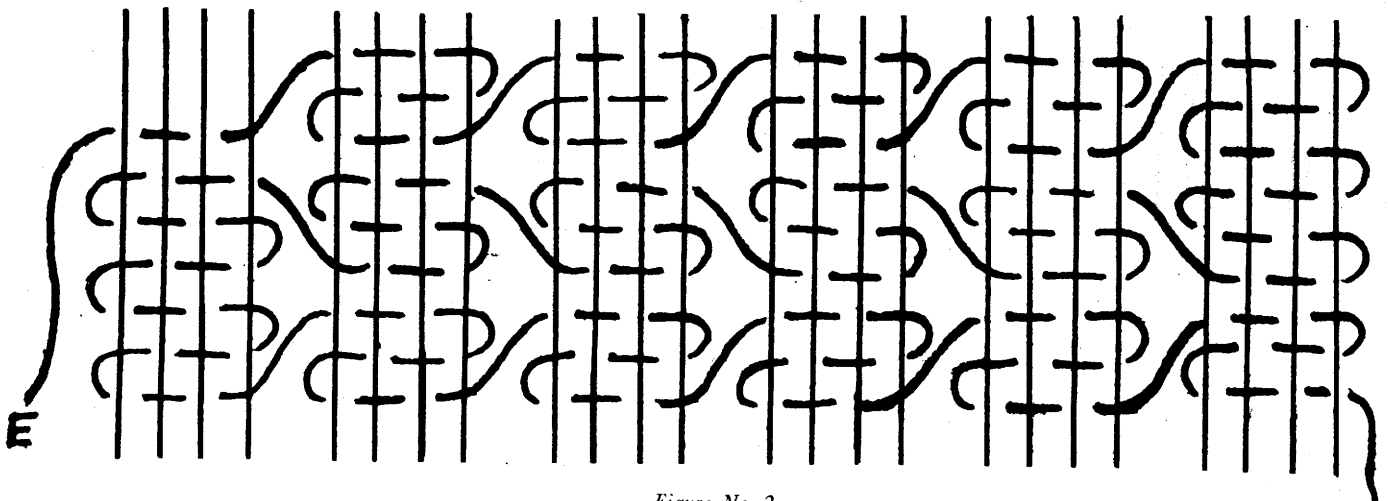


Figure No. 2
Drawing showing the method of weaving Spanish technique.

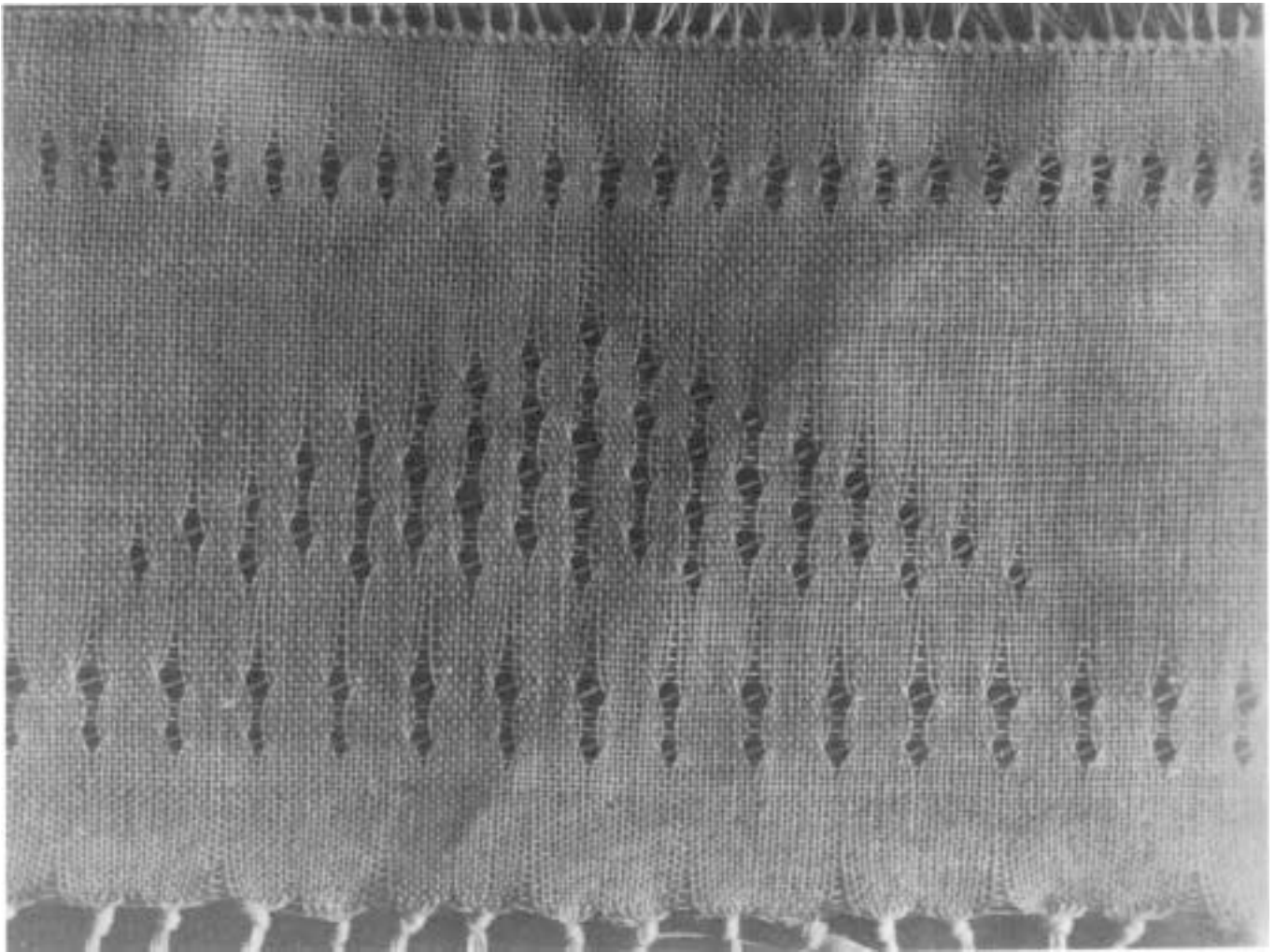


Figure No. 3
*Woven example of method of weaving Spanish
 technique.*

which should make clear the original working of the Spanish weave technique. First weave a plain weave heading. Then starting at the right side with the 'A' tabby or plain weave shed open, with your shuttle pick up four warp threads. Pull shuttle out pushing down the weft thread as you do so, change shed to the 'B' tabby shed, go back to the right edge under four warp threads. As this is done pull the weft slightly to pull in the warp threads a little on the left side. Change to the 'A' tabby shed again, and this time go under eight warp threads, or in other words pick up the first original four warp threads plus four more. Pull shuttle through, beat change shed to the 'B' tabby shed again, go back under four threads. Beat Change to 'A' tabby shed and pick up eight more threads and so on all across the width. If you follow the diagram at Figure No. 2, this should be clear. However please note this difference, that the diagram shows only four threads in each group while the directions just given would have eight threads in each group. It is easy to see that the stitch is made up of three operations. The first joins the last part of the previous stitch with the first part of the next stitch, the second carries the weft thread *back* under just the number of warp threads being used to mark the size of the group, and the third change completes the stitch and also begins a new one.

Be very sure and complete each stitch with all three operations. And do not forget to do the edge group even though it may be of a large number of warp threads. For instance, the first stitch on the bottom row of the pyramid figure on Figure No. 3 should be worked by carrying in the weft thread to the point where the first slanting stitch is to come, no matter how large the number of warp threads picked up, then the weft is carried back to the edge on the second shed, then forward again in the next shed, picking up the number of warp threads required for the next group. In Figure No. 3 the top little border is made up of groups of eight threads each, and there are three rows of the stitch worked across the entire width. One row across, then one row back, and then another row the same as the first row. This shows the little slanting stitches very well. The pyramid figure in the center is worked in groups of sixteen warp threads in each group, then on the next row across, these groups are divided by making the first edge group of the pyramid an eight-thread group and the rest sixteen thread groups. Note also that the weft slanting threads all go the same way. This is accomplished by throwing a single shot of plain weave from the left edge to the right after the first row of the stitch is completed. The bottom row of Figure No. 3 is composed of groups of sixteen threads each

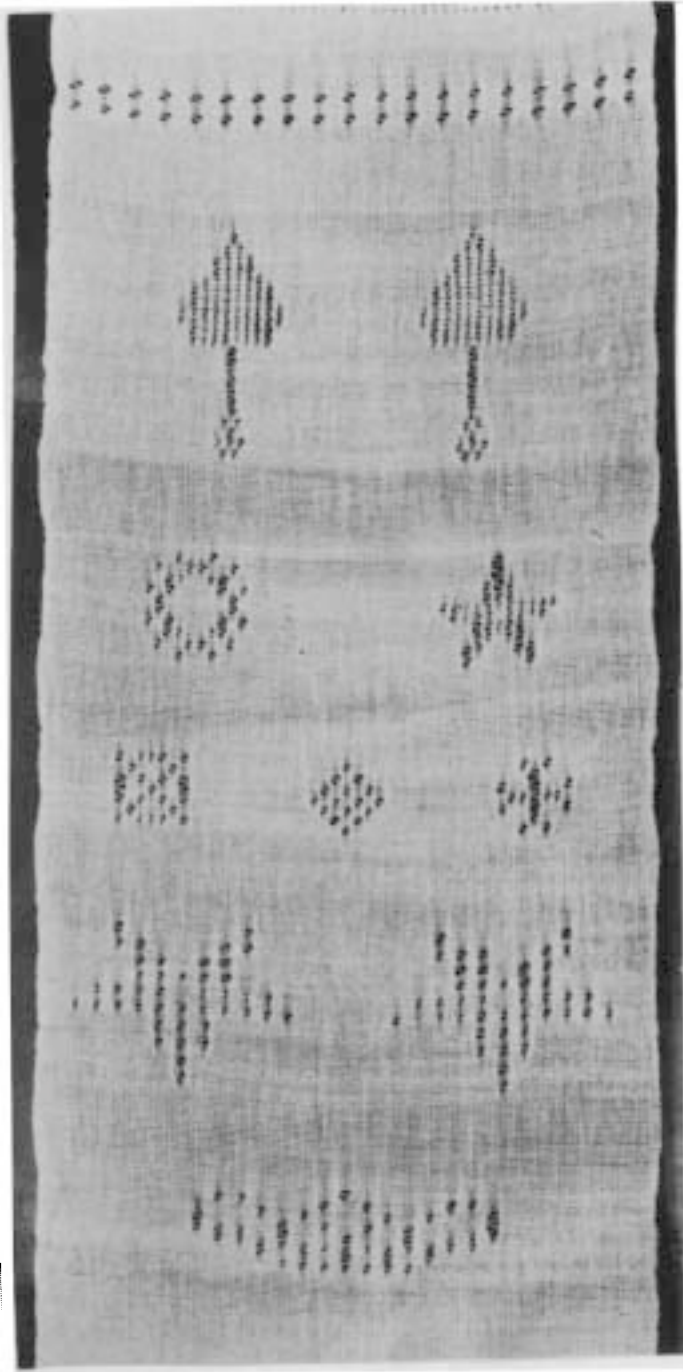


Figure No. 4
Samples of figures in Spanish weave, woven by
Miss Rachel Grieve.

worked from right to left, then five rows of plain weave then another row of the Spanish stitch from right to left. An odd number of rows of plain weave between the rows of Spanish weave will make the slanting stitches all go in the same direction.

