

# "Loom Controlled" Patterns

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IT is a fascinating pleasure to be able to create your own "loom controlled" pattern drafts, as well as to weave them. By "loom-controlled" pattern we mean the woven pattern resulting from weaving according to the arrangement in which the warp threads have been threaded on the different harnesses of the loom.

This is written with the hope that weavers will be encouraged to experiment. There has been all too little experimenting, and too much "copying" and weaving of the same kind of thing over and over. In a recent trip through the South, a young weaver was found who had been weaving for eight years, and had never learned how to weave anything else but "Whig Rose" pattern over and over again. Compare this with some progressive weavers in California who have devised some "artificial snow" on the hand loom, which is shortly to be adopted by a national concern for indoor skiing purposes. If weavers of today are to do anything toward producing any lasting effect as far as hand-woven fabrics of our own time are concerned, they cannot be content to just copy over and over again Colonial or Scandinavian threading drafts. They must devise, create, and experiment for themselves. Many weavers are afraid to experiment, or even try anything that is at all new for fear someone will tell them it is wrong, or for fear they may possibly waste some material. Better try and make many mistakes, than not even try at all. For new styles of pattern design and new weaves may be discovered in this way. This particular method, which will be described below, was devised by Mrs. Bratten as a means of creating new patterns, and the first description of it was given in the January 1937 copy of *Handweaving News*, a monthly leaflet on weaving.

Let us look at the draft at the top of Figure No. I. Let us call this the key draft, because from this all of our different threading drafts can be made. At the right of the key draft are the figures 1, 2, 3, and 4.

These represent the four pattern blocks of this pattern. On a four-harness loom, we have the first pattern block written on harness 1 and 2, the second on harness 2 and 3, the third on harness 3 and 4, and the fourth on harness 1 and 4. The figures at the top line of the key draft represent the number of *units* in each pattern block; in this case two units in all of the pattern blocks except the center one, which has four units. It is possible to make these units any size you may care to write them according to the size you wish to have the woven blocks. In planning these patterns, it is very important to note where your pattern will center, and keep the pattern balanced on each side of this center so that it will be symmetrical. You can, however, write a pattern to take in all of your warp threads for the entire width of the loom, by writing it so that the center will come on the center warp thread, and then reverse the threading back to the beginning. The key draft at Figure No. I is one repeat of the pattern, and this pattern has its center as marked at (C), on the four-unit block. This pattern could also be arranged so that it could center on the fifth two-unit block from the beginning, instead of on the four-unit block, if desired.

In order to get the effect of what this key draft will produce when woven, we will proceed to draw down the blocks of the key draft in the size and order in which they occur. Begin at the upper right-hand corner of your paper, and draw in squares as shown on Figure No. I below the key draft, making a row of blocks all across the top of the paper wherever a pattern block 1 occurs. Reading from right to left on your paper, you should have 3 two-unit blocks, then a four-unit, and then 3 more two-units. Next draw down those on pattern block No. 2 in the same way, and you will have 6 two-unit blocks below the ones you drew first. Do the third and fourth rows in the same manner. The figures at the right of the drawing show the order in which the blocks are drawn down, and it is well to study this carefully so

