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THE WEAVER

VOLUME V NUMBER 3

Paul Bernat, Editor

C O N T E N T S

The Magic of Good Design Page 3
by Mary Elizabeth Starr

Weaving on the "Inkle" Loom Page 6
by Mary M. Atwater

Some Further Steps in the Evolution Page 12
of Summer - and - Winter
by Berta Frey

Summer Adventures in Weaving Page 17
by Kate Van Cleve

Suggestions for Design Page 19
by Clara M. Youse

Attractive Luncheon Sets Page 23
by Gladys R. Kales

Miniature Patterns for Hand Weaving Page 25
by Josephine E. Estes

Questions and Answers Page 31
by Mary M. Atwater

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THE MAGIC OF GOOD DESIGN

by MARY ELIZABETH STARR

Photos by Cranbrook Academy of Art

A World's Fair is a wonderful place to see the best examples of whatever one is interested in. To weavers both the World of Tomorrow in New York and Treasure Island in San Francisco offered examples of the best the modern world has to offer in modern textiles. In New York one had to seek them out in the exhibits of the nations while in San Francisco one found them assembled in the Decorative Arts section of the Fine Arts Pavilion. It is of especial interest to weavers that the well known textile designer Dorothy Wright Liebes of San Francisco was responsible for that admirable display of ceramics, glass, textiles, bookbinding, jewelry and interior design which so delighted all Treasure Island visitors. The New York Fair visitor found an abundance of beautiful hand weaving in the pavilions of the Scandinavian countries.

To anyone who studied the beautiful modern decorative textiles in either of these displays it was quite apparent that color, design and texture are their distinguishing characteristics. No new technics of weaving are employed, but well known technics are often used in new and esthetically satisfying ways. An overshop pattern may be treadled to create a texture rather than a pattern or various types of free weaving may be employed to give emphasis as well as texture interest. Unusual textures are frequently obtained by the use of unusual materials, such as rope or spun glass, or our tried and trusted wools and cottons are spun into yarns having definite texture interest. The color and design of modern textiles show a certain casual sophistication which is at the same time, paradoxically, both free and restrained.

Is it not significant that many of the beautiful modern handwoven textiles are created by artists who acquire enough technical knowledge of looms to create their designs rather than by weavers who are tradition bound to looms and special, often complicated, technics? An artist with a desire to create textiles regards looms and weaving technics much as an artist with a desire to illustrate regards printing presses, block printing and lithographing. In either instance they are the artist's tools. They are technical necessities the use of which can often be carried out most efficiently by trained technicians. But the technician, left alone, is apt to become involved in the intricacies of his equipment and to produce technically perfect goods devoid of artistic merit.

Is it not well to ask yourself honestly if you are adding something of beauty to a world which needs it greatly or if you are merely making painstaking copies of other peoples' ideas? If you belong to the second class, and all but a handful of weavers really do, what can you do to lift yourself out of the rut? The best thing to do is to go to an art school. There are many good art schools all over the country. No one would have to go very far to find one. Take all you can get in design and color but do not expect everything you learn to be applied directly to weaving. Your teacher will be giving you fundamental principles which are applicable to all forms of art. It is for you to make your own

applications to weaving. You will recognize that weaving imposes some limitations on designs, but that there are absolutely no limitations on the numbers of designs possible.

If you want to go to an art school where hand weaving is specifically and excellently taught investigate the Cranbrook Academy of Art. It is located on a beautiful country estate in Bloomfield Hills, Michigan, just twenty miles from Detroit. It is one of a sisterhood of enterprises sponsored by the Cranbrook Foundation. Others in the group include Christ Church Cranbrook, Cranbrook School (for boys), Kingswood School Cranbrook (for girls), Brookside School Cranbrook (for smaller children), and the Cranbrook Institute of Science, each well known in its especial field.

Upon these rolling Michigan hills have been built fine modern buildings—studios, dormitories, faculty residences and museums; the surrounding grounds and gardens have been beautified with the lovely statues and fountains of the famed Carl Milles; but most important of all a faculty of unexcelled ability has been assembled. The instructor of textile design and weaving is Miss Marianne Strengell.



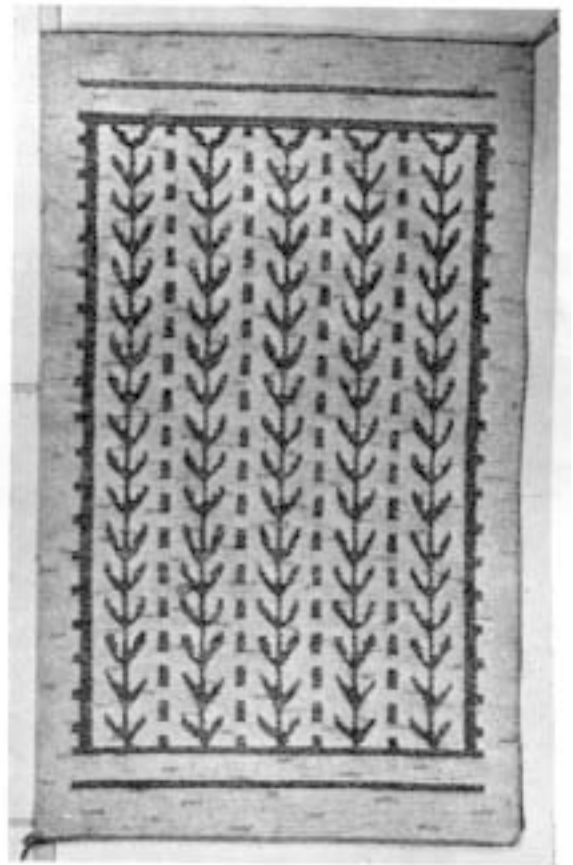
Marianne Strengell at a Cranbrook loom



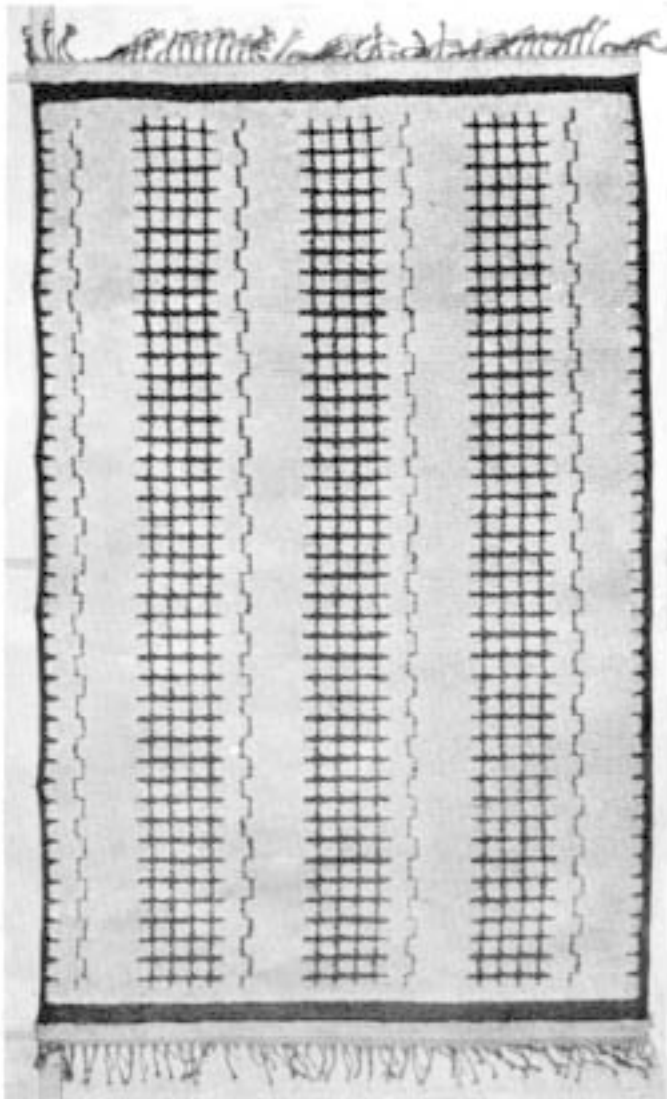
The Weaving Studio, Cranbrook



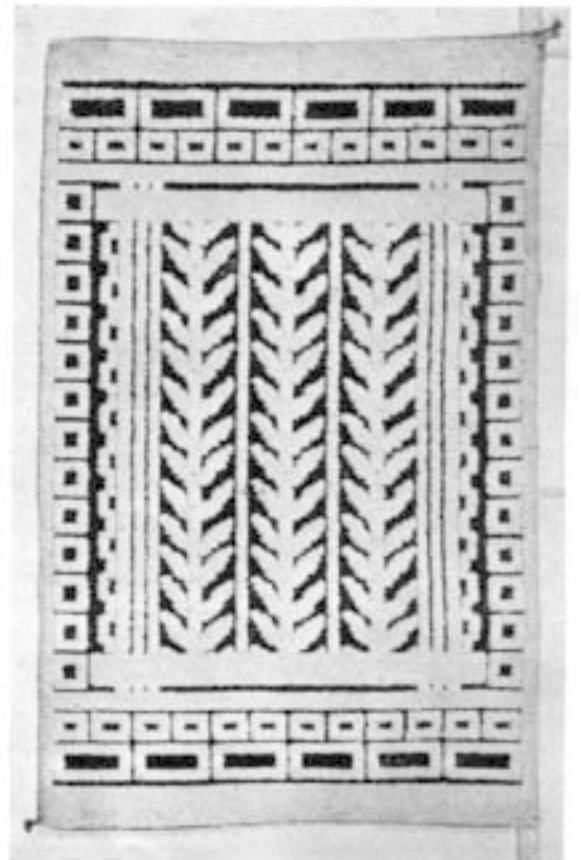
Variety in rug textures as created by Marianne Strengell



Half fossa rug designed by Marianne Strengell



Half fossa rug with off-white pile on an old gold ground. Designed by Marianne Strengell and exhibited in the Decorative Arts section of the World's Fair in San Francisco.



Half fossa rug designed by Marianne Strengell



Craft studios as seen from the formal gardens at Cranbrook



Half flossa rug designed by Marianne Strengell

She had her earliest instruction in art school in Finland, her native land. This training she has since made use of as a designer in Sweden, Denmark and Finland. One can readily understand what this background means when one considers the leadership of the Scandinavian countries in modern decorative art. The textile displays at the World of Tomorrow plainly showed the leadership of these northern countries. Miss Strengell is now in this country as a talented young woman, trained in the best of Scandinavian tradition, backed by commercial experience both in her own shop and in the employ of well known firms, and attuned to contemporary times. Contact with one who occupies a high place in her field is stimulating in itself but the most important thing one gets at Cranbrook is a feeling of some independence in creating one's own designs.

WEAVING ON THE "INKLE" LOOM

by MARY M. ATWATER

According to the dictionary an "inkle" is not — as one might suppose — a full-grown "inkling" but is instead a "tape or narrow band." And an "inkle loom", it follows, is a loom on which to weave these narrow textiles. A modern reproduction of an ancient English inkle loom is shown on the accompanying illustration. Such looms were used in the old day for the weaving of garters, galluses, belts, tapes and so on.

The loom consists of three stout uprights, with a brace across the back and cross-pieces to stand on; the uprights being bored with holes to take a set of seven large pegs. The pegs in the loom illustrated are 9/10" in diameter and 7" long. Four of these pegs, numbered 1, 2, 3, 4 on the illustration, serve to measure the warp. The three pegs set in the central upright are used to make the shed, and to give the desired tension to the warp. The one set lowest in the upright, which I have marked "T", is like the first four pegs. The other two pegs, however, have a special construction. The one I have marked "H" is the heddle peg. A lengthwise slot is cut in it for almost the entire length and loops of stout linen, to form heddles, are tied through the slot and around the peg. There should be from 30 to 60 of these heddles — the more there are the wider one may weave. The top peg, which I have lettered "N", is oval in section instead of round. Along the upper edge it is notched, and it serves as a spreader for the warp. All pegs are removable, though pegs 1, 2, H, and N, might be fixed solid in the frame if desired.

To warp the loom set it in a chair in a reclining position or lay it flat on a table. Tie the end of the warp-material around peg No. 1, using a loop-knot that can be untied easily. Carry the thread over peg 2, under peg 3, under peg 4, over peg 1, through the loop of the heddle nearest the upright, over peg N, over peg 2, under peg 3, under peg 4 and back to 1. The thread may then be cut, or — if a number of threads of the same color are to be warped the above process may be repeated till the desired number of threads have been warped. Now untie the knot from around the peg and tie the two ends of warp firmly together. As the warp moves over the pegs in weaving there must be no ties left around the starting peg when the warping is complete.

Fabrics made on the inkle loom are of the warp-face type, and pattern effects are introduced by setting the warp in several colors. Some interesting effects can be produced simply by the use of color, with all the weaving in plain weave, though for the more elaborate effects a pick-up technique is used.

The manner of weaving is as follows: sit either directly in front of the loom or at the end opposite peg No. 1. Insert the right hand between the two parts of the warp, behind the heddles, and press down. This makes a shed in front of the heddles — the shed with the heddle threads of the warp on top. Take the shuttle through this shed. To make the opposite shed lift the lower strand of warp, behind the heddles. This makes the shed with the free threads on

top. Take the shuttle through this shed. For plain weaving repeat these two sheds all the way.

A little belt-shuttle of the Norwegian type, with a knife edge, is a useful tool for this type of weaving as it serves for beater as well as shuttle. After each shot of weft the weft should be driven as close as possible, and the weft should also be drawn tight enough to bring the warp-threads together so that the weft is completely hidden. These points are of great importance. A loosely woven "inkle" is worthless.

Girdle No. 1, shown on illustration 2, is a piece in plain weaving done in a number of bright colors. It is very gay and pretty and extremely simple to make. The material used was perle cotton No. 5. The manner of arranging the colors of the warp is shown on the diagram at Draft (a). The upper row of squares in the draft, lettered "F", indicates the threads taken "free" around the pegs of the loom. The lower row, lettered "H" indicates the threads taken through the heddles and over the notched spreader. The hatching of the squares indicates the color of the warp-thread.

Girdle No. 2 is also in plain weave. It was made in a hard-twisted wool yarn in grey and "natural" after an Indian Navajo piece of belt-weaving. Threaded as shown on Draft (b).

Many other patterns can be produced in a similar manner. These examples will serve to show the method.

But of course the effects produced in pick-up weaving are more interesting.

Girdle No. 3 is a reproduction of a Norwegian piece woven in coarse wool in red and orange with a touch of black in the border. The plan of the warp is shown on Draft No. 3. This manner of threading is typical of the Scandinavian belt-weaving and many different patterns can be worked out on it. It will be noted that in this form of weaving the weft is not drawn as close as for the pieces in plain weave, and it shows a little in the background part of the weaving. The weft should therefore be of the same color as the ground warp.

At the bottom of the illustration, on the left hand side, will be seen the effect of the threading when woven in plain weave. To start the pattern, as shown directly above this plain weave section, weave the "down" shed, which throws the heddled threads to the top of the shed. The middle pair of pattern threads it will be noted, is on this shed. Make the opposite shed, but before putting through the shuttle pick up the middle pair of pattern threads. Weave. Now make the "down" shed again, and pick up the pairs of pattern threads on either side of the center. Weave. Make the "up" shed and pick up the next pair on either side. On the following "down" shed, pick up as before, and also push down the center pair which comes up on this shed; and on the following shed pick up two and push down two. It should be easy to proceed from this point by following the illustration which shows the figure very clearly.

Girdle No. 4 was made of white linen for the foundation threads and a fairly coarse crepe silk in blue and green for the pattern threads. A border arrangement different from the one shown on draft (c) was used, but the center part on which the figure was woven was threaded in the Scandinavian manner and the method of weaving was as described above.