Figure No. 4 was a sampler of Spanish weave woven by Miss Rachel Grieve, now a teacher of weaving in Melbourne, Australia. She also made the small piece shown at Figure No. 3. The sampler was woven of 40/2 linen for the warp and weft, with warp set at 30 threads to the

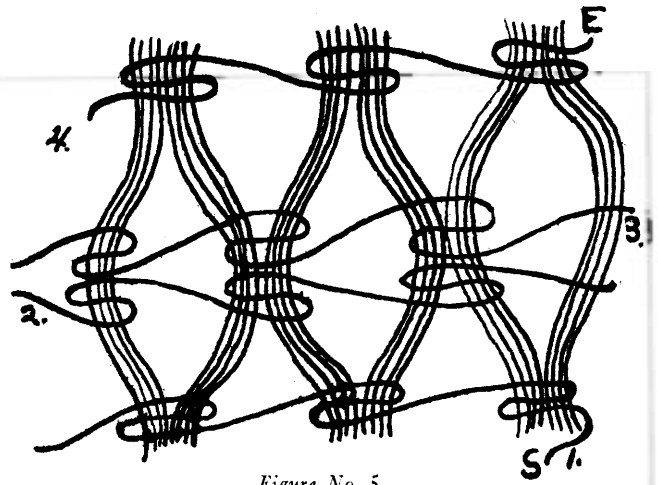


Figure No. 5
Drawing showing method of pulling warp very
close together, and leaving spaces between each
row of the stitch.

inch. This piece was not only well planned, but also shows some interesting ways in which the stitch can be used for small separate figures.

Figure No. 5 is a slight variation of the original stitch which makes very effective borders. Mrs. Florence Anderson, one of my Wayne University students worked out a number of borders in this technique using colored linen on a 40/2 linen warp, set 30 threads to the inch. Weave a plain tabby heading as desired. Then starting with weft thread No. 1, pick up eight warp threads, go back to the right edge, beat down the weft and pull the weft thread so taut that the warp threads are drawn very tightly together, then pick up the original eight threads again, and go ahead to pick up eight more for the next group. The weft must pull the warp threads very closely

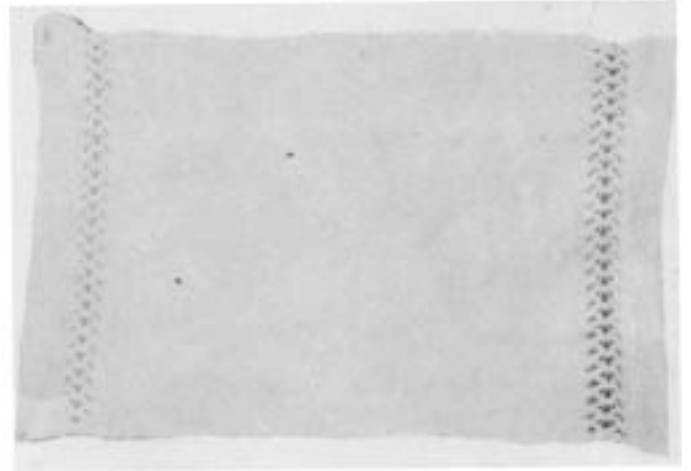


Figure No. 6
Towel woven after method shown in Figure No. 5,
by Florence Anderson.

together each time, so that there is a long slanting stitch between. Continue until the left edge is reached, then as at 2 of Figure No. 5, separate the groups of warp threads in half, and return to the right edge of the border. Note the distance between weft thread No. 1 and No. 2. This can be gauged as wide as desired. The warp threads in the original piece at Figure No. 6, were left free for about a quarter of an inch. By varying the number of warp threads allowed to show, as well as the number picked up on the shuttle, it is possible to obtain many unusual and

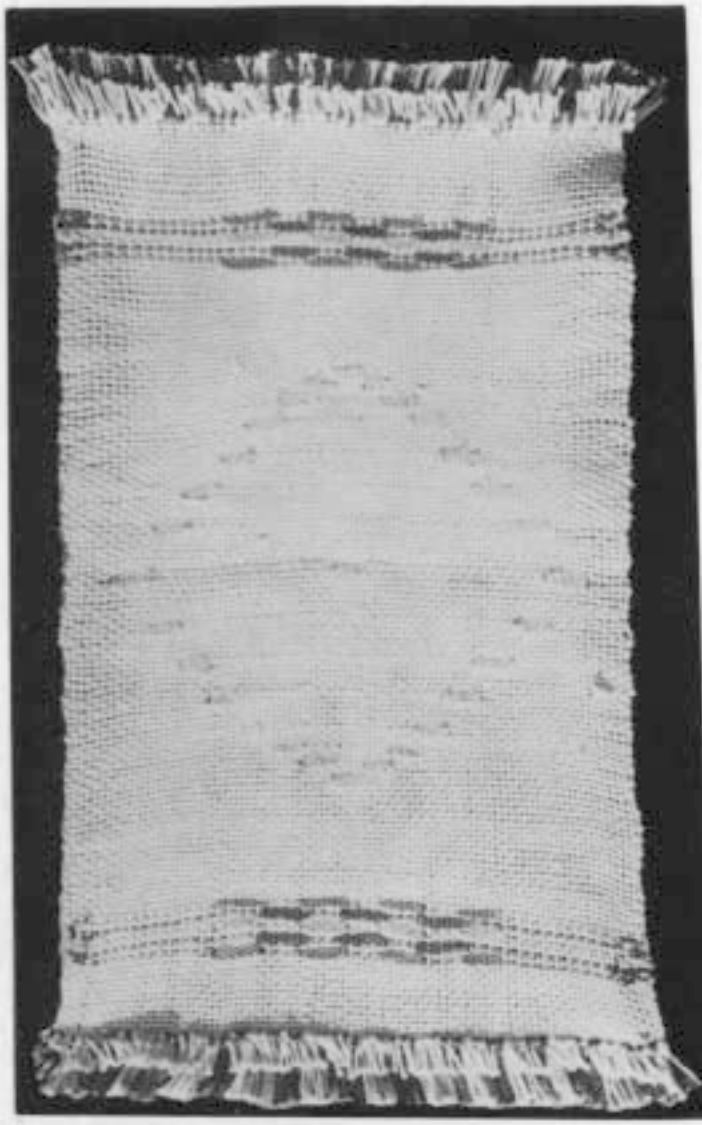


Figure No. 7
Picture Frame Loom Mercerized Cotton Table
Runner in Spanish weave technique.

interesting effects for lacy open work borders.

At Figure No. 7 is shown a small runner woven with Bernat's heavy mercerized cotton in beige, rust, yellow, and brown by a 12 year old girl on a picture frame loom. Directions for the setting up of a loom of this sort were given in Handweaving News for 1936, and will not be repeated here. On this piece the Spanish weave groups

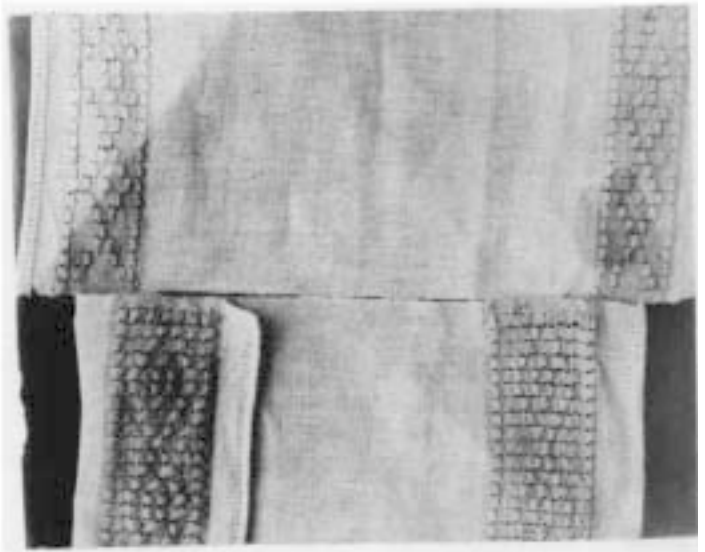


Figure No. 9
Two small linen runners woven by Mrs. Florence
Bratten in an original variation of Spanish Weave.

were made larger by taking up larger groups of the warp threads of various sizes, and passing the weft thread through each of these groups five times instead of only three times as previously explained. Also as the weft finished one group it was carried through the shed for a short distance before beginning a new group. This is clearly shown at Figure No. 8, here the course of the weft is shown but the warp threads are not indicated. In Figure No. 8 there are 80 warp threads in the first group, then the weft passes through the shed to the next group of 48 warp threads, and then on to a group of 80 more warp threads. It is very easy to follow the course of the weft from Figure No. 8.

At Figure No. 9 are two small linen runners woven of 40/2 natural linen for the warp and weft, with the borders in rose colored linen weaver, woven by Mrs. Florence Bratten. These borders show an entirely new type of the Spanish weave technique. The pattern is brought out by making an overlay stitch on top. It is possible to work out many more variations with the use of this simple device. The detail of the method of working this technique was written up in Handweaving News for March of 1938 with Mrs. Bratten's kind permission, and due to lack of space will not be repeated here. Further questions concerning this interesting weave will gladly be answered by the author of this article.

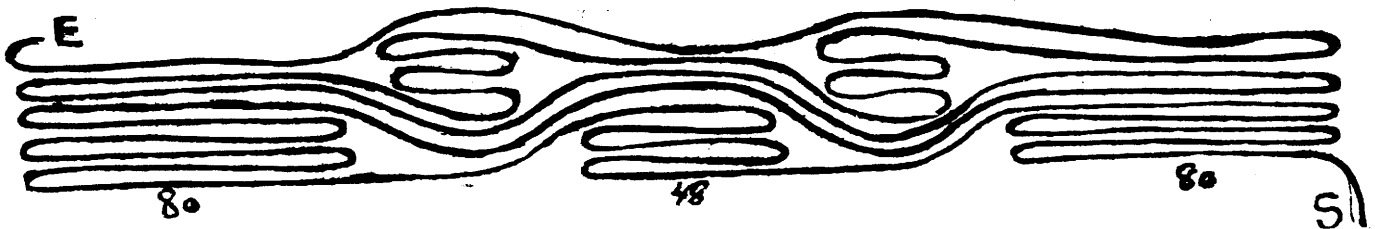


Figure No. 8
Drawing showing large groups separated by two
rows of plain weave.

Fish Hooks On A Loom

By A. B. GARDNER

Probably the most universally hated process connected with hand weaving is the tie-up. And justly so. I don't believe any more awkward, painful, profanity provoking job was ever invented, than that of lying on one's side under a loom, breaking finger nails and struggling with loops and snitch knots after they have become firmly snugged down by continual use.

