

SUPPLEMENT TO THE *handicrafter*

Historical Background of Double Woven Cloth

BY NELLIE SARGENT JOHNSON

DOUBLE woven cloth, or fabric which consists of two distinct webs woven at the same time, joined together wherever the weaver chooses to alternate the colors of the cloth is a most interesting technique. That it is an extremely ancient form of weaving is evidenced by the fact that many of the old Peruvian fabrics show this same type of cloth. They are woven of dark brown and natural cotton, and were probably woven on a very simple belt loom with the use of shed sticks to form the pattern sheds. A typical Peruvian design, a bird figure with a fish in his mouth, taken from an actual fabric at the Detroit Institute of Arts, is shown in Illustration No. 1. This little pattern was used as a repeat design all over the fabric. These patterns are all very simple, and include geometric figures which represent fish, birds, the puma or cat, and figures of men as well as gods. Illustration

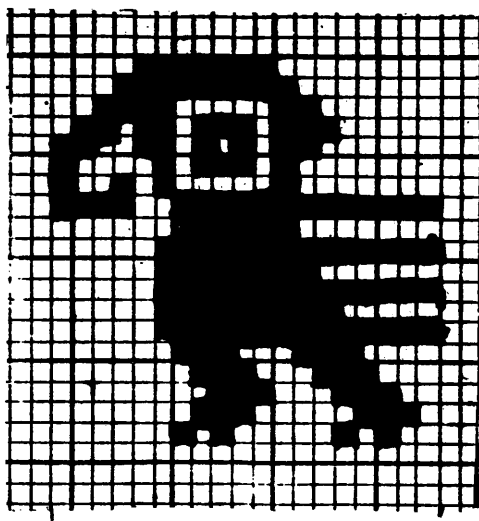


Illustration No. 1

No. 2 shows an interesting fish motive. The piece was woven of white silk and Bernat's kashmir wool in blue. The design was adapted to cross section paper from some of those given in a leaflet on Peruvian Art by Charles A. Mead, published by the American Museum of Natural History. This is from leaflet No. 46, and may be obtained from the Museum by anyone wishing a copy. Illustration No. 3 shows another bird design adapted to cross section paper from this same leaflet. Another interesting book showing many of these typical designs, in color plates, is "Ancient Peruvian Textiles," by R. and M. D'Harcourt.

The double weave is also found in silks of the 11th century attributed to Byzantium, as well as in silks of the 12th, 13th, and 14th centuries from Sicily, Italy and Persia. The small design at the bottom of Illustration No. 2 shows a very simple Italian pattern. The Persians of the 16th and 17th centuries were expert weavers of this technique. And there is a piece of Persian fabric, illustrating the story of

Mechoun and Leila, at Cooper Union in New York. And it is also shown by Errera in Catalogue d'Etoffes, No. 264. Great variety of color and intricacy of design is shown in the Persian silks of this very primitive weave.

This same type of double woven fabric was woven in Sweden at a very early date also, and several large rugs or wall hangings have been preserved from Bohuslan, northern Halland, Harjedalen, and Jamtland. In the churches of the last two named provinces are remains of wall hangings and borders. A large wall hanging from the church in Grodinge, in Sodermanland, is now in the Statens Historiska Museum at Stockholm. An illustration of this piece is given in Maria Collin's book, "Flamskvav och Finnkvav," and also two other pieces, as well as an enlarged detail of the weave. It was very interesting to note that in this book which

gives a description of the method of weaving this technique, just enough of the detail was omitted so that it was quite impossible to follow the directions given, even if you could get an adequate translation of the text. She names this method "Finnkvav." While "Svenska Statens Samlingar av Vavda Tapeter" by J. Bottiger states that "homespun, tow cloth and plain web, ryevev and ryssväv" were commonly woven on the royal estates during the first half of the 16th century. This author believes that the ryssväv, which is always in two or three colors, is the same as the double weave. In Bohuslan, it is in our times called "finskeväv" or Finnish weaving.

An old weaving book by J. E. Ekenmark written in 1820 gives instructions for a "pattern heddled" kind of double weaving, probably taken from English sources. These were used mainly for wall coverings, better class carpets, and English quiltings or "sticktyger." This summer while in Wisconsin, I saw a piece of very interesting Carpet in sev-



Illustration No. 2

eral colors woven after this method. Illustration No. 4 is an old blue and white coverlet dated 1830 in one corner, which belongs to one of my friends here in Detroit. It was woven in two strips 36" wide and seamed through the center. The pattern was very lovely. The fine detail was beautifully worked out and the whole coverlet was exceptionally well proportioned. We have been accustomed to think of this particular type of coverlet as having been woven on a "Jacquard" loom. And those coverlets which do *not* show any seam through the center, and woven at a later date probably were woven on the "Jacquard" loom. Illustration No. 6 is an interesting old piece which I purchased in Palmyra, N. Y. One warp is of alternate red and blue homespun wool, and the other is natural cotton threaded double. It is dated 1870, and because of the very many mistakes in the design and other irregularities, I am very sure it was woven on a four harness loom of the simplest type. It is of much coarser weave than the coverlet shown in Illustration No. 4, and was very likely woven by a home weaver rather than one of the old professional

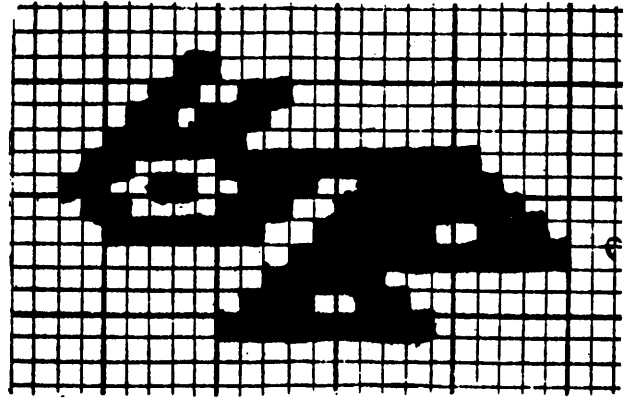


Illustration No. 3

weavers of the Colonial times. Illustration No. 7 is a typical blue and white "Jacquard" coverlet which I also purchased at Palmyra for purposes of comparison with the other type woven on the simple loom. It has a most complicated design of cocks, quails or pheasants, grapes, etc. with what I think is the "Boston town" border, and has no seam but is woven full width. Close examination of these two pieces shows the very obvious *machine-made* quality of the one in Illustration No. 7.

Illustration No. 5 is a piece of all silk double woven fabric designed and woven by the author. One warp is