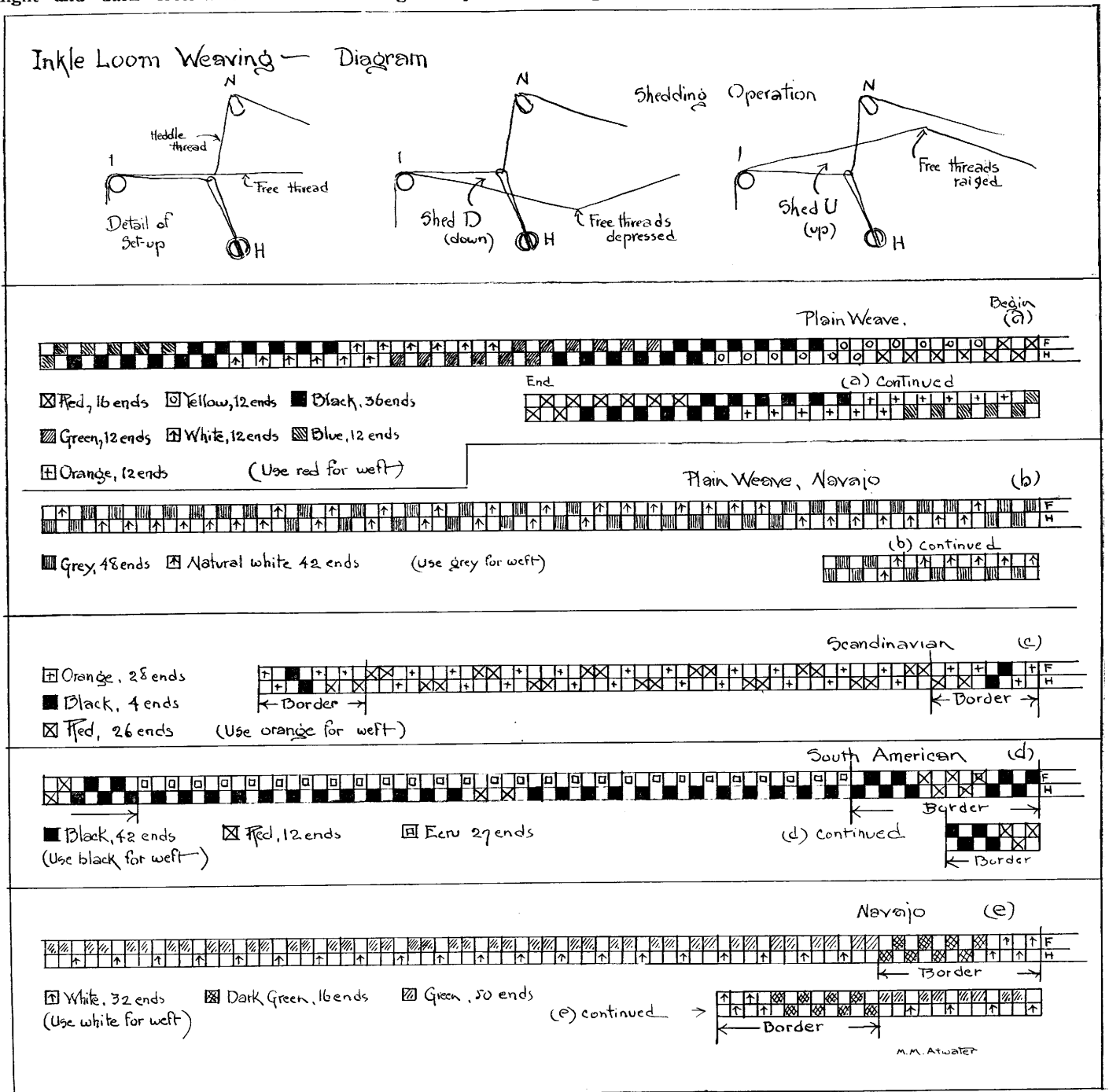
Girdle No. 5 was woven in a technique common to much South American and Central American belt-weaving. The threading is given on the diagram at (d). It will be noted that all the dark threads in this threading are taken through the heddles, and the light threads are taken through the loom free. The plain weave produces an effect of alternate light and dark cross-wise bars. In making the pattern

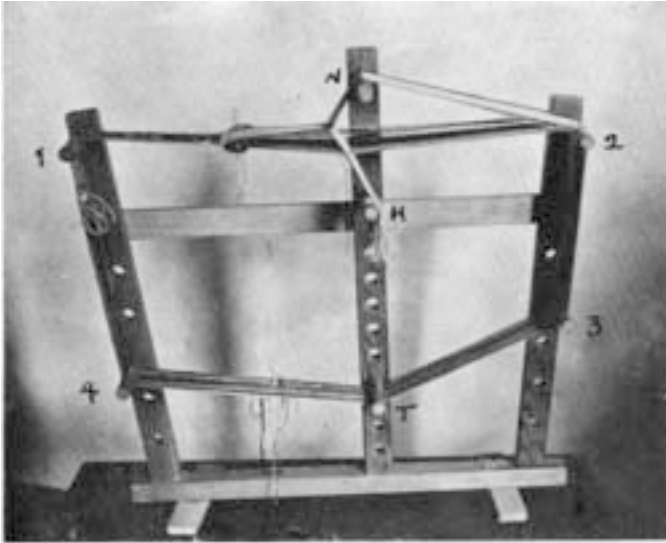
figures weave the light shed plain, and on the dark shed pick up alternate pairs of light threads.

The easiest way to make these pick-ups, I find, is to open the shed and put the fingers of both hands through the shed from opposite sides. Draw the warp apart where the pick-up is to be made, take up the desired thread, being careful not to drop the threads already over the fingers. The pick-up must be made with nicety or the effect is lost.

The material used for girdle No. 5 was perle cotton No. 5 in black, dark green and ecru.

Girdle No. 6 is in the same technique and material, the colors used being black, red and ecru. The borders are different from the plain border on draft (d) but the threading of the pattern part of the band is the same, the dark





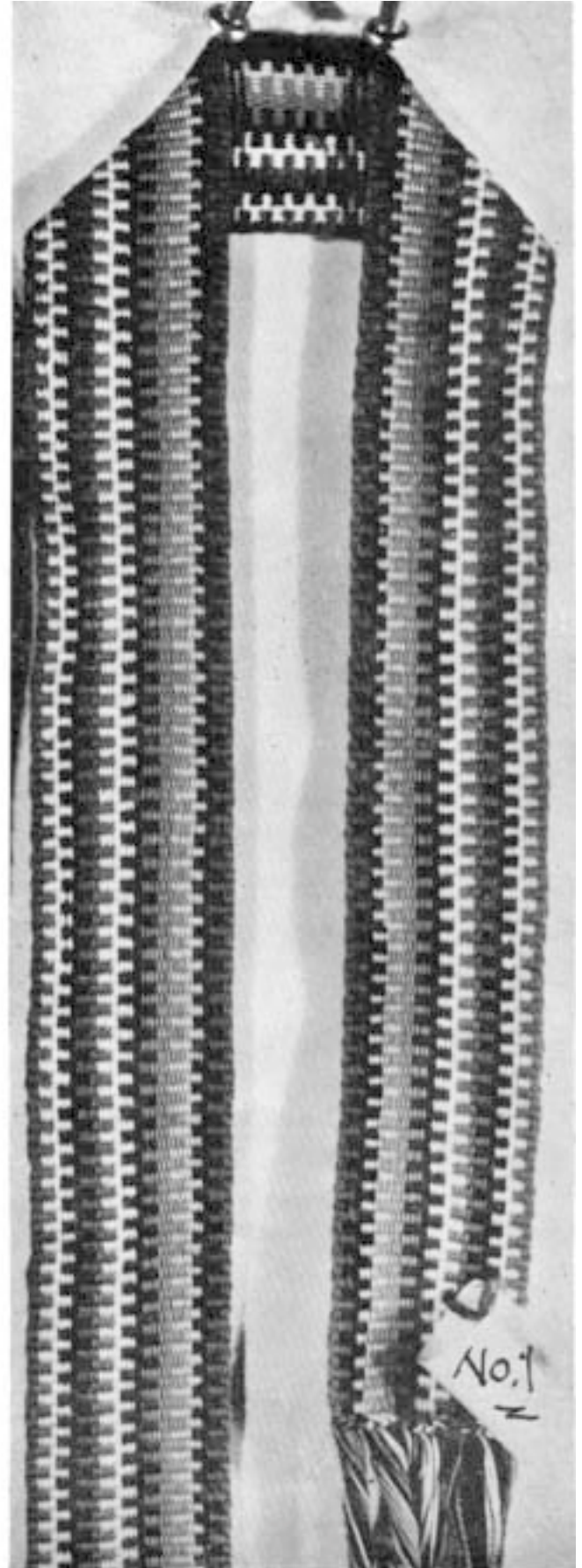
part of the threading through the heddles and the light threads free. The dark threads are black with a stripe of red through the center. In this piece the main figures were picked up in the light color, with small intervening figures picked up in the dark color. The effect is very striking and handsome.

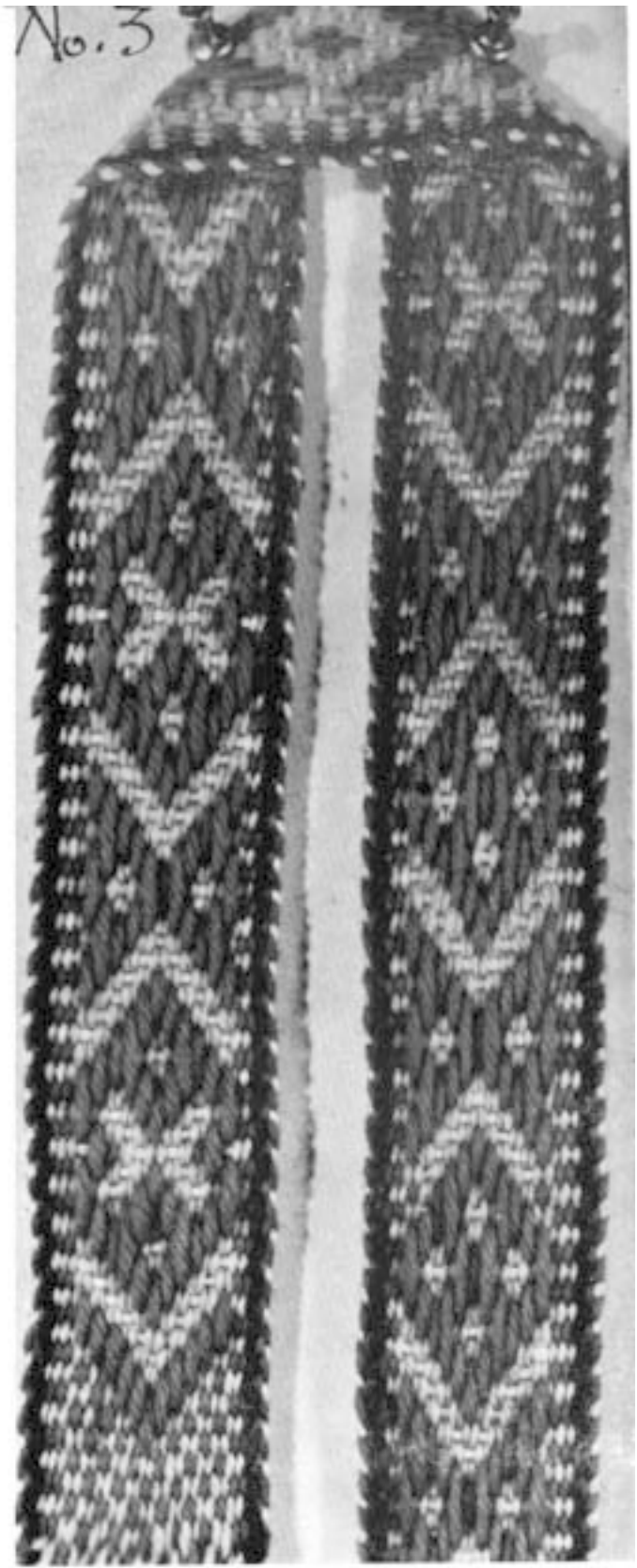
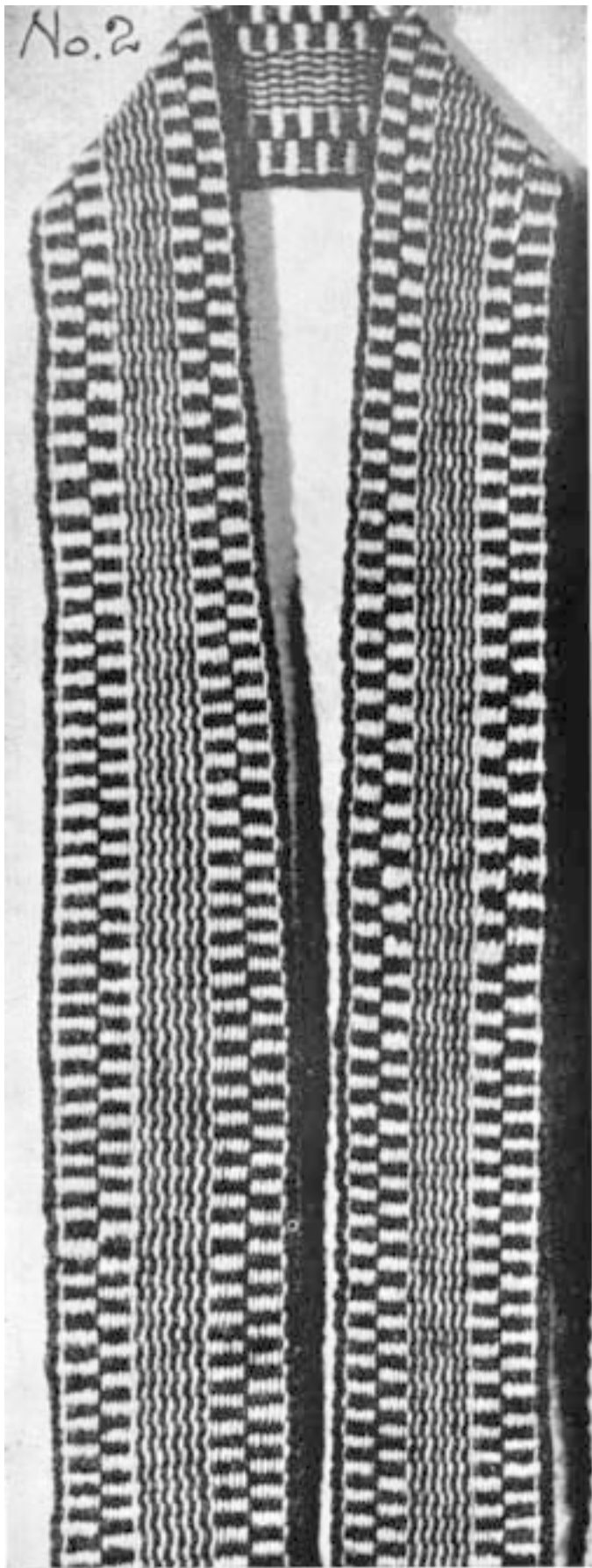
Girdle No. 7 is another piece in the same material and technique, the colors used being black and gold. The particularly striking and handsome figures were adapted from a piece of native Bolivian Indian weaving.