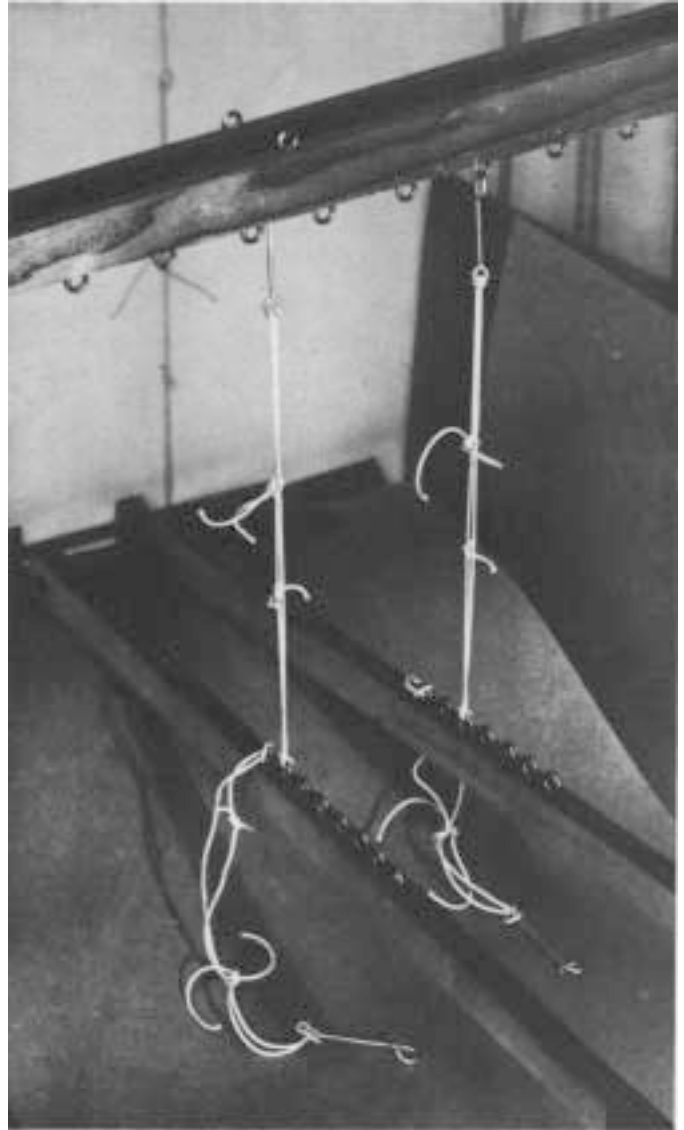
But this is not necessarily the case now. Three quarters of the work and most of the grief including all of the finger nails can be prevented. The answer is "fish hooks". Yes, Pflueger/IP Cod, Ringed, No. 4321, Tinned 3, which any dealer in hardware or sporting goods can obtain in boxes of 100. Fish hooks were selected for this work for the reason that they are made from wire that is stiff enough to hold its shape and there is an eye in each hook which it would be almost impossible for the home workman to form by hand in such hard wire.

To modify the hooks it is first necessary to grind the barbs off as they cannot be cut. This done on the corner of an abrasive wheel about half way thru and the point broken off with pliers. The rough end is then smoothed on the wheel. Then a $\frac{1}{4}$ inch rod or bolt is set upright in a machinist's vise and the point of the hook caught between the bolt and vise jaw. The hook is bent around the bolt with a spiral motion so there is space between hook end and shank to allow the screw eye on the lamm to pass thru. That is all there is to it and I did not find it much of a job to modify a box of 100 hooks.

In use, the regular double cords are used as usual except that they may be shorter. The lower cord is looped into screw eye in treadle, upper cord in eye of hook, hook is turned into eye of lamm, snitch knot made and adjusted and you are ready to weave. When a change of tie-up is desired, simply turn the unwanted hooks out of their eyes and allow them to rest on the floor without detaching from treadle. Attach additional hooks where needed and go ahead. In time probably every treadle eye will have its individual hook attached and ready for instant use with no more bothering to change cords and break finger nails. After the loops and knots become firmly snugged into place there is no further adjustment until a cord breaks and needs to be replaced.

In starting to use this method, probably the best way is to equip only those treadles required for the pattern at hand and gradually add others as needed. This divides the under loom contortions into many short sessions in place of one long nightmare.

I have used this method all summer on my eight harness, ten treadle loom without the least trouble and would not be without it. Don't be afraid the hooks either on the lamms or on the floor will catch into anything as they don't. If some hook should interfere with an adjacent



lamm coming down it is because the point was not turned short enough. It should not project beyond the shank and can be pinched down if necessary with pliers or a vise.

There are only two precautions to observe. Be sure to attach the hooks to lamms and not to treadles. It took me six months to learn this. Don't use a hard, stiff cord.

One advantage of this method over some others that have been proposed is that it is so easy to secure all the materials anywhere.

A. B. GARDNER

I Weave "A la Rosengang"

By ROMA CROW WALTERS

Before Christmas, I wove almost the length of a long city block in guest towels. Nothing I've ever done was so deadly as that monotonous throwing of the shuttle in a great deal of plain weaving, and as I took it from the loom a few days before Christmas and began the equally monotonous task of hemming, I swore to the family that I was through with weaving. Never again would I fritter away my time like that. Hereafter, I'd read the things I'd been missing—books my friends could talk about and I couldn't. Or I'd have tea with friends oftener or give the dog more exercise. The husband and three sons didn't argue the matter at all, nor did they agree—just remained annoyingly silent. It was one of those silences that any monologist loathes, when she gets neither hisses nor applause.

So for five or six days I didn't weave. Christmas cookies, red candles and greens, last minute packages, forgotten letters and polishing the sleigh bells for the front door occupied all my time. Christmas Day was full—as always. But the day after Christmas found me wandering about my own home like a guest who felt she had stayed too long. Then I remembered—when I happened into the weaving room and saw the loom empty and forlorn—that for months I'd wanted to try "rosengang" in a new way. So while the boys were skating on the pond, I warped the loom. Later in the day when the work was well along, one by one the four males found their way to the weaving room. Not one of them taunted me with broken resolutions about never weaving again,

nor made unpleasant remarks about a woman changing her mind. It must have been the Christmas spirit which gave them that unnatural saintliness—or they may have been overcome by the product on the loom. But they all did say, "What in the world is it?"

To the first query, I said defensively that it was a work of art; to the second I replied that it was going to be a new kind of bag. To which the fourteen year old said, "I'll say." But it was really the nine year old who answered them all when he said, "Why it's Mother playing." And that's exactly what it was. It was not an order because somebody wanted something done a certain way, but an experiment that gave me as much pleasure as an artist must feel when mixing colors. In the end, it proved to be a profitable experiment because I discovered that other people found the design and coloring and size of the bag as attractive as I thought it was.

I was anxious to make a bag smaller than the average knitting bag so that it would not be too conspicuous to carry almost any place. Also, I wanted something with the colors so blended that seeing it, the first thought would be that it would "go" with any color. The handle was a problem, but happily I have a "handy son", and my nineteen year old made some absolutely perfect handles and finished them to a truly satin smoothness with shellac and oil. They are eleven and a half inches across, are made of birch and darkened slightly with Van Dyke Brown.

Of course the picture cannot possibly show how lovely the design is, but with the aid of Bernat's color card and a little imagination, it can be visualized.

I threaded the loom with a soft cotton warp similar to Egypt 16-3, set ten to the inch and twenty-two inches wide. I used Rose Path or Rosengang for the threading. The yarns used were for the most part Bernat Spanish Stocking, although Shetland can be used. In some of



FIGURE No. 1



FIGURE No. 2

the bags I used odds and ends of all sorts of fancy yarns and found that Glow Crinkle worked up most effectively. Most of the bags had a soft tan similar to No. 1235 as the general background—that is, the color used to tie all the others together. But it was not until I had no more of the tan that I happened on to doing one without it, and it was by far the best one and also the best seller. That is the bag pictured.

It is woven "on opposites"—a term with which I believe all weavers are familiar. Beginning from the right of the picture and going toward the left, the colors are as follows:

Lavendar 1180.....	1 inch plain weaving
Yellow 1177.....	7 throws
Blue 1187.....	10 throws
Three rows of "roses" in blues 1159 and 1060	
Blue 1187.....	½ inch
Salmon 1251.....	12 throws
Design in tan 1235	
Salmon 1251.....	12 throws
Yellow 1177.....	3 throws
Lavendar 1180.....	5 throws
Purple 1181.....	4 throws
Lavendar 1180.....	4 throws
Purple 1181.....	3 throws
Lavendar 1180.....	8 throws
Design in purple 1181	
Lavendar 1180.....	10 throws
Green 1175.....	10 throws

Design in tan 1235	
Green 1175.....	15 throws
Salmon 1251.....	8 throws
Blue 1187.....	5 throws
Design in blue 1160	
Blue 1187.....	18 throws
Salmon 1251.....	13 throws
Yellow 1177.....	3 throws
Green 1175.....	10 throws
Design in tan 1235	
Green 1175.....	14 throws
Design in lavender and purple 1180 and 1181	
Yellow 1177.....	4 throws
Salmon 1251.....	7 throws
Design in tan 1235	
Salmon 1251.....	18 throws
Blue 1187.....	4 throws
Design in blue 1160	
Blue 1187.....	1 inch
Tan 1235.....	1 inch

Some experimenting may have to be tried to beat this just right—not too tightly and not too loosely.

On the same threading can be woven a very satisfactory purse, to be finished with a zipper. The one pictured is made of Bernat's shetland in black and grey and Glow Crinkle in very light grey and a vivid blue, and red. Many combinations can be made from odds and ends of yarn. It weaves quickly and makes such a firm fabric that no lining is needed.

BOOK REVIEW

The Game of Weaving

by OSMA COUCH GALLINGER, *Director, Cromaine Crafts*

As romantic as a newsreel to any child are the adventures of Fanny and Bob as they discover the sources of the little textile fibers in Nature, see them gathered, washed, spun and woven into useful and beautiful things of real cloth. All children take delight in the pretty colors and textures of cloth which they see displayed in stores or used at home, but few are able to know the story of discovery and human endeavor that ages of craftsmanship have woven into these fabricated materials.

Throughout the pages of *THE GAME OF WEAVING* the reader experiences at first hand, together with Fanny and Bob, the many processes of weaving, and the threads of the loom live like friendly little people, providing happy hours well spent in the making of valued possessions.

Handweaving today is much the same process that it has been through all the years. It is a delightful craft, full of possibilities, calling into play the creative powers of the worker and in the end providing him with a tangible reward. Through entering into the experiences of weaving, to which he finds himself indebted for home and body comfort, the child learns to deeply appreciate and intelligently choose the fabrics he requires. Weaving offers a rich imaginative field for creative art work through the use of hundreds of kinds of threads and innumerable colorings. Moreover, there is no better means of development for his sense of touch than this craft.