Illustration No. 4

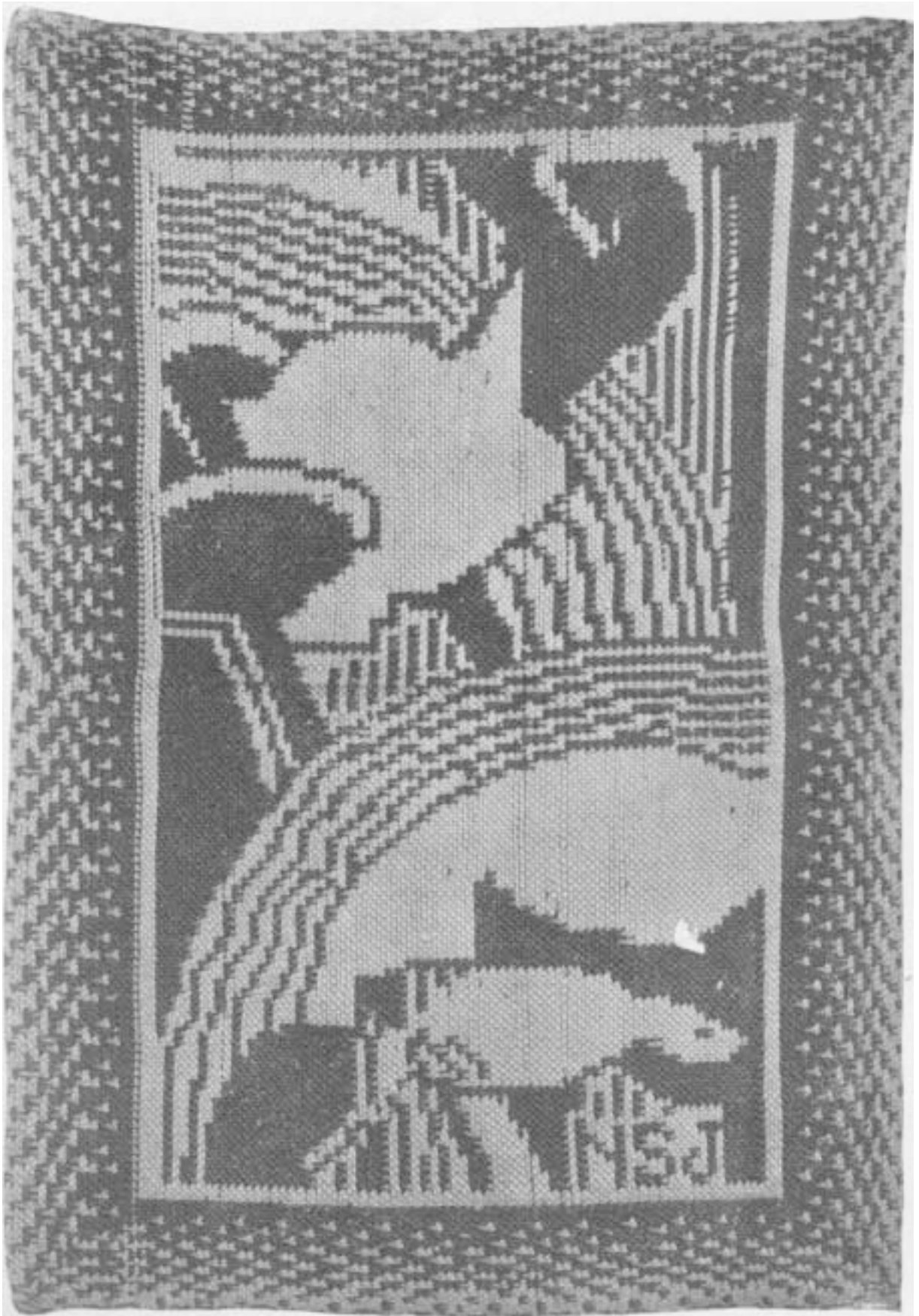


Illustration No. 5

gold silk and the other one thread of blue silk and one of green alternately. Because of the fact that the gold color does not photograph very well, this may not be very clear. But it will serve to show the possibilities for the design of contemporary fabrics, and was an experimental piece to try out the different effect of lines and shading in this technique.

Now a few words as to the type of patterns which are suited for this weave. Any design which can be drawn out on cross section paper can be woven, and it may be as simple or as complicated as you wish to make it. Vertical lines, horizontal lines, and diagonal lines are the easiest to weave. And the possibilities of these simple lines are shown in Illustration No. 8. Curves and circles are more difficult and should be very carefully planned. The finer the warp and the closer it is set in the reed, the easier it is to approach a real curve in the finished weaving. Illustration

No. 9 is an enlarged detail of the border of the woven piece shown in Illustration No. 5, and also shows how to shade areas from dark to light value. This offers a large field of possibility for the person who likes to design, to do some very unusual interesting fabrics. Personally, I feel that this technique should be used for decorative wall hangings using very free designs which show no repeat or all over pattern. Let us get away from the monotonous repeat patterns which the mechanics of the loom control, and do things in this method which are distinctive, individual, and expressive of our own day and age. And to those of you who wish to develop this kind of weaving, this double weaving technique offers a wonderful opportunity. It is very easy to copy some of the Swedish designs in this technique from Maria Collin's book "Flamskvav och Finnvas," or to take some of the Peruvian designs from the book mentioned above. Or to copy some design