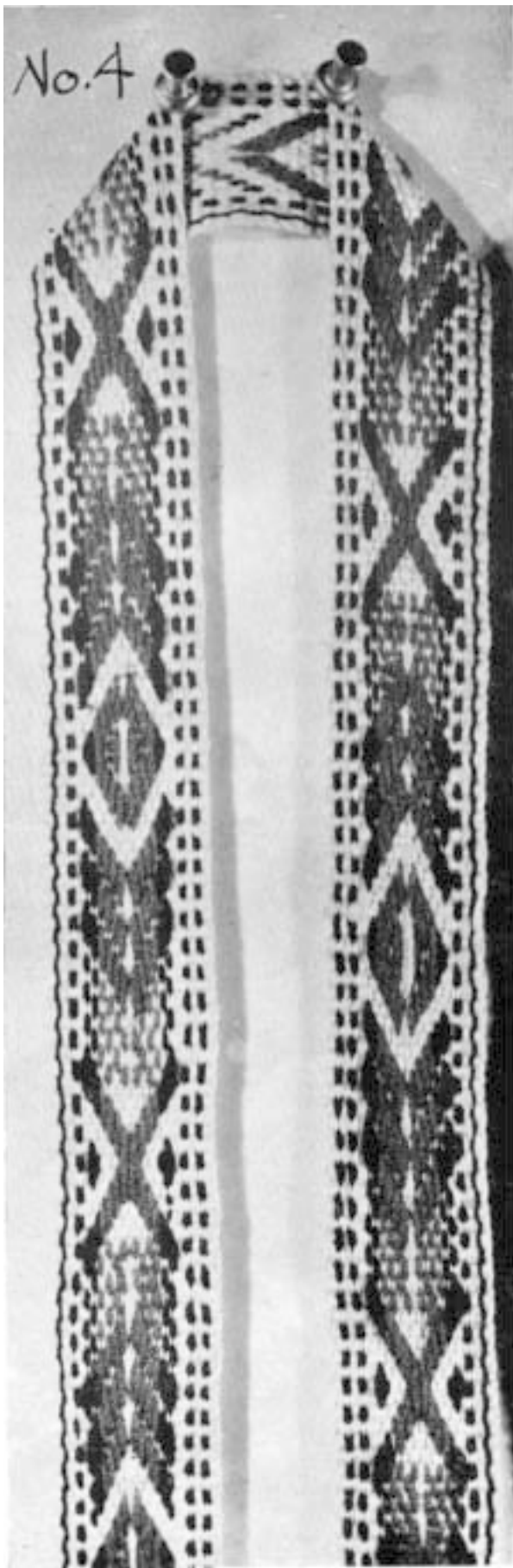
Girdles 8 and 9 are in a somewhat similar technique common in Navajo Indian and in Mexican Indian belt weaving. The manner of threading, shown at (e) on the diagram is similar. As a rule in this weave the foundation threads are in white or natural cotton and the pattern threads in a wool yarn, doubled. Plain weaving on this threading produces crosswise bars as in the previous technique and the pattern figures are produced precisely as in the previously described technique. The difference is in the texture of the background.

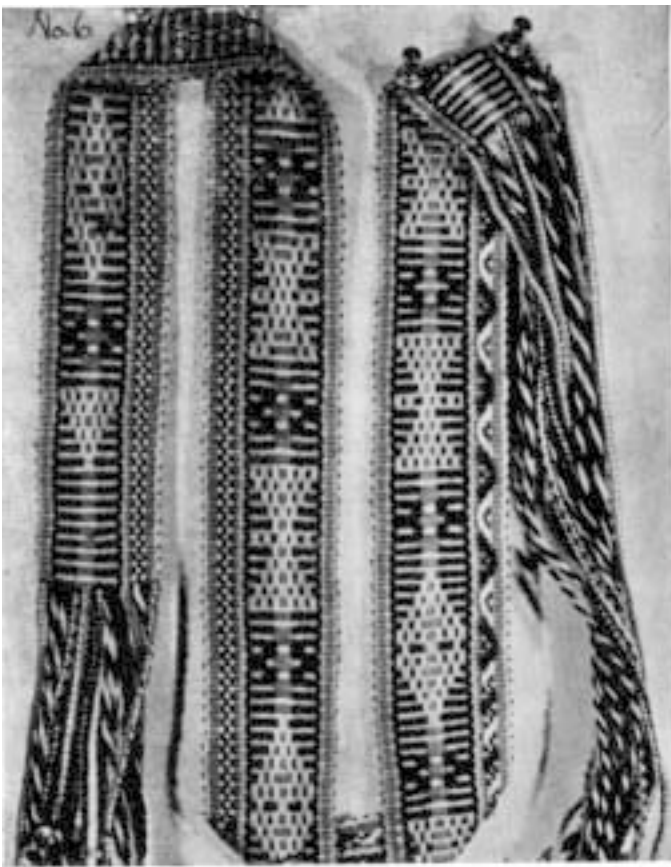
It is not entirely simple to produce this weave at first, and it is a good idea to practise first the pattern effect and then the background effect till both are clearly understood. For the pattern effect weave the dark shed plain. Make the light shed and pick up alternate pairs of pattern threads all across, beginning with the pair closest to the border. Weave the resulting shed. Weave the dark shed plain. Open the light shed and pick up alternate pairs of pattern threads, beginning with the second pair. Repeat these four shots as desired.

For the background effect reverse the process: weave the light shed plain. Open the dark shed and drop every other pair. Weave. Weave the light shed plain. Open the dark shed and drop every other pair beginning with the second pair instead of the first. And repeat these four shots as desired.







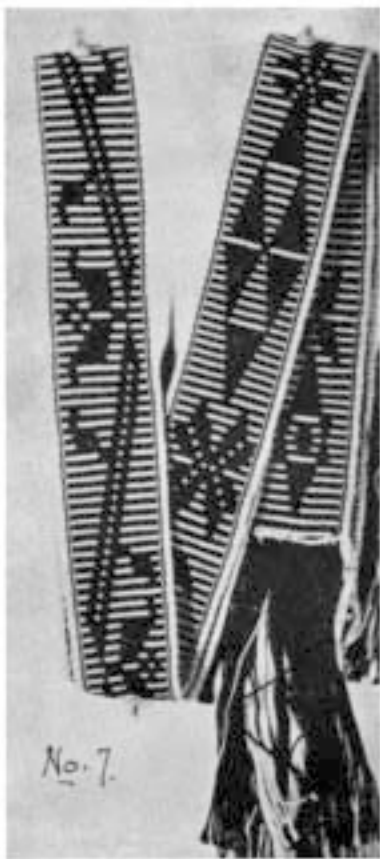


In weaving the figures combine these two processes: On the light shed pick up the pattern. On the dark shed drop alternate pairs of pattern threads across the background. It is really simple enough after one gets the "hang" of it and the result is handsome.

Belts and girdles woven on the inkle loom may be finished in any manner one prefers, — with buckles or other fastenings. However the more usual finish is to leave long ends of warp that are braided or twisted, as shown on girdle No. 6. The girdle may be made long enough to tie and hang down, or it may be made to fit exactly around the waist and be fastened by knotting the braided fringes together.

Narrow fabrics woven on the inkle loom have other uses than as belts, of course. Bag-handles, sandal-straps, pack-straps, bindings, and so on. These warp-face fabrics are very strong in the lengthwise direction, which makes them useful for many purposes for which a weft-face fabric is unsuitable.

There is also the fun of making them, which is also a consideration.



Some Further Steps in the Evolution of Summer-and-Winter

by BERTA FREY

Summer-and-Winter, being the only truly American weave, should enjoy a greater popularity than it does. But most of us have looked at Summer-and-Winter as the pessimist looked at the doughnut, we have seen its limitations instead of its possibilities, and have sighed for a loom of more than four harnesses. And those of us who go in for "self expression" in a big way, have resented the limitations of any harness controlled pattern. The pioneer Americans who invented Summer-and-Winter were nothing if not adaptable to changing conditions; and so it is with their weave. Summer-and-Winter adapts beautifully to the demands of "Modern" design. With these modern designs, it is not so much a new technique as it is a combination and rearrangement of several well known methods. It is more a problem of design than it is of weaving.

The ability to combine blocks in any Summer-and-Winter pattern is one of its most appreciated and outstanding characteristics. Its two-tone quality is another great asset. Certainly there is nothing new about "picking-up" parts of patterns. So what more natural than to combine these advantages and techniques to produce new designs and fabrics?

Those weavers who weave by formula or rule, — those who write out a complete order of treadling and then follow it minutely, will never enjoy this method; it is not a strictly mechanical process.

A review of some Summer-and-Winter techniques and the making of a sampler is a great help before beginning to weave any article. A detailed description could be confusing, for the order of threading often varies. Some weavers use the two back harnesses for ties, and those who use the front ones are not all agreed as to the proper sequence. For example, should the A block be threaded 1-3-2-3 or should it be 3-1-3-2? So far as the structure of the cloth is concerned, the sequence makes no difference, but the relation of tabby shots to pattern shots will have to be adjusted accordingly. Another point of possible confusion is the well known one of rising and falling sheds. Therefore for the sake of clarity, let it be known that the directions for the samples illustrated are given for the small Structo loom, and that the blocks were threaded 3-1-3-2 and 4-1-4-2. The pattern used was the one illustrated at fig. 1.

In the sampler "X", the first stripe (A) was woven:—
lever No. 1 down, weave with pattern thread
levers 1-2 down, weave with tabby
lever No. 2 down, weave with pattern thread
levers 3-4 down, weave with tabby and repeat until eight pattern threads have been woven. In stripe B the relation of the tabby to the pattern has been reversed as follows:
lever No. 1 down, weave with pattern thread
levers 3-4 down, weave with tabby
lever No. 2 down, weave with pattern
levers 1-2 down, weave with tabby, and repeat for

eight pattern threads. There is very little difference in the appearance of the two textures. Although there are the same number of pattern shots in each sample, stripe A is very slightly narrower than stripe B, thus making a more compact cloth.

Stripe C is woven in pairs in the following order:—1, pattern; 1-2, tabby; 1, pattern; 3-4, tabby; 2, pattern; 1-2, tabby; 2, pattern; 3-4, tabby; and repeat until twelve pattern shots have been made. Stripe D is also woven in pairs, but the relation of tabby to pattern has been reversed. The order of treadling in stripe D is:—1, pattern; 3-4, tabby; 1, pattern; 1-2, tabby; 2, pattern; 3-4, tabby; 2, pattern; 1-2, tabby. There is a very obvious difference in the appearance of the two textures as well as the more compact nature of the weave in stripe C.

In the remaining stripes, E to K, the pattern shots are paired, and the relation of tabby to pattern is the same as in stripe D. These remaining stripes are exercises in picking up the parts of the pattern wanted.

In stripe E, levers 4 and 1 are down, the shuttle enters from the right and is brought to the top of the web a few threads beyond the small pattern block. Then lever 3 is also brought down, making levers 1-3-4 down; this combines both blocks on the under side of the cloth and leaves all background on the visible side. The shuttle is re-entered in the shed, exactly where it was brought out, and then taken through the shed to the left edge of the cloth. Stripe F started the same as E on levers 1-4, but changed to No. 1 only so as to combine both blocks on top of the cloth. Stripe G started with 4-3-1, and changed to 3-1. Stripe H started with 4-1, changed to 4-3-1, and changed a second time to 3-1. The remaining stripes are self evident.

The whole trick of the weave is in bringing the shuttle out of the shed at the correct place, and in re-entering it at the exact place where it was brought out. A little experimenting on the loom will be of more value than pages of description. The draft of Summer-and-Winter is so arranged that it will produce clean cut edges between the blocks, and in the actual weaving, taking advantage of this transition from one block to another makes for smooth weaving and for speed, even though there may be several changes of shed in one pattern shot.

In sampler Y, the small samples are woven, not with a tabby, but on opposites. There are two pattern yarns of contrasting color, but of equal size. Stripe M was woven: 1-3 with green; 2-4 with tan, and repeated. With interesting yarns, this might make an interesting "texture" weave; but so far as pattern is concerned, it is a total loss. Stripe N was woven: 1-4 weave with green; followed not by a tabby, but by the opposite of 1-4, which is 2-3, in tan; 2-4 in green, followed by its opposite 1-3 in tan.

Stripe O was woven in pairs: 1-4, 1-4, 2-4, 2-4, and each pattern shot followed by its opposite in a contrasting color. The result is not too pleasant, but if the weft yarn is changed to a finer softer one, that packs more closely, the result is most pleasing (stripe P). Stripes Q, R, and S are woven singly, or "one-and-one", and are exercises in combining and picking up blocks. When weaving a pattern in pairs, whether with a tabby binder or an opposite binder, it must be remembered that each block begins and ends with half of a pair. This is the same as with any orthodox Summer-and-Winter pattern.

When picking up patterns and an opposite binder is used, there are occasions when the binder is omitted. Stripe Q is an illustration. In the first half of the sample, the dark color is the pattern and the light one is the binder; when the colors change to make the light color the pattern, the order of weaving is: dark pattern followed by light pattern; — *not* dark pattern, light binder, light pattern. It is this and similar irregularities that make it impossible to write out a complete treadling. The weaver must know how the fabric should look, and keep a close watch that no errors slip into the work.

Design methods will vary with the individual weaver, that is whether to make the draft after making the design, or whether to fit the design to a given draft. Fig. 1 illustrates the latter method. The two-block pattern shown at A was designed first; it was planned primarily for a bath mat. In order to make a second and different rug, without rethreading the loom, the pattern shown at B was made. The two blocks of the pattern were combined to make the dark stripe across the border, and the two blocks were combined on the under side to make the light center of the rug. The A blocks were used for one border and the B blocks were used for the other border. The next step in the evolution of the design was to pick up the blocks, separately or combined, and to eliminate them entirely when they were not wanted.

Because Summer-and-Winter is a two-tone fabric, this type of pick-up weaving makes a very definite pattern on an even toned background. The pattern weft as well as the binder (whether tabby or opposite) is carried entirely across the width of the material, resulting in a very even weave. There are no lumps due to the pattern yarn reversing directions as in most types of pick-up and the entire cloth is of the same thickness throughout.

Fig. 2 is another example of working from a known pattern. The familiar Monk's Belt pattern furnished the foundation for the pattern shown. It is a simple matter to translate the usual Monk's Belt from the Colonial Overshot type of fabric to a Summer-and-Winter fabric. The Colonial Monk's Belt, of course, will not "go modern". The design shown at fig. 2 was planned for the upholstery on a small foot stool, and the Monk's Belt was considerably enlarged, although its proportions were kept.

Figs. 3 and 4 were designed first and then the draft was adjusted to the pattern. The design was tentatively made, and the draft tried out with it. Adjustments were then made in the design to meet the demands of the harnesses. In making designs for harness weaving, the mechanics of the loom cannot be ignored. In making these designs, it must be borne in mind that blocks can be combined, but they cannot be divided, — or at least not successfully.

A few suggestions as to materials and textures may be helpful. Linen carpet warp the same size as the ordinary four-ply cotton warp sleyed at eight per inch, woven with Smyrna Rug Wool for pattern and Turkey Wool for a tabby binder, made a beautiful rug. The same warp woven with two tones of Turkey Wool doubled, treadled in pairs and the binder on opposites gave a nice texture, though not so heavy a rug. Perhaps the most successful rug was on a cotton warp, eight per inch. An old cotton blanket was cut in quarter-inch strips for the pattern, which was woven singly. Each pattern shot was followed by two tabby shots of cotton chenille.