THE GAME OF WEAVING, composed of twenty-one elementary lessons in story form, is designed for the instruction and entertainment of all boys and girls who enjoy making worthwhile things with their hands. Each lesson is amply and interestingly illustrated and is followed by a Question Box which provides space for the pupil's summary of the lesson. All of the projects, and the text itself, have been painstakingly worked out by

the author through years of experience in the conducting of summer craft and regular school courses in weaving.

CONTENTS OF THE BOOK

1. The Story of Thread
2. Threads From Animal Fibers
3. Threads From Plant Fibers
4. Threads From Minerals
5. Man-Made Fibers
6. How Thread is Made
7. What It Means to Weave
8. My First Weaving
9. Weaving a Bookmark
10. Making the Selvage
11. Finishing the Bookmark
12. How the Indian Weaves
13. Making a Shed
14. Weaving on a Small Loom
15. Weaving an Indian Rug
16. Colors for the Rug
17. The Game of Weaving
18. Getting Color From Nature
19. Designing Your Own Stripes
20. Scarf and Purse
21. Pattern Weaving

The Game of Weaving—
A Play; The Princess Who Could Keep a Secret—A Play
120 pages, 7 x 9, cloth, \$1.34

Send for an examination copy on approval

INTERNATIONAL TEXTBOOK COMPANY
Scranton, Pennsylvania

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The Constellation Orion In Summer And Winter Weave

By DORIS L. HENDERSON

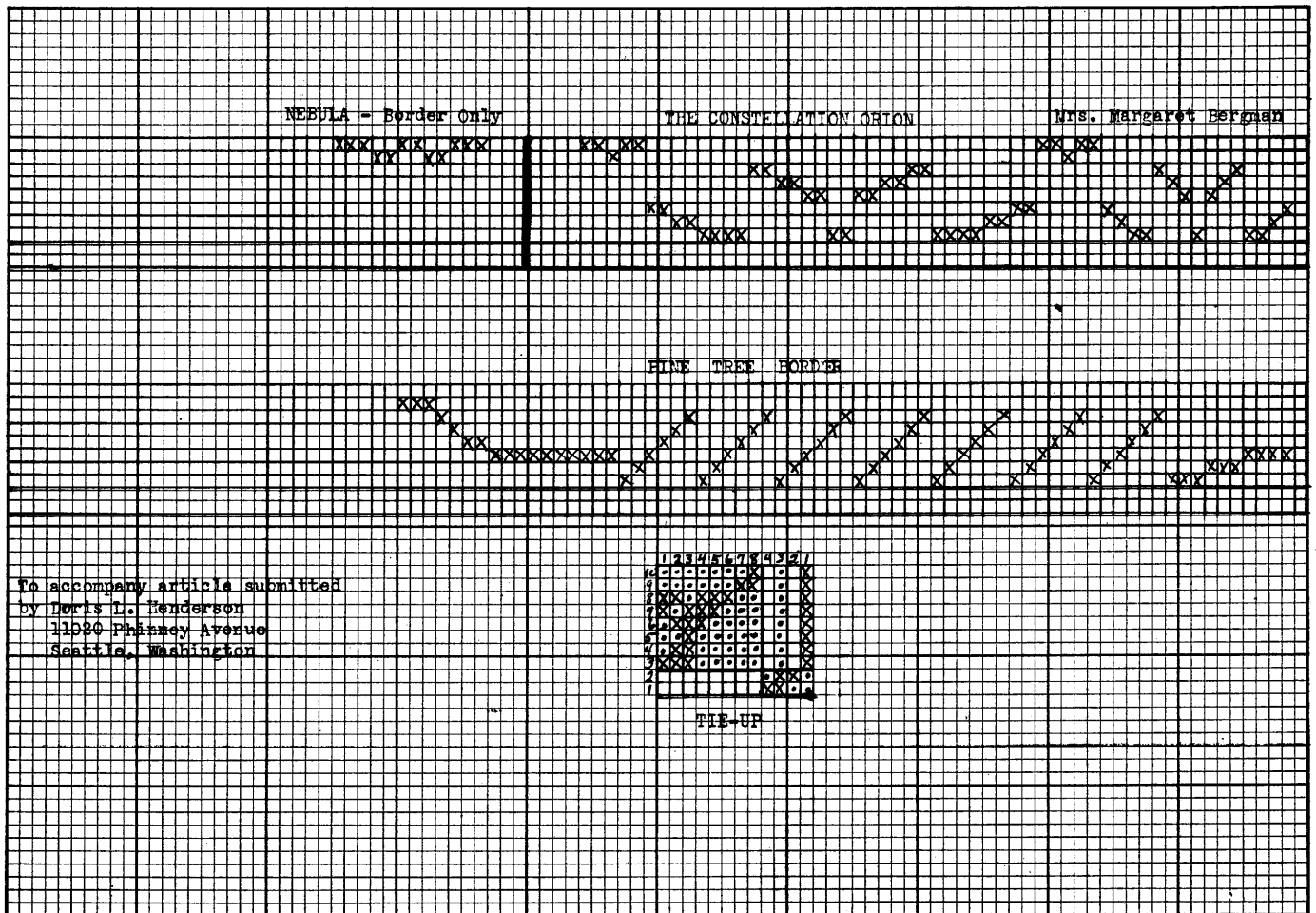
Illustrated is a handsome table cover in summer and winter weave woven by Mrs. O. M. Gaudy of Port Orchard, Washington from an original draft designed by Mrs. Margaret Bergman of Poulsbo, Washington. Bernat's #20 mercerized was used for the warp and #38 Scarlet Perugian Filler for the weft.

Perhaps the outstanding weaver in the Puget Sound country, Mrs. Bergman is a source of inspiration to other weavers and has done much to awaken interest here in the fascinating art of handweaving. Her weaving history is interesting.

Years ago, as a young girl on a farm in her native Jemtland, before she came to America to be married, Mrs. Bergman wove many yards of household materials — bed and table linens as well as yardage for clothing. One day a relative brought from the city a beautiful handwoven coverlet more complicated in design than anything she had ever attempted. Intrigued, she decided to copy it; evidently her effort was successful for she tells, in her very modest manner, that she made twenty-one

spreads on the many yards of warp on the loom intended for other things. She continued to work and experiment with more elaborate designs, some of them calling for additional harnesses on the loom, working without outside help since she had no textbooks or teachers, and in so doing acquired a thorough understanding of weaving, of draft writing and of the loom itself.

Then some 35 years ago this young lady came to America, became Mrs. Bergman and moved to the Pacific Northwest. She did not bring a loom with her and for several years her life on a farm in a new country was a busy one. Finally Mr. Bergman was persuaded to build a loom and Mrs. Bergman, intending to resume weaving as she had in Sweden, began to look around for suitable yarns only to find there were none readily available. Not daunted, Mrs. Bergman decided that if she could not weave bedspreads, or linens, she would have to weave rugs — rag rugs, since that was the material at hand. However, she saw no reason why her rugs should not be beautiful as well as serviceable so she used six, eight and



To accompany article submitted
by Doris L. Henderson
11520 Phinney Avenue
Seattle, Washington

FIGURE No. 1

ten-harness patterns and soon her rugs literally were the talk of the country and orders came from many places. And her designs were her own for Mrs. Bergman says that until 1928 she had never seen a weaving book.

In 1925 she learned of Mrs. Atwater and through her of Bernat's — a source at last for different materials with which to work. In 1928 Mrs. Bergman acquired one of Mrs. Atwater's books and her introduction to Summer and Winter weave — a technique not in use in the Scandinavian countries. Summer and Winter weave is now Mrs. Bergman's specialty and she has developed many beautiful patterns.

By 1931 Mrs. Bergman and her weaving were pretty well known and it was in that year that invitations came to her to do outside demonstrations — in department stores, at Grange meetings, at Washington State College, at various places all over the state. Mrs. Bergman's home at Poulsbo is across Puget Sound from Seattle and many miles from other city centers. When invitations to demonstrate weaving came to Mrs. Bergman she was faced with the problem of easily transporting her looms to the various locations. Mrs. Bergman, as the reader probably senses, is not one to sit and wait for something to happen; this matter of transporting her looms was just another weaving problem to solve. Then she saw a folding bed . . . folding beds — folding tables — folding chairs — why not a folding loom? Work was started at once

on a loom that could be folded together, and after considerable experimenting she developed a loom that has worked excellently.

All these years, busy with her family, with life on a farm, and with her hobby — weaving — Mrs. Bergman felt that some day a lot of people would be interested in weaving and that when that time came she wanted to teach them the things she knew. People did come to her home and stay for several days or a week or two weeks as boarders to study with her. Then in 1935 one of the large department stores in Tacoma, Washington made it possible for her to have classes there which she kept up for nearly three years, creating and passing on to her many pupils some of her vast store of weaving knowledge.

Now in a little building close to the shores of Puget Sound in Anapolis, near Bremerton, Washington, Mrs. Bergman has established a school for weaving which also serves as headquarters for the Kitsap County Spinners and Weavers Guild. It was there, looking at the stars shining in the heavens over the towering pines so much a part of the Puget Sound Country, that Mrs. Bergman was inspired to work out the draft for "The Constellation Orion", which has been so beautifully woven by Mrs. Gaudy, one of her pupils.

Mrs. Bergman, quiet and unassuming, is indeed an inspiration to weavers.