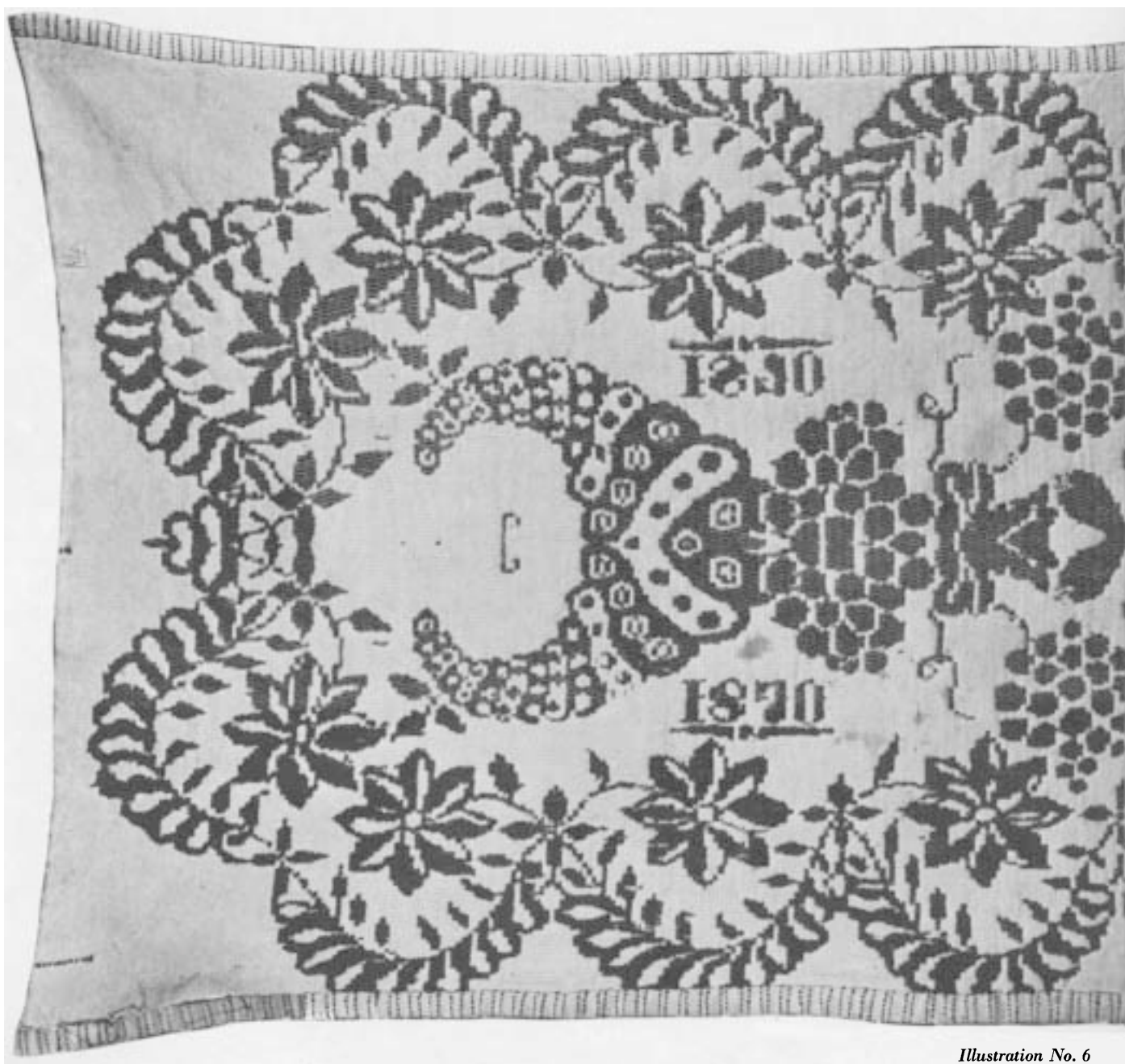


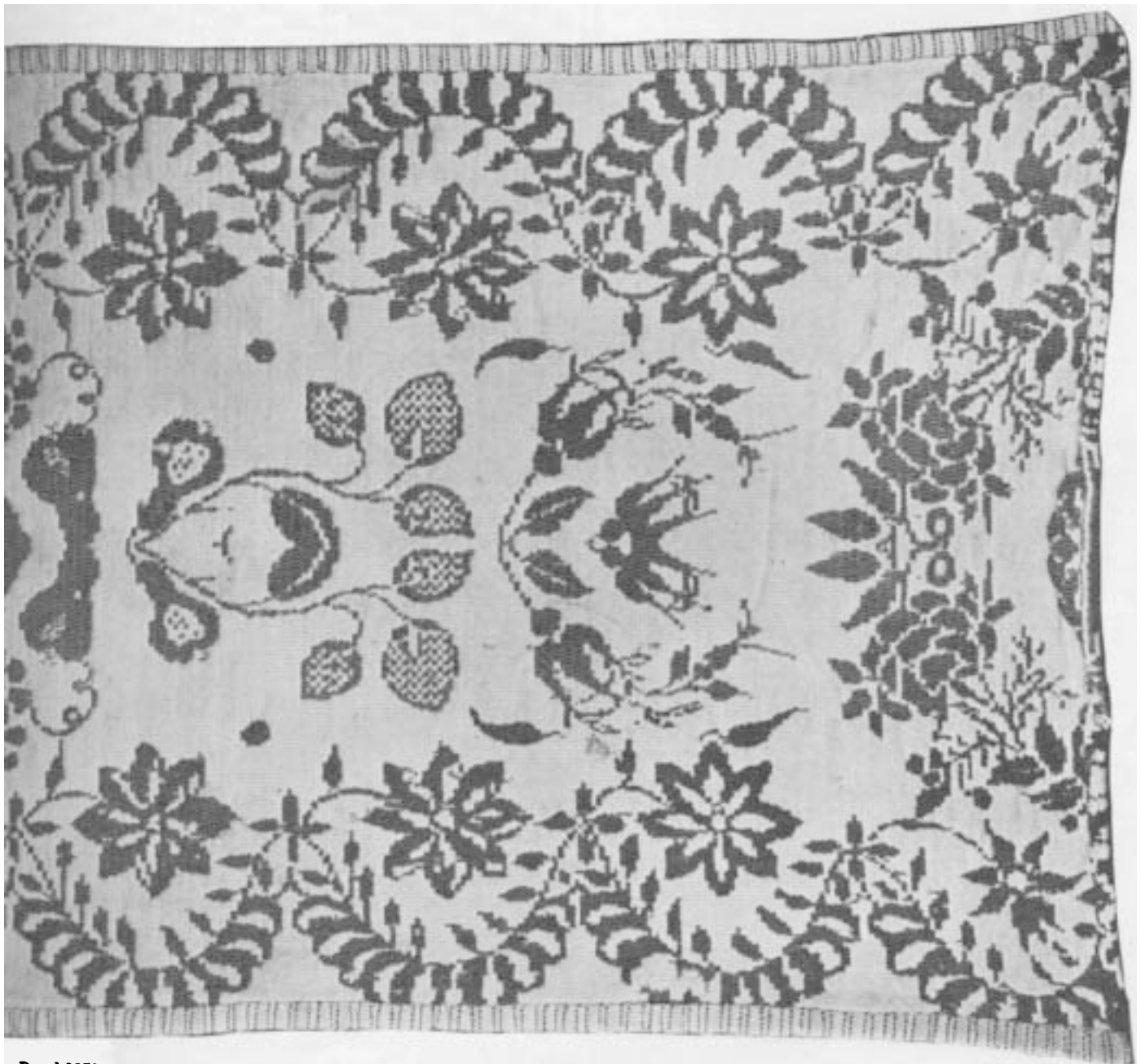
Illustration No. 6

from an old Colonial coverlet. But these patterns, at best, are not more than copies, and can in no way be an expression of our own time and country. We belong to a machine age and speed, expressed by radio, telephone, automobile, and airplanes, and it is quite possible to interpret these as symbols of our own living in our weaving through this double weaving technique.

To design your own patterns for this weave, draw as you would for any clean cut sketch. Transfer this to cross section paper, and then follow the outlines on the cross section paper with blocks as near the original outlines as possible. The finer the cross section paper to which you have transferred your original design, the nearer you can approach correctly the lines of your original design. Also it is easier to follow your original design, if you plan to make it correspond as nearly as possible to the size of the cross section paper you are using to expand it on, and also

keep in mind the width of your finished weaving, if you are working in definite dimensions. Plan to have two dark warp threads and two light threads to represent one block of your cross section paper. Thus if you have 150 blocks on your cross section paper, you will need to make a warp of 300 threads of dark color and 300 threads of light color for this weaving. If you transfer your original sketch to cross section paper which has 10 blocks to the inch, which is a size easy to follow in your weaving, your original sketch will need to be 15 inches wide, for the 150 blocks of pattern or 300 threads of each warp.

For further details of the exact method of weaving this technique on a four harness loom, I will refer you to my "Lesson on How to Weave a Double Fabric in Pattern on a Four Harness Loom," which may be purchased through the "Handicrafter." This was first announced in January 1934, and published in March 1934. And I am very happy



Dated 1870

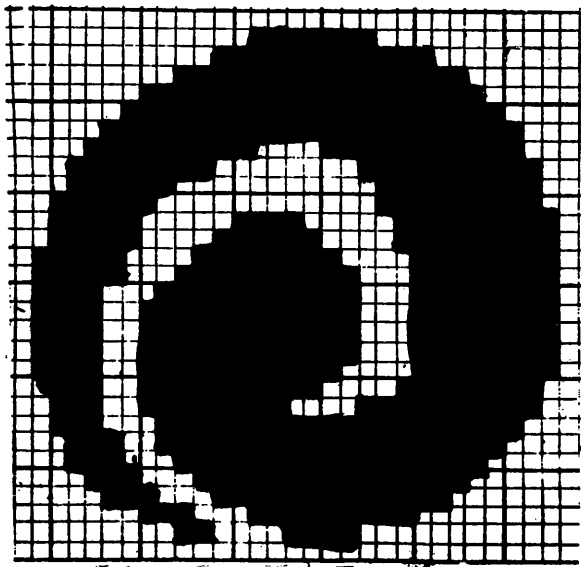
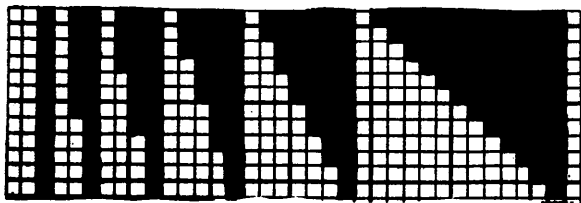


Illustration No. 8

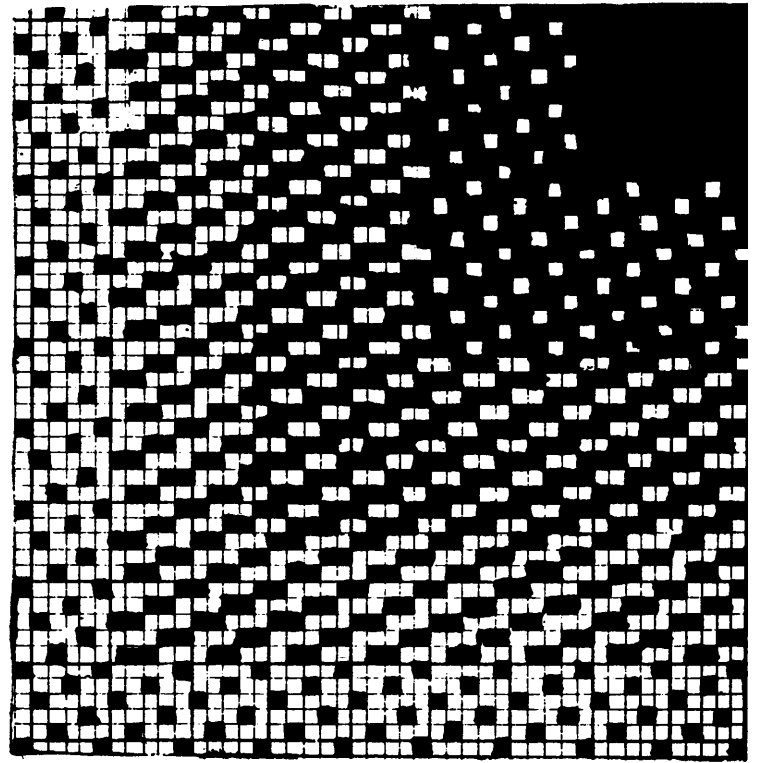


Illustration No. 9

to have been able to work out this ancient technique, so that modern weavers can use and enjoy it. I wish to acknowledge the kind help and inspiration of Miss Helen Allen, an expert weaver and thorough student of textiles, who made the working out of this technique possible. For in a very extensive research, we could find no source where this knowledge was obtainable. Several Swedish books contained vague directions which even a good translation could not make at all clear. And it was only after a good deal of thought and effort that the details of this simple

weave were finally worked out. It is not complicated, and is easy to do though somewhat slower than regular four harness weaving. If you are doing unusual, distinctive weaving, this technique will have a particular appeal. To those of you who are interested, I might also add that I am sending out each month, "Handweaving News" which is a monthly letter on handweaving; subscription price for this is \$3.00 a year, and may be obtained directly from me at 12489 Mendota Ave., Detroit, Mich., or through the "Handicrafter."