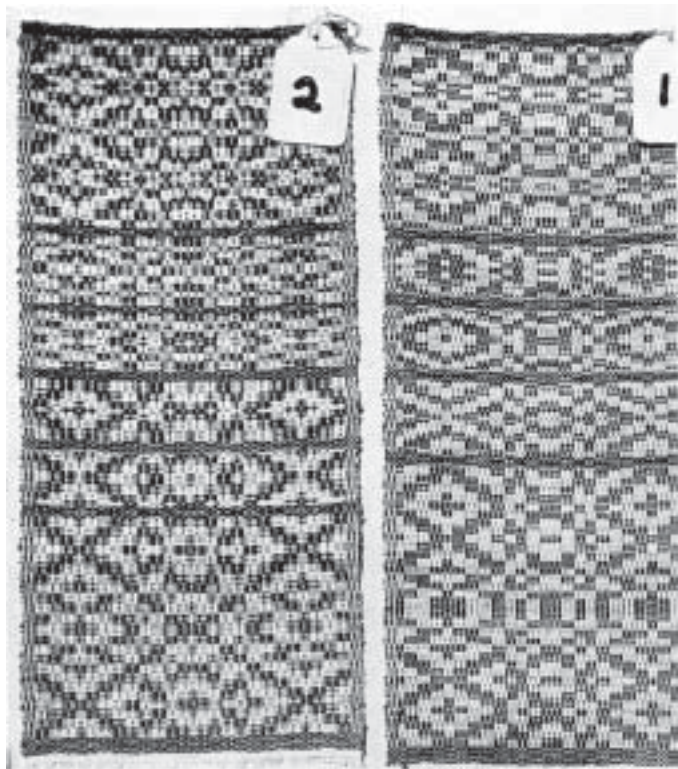
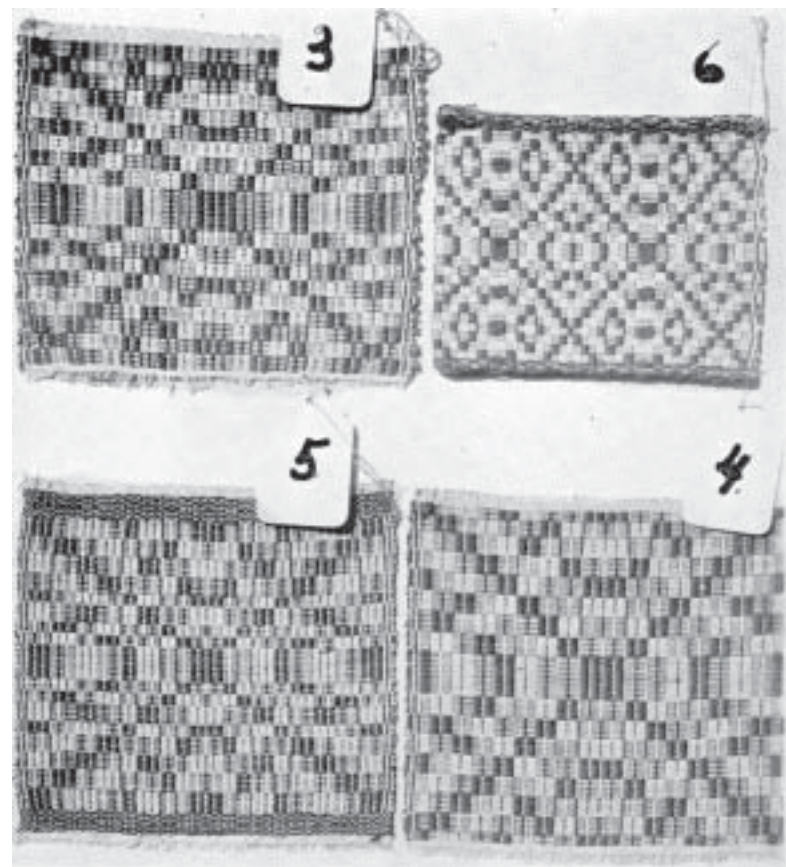


Illustration No. 1

Woven effect of "3 and 1" threading draft at Figure No. I, and "4 and 1" threading of same figure



that you can see just how this is done. As the full repeat of the pattern is 24 blocks, it is well to draw it all out to get the full effect, and also include an extra block which would be the beginning of the next repeat of the pattern. With some patterns it might be well to repeat at least one and a half of the repeat, and sometimes two repeats will give the effect of the pattern better.

Now that we have the key draft No. 1 drawn out so that we can get the effect of the pattern, we can examine it carefully and see if we wish to have any of the blocks made larger or smaller to improve the pattern design. If any changes are desired, make them, and change the key draft accordingly. Then draw down the effect again to see if it is correct before going any further with the designing of the different threading drafts which are to be used. All of this may be done on paper without any consideration of the loom at all. For simplicity, all the blocks in the pattern have been the same size. Variations in the sizes of the different pattern blocks make the resulting pattern of much more interest. Study this in any good pattern you see and make notes of the successions in the position of the different pattern blocks.

Any order of the pattern blocks will produce a pattern, but some will be much more attractive and pleasing than others. Changing the sizes of different pattern blocks will generally improve a monotonous pattern and give better results when woven.

After you are satisfied with your key draft and the pattern effect of it as you have it on paper, the next step is to draw out a pattern draft which you can thread into the loom. This key draft can be worked out in a number of different threadings for the loom. Just as it is, it could be used on a six-harness loom to give the "Summer and Winter" weave effect. In this case, each pattern block unit of the key

draft would represent a threading of block 1 — harness 1, 3, 2, 3; block 2 — 1, 4, 2, 4; block 3 — 1, 5, 2, 5, while block 4 would be threaded on harness 1, 6, 2, 6, and these would be repeated for each unit of the pattern block on the key draft. Those of you who are familiar with this type of weaving will have no difficulty in seeing how this is done.