DORIS L. HENDERSON

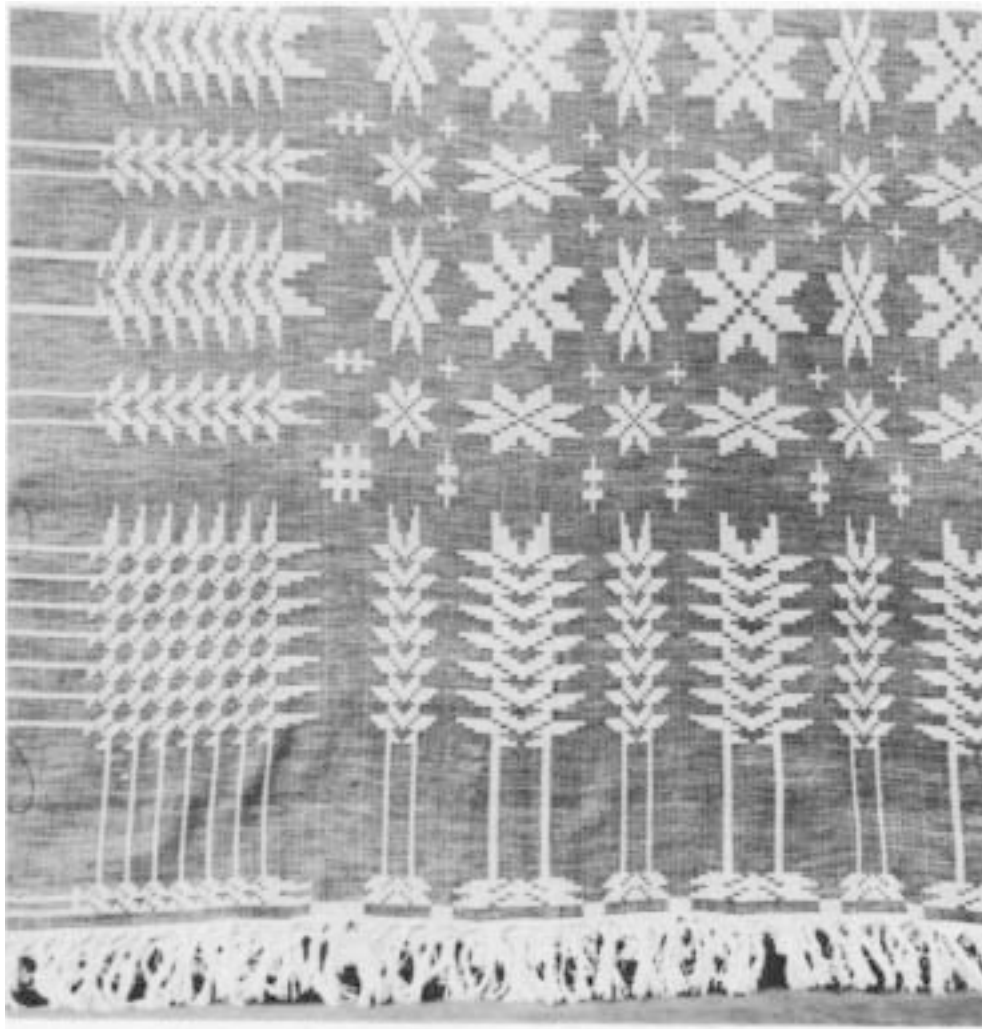


FIGURE No. 2

Leaves from a Weaver's Notebook

By FLORENCE B. FOWLE

On the shelves of my studio stands a row of notebooks, containing detailed records of twenty years of weaving experiences. Into the notebook, constantly at my elbow when working, goes full information, a description of the warp — material used, weight, ends per inch, length. Each piece is noted as woven—length, use (doily, towel, etc.), both colors and widths of borders and other information, which will save the necessity of unrolling the woven cloth, as this is likely to injure tension and the allignment of rolled edges on the cloth beam.

It is to these notebooks I turn when beginning a new problem, or repeating a design made so long ago that amounts of material used and details of technique have escaped my memory. It is from these notebooks that I am quoting such pages as may be useful to other weavers, in the hope that it may save experimentation, which while always interesting, is often expensive both in time and material.

The beginner in weaving finds herself faced by two major difficulties, even selvages and uniform surfaces. The same factors are concerned in both. Perhaps the best way to understand these factors is to analyze the order of motions on a power loom, where these motions are produced mechanically and without possibility of variation.

The first motion, logically, is the passage of the shuttle thru the open shed. When we have completed the cycle of motions, we will see that the shed is open when it is time to throw the shuttle, so we will assume an open shed and begin.

First: Throwing of the shuttle.

Second: Closing of the shed.

Third: Beating down of the weft by the bringing forward of the beater.

Fourth: Changing of the shed.

Fifth: Return of the beater back to position.

This completes the cycle which then begins again.

It is quite worth while for a beginner to repeat these motions slowly and consciously until their order becomes habitual. Any deviation from this order, which, tho impossible to a machine is only too possible to a hand weaver, will produce at once a variation in selvage and surface. It is the fact that absolute evenness is impossible to the human machine that gives hand weaving the slight variations in texture that give it its charm. The variations however, must be imperceptible as such. It is the differences in light reflection that they produce which gives a more interesting surface than that of monotonously uniform machine weaving.

Having determined the order of motions we will go back and discuss each in turn.

First motion: The throw of the shuttle:

On a power loom the woven fabric moves forward mechanically with each stroke of the beater an amount equal to the pick of yarn beaten in, so that the angle of the weft, from the selvage of the cloth to the shuttle box on the opposite side is constant. It is this angle of the yarn with the selvage which determines the amount of weft laid in the shed. If the angle is too flat, the amount of weft laid in is little more than the width of the cloth. As the weft does not lie flat, but bends under or over each thread of the warp, enough thread is required to allow

for this bending and to beat to the required closeness, at the same time making a close contact with the outside warp end to produce a smooth selvage. The tension on the shuttle, whether power driven or hand thrown, controls the closeness of this contact. The angle also affects the selvage. For if not enough weft is laid in the shed to allow for the bending, there will be a drawing in at the selvage as the beater pushes down, and a consequent narrowing of the cloth. If the warp is pulled in more than one or two dents of the reed, breakage of the warp ends is likely to occur.

The diameter of the weft thread has to be considered in determining the angle at which it is laid in the shed, a very fine thread, bending more readily over and under the warp threads, requires greater length, hence a greater angle. The necessary angle for each article must be determined by experimentation, but it might be helpful to see what my notebook says about selvage technique in weaving a fine linen towel sixteen inches wide: When the beater is forward, note that the fabric is not more than one or two dents narrower than the threading in the reed. As the thread is laid in the shed for the next pick, the open end of the angle should measure three fingers, or about two inches.

For open weaving, as scarves, a lower angle is desirable, to keep the picks further apart. For close weaving, as towels, rugs or bag material, a slightly wider angle will leave more weft to be distributed. Beyond a certain point, to be determined by experiment, too much weft is disastrous, causing the excess weft to protrude in loops on the surface of the cloth. It is the watching of such details, and establishing a nice balance between tension on the weft and angle in the shed, which gives hand weaving its continued interest.

We now come to the second motion, — the closing of the shed.

A weaver closes the shed before the beater begins to move forward so that the closing of the shed may hold the weft laid in the shed at the desired angle and tension, as securely as if closed into the pages of a book. You may prove to yourself that all the weft laid in is distributed across the width of the loom by observing what happens to the warp as the beater descends. The first contact is the point where the weft emerges from the shed. If you keep your eye on this point you will observe that it moves down to the cloth line as the beater descends, distributing evenly all the weft laid in.

The third motion is beating down the weft.

This motion is more concerned with the surface of the cloth than with the selvage. The pressure of the beater on a power loom is not a factor in closeness of weaving. That is taken care of by the "pick wheel", which is geared to move the cloth forward an amount equal to the size of the weft yarn. The beater does not hit the cloth, but strikes against fixed stops. On a hand loom the amount of pressure exerted by the weaver is the determining factor. Strange to relate, as the weaver tires she tends to beat harder, not more lightly. The only way to obtain even results is to count the picks. There is a small inexpensive device known as a pick glass, having a magnifying glass over a half-inch opening which is in-

tended for this purpose. On course work one may count with a ruler. Tape measures are unreliable for such small measurements.

In determining the closeness of the weave, shrinkage must be taken into account. Cloth must not be woven as closely as it is to appear when off the loom and finished. My notebooks always state the picks per inch for each piece of work. On a linen warp of forties twos, set thirty ends to the inch, I find fourteen picks to the glass, or half inch, noted on most pieces of work.

To teach muscles uniformity of pressure is not an easy matter. I find it wise to weave half the number of picks desired to a half inch and count these with those of the preceding quarter inch, until eye and hand are accustomed to appearance and technique. It is much easier to maintain an even pressure than to repeat a bang. Do not allow yourself a double bang, for that is even harder to maintain. If close weaving is desired hold the beater firmly against the cloth until *after* the new treadle has been pressed down. The crossed warp ends will then lock the last weft strand into position, preventing any recoil.

The fourth motion, — the changing of the shed.

The change to the next treadle to be used is always made while the beater is forward. If close weaving is desired it should be held firmly against the cloth, as just mentioned. If loose weaving is being done, let the beater be moved slightly away from the cloth, in order not to push the last pick down any farther than you have just spaced it.

Another reason for not starting the beater back until the new treadle is down is that warp ends, especially of linen or wool, sometimes cling together in passing each other while the shed is changing. If there is the little extra time of the return of the beater before the shuttle is thrown, plus the cutting motion of the reed as it moves back, the warp will separate and imperfections are not so likely to occur.

The last motion, — the return of the beater ready for the cycle to begin again, has already been covered. Remember that once the foot has depressed the new treadle, it does not come off until after the shuttle has been thrown again.

In ordering material for a new project a beginner is often at a loss to calculate the amounts required. The following page from a notebook may prove helpful.

Problem:—a linen luncheon set of eight doilies, eight napkins and a runner.

Size:—doilies, 15 in. by 12 in.
 napkins, 15 in. by 15 in.
 runner, 15 in. by 32 in.

All to have half inch hems on the ends.

For length of warp allow as follows:

Doilies, washed (shrunken) and hemmed, length, each	12 in.
Doilies, washed before hemming, length, each....	14 in.
Doilies, on loom, allowing 10% for shrinkage, each	15½ in.
Napkins, finished and hemmed, each.....	15 in.
Napkins, finished, before hemming, each.....	17 in.
Napkins, on loom, allowing 10% for shrinkage, each	19 in.
Runner, finished and hemmed.....	32 in.
Runner, finished, before hemming.....	34 in.
Runner, on loom, allowing 10% for shrinkage....	37½ in.
8 doilies, 8 x 15½ in.	124 in.
8 napkins, 8 x 19 in.	152 in.

1 runner	37½ in.
	317 in. or 8.8 yds.

Allowing for the amount of unweavable warp which must remain in the loom, from in front of the beater to the warp beam, and the waste resulting from retying if it is necessary to cut off before the entire warp is woven, a ten yard warp is desirable. Eight ready-warped spools of sixty ends each would make the set.

If the warp is to be made at home, calculations are:
 Warp., 40/2, linen warp, yards to the pound... 6,000

A 10 yard warp of 480 ends will require yards... 4,800

This warp may be obtained in two ounce tubes, each of 750 yards. Thus 6 plus or 7 tubes will be needed. As such warp is less expensive by the pound, it would be advisable to get a pound of warp. Better a little too much than not enough.

Roughly the same amount of linen yarn by weight will be required for weaving. If small amounts of linen are left on hand they are never wasted in a weaving workshop.

The number of yards in a pound, compared with the diameter of the forties twos, set at thirty to the inch, will be found a guide to the slewing of other yarns. Linen weaver, which has twice the diameter, has half the yardage. For a firm fabric, such as a heavy table runner, it can be set fifteen or sixteen ends to the inch.

I have a small four-harness table loom, eight inches wide, on which all new projects are tried out for texture, shrinkage and color combinations. The following record of measurements is taken:

Length as woven on the loom.

Length off the loom, showing shrinkage from tension.

Length after washing and ironing.

Length after hemming.

From this the percentage of shrinkage can be calculated accurately and correct final measurements obtained. Lacking the experimental loom, if absolute accuracy is required, weave an experimental piece to obtain the necessary information. When the correct measurements are obtained, one may safely go ahead.

If uniformity of size is required, as for doilies or napkins, a special measure is the best insurance. The preparation and use of such a measure is described in a recent article by the writer in the _____ issue of *The Weaver*. The article is entitled _____

(Note to the editor. Kindly fill in the omissions, as I have not seen the article in print.)

For convenient reference a table is added giving information about the yarns most used in hand weaving. The table gives yardage per pound and ends per inch in the threading as a basis of calculations. When warp and filler are approximately the same size, as *Fabri and Weaving Special*, about the same yardage of each will be needed. If calculation of filler only is the problem, estimate as follows:

Width of fabric on the loom, say—16 inches.