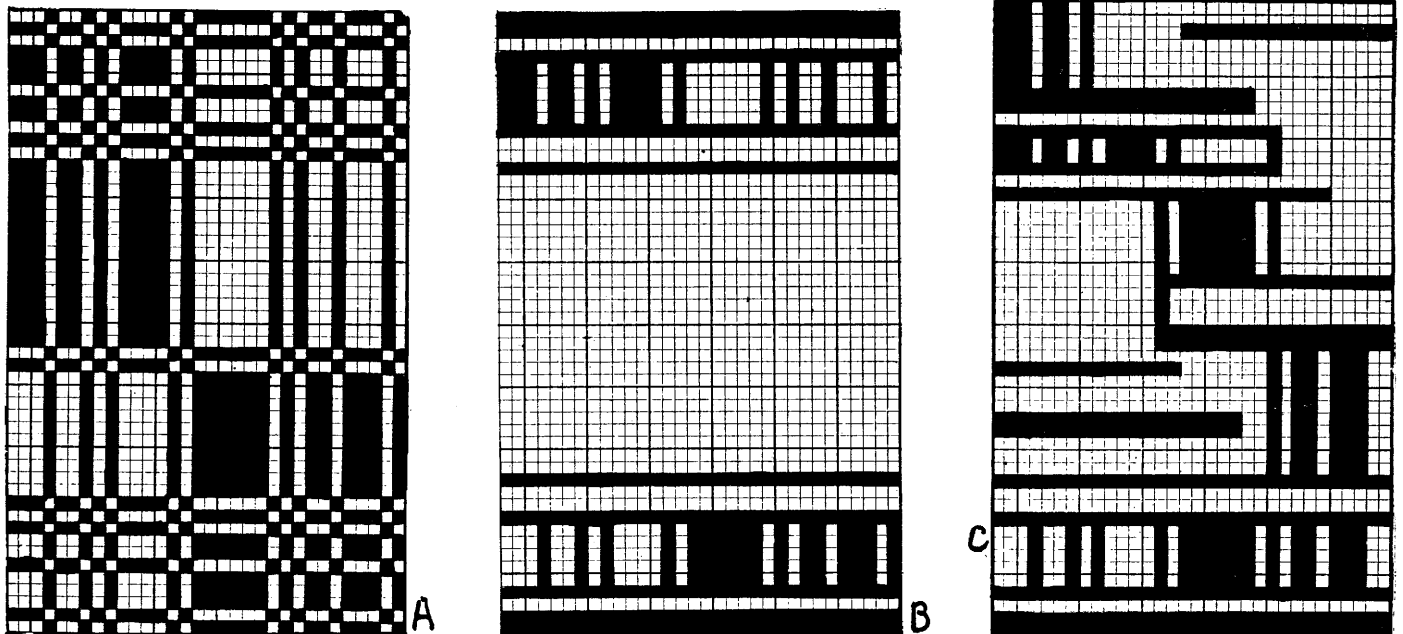


Figure 1

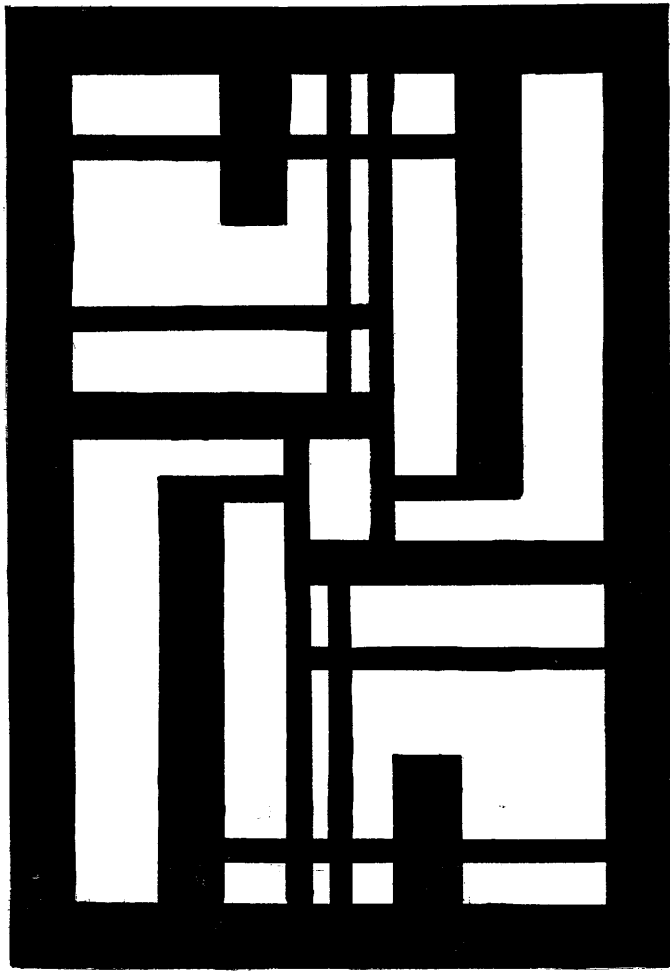
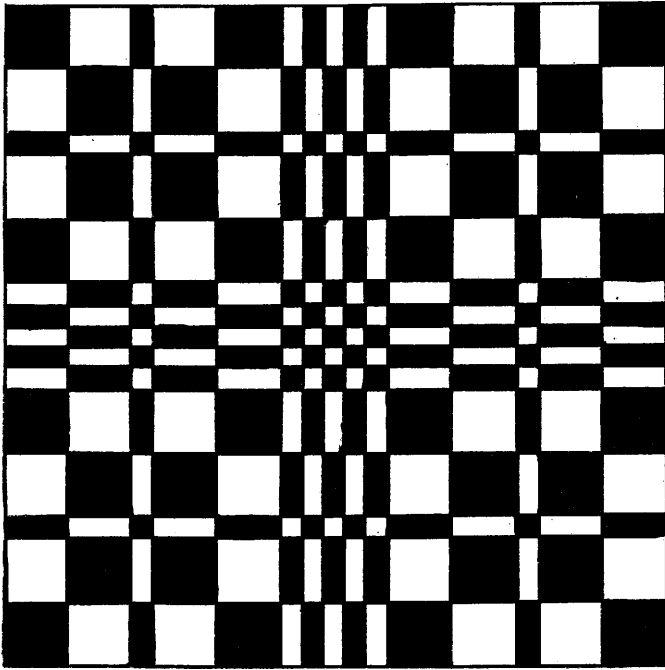


Figure 2

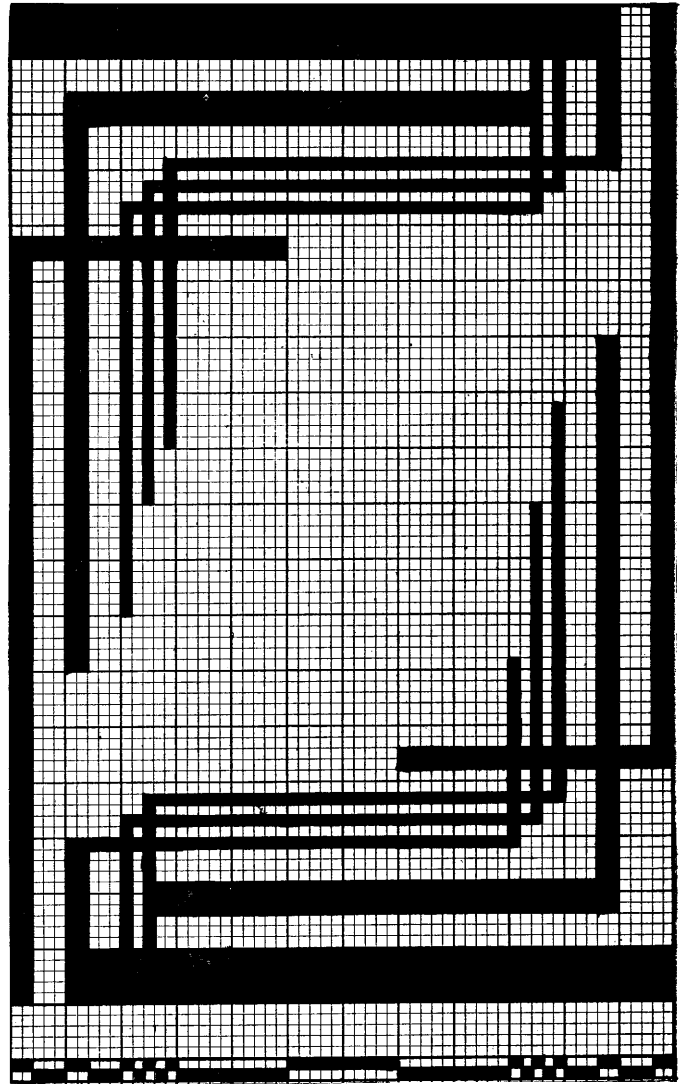


Figure 3

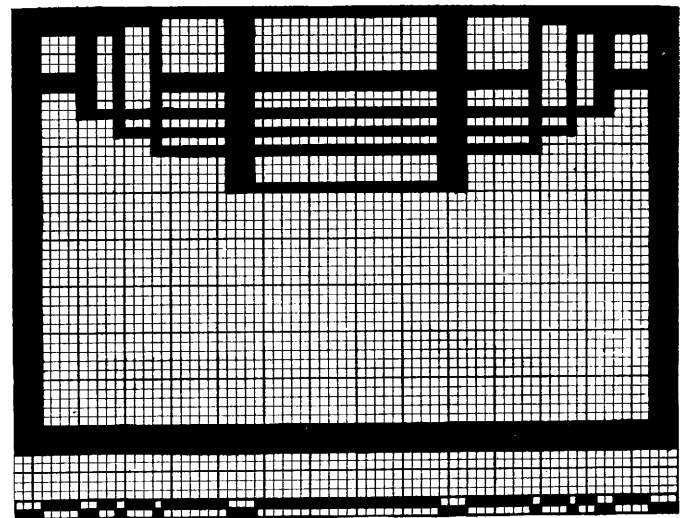
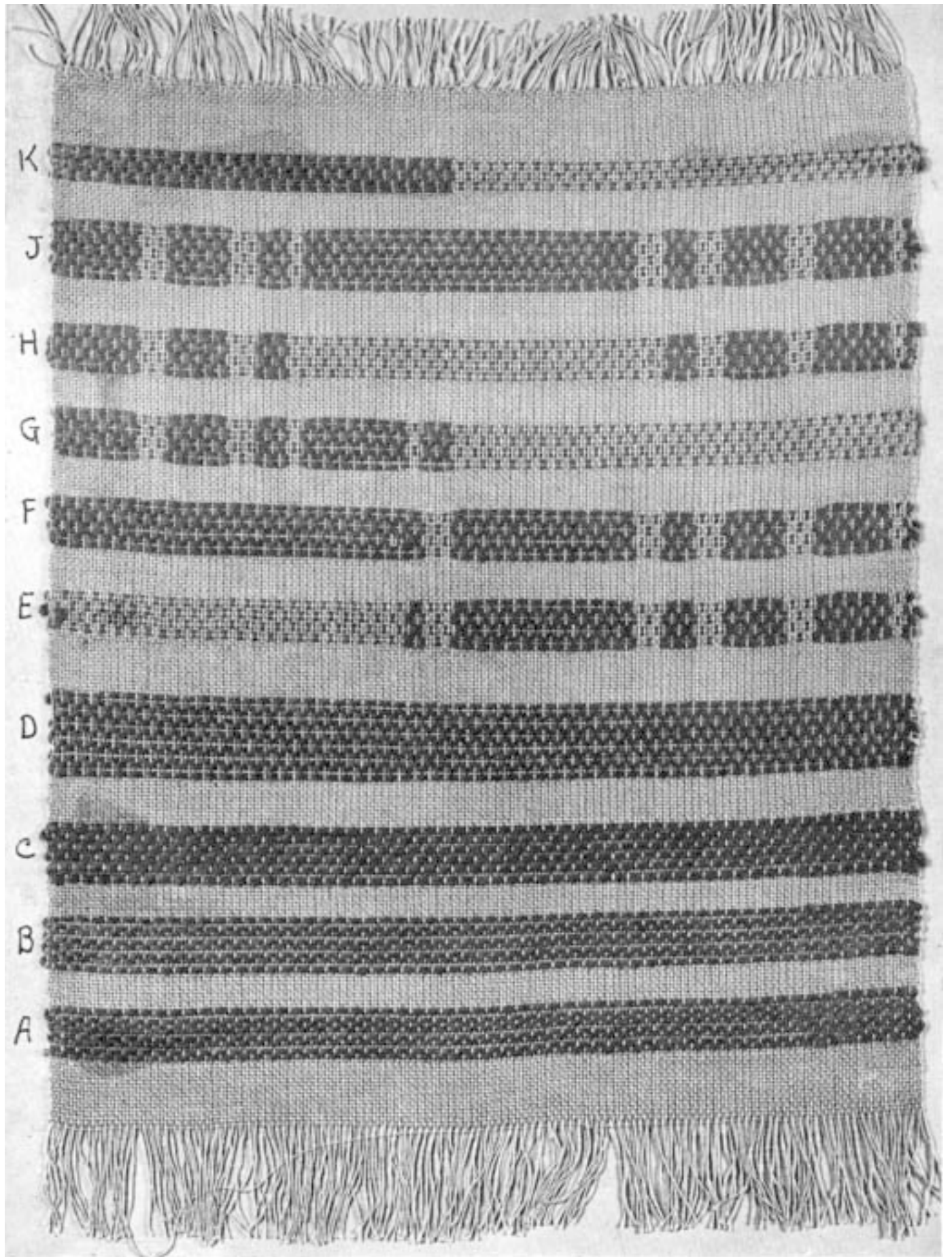
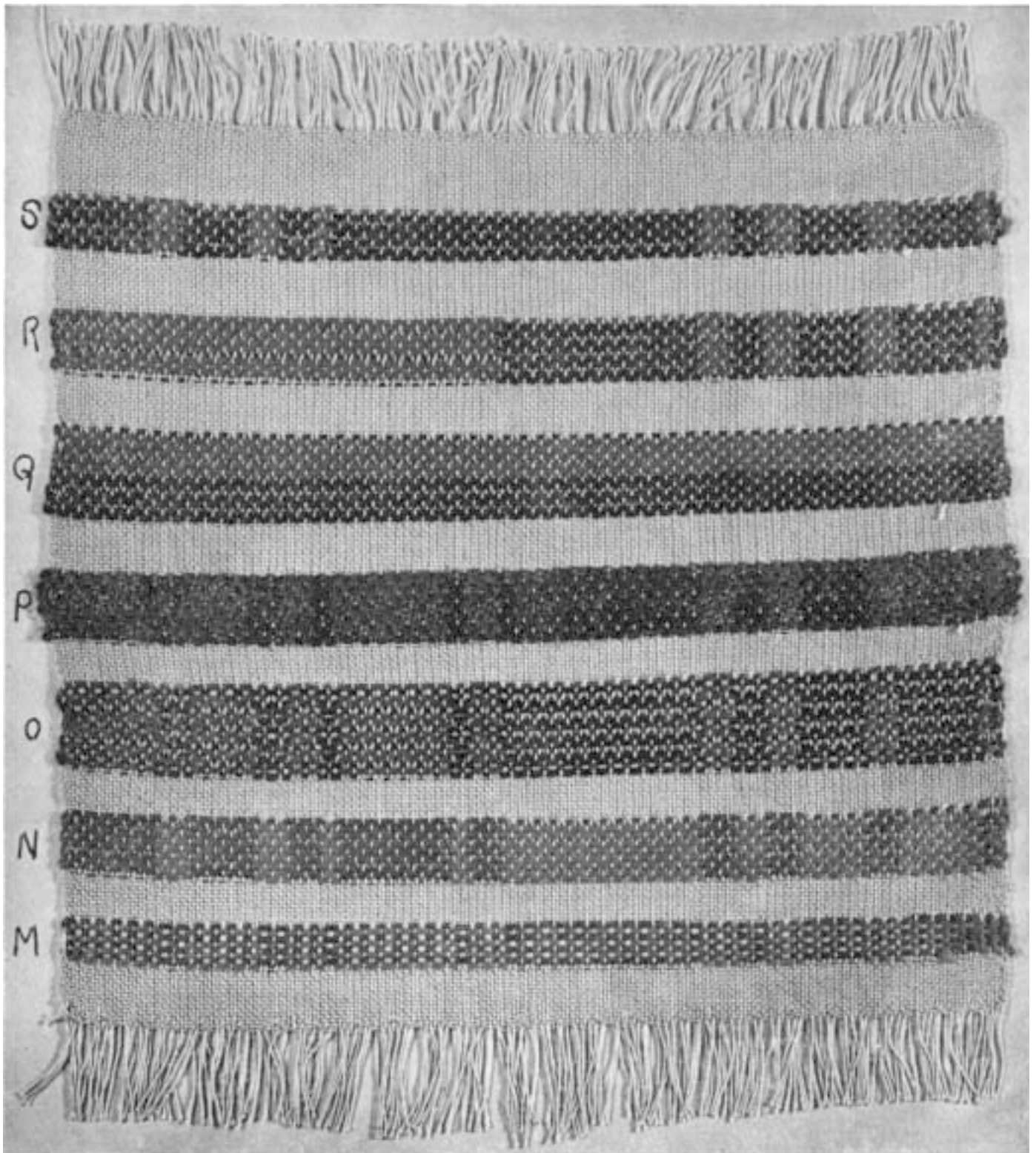