Illustration No. 7

Chain or Crochet Weaving

BY JOSEPHINE WEAL RYAN

IN BEGINNING this article, I feel as if I should offer, if not an apology, at least a short explanation to the experienced Handicraft weaver, as it marks such a departure from the recognized forms of weaving. I know some will insist that it is crochet work, others that it is some form of embroidery, but they will be mistaken. Chain weaving is unquestionably a form of hand weaving. Chained warp and weft threads are substituted for unchained threads to give pliability to the woven fabric and to allow a satisfactory material to be woven with a minimum number of warp threads to the inch. The embroidery stitches used serve the practical purpose of rendering the material more durable, but through the possibility of extra color variation, they can also enrich the result.

To the inexperienced weaver, I hope this simple form of weaving will prove a great pleasure and lead many who have never known the joy which can be obtained through interweaving threads into a useful as well as a beautiful fabric, to a knowledge of the happiness and self expression which a knowledge of hand weaving offers to all who succumb to its spell.

In order not to frighten the beginner, models have been chosen which require no knowledge of weaving, yet can be varied infinitely and which can be made into many practical articles. No model requires more than 5 warp chains to the inch and one requires only 2 chains to the inch. A narrow frame or loom can be used and the strips sewed together with wool, or one of sufficient width to make the material for the article in one piece can be used. The result is satisfactory in either case.

The equipment required consists of a bone crochet hook—I used a No. 8 for the models described; a strip of stiff cardboard, punched with the correct number of holes to the inch (the holes can be made either with a ticket puncher or nail) the cardboard need be only 2 inches wide, but must be the length required for the entire number of warp chains; one smooth stick, about 1½ inches wide, rounded at one end and as long as the width of the loom; a strong frame or a simple loom consisting of two rollers, only; some embroidery needles, both blunt and sharp pointed, suitable for wool and several cardboard or wooden shuttles, to wind weft on.

With this simple equipment it is surprising how easily and quickly attractive results can be woven, combining the advantage of crochet and weaving. If desired the work can easily be shaped in weaving, which eliminates wool wastage. It will not unravel but the ends must be unchained and fastened by darning in with a needle. If the finished material should be too short or narrow, additional strips can be woven separately and joined without being noticed. The neck and armholes for a sweater can be shaped as follows. A chain is run through the work to outline the required shape. Then the woven material is cut to this shape ½ inch beyond, and the unravelled chains darned in under the outlining chain.

To do chain weaving, proceed as follows:

For those who are beginners it is only necessary to state that weaving in its simplest form is darning. Threads must be taut to darn in comfort, for which reason, in weaving, a frame or loom is used.

With a crochet hook, crochet the required number of chains to make the warp (the threads which are stretched on the frame) through which the others will be worked. Cut them the proper length for the article to be woven, adding onto this length enough extra length to allow the chain warp to be fastened onto the loom or frame. Bear in mind that one can not weave every inch of warp chain placed on the loom and that the finished material will shrink, when steam pressed, when finished. Allow at least 18 inches for wastage. On a frame, the chains (after each one is passed through a hole in the punched cardboard, taking care that they do not cross) are tied together underneath it. Try to have the chains at an even tension.

On a loom, the chains are first fastened to the back roller, passed through the holes in the cardboard, one by one. Then they are rolled onto the back roller until only enough length is left to fasten the ends to the front roller. Fasten the ends to the front roller, taking care that each warp chain is opposite the correct hole in the cardboard. Both rollers must be equipped with some means of keeping the rollers from revolving during the weaving.

It is advisable to have all warp chains at an even tension, although this is not as vital as in other weaving.

You are now ready to begin weaving.

The scarf, with the shaped ends, which the little girl is showing to my oldest daughter in Illustration No. 1 is easily made. If the shaped ends seem too difficult, begin to weave the entire width of the scarf at once. The scarf should be 6 inches wide and 36 inches long, finished.

For warp: Use either Bernat Heather Yarn, 2 threads wound together and chained with a No. 8 crochet hook, or some very soft wool such as is used for baby garments. Bernat Glow Crinkle yarn, single thread, chained, can also be used if preferred.

Chain 36 chains, each 58 inches long. This allows for 18 inch wastage. 18 chains should be of Chamois, 18 of Mayan Pink Heather yarn. Thread 2 Mayan Pink and 2 Chamois through holes in cardboard, until all are threaded. Use cardboard, punched 5 holes to the inch.

Note: The chain for both warp and weft should be done with a crochet hook of sufficient size so that the wool remains fluffy, unstretched, is smooth, without large holes. It does not, however, have to be crocheted very evenly.

I find it prettier not to crochet too perfectly. If the crocheted chain is too tight, the result is stiff; when too loose, flimsy. A little practice will soon show how to get the best results. It may be necessary to use a larger crochet hook if one crochets very tightly. Do not roll the crocheted chain into tight balls.

For weft, the threads which are darned over and under,



Illustration No. 1. Articles of chain weaving made by Mrs. Ryan

use same yarn, chained as for warp. Chain one long chain of each color and wind on separate shuttles. Also thread 2 embroidery needles, one with each color.

To weave: This scarf has shaped ends, so at first only 4 warp chains are woven. The others are left unwoven until the finished work is taken off the loom. Then the unwoven chain ends are ravelled and darned in to give the woven shape.

To begin, take the smooth stick and darn over and under 4 center warp chains. Turn on end. Through this opening, pass the shuttle with Chamois colored yarn on it. Remove stick. Fasten end of weft chain at beginning, by darning. Before weaving second row of chain, take the sharp pointed embroidery needle with Chamois yarn threaded through it and, after fastening it at beginning, run it lightly through the first row of weft chain. Take care that all the warp chains are caught in place by it as it runs through. This will keep the warp and weft in place no matter how far apart they are.

Note: The cardboard is for the purpose of keeping the warp threads evenly spaced and should be kept near the work as it progresses. Next pass the smooth stick through the alternate set of warp chains, using 6 in all this time. Put weft through as for first row. Cut a gauge $\frac{1}{4}$ inch wide and using this as a guide, place the second row $\frac{1}{4}$ inch above the first row and hold it in place by running the extra thread through as before. Do not pull either the weft chain or extra thread too tightly into place and try to keep the work the same width.

Now continue weaving, increasing each row by two warp chains, until all the warp chains are to be woven. This completes the border, which is, of course, repeated at other end of scarf. Finish off both the Chamois weft chain and

the Chamois extra thread. Replace it with Mayan pink chain and thread or continue to use the Chamois thread instead, for color contrast. The effect of this type of weaving is very pretty. It is easily made into sweaters, baby blankets, berets and even curtains.

The scarf which my oldest daughter is wearing in the same illustration is even more easily made, but is much heavier and is only suitable for winter use. It is effective done with a variegated warp chain or in solid colors.

SCARF B: 6 inches wide, 36 inches long

For Warp: Chain 36 chains 58 inches long. Use Bernat's Spanish Stocking Worsted, single thread only for chain. Same size crochet hook.

For weft: Use a chain of Spanish Stocking Worsted or Lady Helen Worsted. The scarf was woven with a deep border of one color and the center of another color.

To weave: Instead of darning over one and under one as in the first model, the alternate rows were woven as follows:

Row 1: Darn over one and under one warp chain from edge to edge.