To this add 10% to allow for the extra length laid in the shed, which will make the length of each pick 18 inches, or half a yard.

If the warp is entered thirty ends to the inch and the weft is the same size, thirty picks will be woven to the inch. Thus thirty picks to the inch, each half a yard long, would require fifteen yards of filler to each inch of cloth, and thirty-nine times fifteen yards for the thirty-nine inches on the loom necessary to insure a yard of shrunken

linen. If the filler is twice as large as the warp, (as when linen weaver is used instead of linen special), only half as many picks will be required. The weight, however

will be about the same, as the decreased number of picks about corresponds to the decreased number of yards to the pound.

—*Florence B. Fowle*

Reference table for yarns used in Hand Weaving.

<i>Name of yarn</i>	<i>Suggested use</i>	<i>Suggested warp</i>	<i>Ends per in. as warp.</i>	<i>Yards per lb.</i>
Afghan	Sheer scarves or dress material.	Suitable for both warp and filler.	24 to 30, according to closeness desired	7000
Fabri	Used chiefly as warp. For bags, scarves, dress material.	It is primarily a warp.	20 to 24	4800
Weaving special	A soft filler to use with Fabri as warp for bag and dress material.	Combines well with Fabri wool, fine linen or silk warps.		4000
Miro silk and soft wool	Baby things, bags, dress material.	Fabri.		3000
Laurel lustrous wool	Bags, runners, scarves, & Dress material suiting.	Fabri.		2200
Homespun		May be used as warp with care, or thru Fabri.		2200
Glorine lustrous wool	Used as filler for heavier scarves, bags, & Coating,	Fabri. May be used as		1200
Shetland	baby blankets and couch throws.	both warp and filler.	14 or 15	2000
Germantown	Baby blankets.	Shetland.		1200
Knitting worsted	Bags, Coating.	May be used as warp also.	10 or 12	288
Peasant wool	Bags, runners but for filler only.	Knitting worsted.		1100
Rug wool	Rugs or heavy bags.	Knitting worsted for all wool rugs Rug warp of cotton set at 15 to in.		945
Smyrna rug worsted a soft, very lustrous yarn	Rugs and heavy bags.	Used with warp as above.		275

The "Osage" Braid

By MARY M. ATWATER

One of the things I hear very frequently is the complaint that many people would like to weave but are prevented by the cost of a loom.

True enough, a good loom costs more than a couple of dollars—and a poor loom is not worth five cents, but I have little sympathy with the complaint. In the first place the cost of a loom is really not enormous. The most elaborate and expensive hand-loom costs no more than a good radio, and very efficient simple looms cost only half as much. The purchase of a loom is a life-time investment that will return rich dividends in pleasure—and in cash, too—year after year. In my opinion the necessity for the initial investment is a good thing for the craft of weaving, as it deters the faddists who never "stay with" anything constructive, but are here today and somewhere else tomorrow. I am well content with the steady, normal growth of the craft during the last several years since its revival. Weaving is an honest craft, and the faddists have no place in it.

In the second place it does not happen to be true that in order to weave one must have a costly loom—or even any loom at all. The Maoris produce their gorgeous "taniko" fabrics on nothing more elaborate in the way of a loom than two stout stakes driven into the ground. Very beautiful weaving can be done, as many of us know, on a handful of square cards with holes in the corners,—an entirely efficient and ingenious "loom" at the cost of a few cents. And some kinds of weaving can be done without any equipment at all, except for the two hands with which nature has provided most of us.

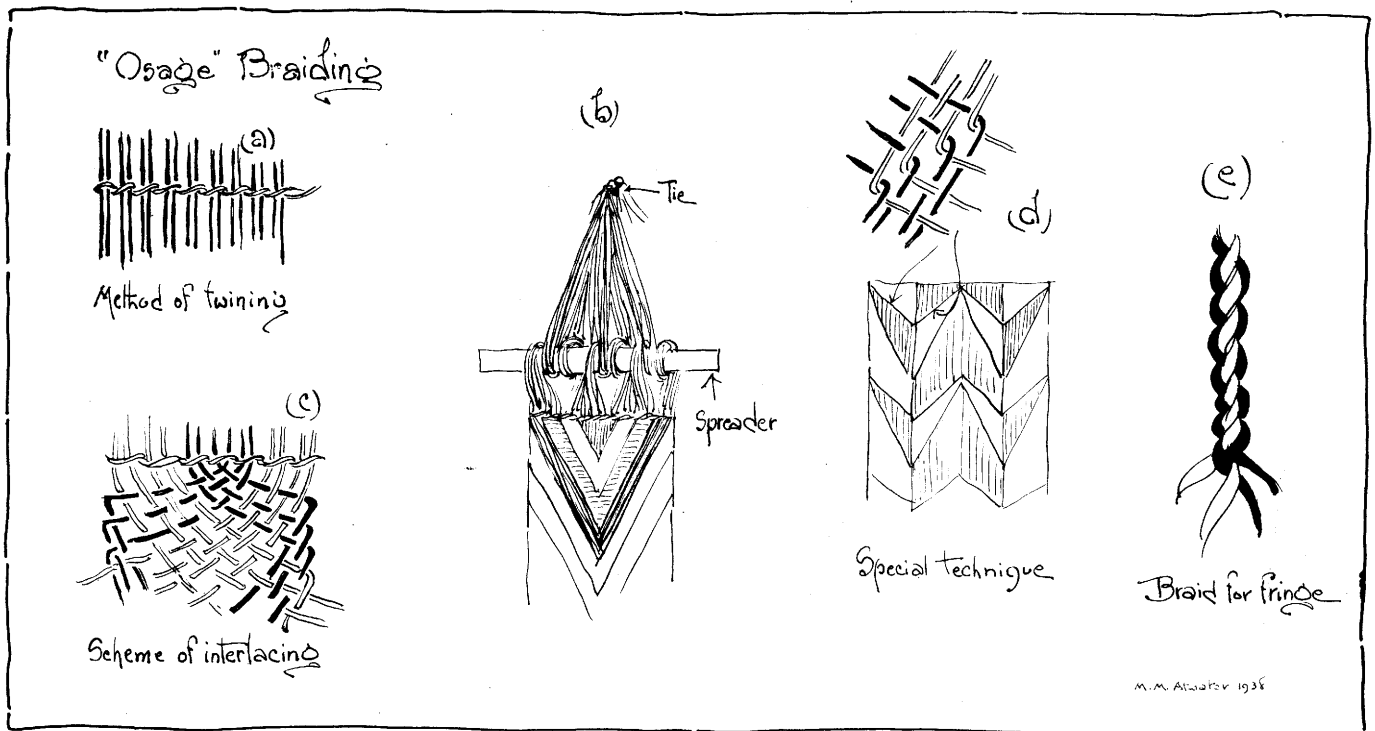
I do not mean that these are forms of weaving one

could do easily on a loom and can do laboriously and unsatisfactorily without a loom or on some make-shift cigar box or what-not,—I mean that these are forms of weaving that not only do not require a loom but that could not be done on a loom if one were available. A make-shift is never very practical, or very much fun, but these forms of weaving are no make-shift; they are entirely honest and efficient forms of the textile craft.

The largest and most interesting group of these loomless weaves is probably the one that includes braiding and plaiting. I have a fancy that this may be the most ancient form of the art of weaving, for it certainly goes much further back than recorded history. Most normal human hands will take to braiding as though by instinct if a few strands of pliable material come between the fingers. Even small children love to braid.

Of course it is impossible in the space of a magazine article to give any general account of an art as old, probably, as man himself, and known to all peoples in all parts of the world, and that includes such different things as the pig-tail most of us wore to school in the pre-bob era, the elaborate mats of the South Sea Islanders, and the amazing double and quadruple plaitings of ancient Peru.

I do want, though, to describe a simple and interesting form of plaiting that will, I believe, give pleasure to readers of *THE WEAVER*. It is commonly known as "Osage" braiding, because it happens to have come to us from the Osage Indians, who are proficient in the art. However this form of plaiting appears to be known to the Indians of several other tribes, and a similar form of plaiting is practised in the Scandinavian countries. In



fact some people know the same braid under the name of "Swedish weaving," which seems a silly name enough.

The braid is used chiefly for belts and girdles, though sometimes several strips are sewed together for a table cover or for a bag. Girdles made in this fashion are extremely striking and handsome. As made by the Indian girls of the southwest they are usually made of fairly coarse woolen yarn in brilliant colors. No belt-buckle is used with them. They are finished with long braided fringes and are adjusted about the waist by tying the fringe-braids together.

A number of different pattern effects are possible in this technique. The simplest is a chevron figure, done in broad bands of color. A girdle of this kind is shown on illustration No. 1. This piece was done in Bernat's "Peasant" yarn in five colors: black, tan, dark red, blue and bright red, — fourteen strands of each color. The piece is three inches wide, finished. For a wider girdle 18, 22, or 26 ends of a color might be used, or additional colors might be introduced.

The first step in reproducing this piece, as for any weaving, is to make the warp. This warp may be wound between two chairs, but if a warping board is available this is more convenient. It is unnecessary to make a lease. Make the warp two and a half yards long to allow

for generous fringes. First wind seven black yarns, laying them side by side over the pegs to make a flat band. Next, in the same manner, wind seven tan yarns, seven in dark red, seven in blue, fourteen in bright red, seven in blue, seven dark red, seven tan, seven black. (Of course any other colors may be used if preferred).

Now find the center of the warp and tie off the warp in pairs with a twining tie as shown at (a) on the diagram. The tie should, of course, be drawn close, — not left loose as shown, for clearness, on the diagram.

Now remove the warp from the bars, cutting the loops at both ends. Put in a wooden "spreader" a few inches above the tie, as illustrated at (b) on the diagram. The spreader may be any small stick and the warp is simply looped around it. A foot or so beyond the spreader tie the warp securely with a string. This string may be tied to any solid support, and you are ready to begin weaving. The warp may be stretched out for convenience by knotting the free end over the back of the chair on which the weaver sits, but of course this should be done with a tie that can be taken out easily as the end of the warp must be untangled from time to time as the work progresses.

Beginning at the right hand edge, pick up one thread of each pair as far as the center. Cross the two threads of



FIGURE No. 1

the pair at the center and draw the end that was originally on the left through the shed made by the fingers and out through the right hand edge. Beginning on the right, pick up a new shed over this first thread.

Now turn the braid over and repeat the process. After picking up the second shed, draw a second thread through from the center, and again pick up a shed. Turn the braid over and repeat for the other side.

Ambidextrous people can braid first to the right and then to the left without turning the work, but for most people the process as described above is more convenient.

When the third thread has been "woven", braid the top one down over and under the other two, to make the edge.

As in any weaving it is important to keep the edge straight and even. It is also important to pick up the threads in correct order when making the shed. If threads are crossed in the pick-up the work will not be smooth and even.

It will be apparent that the threads of the braid are "weft" when drawn through, and change again to "warp" when they reach the edge. The cross threads should be drawn close enough to bring the warp close together over them. This produces the pattern effect, though the scheme of interlacing, as shown at (c) on the diagram, is a simple over and under "tabby."