Figure 4





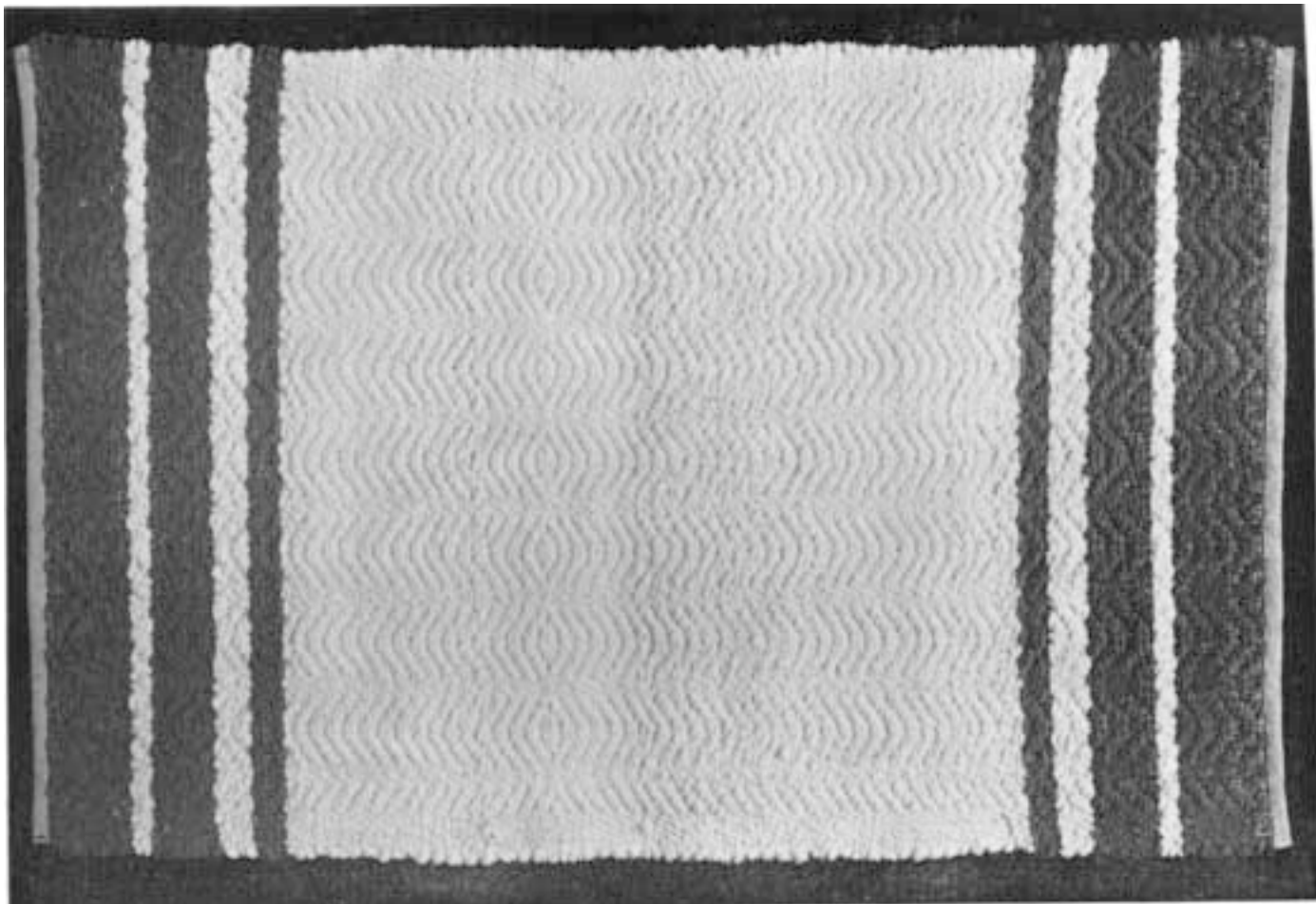
For luncheon sets, the usual 40/2 Linen Warp at thirty or thirty-two per inch may be woven with the same weft yarns as are used for any linen weave. If the wefts are nicely balanced, the weave is more attractive when done in pairs. A tabby binder is always better with linens than a binder on opposites. A very formal and gorgeous luncheon set was done in white silk and silver. 20/2 white silk was used for both warp and weft, — thirty-two per inch. The “silver”

was a very narrow flat cellophane which, according to the manufacturer, “won’t tarnish in a hundred years”.

This “new” method that isn’t new at all, has kept several students as well as their teacher vastly entertained and very busy during the past several weeks, and every week something new and interesting about it develops. Here’s hoping that many more will find as much pleasure in it and that more steps in the evolution will be found.

SUMMER ADVENTURES IN WEAVING

by KATE VAN CLEVE



In the summer of 1939 a group of people from different parts of the country gathered at the Studio in Brookline, to do some intensive weaving.

One of the interesting projects was the making of material for a skirt, jacket and coat to go together. The material illustrated (No. 1) was woven by Miss Josephine Besaw of Cleveland, Ohio, and was used for a short coat. The warp was sport yarn in light and dark blue, four threads of each alternating. The weft was imported Scotch shetland with flecks of color (notice the spots of light in the print).

DIRECTIONS FOR JACKET

Materials.

Warp:—1 lb. light blue homespun 594
1 lb. dark blue homespun 597

Weft:— $\frac{3}{4}$ lb. light blue imported Scotch shetland
 $\frac{3}{4}$ lb. dark blue imported Scotch shetland

Warp.

5 yard warp chain of 448 threads (for 30 inch width)
4 threads light blue and 4 threads of dark blue alternating.

15 dent reed.

Weaving:—Plain weave.

4 threads of light blue and 4 threads of dark blue alternating.

DIRECTIONS FOR SKIRT

Materials—Either the light or dark blue may be used.

Warp:— $\frac{1}{2}$ lb. homespun

Weft:—1 lb. imported Scotch shetland

Warp.

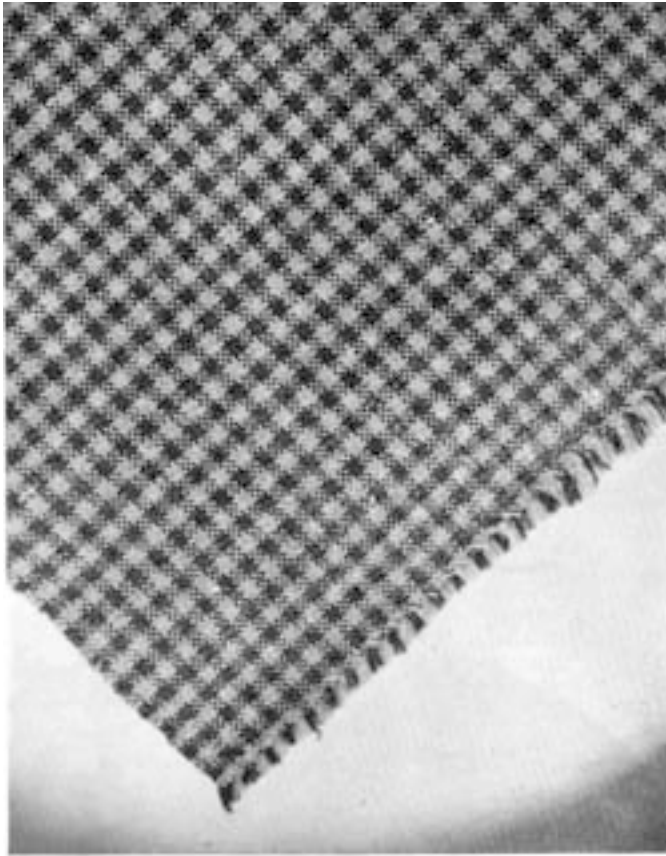
4 yard warp chain of 448 threads (for 30 inch width)
15 dent reed.

Weaving:—Plain weave.

DIRECTIONS FOR COAT

In order to make a practical as well as a most attractive Travel Outfit for the trips we all look forward to, a coat is needed. There will probably be enough pieces from these materials for hat and handbag.

This coat may be light or dark, to match the skirt. The weft will be all one color.



Materials.

Warp:—1½ lb. light blue homespun

1½ lb. dark blue homespun

Weft:—2 lb. imported Scotch shetland

Warp:—7 yard warp chain of 448 threads (for 30 inch width)

8 Threads light blue.

8 threads alternating—dark blue, light blue, dark blue, light blue, dark blue, light blue, dark blue, light blue.

8 Threads dark blue.

8 Threads alternating—light blue, dark blue, light blue, dark blue, light blue, dark blue, light blue, dark blue.

14 Repeats of the above.

Weaving:—Plain weave with either the light or dark blue shetland.

A skirt was woven by Mrs. Edson E. Bridges of Omaha, Neb. which seems well worth describing here.

The warp was of white and grey alternating threads of sport yarn and a grey Scotch shetland with flecks of color for weft.

A twill threading was used with a 20 dent reed.

The short jacket to go with this skirt could be made of white, grey and black warp as follows:—

8 threads white, 8 threads black, 8 threads white and 8 threads grey (5 yards of 600 threads).

Weft:—White, black and grey Scotch shetland.

Weaving:—Treadle for twill, 1-2, 2-3, 3-4, 4-1.

Using grey, black, grey and white forming small squares of 8 threads each.

CHENILLE RUG (ILLUSTRATED)

The third most popular project in 1939 was a rug woven of heavy chenille in a shell pattern. The rug illustrated had soft rose borders and white center.

For this shell effect use any small pattern threading such as the honeysuckle. Treadle 1-2, 2-3, 3-4, 4-1 without a binder. Change and reverse 3-4, 2-3, 1-2, 1-4 either in the middle of the rug or two thirds of the way thru the center. To obtain a similar effect use 3 or 4 strands of Bernats regular cotton chenille wound together on your shuttle.

SUGGESTIONS FOR DESIGN

by CLARA M. YOUSE

There seem to be times for all of us when we want new designs for our weavings but do not have time nor the inclination to make the effort necessary to draw the design we would like to express in the woven article. Some weavers prefer to use the traditional patterns belonging to the Colonial period, and, indeed there is enough material in those old patterns to give inspiration for a lifetime of weaving. But many of us would like to branch off into fields that express our own thoughts and emotions, and for these weavers this article is intended.

Plate number one, pattern number one has been successfully used for a luncheon set. The four doilies were made twenty-two inches long and fifteen inches wide each. The material was Egyptian cotton 24/3 set at fifteen threads to the inch for warp and the weft thread Linen Weaver rose color, which made a very lovely combination of material. Plain weaving was done for three inches, then a row of hemstitching or, as some weavers prefer to call it, the leno or gauze weave. The design was then done in the Woven Sheaf Stitch, which made a stripe of design about two inches. Plain tabby weaving followed, design being worked into the end in reverse order, after which one or two rows of hemstitching gave it a smart finish, then three inches of plain weaving. After taking from the loom the ends were folded over and hemmed by hand into the hemstitching, thus forming a hem on each end of doily one and one half inches wide. The napkins were made twelve by twelve inches and the pattern number two used on each end similar to the doilies. The Sheaf Stitch was described in the Oct.-Nov. 1939 issue of the Weaver.

The formula is quite easy to remember—Pick up first thread on upper shed, miss two threads and continue to pick up one thread across web. Tabby from left, tabby from right, tabby from left. Repeat.

Pattern numbers three and four were made on the same warp and a Nile green Linen Weaver used for weft. The design being woven in a rose color for stripe and finished with hemstitching.

Number five is for a border on a towel. Number six is a border design for linen toweling, the triangle corners should be woven in the laid in technique. Spanish stitch could be used to advantage in this pattern using a heavy linen floss for design, a mercerized thread number three for tabby and a 20/2 cotton warp in contrasting color. Numbers seven and eight are intended for window drapes or so called glass curtains. When using number seven the triangle motif should be repeated across bottom and side of curtain at regular intervals. Number eight has the triangle in the bottom corner and should be used for Sheaf Stitch. Number nine is simple yet effective when woven in either Spanish or Sheaf Stitch for doilies, curtains, table cloth or pillow top. The remainder of designs on this plate are border designs. Number ten, the fret border, has been used on both sides, top and bottom of doilies for a gay little luncheon set woven in Linen Weaver in two shades of yellow, the warp a light yellow and weft a darker shade.

FORMULA FOR SPANISH STITCH

This stitch is made in three movements—Open shed and start at right hand side. Pass shuttle thru as many threads

as needed for a border, say ten threads. Press in thread and change shed, beat again, pick up original threads and ten more, thus combining last part of previous stitch and first part of next. The third movement completes stitch by changing shed, pressing in thread and picking up last ten threads and ten more. Continue across web. This completes first row. The succeeding rows are made according to the pattern desired, allowing the holes made in first row as the beginning of design and following each X of pattern as it appears in the pattern.

PLATE NUMBER TWO

The first eight designs are the gay little sets of kettles and dishes that could be used for many different textiles from the lowly dish towel all the way to the bridge table cloth. The butterfly, animal, swan, tree motif are all suitable for any of the weaves so far described but I have found that medallions are effectively worked out in the French embroidery method using this formula. Thread loom for tabby weave and put the pattern in entirely by hand, no shuttle being used, over two threads of the warp and under two across desired pattern. Next row under two and over two across pattern. Change shed and tabby across web. This completes one row of stitch.

Number nine would be lovely worked out as repeated stripes for sheer window or glass curtains done in Spanish stitch. Number ten and eleven, the star and rose design work out very well in Spanish stitch. The rose pattern could be used for a bordered table cloth and used on all four sides.

Number sixteen is a bit of design taken from one of our beloved Colonial patterns developed in "Dukagang" in a variety of strong colors and used for material for a knitting bag this pattern repeated several times would be most effective.

Formula for "Dukagang"—Use Rosengang threading, 1-2-3-4, 1-4, 3-2-1, 1-2-3-4, 1-4-3-2-1 and repeat. Treadeling for table looms—Design shed 2-3-4. This brings down groups of three warp threads on top of shed leaving one warp thread on harness number one between each group of three on bottom shed. Tabby sheds are 1-3, 2-4. To weave—Start with a tabby shot from the right 1-3, then 2-4 from left, which will bring tabby on right side of loom. Then use pattern shed 2-3-4, and follow design as it comes in pattern. Remember that two rows of tabby always complete the pattern row.

Number seventeen and eighteen are easily worked out in any stitch described in this article and suggest many interesting pieces of weaving where simplicity and good design are desired.