Row 2: Darn under one, (a) over two, under two, repeat from (a) to end of row. Alternate these two rows.

No extra thread is used to catch the weft chain in this model. Each row is placed above the preceding close enough so that the fabric is "squared" 5 warp and weft chains to the inch. Do not beat closer. The steam pressing after finishing will lock the threads.

The child's bed jacket, which is shown in Illustration No. 2, illustrates three other possible variations in the use of Chain Weaving. The sleeveless jacket was made in three separate strips and then sewed together. The armholes and neck were shaped after weaving, according to the directions already given. A straight piece of material, wide enough for the back of the jacket and long enough for both front and back was woven. After sufficient length for the back had been woven in one strip, the warp chains were divided in half and woven into two separate strips for the front of jacket. The sleeve bands and the band edging the



Illustration No. 2. Child's Bed Jacket

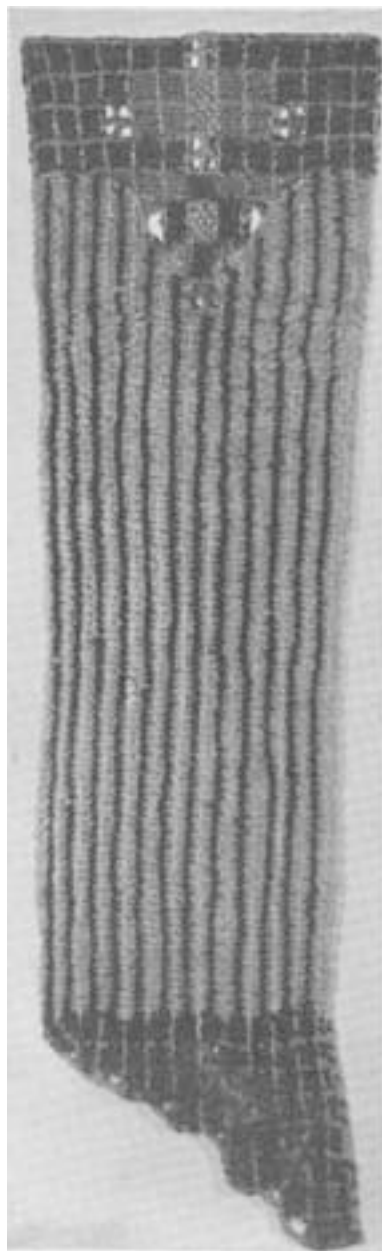
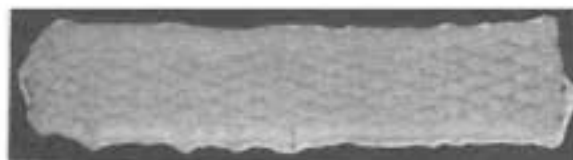


Illustration No. 3 (left). Filled Crochet Weaving

Illustration No. 4 (right). Chamois and Mayan Pink Scarf

Illustrations No. 5 and 6 (above and below). Samples showing use of different Wools and Weaves as described in model scarf No. 2 or B



neck and front were woven separately and joined to the jacket after the material was taken off loom.

Owing to lack of space, it will be impossible to describe the variations used for the border or body of the jacket. A very pretty effect, however, can be obtained by weaving the material for the jacket in the same method as was used in the Chamois and Mayan pink scarf. The bands which trim the jacket are very easily made, and are very effective, I think.

Directions for Bands: For warp and weft chains, use chains made of one thread of Bernat's Spanish Worsted, chained lightly with No. 8 hook. Punch a cardboard so that 3 chains, placed at equal distances, will measure 2 inches. Thread correct length 3 warp chains through the holes, one to each hole. After warp chains are fastened in place as usual, take a weft chain with one end threaded through a blunt, long eyed needle. Fasten other end to right edge of right warp chain. Next run the weft chain straight across the warp chains, passing through a loop in each chain. Do not pull tightly and use a gauge 2 inches

wide to keep the band correct width. A $\frac{3}{4}$ inch gauge must also be cut. This is used for the design.

Now place the $\frac{3}{4}$ inch gauge on center warp chain above the straight row of chain which had been woven, and slip the weft chain through the warp chain at center $\frac{3}{4}$ inches above first row. Bring weft chain back to right warp chain at beginning of first row, and slip weft chain through at this point. Measure $\frac{3}{4}$ inches up on right warp chain and slip weft chain through again. This forms a loop on outside, then weft chain is carried down to center warp chain at center of first row and slipped through warp chain at this point. Bring weft chain next through left edge warp chain $\frac{3}{4}$ inch above first row. Then run weft chain through the warp chain from left to right, to form a straight line. This completes one unit of the pattern. Now beginning at right, measure $\frac{3}{4}$ inches along center warp chain and weave design as before. Working according to this process will cause the outside loop to come alternately at each edge. Do not pull chain tightly at any time. A sufficient number of repeats and bands would make a pretty sweater.

The Design of Hooked Rugs

I—PRIMITIVES

BY W. W. KENT

IF ONE wishes to learn how far the hooked rug has influenced the designing of both rugs and carpets in America, it is only necessary to talk with some of our most progressive manufacturers, the trend today being *very distinctly toward hooked rug motives* in both composition and color. Examination of the detail of the latest carpets shows surprisingly often that floral forms and geometrical composition and coloring are closely following not only the highest types of European and American hooking but also that the *primitive* conceptions of obscure farm and village workers are now coming into their own as never before.

Let us hope that the bizarre designs, the purely "crazy quilt" patterns, will not be done to excess. There are, to be sure, strange and queer compositions among them akin to modern or futurist handling, which are not only interesting, but of great merit and valuable as showing the way to a new development of the craft, while others are so bad as to excite the derision of both the lay public and even of broad minded designers and critics. Not that public taste is usually correct, for it is often led astray by novelties or

impressions made by flashiness and mere queerness, but in the long run we must consider both our public and the decisions of those designers who have justly been ranked high.

Bad designs are now so frequently before us in sales-rooms and the numerous private collections of eager amateurs that it is not necessary to give examples of them in illustrating this writing, but I hope in showing a few purely primitive plates of the better sort that it can be proved that we are indebted sometimes to unknown farm and village workers for ideas which have in them the germ of very high accomplishment, of very good and sometimes superlative rug and carpet design. See plates No. 1, 2, 3, 4, 5, 6.

Why this is so, why we can often, from a mere even crude handling of an original design, later work upward from it to a high plane, must be because the original obscure workers, even though ignorant, unlettered and untaught, felt a breath, perhaps a little temporary breeze, of inspiration from his or her surroundings or conditions of life. It may have, indeed frequently did,