When the braiding has proceeded for half the length of the girdle, make a twining tie across the end. Now take out the spreader. Tie the finished end of the girdle to the support and start braiding from the original tie in the opposite direction. This forms a diamond figure at the center of the girdle, as shown in illustration No. 1.

If preferred, the braiding may be begun at one end, the first twining being put in about two feet from the end of the warp. When done in this manner the chevrons will run in one direction all the way and there will be no diamond.

This plaiting process is simple enough, but it takes a bit of practise before it becomes easy and before one gets the trick of drawing up the threads evenly. It is also somewhat confusing at first to make the shed *after* weaving a shot of weft instead of before weaving. Moreover it is troublesome—though not fatal—to lose the shed. While braiding hold the shed securely at all times, and when stopping work tie a string through the shed.

If fringes are not desired a neat salvage end may be made by doubling the warp over a strand of weft at the start. The long fringes, however, are handsome and contribute to the gorgeous effect of one of these braided girdles.

Illustration No. 2 shows three samples of different effects, made at the Bacone Indian College, Bacone, Oklahoma. At (a) is shown a wide piece with several repeats of the chevron figure, done in very fine yarn. At (b) and (c) are pieces showing an interesting variation of technique. To produce these arrowhead figures the weft threads are at times looped around each other in the manner illustrated at (d) on the diagram. This technique permits the development of a variety of figures,—the "lightning" figure, for instance on Illustration No. 4.

The two pieces on Illustration No. 3 and Illustration No. 4 are braided from the same side all the way,—not from a center, like the other pieces shown.

Of importance is the finish of the fringes. They should be braided into cords for their entire length. If left unbraided they would become tangled and frayed, and would not be strong enough to tie. The ordinary three-strand braid can be used, but a handsomer braid is the Indian four-strand braid illustrated at (e) on the diagram and shown in the fringes on Illustration No. 1.

To make the four-strand braid proceed as follows: Hold two strands in one hand and two in the other. Take



FIGURE NO. 2

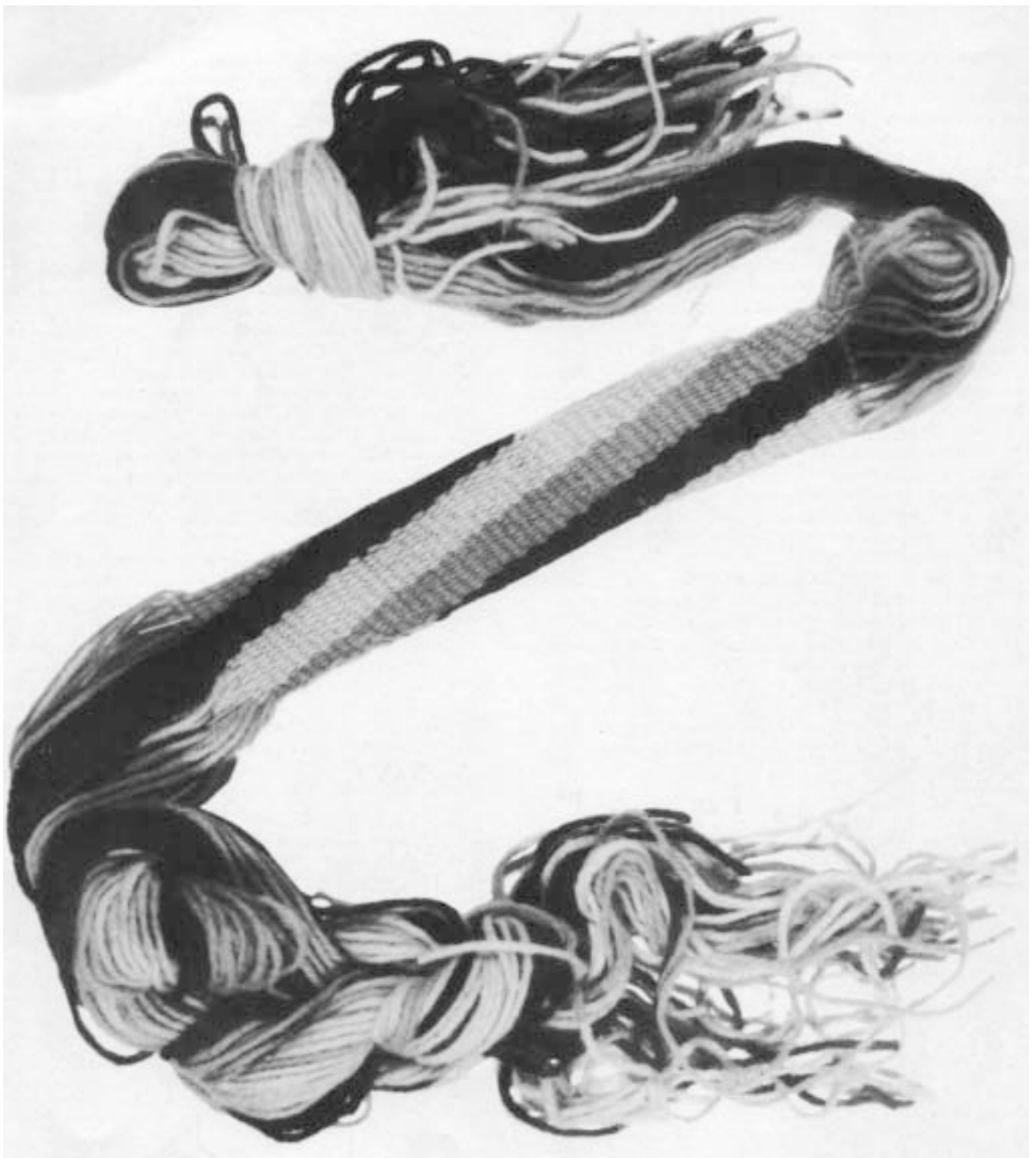


FIGURE No. 3

the upper right hand strand behind the braid and forward between the two left hand strands. Then cross it back to the right. Now take the top left-hand strand behind the braid, between the two right hand strands, and cross it back to the left. Repeat. This goes rapidly when one has the trick. The braid is particularly effective when two strands of one color and two of a different shade are used, — say two black strands and two red ones. Keep the colors together, the two black ones in one hand and the two red ones in the other. They do not change sides as each braider returns to the side from which it started. The effect of the two-color braid is sketched on the diagram.

Sometimes the fringes are twisted together instead of being braided, but unless they are twisted very firmly this finish is not as good as the other.

I do not wish to say that plaiting takes the place of weaving on a loom. Far from it. But it is real weaving; it requires no loom, so that it can be carried about in a knitting bag; it makes no noise, so that it is a pleasant accompaniment to the radio or to conversation; it is amusing to do, and the things made in this fashion are sightly and useful. For these reasons it is worth knowing about, and practising on occasion.

And the Osage braid is only one among hundreds of forms of plaiting, equally interesting and equally useful.

MARY M. ATWATER



FIGURE No. 4

My Four Handwoven Coats

By RUBY V. HARSTINE

It occurred to me, that perhaps, descriptions of my four handwoven coats, might be interesting and helpful to other weavers who might be thinking about patterns, textures, colors, etc., if they are, perchance, planning to weave a fall or winter coat. Each of mine has been a very satisfying weaving experience and may suggest creative possibilities to others. The coats all have very distinctly different textile personalities. Very simple pattern drafts were used but interesting textures were obtained by the choice of yarn combinations, and treadling arrangements. Wearing coats which I weave and tailor myself is beginning to be one of my most fascinating, as



Figure No. 1

well as practical hobbies. I have also woven quite a few unusual coat materials for appreciative friends. Thus, I've discovered that designing successfully an individual, beautiful but likewise practical handwoven coat material is indeed a real artistic challenge. The results of my experiments are as follows:—

COAT NUMBER 1

Reed dent — 30 per inch or 15 dent, two threads to each dent.

Pattern — Rosepath.

Width set up on loom — 34 inches, 30 inches wide when removed from loom and steam shrunk.

Warp — Bernat's cream afghan.

Tabby — Bernat's cream afghan.

Weft — A. Body of material, Bernat's glorine, Beige color #421

B. Border of material, Bernat's Shetland.

1. Poppy orange #1157

2. Light yellow #1206.

3. De Oro #1178

4. Almond green #1175

5. Lavender #1180

6. Black

Color scheme inspired by the hills and poppy fields of California.

Texture notes — firm — close weave — due to fine close warp and small weft floats of Rosepath pattern.

Lining — Pure dye, beige color, silk crepe Cheney brand.

Interlining—Light weight, white canton flannel was used for extra body and warmth.

Tailoring accessories — heavy muslin used to make collar and front lapels hold shape and set better.

When woven — 1928. Berkely, California, on the first four harness loom, made by Flashman's for me.

Additional notes —

This coat has been very satisfactory in every way. It wore well and for several years cleaned beautifully, but gradually the colors seemed to grow dingy. It was tailored very simply, with straight lines — when it was woven dresses were quite short and the coat came to the bottom of my skirts.

About 1932, coat styles changed. They became more fitted and dresses longer. Somewhat sadly, I concluded the coat was too faded and out of style for further enjoyment. An economical side of my nature decided to take out the lining, wash the coat, and perhaps remodel it into a jacket. Imagine my surprise, when soap and water removed oil and grime which had been driven into the yarns by numerous dry-cleanings. After this process, the colors in the material, when compared with original new scraps, were practically unchanged. Washing also restored the yarns until they were again as soft and silky as when new. The lining was likewise washed and put back into the coat. I then decided not to alter the coat, but keep it to use as a three-quarter length garment. In conclusion, "believe it or not", this last spring, 1938, the coat acquired its tenth birthday. Styles were again short. The coat material is still beautiful. Even the original lining, still in use, proves that it pays, in the planning of a clothes budget, to invest in the best textiles obtainable. The coat always calls forth admiration concerning the texture, the colors, and the weaving.

I was proudly amused this spring when I wore my ten year old coat, to have people who had never seen it before, exclaim somewhat thus, "What a lovely new coat!"

Perhaps the fact it was my first handwoven coat causes me to like it better than any I have woven since. Nevertheless, ten years of satisfying service from a coat which I have worn with constant comfort and dependability is indeed a fine record for Bernat's yarns.

Note:—Because I do not have an old yarn color number card, I have used numbers on a new card which compare with the yarn colors chosen for this coat material.

COAT NUMBER 2

Reed — 18 dent, 1 thread to dent.

Pattern — Plain weaving.

Width set up on loom — 34 inches. 30 inches wide when removed etc.

Warp — Bernat's navy blue Fabri.



Figure No. 2

Weft — (a) Bernat's novelty knob yarn mixture of blue wool with grey rayon knots. This gave an interesting rough texture.

(b) Bernat's navy blue Germantown.

The material was planned so that instead of pattern, weaving interest was obtained by using plain weaving in arrangements of contrasting textures. An area of plain blue tabby was woven to be used for a yoke effect and at intervals stripe arrangements of plain blue tabby weaving were used for borders.

Texture notes — The rayon knob weave gave a very nice effect — The material was firm but not as heavy as coat #1 because the weft was not as close and the weaving plain instead of pattern.

Lining — For this coat a gray rayon crepe was used. It wore fairly well, but the coat had to be relined.