Number nineteen is another border design. Plate number three shows the alphabet in letters of modern style. They are adaptable to woven bath mats, bedroom linens, and dining room linens. A bath mat of white chenille woven on a white carpet warp in plain tabby weaving with a monogram in the lower right corner done in cherry red with a broad hem of red on each end would make a good start for the ensemble of matching towels done in linen, and window drapes of cotton. The French embroidery weave is the best method for letters and monograms.

ПЛАНЪ I

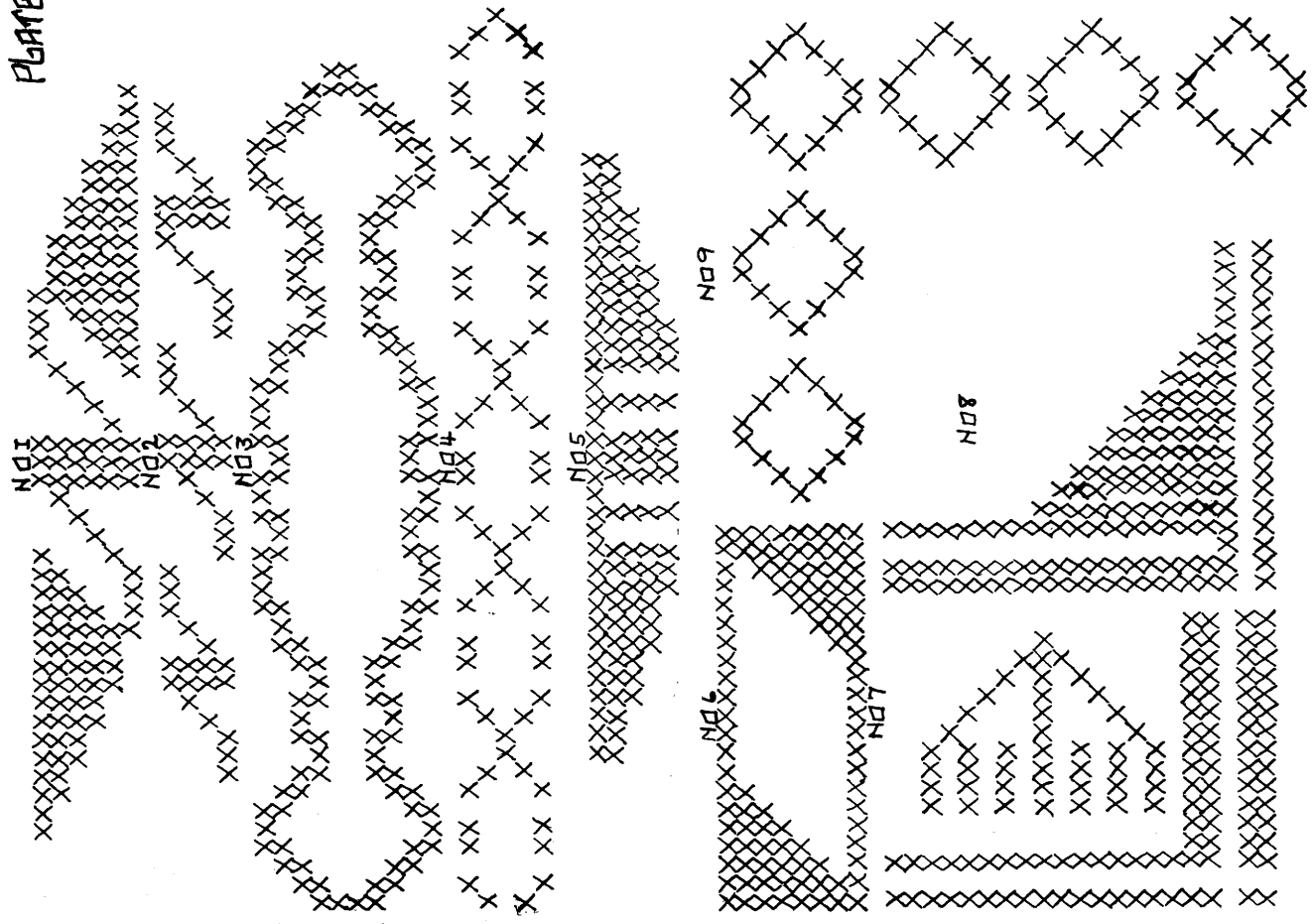
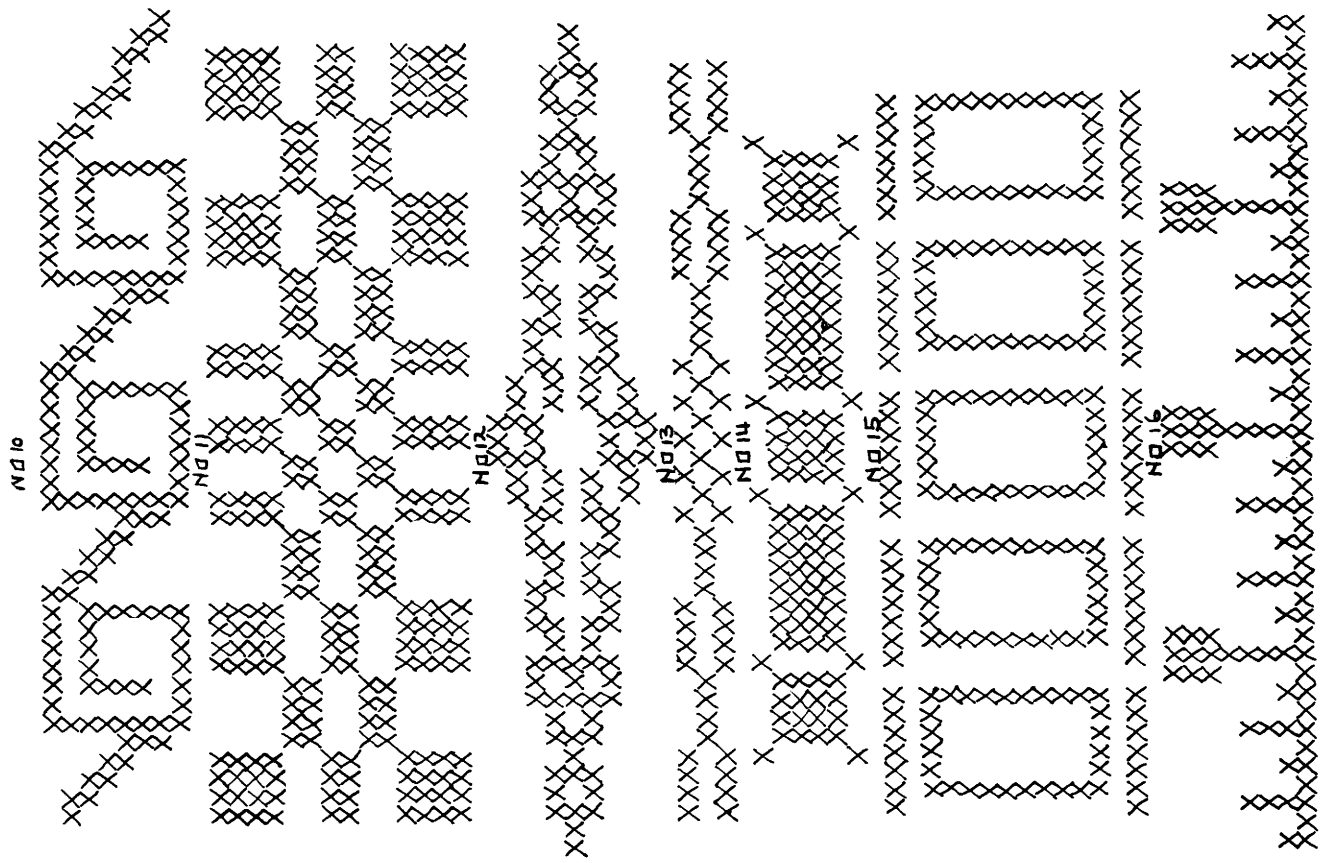


PLATE 2

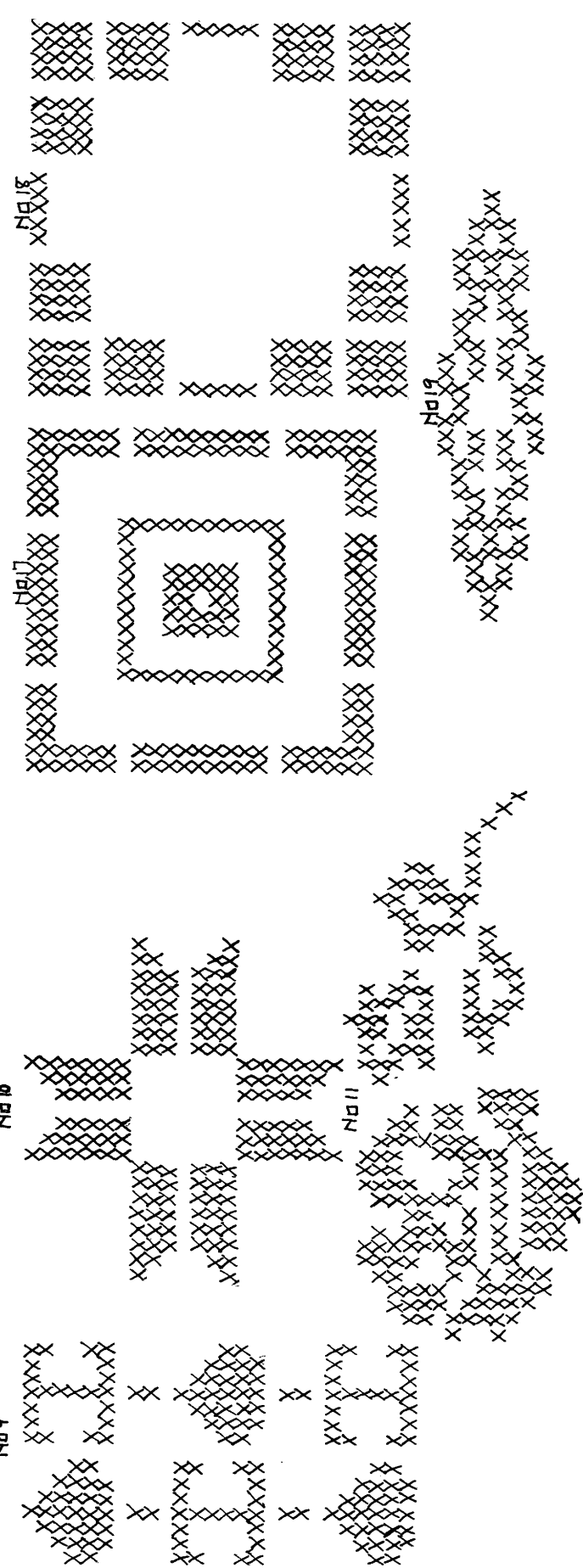
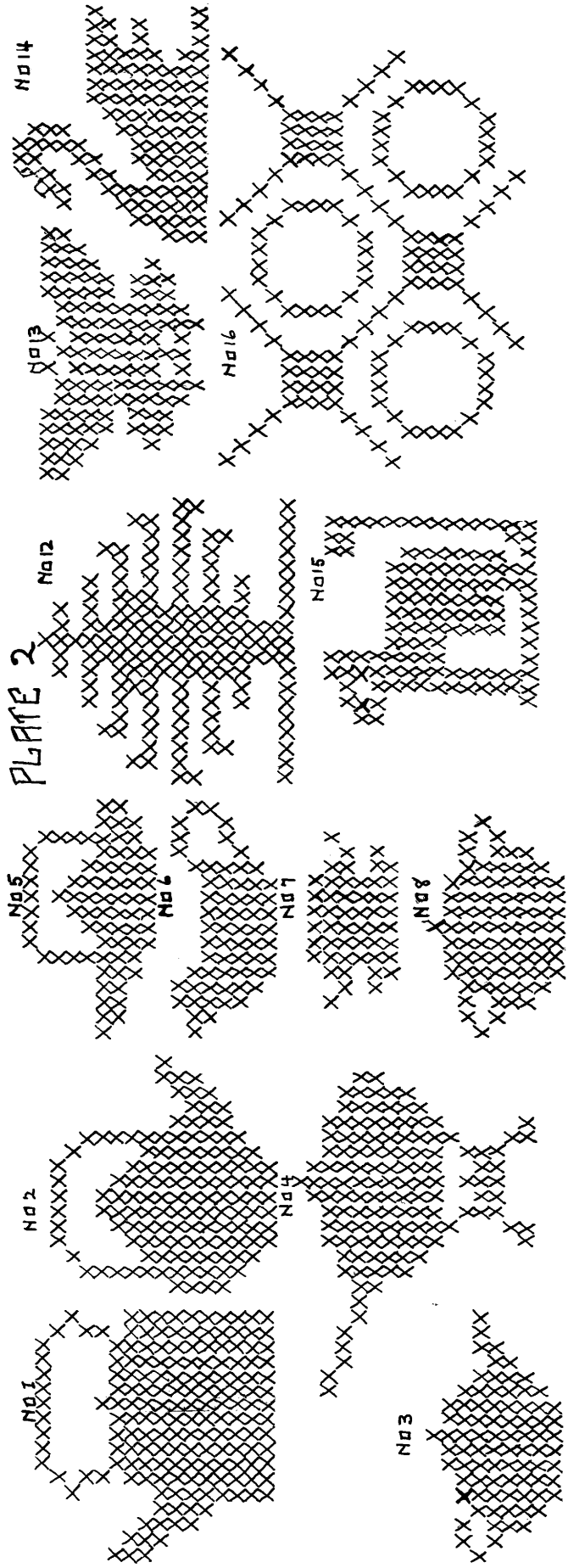
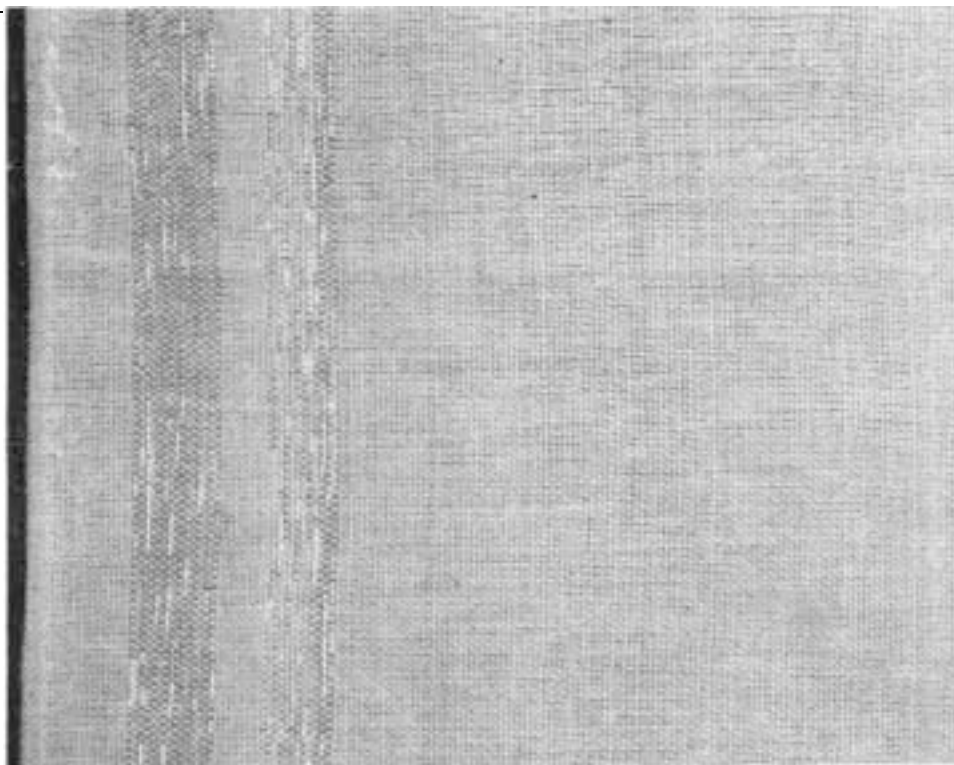


PLATE 3



ATTRACTIVE LUNCHEON SETS

by GLADYS R. KALES



Altho Linen has been advancing in price steadily, for some months, there are still many people who demand "all-linen".