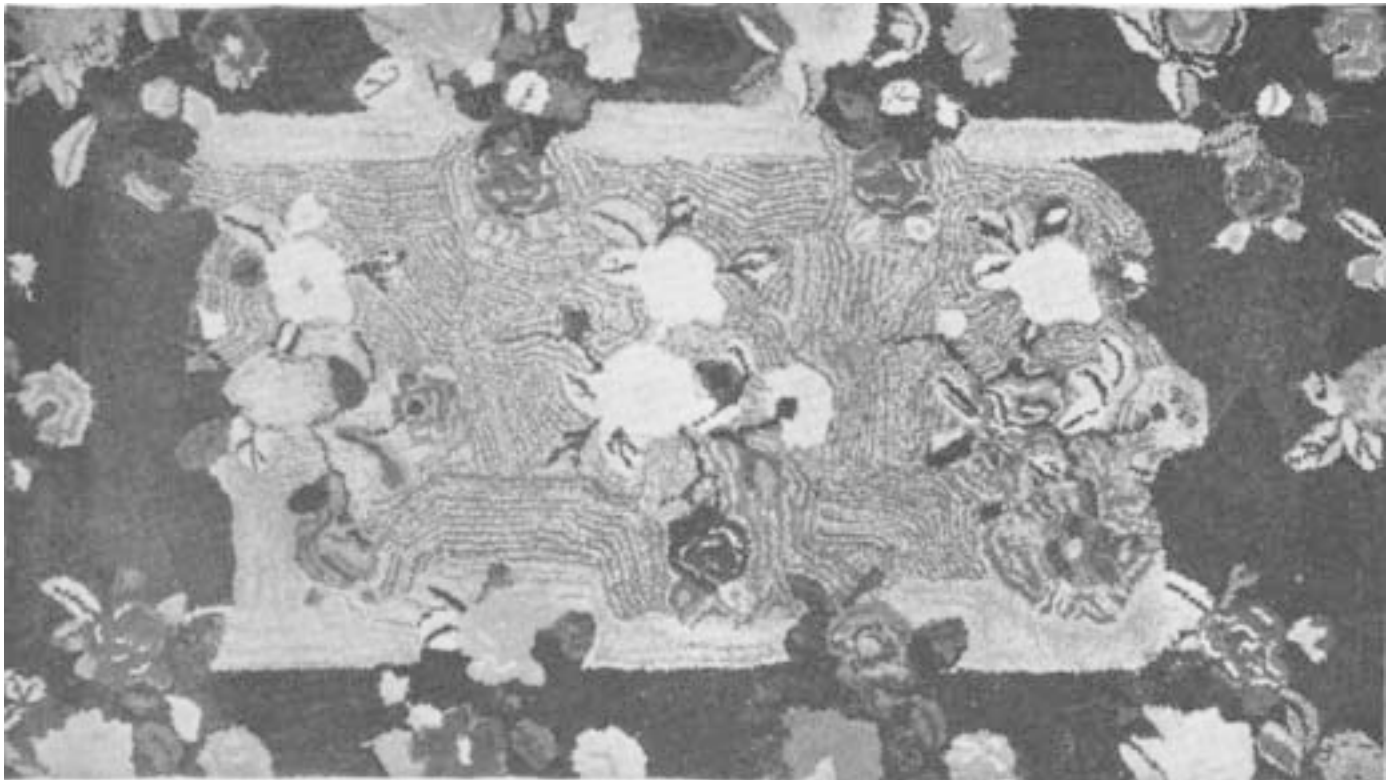


Plate I



Plate No. 2. Early American Hooked Rug. A naïve but perfectly balanced composition in color as well as in design. The design outlined in old rose, otherwise a very delicate combination of grays. Size, 3 feet 7 inches x 3 feet 2 inches.

Plate No. 3. Early American Hooked Rug, Farm type. Very effective, though primitive. Collection of Mrs. E. O. Schernikow, New York City.

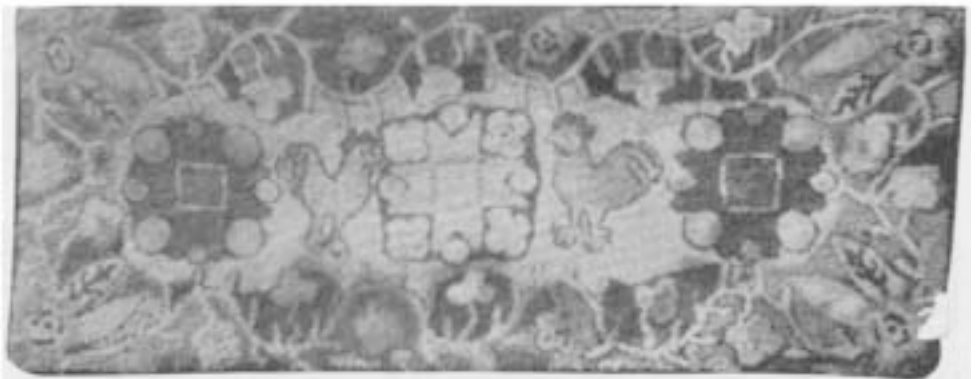
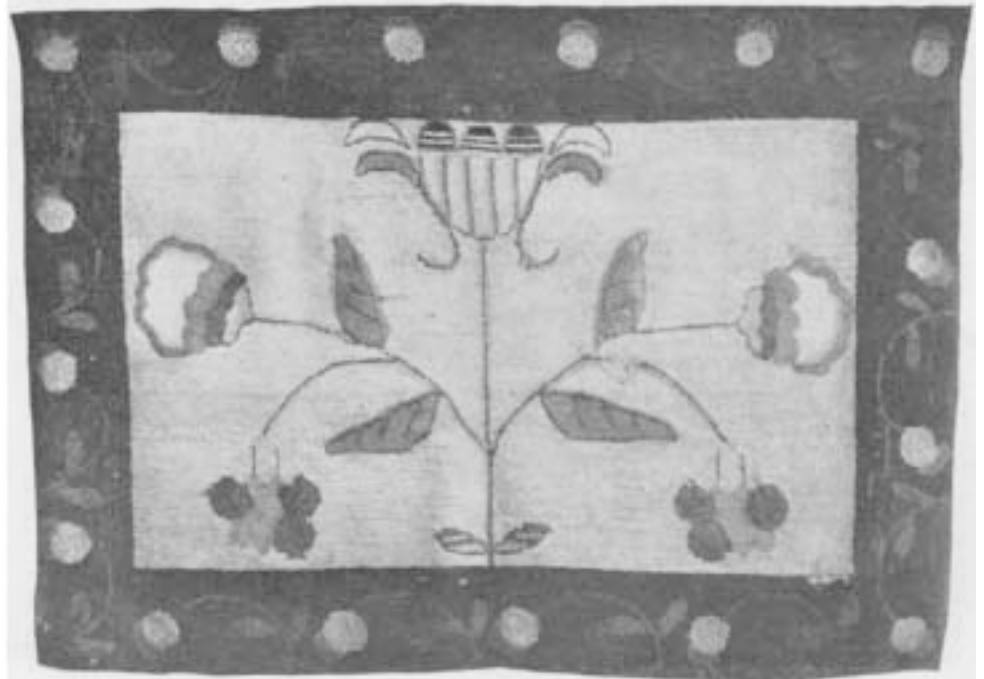


Plate No. 4. Rare Early American Hooked Rug. On heavy homespun linen mesh. Center has ivory field and archaic flowers and fruit with shield above. Gray black border and red and white flower spray. All materials homespun. Collection of Miss Traver — Courtesy of American Art Association and of Arts Magazine of Feb. 1925.



come from an almost desperate wish to escape the banality of house or farm work by some heretofore untried means, to do something which was so engrossing as to steep the mind in an almost Oriental dream of the unusual or romantic. We all, rich and poor, seek the spice of variety in many ways and (perhaps too often) will resort to the stimulant easiest to obtain, but while liquor, coffee and tea, etc. have indeed made us their debtors for brief and productive stimulation, the rug worker often got from the flower garden, the landscape or his own dwelling, something which moderns can only obtain from the same sources or from studying this expression of the early work as to what he saw and so roughly noted.

We must therefore look at crude early rug designs carefully and fairly to decide whether there is in any one the elusive motive or idea which turned the growing rug into a magic carpet for its maker, on which he or she floated safely away from feeding the pigs, washing dishes, dusting or even from the poetry of milking time. That is a poetic escape as you know for many people even in these mechanical days of overproduction, which we much too strongly blame as the cause of The Big Crash.

To quote from certain notes I made for a talk about hooking rugs in the recent N. Y. "Hobby Show," I saw, long years ago, both primitive and sophisticated designs

in a Boston shop. There was a charm about them all, just as many children are charming even with somewhat dirty faces or when they laugh at you over slices of bread and butter and molasses. Children are attractive even when a little mussed and dirty and so are many hooked rugs especially the ones from Maine farms. Some in that shop came from Waldoboro perhaps and many in fact from Orono, Me. In Waldoboro beautiful ones seem almost to have grown on bushes ready for some wise dealer, like Burnham of Ipswich or Creamer of Waldoboro to pick. Some possibly from New Hampshire before anyone could stop them among the latter crowds of appreciative collectors who first in these latter days loved the beauty, saw their intrinsic worth and the charm and value of the craft that had produced them. From Nova Scotian Acadia, perhaps one or two had floated in. If so they were the best of all, we know now. I can't recall all the designs of strange flowers that never grew anywhere short of Mars, but they fascinated me. In them were fine color blending, good composition and strange and fascinating technique besides the evidence of their earnest creation by fond and careful, though untrained, craftspeople, men and women shut off from cities in the deep snows of northern winters who wrought as well and



Plate No. 8. Pink flowers and green leaves with brown stems on a dark brown and blue field. The three, though primitive, show real feeling for composition.

patiently and enthusiastically as they could. Some were very beautiful, some horribly homely no doubt, although



Plate No. 5. Farm Animals. Coll. of Mrs. Lathrop Brown. Not unlike bas-reliefs on stones of underground temple uncovered at Malta about 20 years ago.