Interlining — Light weight unbleached muslin.

Tailoring accessories — Heavy muslin used in collar and lapels and down front of coat.

When woven — 1933. Berkeley, California.

Additional notes — This coat was tailored along fitted lines — hand-knotted fringe of the fabri yarn was designed to finish the ends of the long, half sash belt and the matching beret. It was an interesting, stylish coat when made, but did not give the long practical service that coat number 1 gave.

R. V. HARSTINE

WEAVING DRAFTS USED FOR COATS

By Ruby V. Harstine

#1—*Rosepath*

Thread heddles — 1-4-3-2-1-2-3-4.

Repeat as often as needed for width. Work out patterns as desired with treadling combinations.

#2—*Plain weave*

Use tabby treadling of Rosepath or (2 & 3) (3 & 4) of any pattern weave.

#3—*Mrs. Flashman's Original Draft*

Thread heddles 1-2-1-2-3-2-1-2-1-4-3-2-1-2-3-4.

Repeat as often as needed for width. (work out patterns as desired.)

#4—*Broken Diamond Twill*

Thread heddles — 2-1-4-3-1-2-3-4.

Repeat as often as needed for width.

(No tabby) Treadle thus:—(3 & 4) (1 & 4) (1 & 2) (2 & 3) (1 & 4) (3 & 4) (2 & 3) (1 & 2). Then repeat.

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FIGURE No. 3

COAT NUMBER 3

Reed — 18 dent. 2 threads per dent.
 Pattern — Original draft composed by Mrs. Flashman—
 (see draft enclosed)
 Width set on loom — 30 inches. 28 inches when removed
 from loom, steamed and shrunk.
 Warp — Bernat's dark seal brown afghan.
 Weft — Seal brown Germantown #1256.
 Tabby — Lighter shade of brown Shetland #1190.
 Texture notes — This gave a very heavy firm material
 due to close fine warp and heavy weft and tabby.
 Lining — Again — Cheney's seal-brown pure dye silk
 crepe was selected.
 Interlining — Wool coat interlining.
 Tailoring accessories — Light weight tailor's canvas and
 padding for collar.
 When woven — 1934. Kansas City Missouri. To be used
 for a heavy winter coat.

Additional notes — This coat was designed to wear in
 zero weather. A solid dark color which would not show
 smoke and winter soil was desired. However, the several
 shades and weights of brown yarn which were used gave
 a lovely texture and a subtle vibration of dominant color
 tones. Variations of pattern treading were used to weave
 a wide border for the bottom of the coat. The coat was
 quite distinctive when finished. It was tailored in semi-
 fitting English lines, with a brown mink fur collar. For the
 past three winters it has been a warm durable companion,
 outstanding in coat character, as I wore it almost daily
 to my work. The "Kansas City Star" photographed it
 and gave it a feature story in the Sunday edition.

In conclusion, I must not forget the little beret made
 from the scraps which completed the ensemble, and kept
 my ears cozy.

COAT NUMBER 4 R. V. HARSTINE

Reed — 18 dent. 1 thread per dent.
 Pattern — Broken diamond and twill. (see draft en-



FIGURE No. 4

closed) threaded thus:—1, 2, 3, 4, — 2, 1, 4, 3.
 Width set up on loom — 30 inches. 27 inches when taken
 from loom and steamed.

Warp — Three shades of Bernat's Fabri.
 grey blue #854
 green blue #856
 gray green #807

Weft — Green grey Shetland dyed to order.
 No tabby used.

Treading used — (3 & 4) (1 & 4) (1 & 2) (2 & 3) (1 & 4)
 (3 & 4) (2 & 3) (1 & 2) In weaving repeat for the
 entire length of material.

Texture notes — This was an interesting all over pattern
 material, firm — yet light in weight.

Lining — To find a harmonizing lining was indeed a
 problem. After a great deal of shopping a seven-
 yard remnant of blue-green Cheney, silk crepe was
 found. The entire piece was bought so that later
 material which I intend to weave for a matching
 suit, to make an ensemble for fall, can be lined with
 the same silk.

Interlining — Thin white outing flannel.

When woven — Spring 1938. Kansas City, Missouri.
 Additional notes — A longing for the Pacific Ocean,
 which I have greatly missed, the past five years during
 residence in Kansas City, caused me to design this color
 harmony. The green and blue tones for warp were sug-
 gestive of the colors of the ocean waves. They were set
 up in the loom in the following order — grey blue, green
 grey, blue green, repeated again and again the entire
 width of the material.

Fogs coming across the blue green ocean suggested the
 color chosen for the weft. The completed material —
 woven in the broken all over texture pattern resembles
 as nearly as a texture can resemble the ocean covered
 partially with fog clouds. It is an unusual material and
 tailored up into a simple, attractive coat. No border or
 trimming was used except hand finished tailoring stitch-
 ery details on the shoulder darts, lapels and patch pockets.
 The blue-green Cheney lining adds a lovely color note to
 the inside of the coat.

Enough of the warp was set up on the loom to weave
 a jacket and skirt to go with this top coat for a fall en-
 semble. Instead of the grey green Shetland warp, how-
 ever, I plan to use a dark blue green warp. This will
 make a nice contrasting material.

This coat, like my others, has been greatly admired
 wherever I have worn it — but as yet it is a very young,
 woven creation as compared to the first hand-woven coat
 —which I have fondly described in the first of these
 articles. The two coats hang side by side in my closet,
 and I must confess I'm still quite partial to my old one.

R. V. HARSTINE

Summer Bags

By GLADYS R. KALER



Every woman desires a Summer bag — especially a washable one — to go with light dresses or suits.

One of my best selling bags, proved to be one made from the very humble Candlewicking the mountaineers used for their Tufted Bedspreads.

When I first used the Candlewicking “Bernat” did not carry it, but now they have it in a variety of colors — in larger skeins and of a better quality.

I tried sleying at 15 — 24 — 30 threads to the inch. Egyptian 24/3 and even coarser warp was used for 15 to the inch for larger knitting bags.

Egyptian 24/3 and cotton 20/2 was used sleyed at 24

and 30 to the inch, depending somewhat upon the draft and weft materials used.

In spite of the much used and overdone Honeysuckle pattern, that Draft certainly has a great deal to say for its variety of arrangement of design, and works out very satisfactorily.

These bags do not have to be lined as there is considerable body to the material when woven. Also they are washable, which appeals to buyers of Summer bags.

I think one of the favorite bags, was the one illustrated.

I trust other weavers will experiment and see what they can conceive for style, and attractiveness. Also do try other materials.

Peasant Lunch Sets of Linen Floss

By GLADYS R. KALER

Other weavers who have not already done so, may be interested in experimenting with “Bernat’s Linen Floss”, which comes in a variety of colors in 2 oz. tubes.

The following has been so successful, both as to attractiveness and salability, that I would like to have other Weavers have the fun I have had.

Sleying the material at one thread to a dent, in a 12 dent reed, was quite satisfactory, so I have not tried any other sleying. Others may like a coarser or finer sleying, but I would not advise coarser than 10 or finer than 15, to the inch.

As Bernat carries a very nice Tan, I used it for the Field, and combined it with borders made of Brown, Orange and two shades of Green. This combination was done to harmonize with the present vogue of various colored pottery ware, in the yellow, orange, rusts, brown

and greens that have been so popular, so I have called this set, the “Peasant Lunch Set.”

In setting up the warp, I ran 5 threads of Tan for the outer edge, then 9 threads of Brown; 3 threads of dark Green; 6 threads of Orange; 2 threads of lighter Green; 4 threads of Tan; 2 threads of Orange; and 1 thread of Brown.

This constitutes the border, reversing it for the other side. The field or center was made of plain Tan.

The field may vary according to width desired for what ever is woven. In my lunch sets the doilies were 12 inches wide and woven the regulation length of 18 inches which included a short fringe, one inch wide, at both ends. The center runners varied from 32” to 36” long.

This set looks particularly well on Maple Tables; and they also iron nicely, and have a nice sheen.

Hand Woven Rugs

by ELSIE H. GUBSER



When I took up weaving as a hobby, everyone said, "Oh, you weave rugs?" I finally determined to show people what a woven rug should be like. I determined to making a living room rug for my daughter's new house. Her furniture was walnut with rust covered chair and couch. We decided that the rug must be quiet and dignified. Blue of course. It must be heavy and it must look as if it belonged on the floor. It must truly be a foundation for the furniture. At last after several weeks of study, I ordered wool warp from Tinkler and Company and Rug Wool #483 from Bernat's. The warp and weft were nearly the same color. The warp was a fraction of a tone darker, just enough to show when looking at the rug from an angle.

The pattern was "Drifting Shadows", to be found in several back numbers of the Weaver and also in Mrs. Atwater's Recipe Book, Series No. III, No. 9. I used treading "e" as given in the Recipe Book. The rug was made in three strips each forty-two inches wide and each strip twenty-one feet long. I had a fringe on each end of the rug.

Of course I began each strip and ended it on the same treading so that when sewed together the seam would not show. I was sure that there was enough warp on the beam for it seems that the rug "took up" about four inches a yard. I found also that I used a little over a pound and a half yard of weft.

For tabby I used the same wool warp. But I cannot say how much material I had for I ordered thirty pounds and I still have quite a bit and have woven the one large rug and two smaller ones.

In making a rug one must beat for all one is worth, for a sun parlor, that needed a little more light, but I use a vacuum cleaner on it and after two years it still shows no sign of wear.

I also made a small rug for a dark sun parlor, using the same pattern and treading and warp but for weft I used Bernat's rug wool #453. This was really lovely for a sun parlor, that needed a little more light, but I doubt if it would have looked well anywhere else. One must be very careful of the use of color on the floor.

Another lovely small rug can be made of Rosengang threading, using either very heavy linen or Perle No. 3 about 7 or 8 dents to the inch, and Bernat's rug wool for weft. The warp is completely covered and no tabby is used. Many colors can be used together and if carefully chosen the effect is interesting. This makes a heavy rug which will not slip and slide about as most handwoven rugs do.

The one lovely thing about the large rug that I made is the restfulness of the shadows that drift across the floor.



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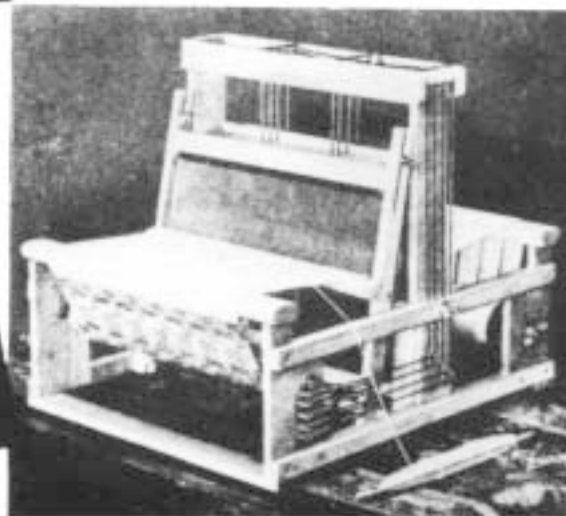
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