So for those who can afford Luncheon Sets made entirely of Linen and wish something different, but attractive, try this combination of linen and a silver yarn that Bernat now carries.

In this particular set I used a 40/2 linen warp, sleyed 30 to the inch, and set up 12½ inches wide for the place mats. The weft Linen was of Superfine No. 20 (but also I have used Linen Special) and the stripes were done in Dark Blue, and Medium Blue of the Linen Special, combined with other stripes of the silver thread wound with the white linen and also with the medium blue linen.

First I wove 1½" of the plain white, then a band ¾" wide of the medium blue and silver wound together. Next a ⅜" band of the Dark Blue, and a ⅜" band of medium blue. After that came 1¾" band of silver and white wound together. Then ⅜" of Dark Blue, ⅜" strong of Medium Blue, ⅜" scant of white, and 5/16" of the blue and silver wound together. After this combination of stripes came 1¼ inches of plain white, then ⅜" of the Medium Blue, and ⅜" of the Dark Blue, which brings the material up to the center stripe of Blue and silver wound together. I made this 17/8" wide. Now just reverse the stripes for the other half of the place mat.

The napkins were set up 14½" wide. I wove a plain white band 1½ inches wide, then a band ¾" of Blue and silver, ⅜" band of plain white, and ⅜" band of silver and white with 3 shots of the blue and silver. The rest of the napkin was of plain white linen. Of course I hemmed all ends.

These sets make nice wedding gifts; and very effective, especially if used with a lovely glass service.

Also this Blue set goes nicely with Old Silver Lustre — if one is fortunate to possess some, and combined with Wedgewood, Canton or Old Willow Ware.

Again if using Spode, Minton, Lenox or Royal Doulton, just weave the sets to blend with the China; and you will be surprised at the lovely Linens you will find yourself weaving. I am sure I've given suggestions enough for a great variety of Linens, and just have as much fun as I have in weaving them.

This silver thread which is Bernat's Non-Tarnishable Silver Thread wears better if wound with the Linen, for it is somewhat brittle, and sometimes breaks in the handling. However, it can be woven in a pattern by itself, with another material for a Tabby, — (I think the Linen Special) but I do advise a short, "Over Short" pattern however. It washes and irons beautifully.



MINIATURE PATTERNS FOR HAND WEAVING

by JOSEPHINE E. ESTES

The first article on Miniature Patterns appeared in the *Handicrafter*, July, 1932 and was received with much interest. It was followed by the second article in the *Handicrafter*, April, 1933. Both these numbers are now out of print. The third article, in the *Weaver*, July, 1936, gave patterns that were evidently used far and wide. Now comes a request for new miniatures and this, the fourth article, is the result.

As before, the twill border is recommended as the most practical one for use with these patterns, though it is quite possible to use Rose Path as a border for some of them, or a solid table may be arranged for the corner. It is a matter of taste.

1. **QUILT SQUARES** is a good pattern for an all-over design. As it is an alternating pattern, care must be used to thread precisely by the directions given so as to balance the figures in the width of the web. For a warp of 600 ends, thread 16 to twill as it is shown in Illustration 1, ending it on 3 as at B, where it connects with the pattern as bracketed; then make 9 repeats of the pattern, then thread the 27 threads from A to B and finish with 17 threads in twill. For narrower webs, subtract one pattern for each Structo spool subtracted.

2. **TILE** is a tiny pattern but a very usable one. For 600 ends without border (as for upholstery), thread 7 to twill, the pattern 26 times, then the 13 threads (A to B) and 8 to twill, connecting as shown in Illustration 2. For 120 ends for small articles, thread 9 to twill, the pattern 4 times, the 13 threads (A to B) and 10 to twill. For 72 ends for belts, thread 7 to twill, the pattern twice, the 13 threads (A to B) and 8 in twill. Color experiments with this little pattern will be interesting. Try using one color for all shots of the $\frac{1}{2}$ and the $\frac{3}{4}$ sheds, another on the $\frac{2}{3}$ shed and a third color, a bright one, on the $\frac{1}{4}$ shed.

3. **LOVER'S KNOT** is a miniature suggested by an old pattern in the *Shuttle-craft Book of American Hand-weaving*, by Mary M. Atwater. Since it is a firm little pattern, without long overshots, it is good for upholstery or can be used for linens. For 600 ends without border, thread 2 to twill, 13 repeats of the pattern, then the 24 threads from A to B and 2 in twill. For 240 ends, thread 20 to twill, pattern 4 times, the 24 threads (A to B) and 20 in twill.

4. **FLOWER OF FLANDERS** is a well balanced pattern which can be used for a variety of widths of web. For 600 ends with narrow border thread 15 to twill, 15 repeats of pattern, 15 to twill. For a wider border, thread 34 to twill, 14 repeats of the pattern and 34 to twill in reverse. For 420 ends, use 20 in twill, pattern 10 times and 20 in reverse twill.

5. **SQUARE and COMPASS** is a heavy pattern for a miniature and is good where a bold, decided effect is needed and short overshots are preferred. For 600 ends without border, thread 9 to twill, 10 repeats of the pattern, the 41 threads from A to B and the last 10 to twill. For 600 ends with border in twill, use 36 to twill, 9 repeats of the pattern, the 41 threads (A to B) and 37 in twill.

6. **SMALL SINGLE SNOWBALL** is a miniature that was suggested by one of the Snowball patterns in the *Shuttle-craft Book*. It is similar to the overworked Honey-suckle, but has shorter overshots. For 600 ends with a narrow border, thread 12 to twill, 18 repeats of the pattern and 12 in twill. This arrangement gives a web that can be folded lengthwise in the middle if desired. For 240 ends, thread 24 to twill, pattern 6 times and 24 in reverse twill. For belts, use 80 threads, putting 8 in twill, pattern twice and 8 in reverse twill. When woven as drawn in, this pattern is good for using several colors.

7. **DOUBLE CONES** is a close little pattern. Its lines are brought out best in strong color contrasts such as the navy and white of Colonial days. For 600 ends without border, thread 3 to twill, 18 repeats of the pattern, the 17 threads from A to B and 4 in reverse twill. For small articles, use 120 ends, threading 3 to twill, pattern 3 times, 17 threads from A to B and 4 in twill. For belts, use 72 ends and thread 11 to twill, pattern once, the 17 threads (A to B) and 12 to twill. Woven in rose fashion, this makes a good belt or can be used for band trimming.

8. **MARINER'S PRIDE** offers variety of design both in all-overs and in treadled borders. It is rather amusing to note that whether it is used as draw in or in a rose fashion, there is always something that suggests nautical things to one having imagination and a background of the sea—for instance, a steering wheel, an anchor or a compass. For 600 ends, thread 6 to twill, then the 30 threads from B to A, then 12 repeats of the pattern, then the 30 from A to B and the last 6 to twill. If a border is desired, thread 28 to twill, 30 (B to A), 11 repeats of pattern, 30 (A to B) and 28 to twill.

9. **MAGNOLIA STAR** is a pattern that is useful either as draw in or in rose fashion. For 600 ends, thread 14 to twill, make 13 repeats of the pattern, and put the last 14 in reverse twill. For 420 ends, thread 12 to twill, pattern 9 times and 12 in reverse twill. For 240 ends, use 10 in twill, pattern 5 times and 10 in reverse twill. Care should be used with this pattern in arranging color combinations as opposing colors may give a dizzy effect.

10. **CHARIOT WHEEL** was suggested by a pattern of that name in *Foot-Power Loom Weaving*, by Edward F. Worst. It is not as useful for very small articles as some of the others, but it has the advantage of short overshots that is common to all the miniatures. For a warp of 600 ends, thread 36 to twill, use 12 repeats of the pattern and put 36 in twill. For 420 ends, thread 12 to twill, make 9 repeats of pattern and finish with 12 in reverse twill.

In all of these miniatures, the pattern is bracketed and marked with the number of threads. Any reference to a certain number of repeats of the pattern means that the draft included within the bracket is to be threaded that certain number of times. In the illustrations, the drafts are developed under the bracket and a half-repeat of the pattern is added to show how the secondary figure works out.

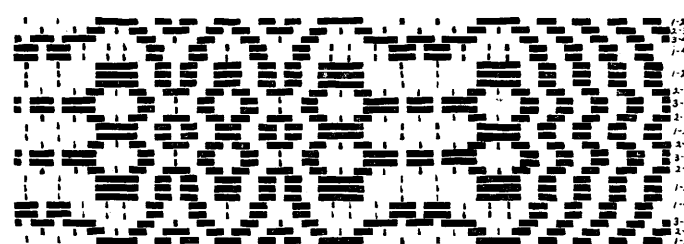
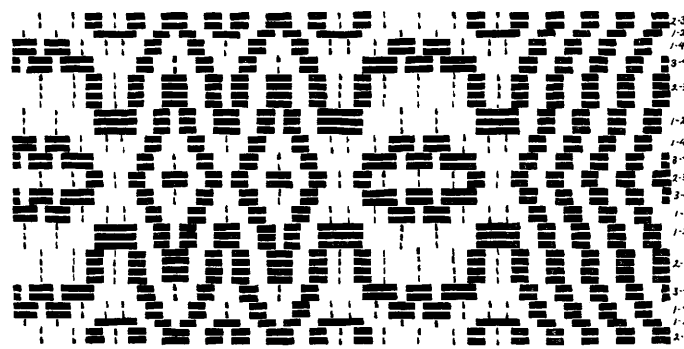
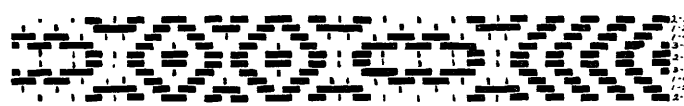
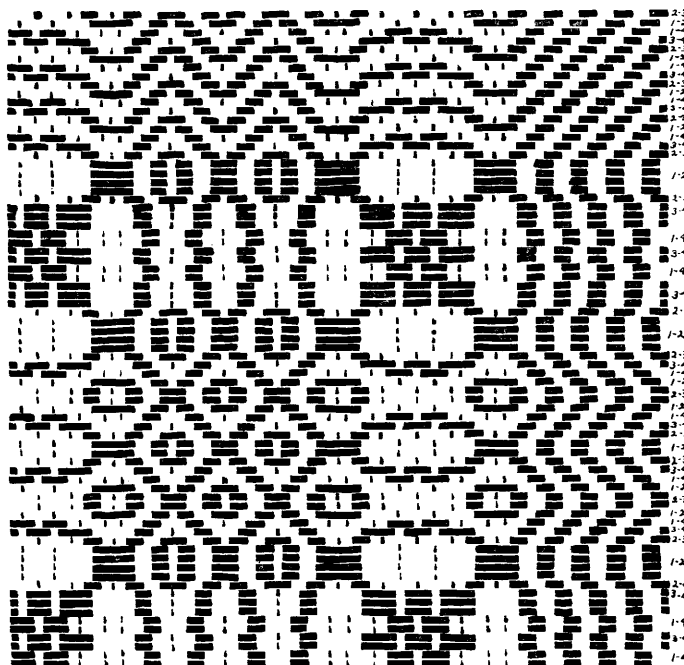
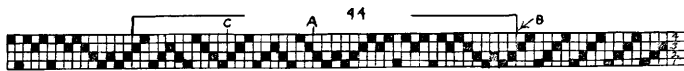


Illustration No. 3
Miniature after a Lover's Knot Pattern

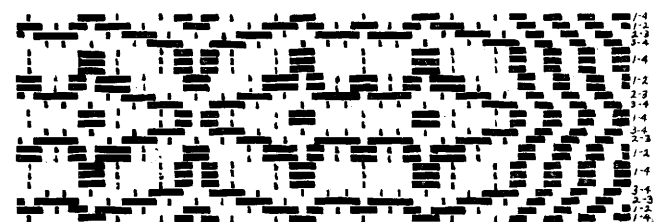
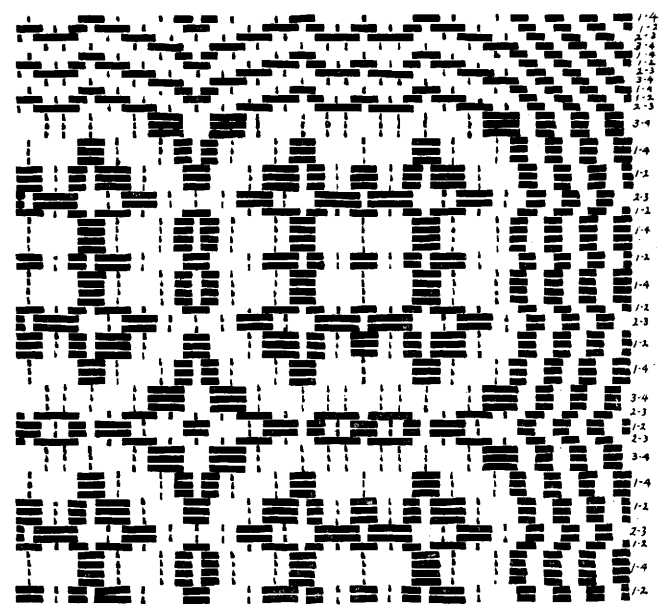
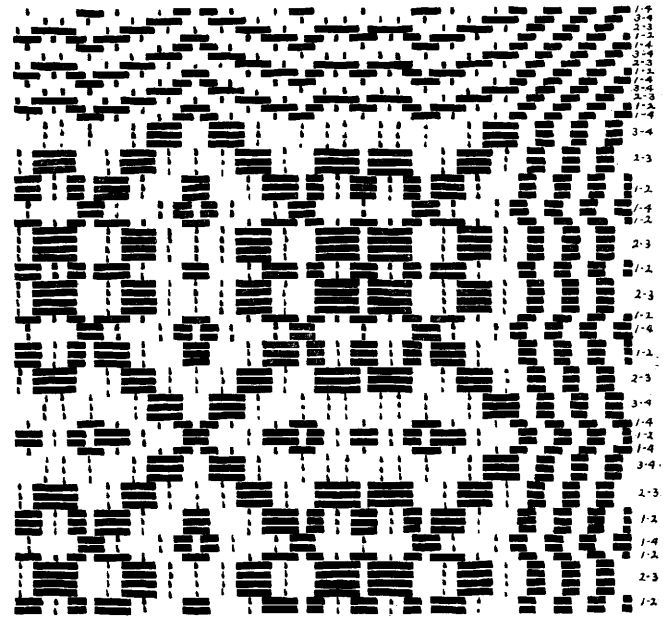
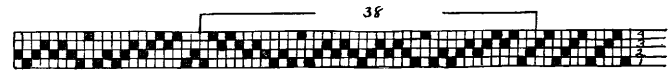