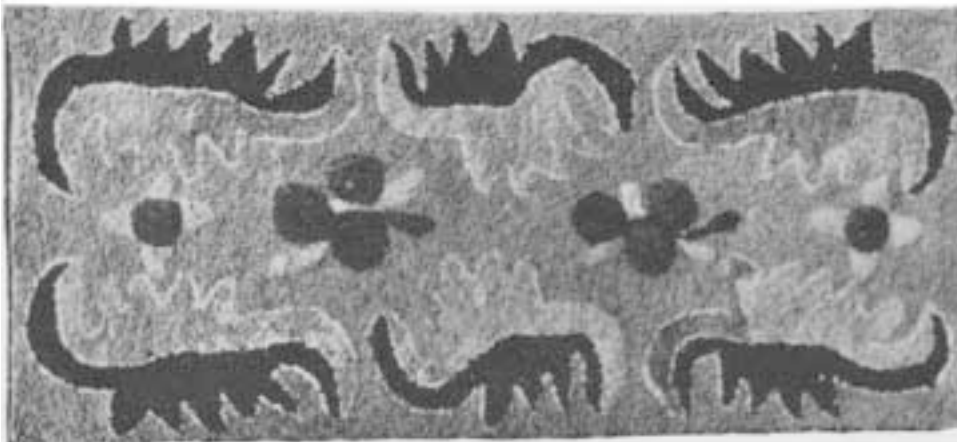


Plate No. 6. Mrs. E. Gutchell, Maker, Vanceboro, Me. Yellow Gray field, black and pink scrolls and red flowers. Interesting brilliancy and modelling of raised flowers.

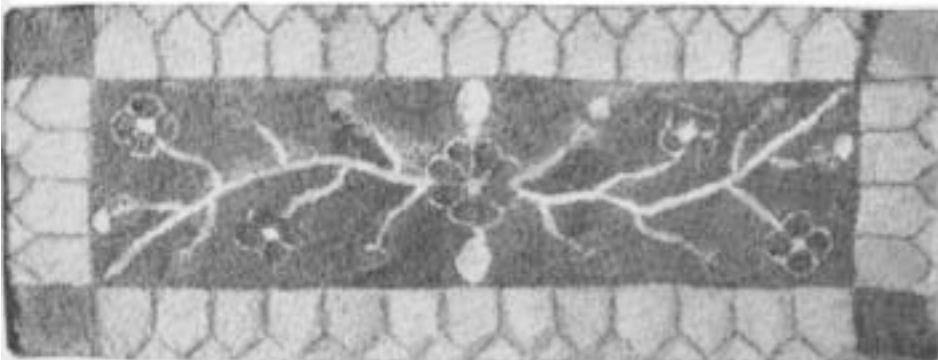


Plate No. 7. Bedside Rug 24" x 54", W. W. K. Coll. Brown flowers, blue stems and buds on speckled black field, varied border in black outlined lozenges of blue, yellow, brown, gray, etc.

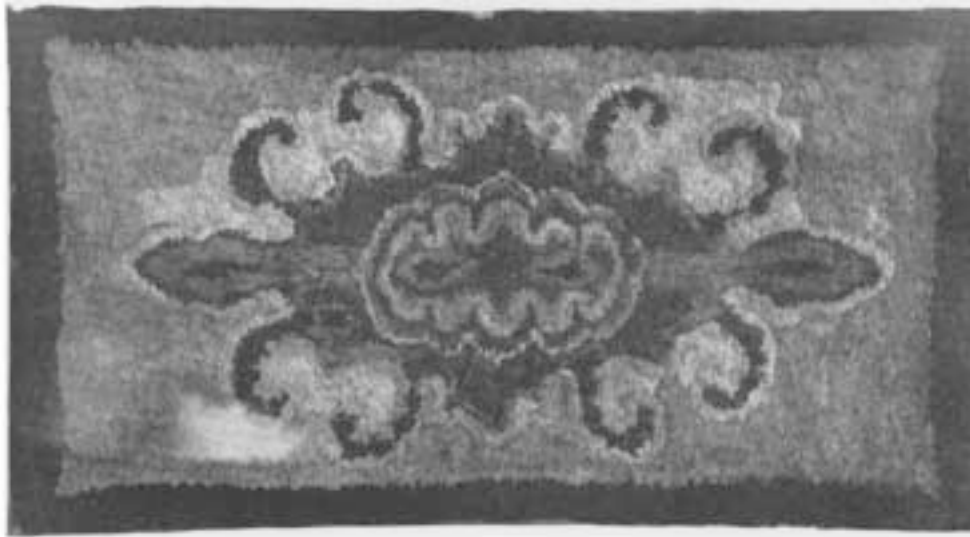


Plate No. 9. Colors, source and owner unknown, but is of chipped wool and probably Scotch workmanship

I've forgotten any of that sort. All were sincere, of the soil, as well as often soiled, just as they came from floors and hard usage in many homes. They were the output of people who could not loaf long, who must keep hands and mind alert to combat the wear and tear of the daily fight for bread. One wished he could see these people, talk with them, tell them their work was good, that there was in it more than bread and butter to be gained, that many other people of the cities who would see these rugs could sympathize with those who made them, could tell them of their own ancestors who came from similar farms in New and Old England, Scotland, Ireland and Scandinavia. They, these workers, had indeed made magic carpets for they swiftly bore my mind searchingly away, as in the Eastern story, and backward to the scenes of boyhood in Maine. Although I never had knowingly seen a hooked rug before, nor strangely enough ever heard my New

England parents speak of this art of which they indeed must have known, I seemed to find them familiar.

Since the question of the origin of "hooking" was raised by me and discussed and its practice by early, even very ancient, Scandinavians was discovered, as told in detail in my book "The Hooked Rug," a considerable research (to learn whether it even preceded weaving and kept pace with that discovery), an interesting research has begun in America and England and probably in Germany. Professor Rudolf Riefstahl of New York, the well known authority on Oriental rugs and other early crafts and activities, tells me that he is inclined to favor my supposition that Coptic wool mats or fabrics of a shaggy sort were done by hooking and not pulled tight by needle work over a stick or rod as many people averred. This, if so, and as my book suggests, makes our study of Primitives in rugs even more engrossing and valuable for the craft.



Plate No. 10. Beautiful in color. Hooked rug, from Coll. of Mr. John S. Burk, Vice-Pres. of B. Altman & Co. Size 2' 2" x 5'. Interest for designers lies in architectural character.

Learning to Weave in Sweden

BY GERTRUDE HOSTRUP

WHEN I left America to spend a year or more abroad, I never intended to visit Sweden nor learn how to weave. Yet I did both. What a wealth of pleasant hours and surprises I had in store for me!

The art of weaving has been kept alive all these years in Sweden. In many other European countries weaving has smoldered during the industrial era, and very little interest in learning to weave was to be found. During the past few years in these nations dusty looms have been brought into use once again, and weaving has become an art. Sweden is one of the few countries that has retained an active interest in weaving from primitive times up to now. Although few people use their looms for making materials for wearing apparel, most Swedish weavers busy themselves making decorative articles for their homes. I found something appealing in learning to make rugs, pillows, couch throws, and wall hangings. Consequently, I decided to remain at Sätergläntan to try to learn how to weave such attractive products,—things which were so different from any other type of handicraft which I have seen in the United States.

Sätergläntan is a combined weaving school and resort near Insjön in the hills of Dalarna in north central Sweden. Any visitor would be charmed with the place because of its rustic aspects and its location in the wooded hills overlooking many lakes and valleys.

The main building is a colorful wooden structure for dining and living purposes. Most of the summer guests stay there while the students dwell in delightful log cabins along the winding road. In the main building there are many evidences of handwoven products. Curtains, draperies, wall-hangings, pillows, and linens were all hand-woven; dark blue, henna, and natural linen colors predominating. A person really gets a splendid lesson in weaving appreciation living in such an environment.