Now let us look at the threading drafts of Figure No. II. The first one is called the "3 and 1," and if you examine it carefully you will see that it is none other than the familiar "Crackle" weave or "Jamtlandsvav" — to give it the Scandinavian name. In this weave the pattern blocks are made up of a succession of skips over three warp threads separated by one warp thread left up which makes a binding thread. This order of three and one may be repeated any number of times to make pattern blocks of any desired size. But it is often necessary to add one or two extra threads to keep the correct order of the tabby thread. Each square of the key draft at Figure No. I stands for one group of four warp threads which are to be woven over three and under one, but in the actual draft of the threading at (1) of Figure No. II, each x represents a warp thread. In this draft the center or middle thread is at thread 115 at the end, so you thread from 1 to 115, then 114 back to the beginning for one complete repeat of the pattern. Illustration No. 1 is photograph of the actual weaving carried out in several variations, as well as the way it is "drawn in." This makes a good-looking piece to hang on the wall, and much can be learned from carefully studying such a piece.

Note how the blocks follow each other, whether the pattern as it is woven is symmetrical or not, and the color values which have an important part in this type of draft. Also pay particular attention to the way in which the different blocks overlap each other, for it is this overlapping which gives the

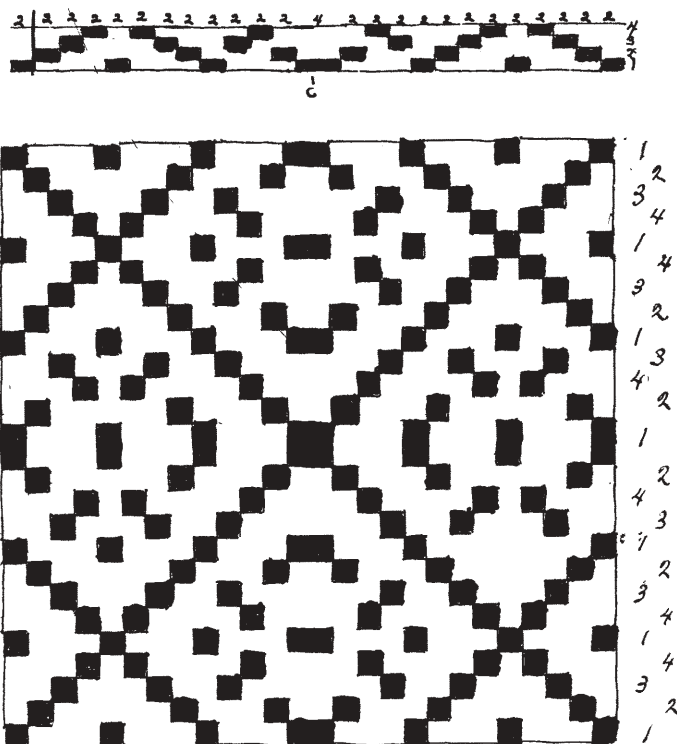
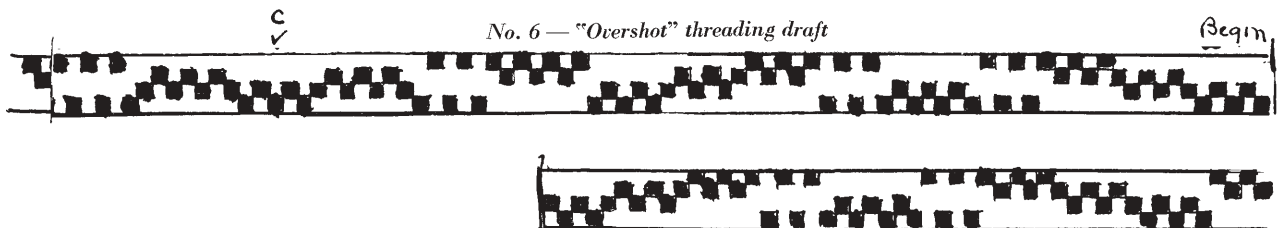
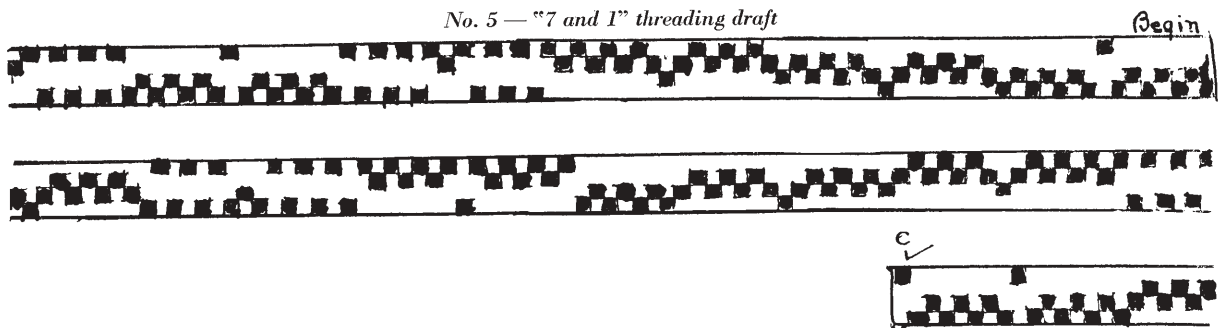
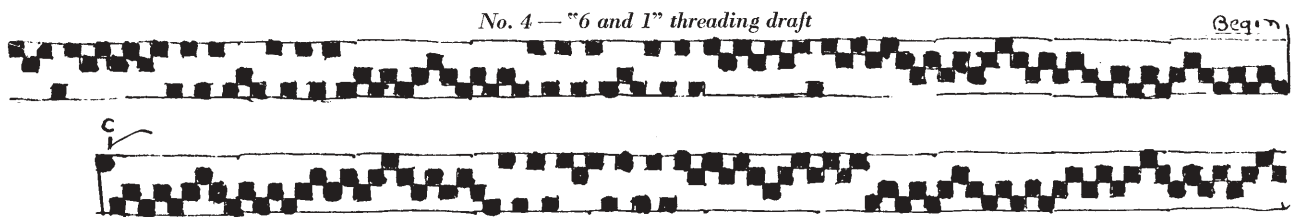
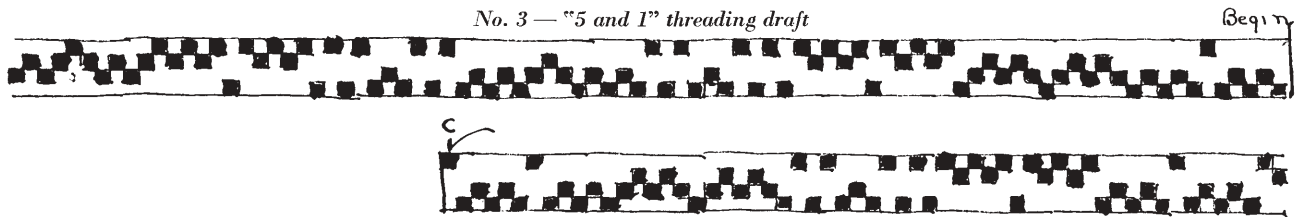
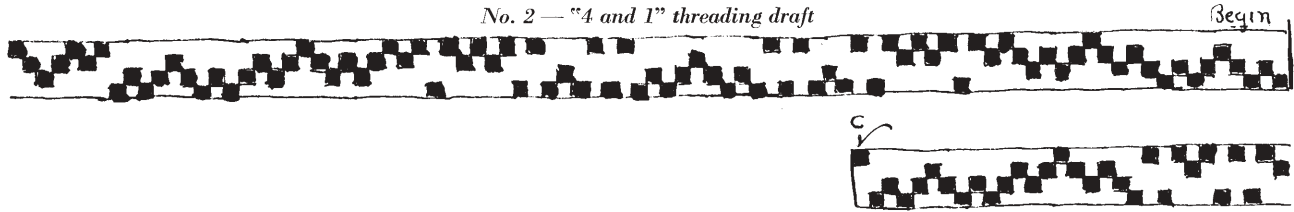
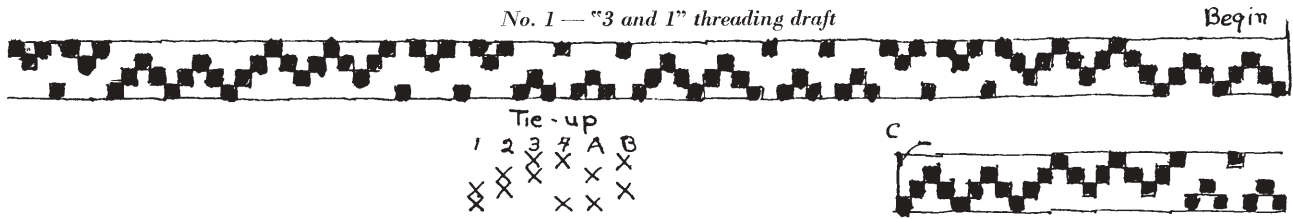
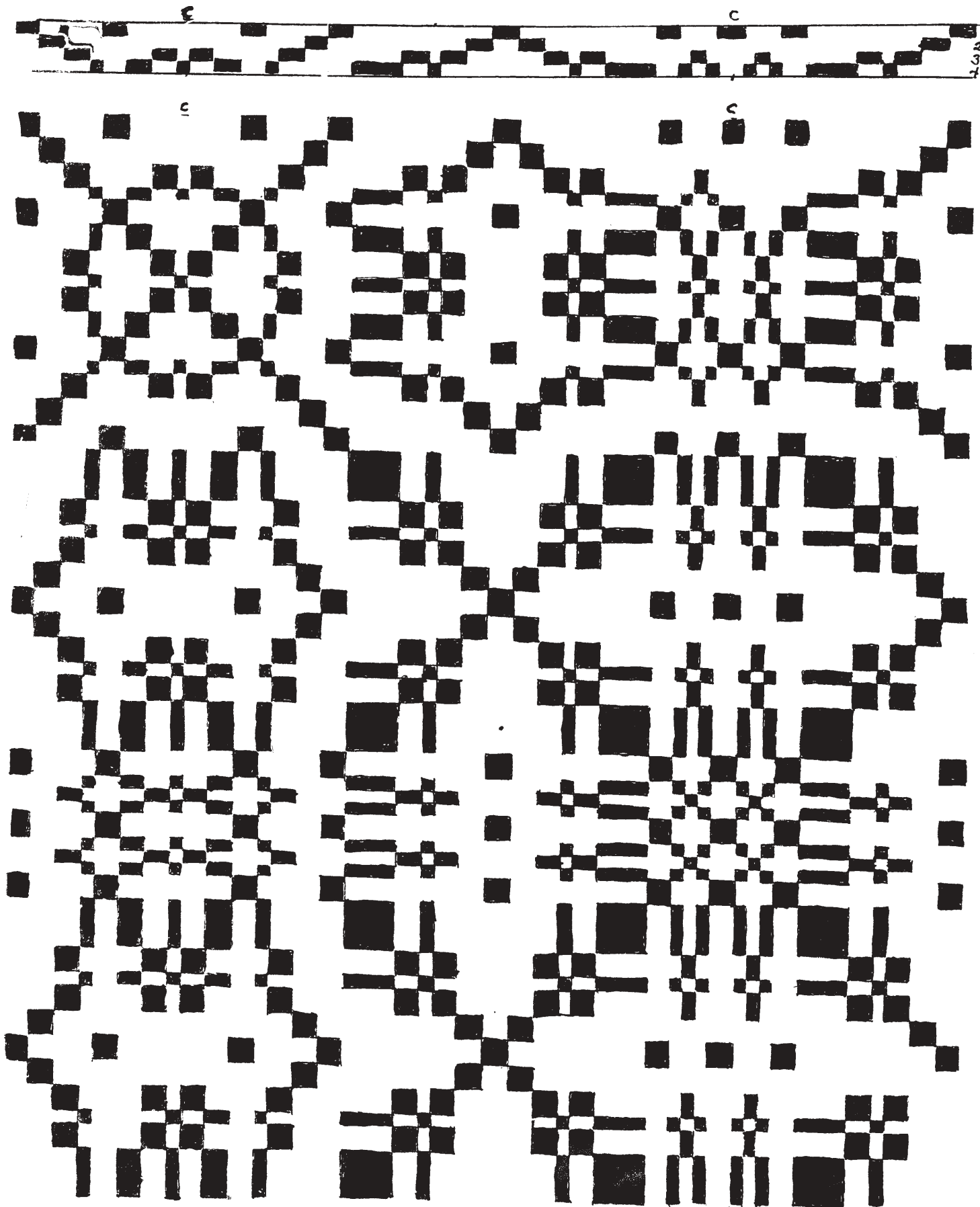