Illustration No. 4
Flower of Flanders

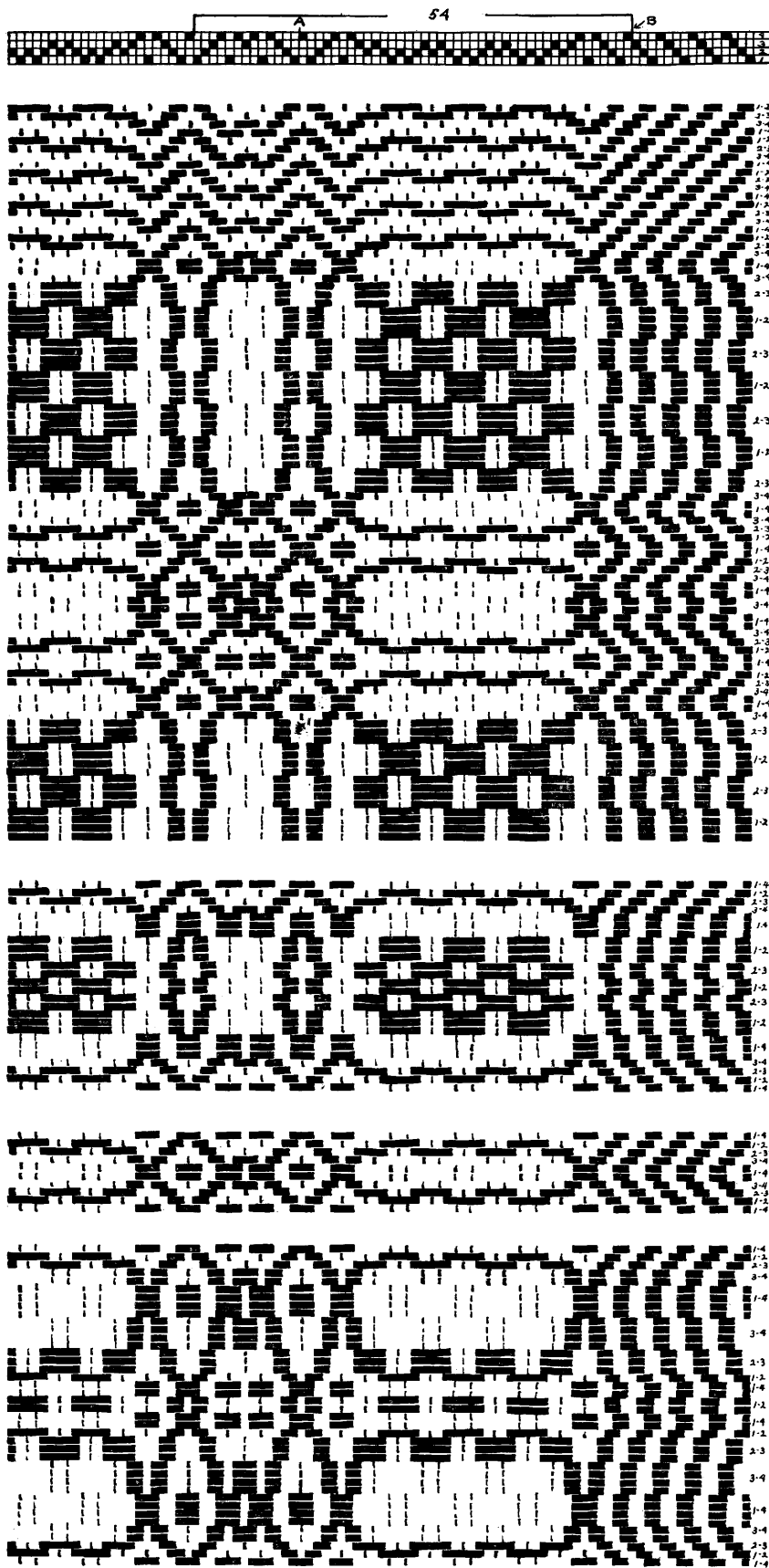


Illustration No. 5
Square and Compass

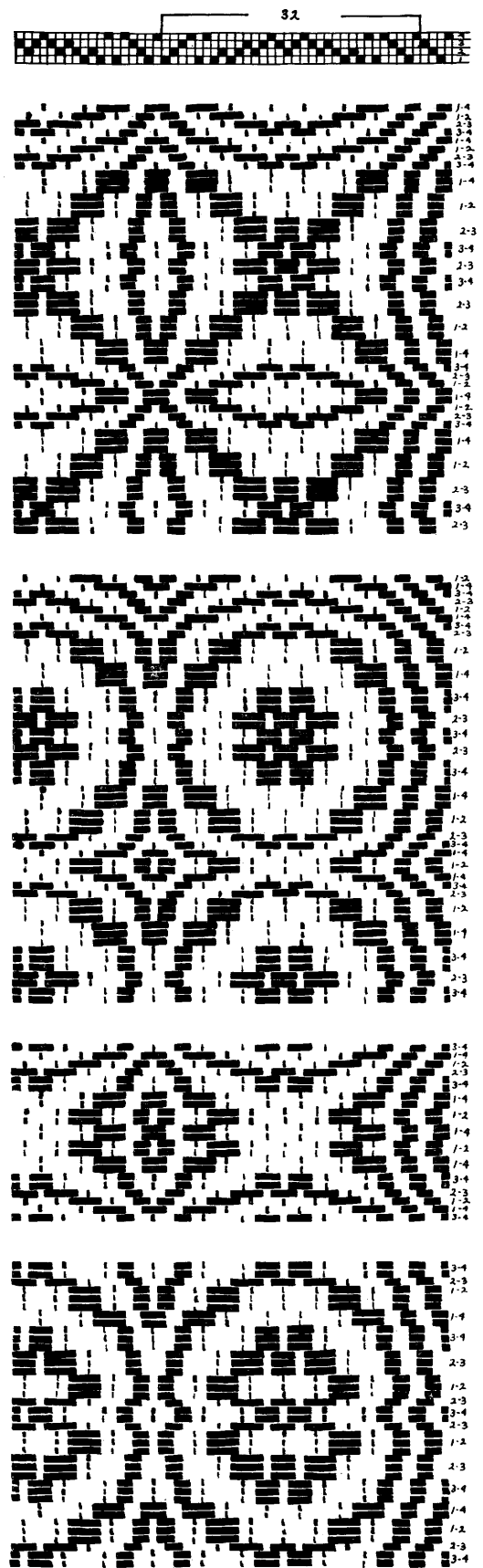


Illustration No. 6
Small Single Snowball

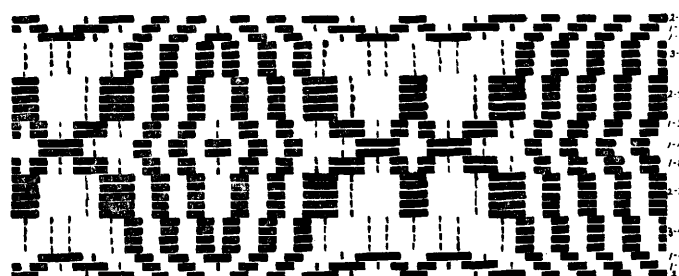
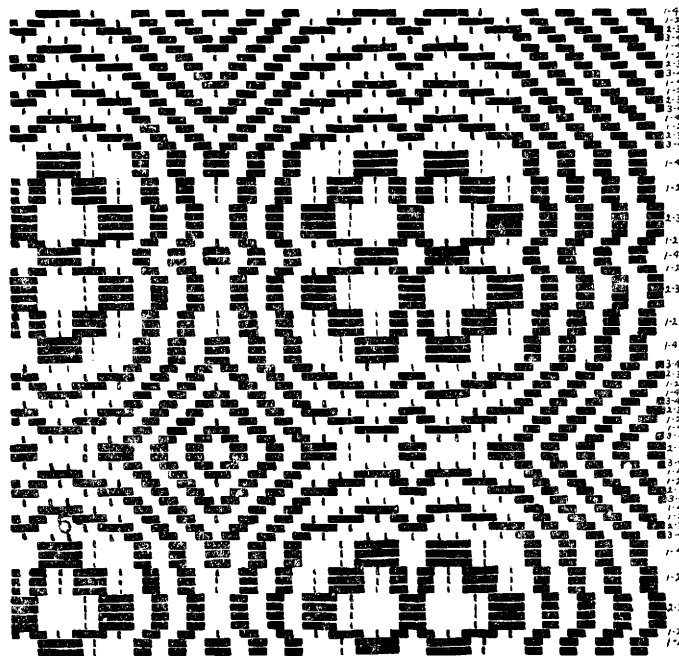
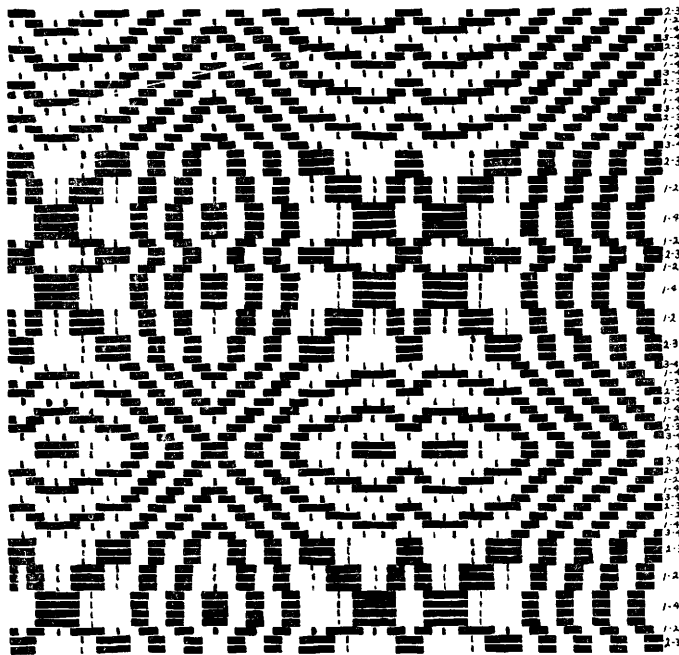
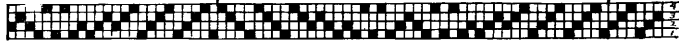


Illustration No. 9
Magnolia Star

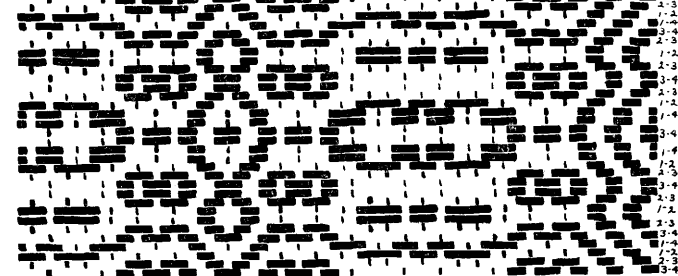
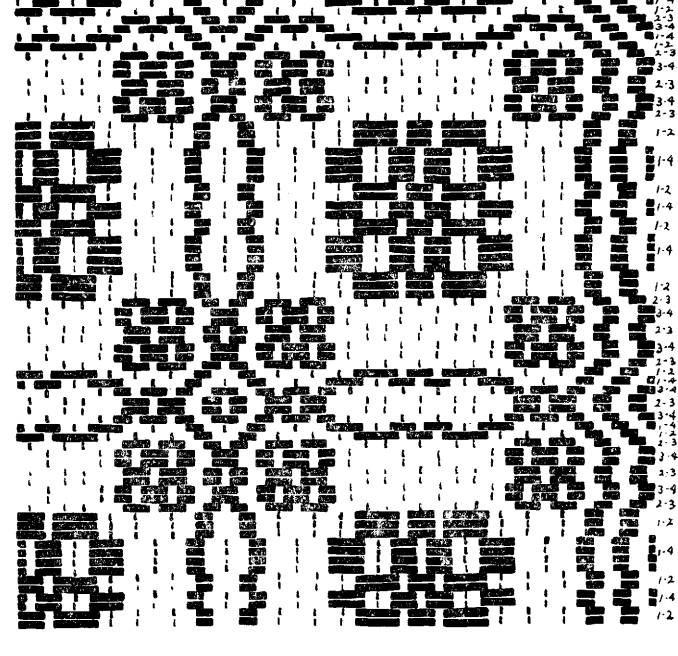
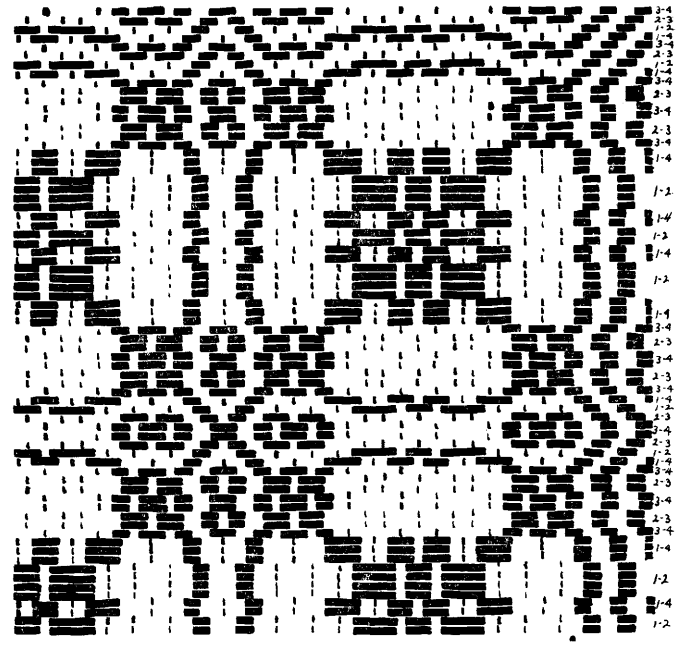


Illustration No. 10
Miniature after a Chariot Wheel Pattern

QUESTIONS AND ANSWERS

by MARY M. ATWATER

Address all questions to Mary M. Atwater, Director of the Shuttle Craft Guild, Basin, Montana

Question: Where may I obtain reliable working drawings for the building of a loom? It is not a question of buying a manufactured loom — I wish the pleasure of building one.

Answer: The best set of working drawings I know of is the one included in a book: "Home Weaving", by Victor Beriau, published by the Department of Agriculture, Province of Quebec, Quebec, Canada. The drawings are for a four-harness counterbalanced loom of simple design, and the drawings are given in full detail. The drawings show a mounting with string heddles as well as one with metal heddles. The latter is, in my opinion, to be preferred. It is also better to purchase standard heddle frames as well as the metal heddles from a manufacturer as it is difficult to make these frames light enough and exact enough in the ordinary home work-shop. The Beriau loom does not provide a sectional warp-beam, but this convenience can be added very easily.

Working drawings of the best modern looms now being supplied by loom manufacturers are, — naturally enough — not available. And the drawings in the book mentioned are the only ones I consider thoroughly reliable.

A loom is a technical tool, and must be made with the greatest exactness. For instance the four main beams — warp-beam, slab-stock, breast beam and cloth-beam — must be exactly true in alignment. If the relation between these four beams is off as much as an eighth of an inch the weaving will run crooked. For this reason, if for no other, the frame should always be of hard wood. Otherwise it will soon warp and wrack with the beating and the strain of the stretched warps, and the loom will require constant trueing up.

In the experience of most people there is little, if any, money saved by building a loom at home; and the manufactured loom, if a good one is selected, will probably give better service. However if the pleasure is in doing the construction work oneself that is a different matter.

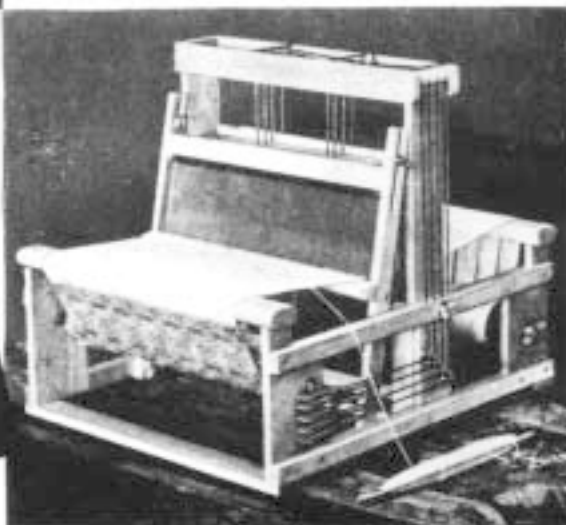
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