Every day just an hour before lunch lectures about textiles and weaving technique were given to us by Miss Langbers as we sat outside around a long table beneath the birch trees. Even though I knew very little about the Swedish language, I soon learned to understand practically all that was said to me. Each lecture was accompanied by passing out samples of the materials to be described in the day's lesson.

The weaving studio, a red, wooden, two-story building, had the first floor devoted to yarns and cottons, getting the warps ready to put on the looms, and to weaving linens and damasks. The second floor was filled with looms where students were busy from 8 A.M. till evening.

My first task was to prepare a warp for a rug, rose cotton with salt and pepper borders. Looms are so prevalent in Sweden that an introduction to them and other implements was not even considered. I, who had never seen a



The Weaving Studio Sätergläntan by Insjön, Sweden

loom, thought that making a warp was tedious and quite incomprehensible. All the counting! All the steps! After I started to weave this simple two-shafted pattern, I was overjoyed when I completed weaving two rugs in two days. I thought that all the irksome trials of getting a warp ready were really something to be forgotten by a weaver. Since then making a warp has been a period of happy anticipation for me.

As my next step I was to learn how patterns were made. An antique wall-hanging hung on the wall; a heavy linen warp for a similar one was on the loom. By experimenting I was to learn how and where to tread to make this Rose Path pattern with the yarns which I had on paper bobbins in a basket attached to the loom. After a day of trial and error I learned the fundamentals of pattern weaving. I wove on completing this long hanging, making an item which is really attractive and practical due to the neutral shades.

To understand the exact relation between threading and treading a pattern, I plucked 1500 fine cotton threads through the cotton heddles forming a concrete pattern for a table square. In doing this I learned how to read a pattern from a draft. Later the warm red, black, and green wool in the weft showed the design. I also tried a piece of double weaving which had the same pattern as my table square. I found that task very difficult. It was much easier for me to weave a few dainty coffee napkins with cotton and linen. I wanted to weave all linen serviettes, but my instructor thought that a cotton and linen combination was not nearly as difficult for a student to weave as all linen. The threads on the latter would be inclined to break. Miss Langbers thought that I should learn to weave materials for covering furniture, so I made a couple of samplers but that work did not appeal to me particularly at the time. Now I have found use for the lessons, and I am grateful for them.

Linen warps are always used at Sätergläntan with woolen wefts for all but the daintier things. Miss Langbers thought that a cotton warp such as the Indians use and a woolen weft just did not belong together.

One of my most pleasant lessons on such a linen warp was weaving a fireside pillow top. My cheerful soft yarns were dyed in the woods of Sweden, and they were a beautiful warm cherry-red and blue. In Sweden fireside pillows are quite prevalent. They are large and long so that two people who wish to gaze into the fire can comfortably sit on them instead of on some piece of furniture which cannot withstand the dry heat. For my fireside pillow Miss Langbers tried to teach me to make an original pattern to pluck in as my design. In our public schools I had only copied patterns and objects; I had never learned to create; but after my weaving instructor had made a rough sketch, I tried to formulate a design and inculcate it in my pillow. This really worked out better than I had anticipated. The



Winding Bobbins outside the Weaving Studio at Sätergläntan

center of the pillow was woven in blue wool with a shuttle, simple two-shafted weaving. In between each weft thread a cherry colored thread was drawn through at various places on the warp according to the pattern I had made, thus forming embroidery weaving or "Dukagång" as it was called in Sweden. At the two ends of the pillow were finger-plucked blue scalloped borders, my first lesson in simple tapestry weaving.

I shall never forget my instructions for my last piece of weaving, a square wall hanging, using no shuttle but my fingers to form the tapestry design. First I was to draw my pattern on sketching paper and graph paper all by myself. Next I was to choose my colors, any I wanted from the huge assortment in the cabinet. I went there, opened the doors, looked, and returned to Miss Langbers saying, "How can a person choose colors when there are so many to choose from? How does one know which colors harmonize best?" I had never studied color charts, but Miss Langbers gave me one of the best lessons when she took me outside and said, "Go out and look at the sky, the woods, Nature, and put your colors together as you see them there." I believe I shall always be able to recall the heavens which I saw that evening; a stormy sky had never seemed so colorful, so alive before.

My wall hanging does not depict that sky, but it does serve as a lovely reminder of my summer in Sweden. The various shades of the great varieties of moss, of the berries on the bushes, the trunks of the trees, the leaves of the birches, and the twilight are all in that hanging which I often call "My Masterpiece."

Sometimes we ran away from our weaving to celebrate a holiday, to take a long hike in the woods, to ride to some historical or scenic spot, or to greet the dawn. Everything was so delightful. Since I have returned to the United States, I have not woven as much or as often as I would like, but I shall never want to run away from it. I shall look forward to sitting at my Swedish loom, working, creating, and planning more and more articles to weave.

Swedish Embroidery Weave

BY MYRA L. DAVIS

THIS weave is made up of blocks of two, three or four warp threads with one thread between, and is woven wrong side up.

After weaving the desired amount of plain weaving, pick up the blocks all the way across the warp using a sail needle and a heavy, dark colored thread. Dividing the warp in this way simplifies the placing of the design. After the first row of blocks is woven, the thread is pulled out and the weft threads pushed together with the point of the sail needle if there should be a space left.

Cross stitch designs may be used, the colored squares representing the blocks, and the verticle lines the dropped thread between them.

To weave: Pick up the blocks as shown in the first row of squares in the design, using the sail needle and the design thread, and follow it with a binder. This row must be repeated times enough to make the blocks square. The ends of the design threads are fastened by weaving them back over and under the threads of the block.

If there are skips of more than two blocks from one part of the design to another, it is better to use separate threads for each part.

The materials used for the designs may be No. 3 perle cotton, linen floss, or wool or silk of about the same size. For the binder use No. 10 perle cotton, No. 14 linen or fabri.

If one wishes to weave the designs right side up, simply reverse the above directions.

If a large piece is to be woven in this way, it makes it much easier if the loom is threaded in a twill, 1-2-3-4, 1-2-3-4, etc., then the blocks may be raised by treadle 1 on a floor loom, or by levers 2-3-4 on a table loom.

On looms having heddles with long eyes (about one and one-half inches) the blocks may be raised by means of a flat stick two and one-half inches wide. With a lease-stick pick up the blocks in front of the beater, press the beater and the stick turned up on edge back against the harnesses. This will raise the picked up blocks sufficiently to put in the wide stick. When weaving the design, pull the stick forward against the harnesses and stand it on edge. This raises the blocks and the design thread may be woven in with the fingers. Then push the stick back and put in the binder as usual.

LUNCHEON SET

One runner and six doilies.

Warp: 1/2 lb. 40/2 white linen, 460 ends 6 yards long, set 24 ends to the inch.

Weft: 1/2 lb. white linen No. 14.

Design No. 6: Linen floss or perle cotton No. 3 in black, green and rose, 1 tube of each.

Weave 1 3/4 inches plain then pick up 2 threads and drop one as directed and place the design in each corner 10 blocks from each edge. After the designs are finished for the doilies, weave 7 inches plain and then the designs in the other corners.

The runner is woven in the same way with 34 inches between the designs. These measurements allow for shrinkage.

Finish the set with a 1/4-inch hem on each raw edge.

BUREAU SET

Warp: 1/2 lb. 20/2 cotton natural, 460 ends 3 yards long, set 24 ends to the inch.

Weft: Perle cotton No. 10, natural No. 1032, 3 tubes.

Design No. 3: Perle cotton No. 3, blues Nos. 1040 and 1041, 1 tube of each.

Weave 5 inches plain, then 3 repeats of the design spaced across the end, picking up 2 threads for the blocks. Weave the center plain, allowing 3 inches to the yard for shrinkage, then weave the second border and the 5 inches plain. Finish with a 2-inch hem.

Pincushion: weave 2 1/2 inches plain, then the design and 2 1/2 inches plain plus enough more to make the back of the cushion. Make a square cushion, and cover the seam with a cord made of the perle cotton No. 3.