Figure No. I  
Key draft and draw down of key draft to show how key draft is drawn out to get the pattern



*Patterns by Mrs. F. D. Bratten*

Figure No. II  
Different threading drafts all based on the pattern of the key draft at Figure No. 1



*Pattern by Mrs F D Bratten.*

Figure No. III  
Key draft for threadings at Figure No. IV

“Crackle” weave its distinctive effect when woven. For those of you who are interested in still another method of writing this 3 and 1 type of draft, we would refer you to *Handweaving News* for September 1936.

Having become familiar with this 3 and 1 type of pattern and its possibilities, let us try the effect of making each unit of the pattern block key draft consist of four threads plus one. The same key draft may be used, so that we can study the difference in the effect produced. When using a grouping of 4 and 1 for each of the units of the key draft of Figure No. I, thread each of the pattern blocks to be threaded into the loom as follows:

Block 1 may be threaded 1, 2, 1, 2, 3, or 2, 1, 2, 1, 4.

Block 2 may be threaded 2, 3, 2, 3, 4, or 3, 2, 3, 2, 1.

Block 3 may be threaded 3, 4, 3, 4, 1, or 4, 3, 4, 3, 2.

Block 4 may be threaded 1, 4, 1, 4, 3, or 4, 1, 4, 1, 2.

Use either form as is needed to preserve the tabby succession. This “4 and 1” threading draft has no overlapping blocks, but it does form small two and three thread blocks which do greatly influence the woven effect, and these should be carefully studied.

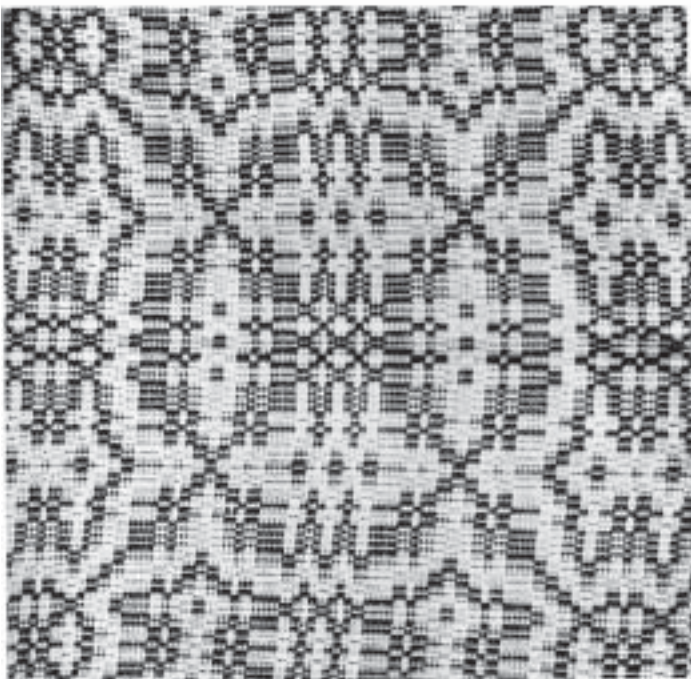
Illustrations No. 1 and 2 show the woven effect of the 4 and 1 threading, as well as some of its variations. The same type of threading may be written using groups of 5 and 1, 6 and 1, and 7 and 1, as well as the regular “overshot” type, and all of these can definitely be made to follow the same key draft as given in Figure No. I. At Figure No. II are given all of these different drafts, and at Illustration No. 2, 3, 4, 5, and 6 show the woven effects gained by using these different drafts. As will be seen from the illustrations, the groups having four or more threads combined with the one thread give a more bold effect when woven. In the “6 and 1” the accidental skips are more pronounced than in the “4 and 1.” Study these carefully, note how they are produced, and where they may be eliminated if not desired. In the larger groups “4,” “5,” “6,” and “7,” note that there is a larger proportion of color in the pattern blocks, which



*Illustration No. 3*  
Woven effect of “4 and 1” threading draft at Figure No. 3

makes for greater contrast in the darks and lights. Also there are three different tone blocks besides the pattern blocks, making shadow effects of varying density. The placing of these shadows should be studied and the threading altered if necessary to give the best effect. These drafts, as well as the woven effects, deserve careful study, for when you realize that you can make any sort of key draft that you may desire, and then carry it out in all of these different types of drafts, the possibilities for unusual weaving is almost limitless.

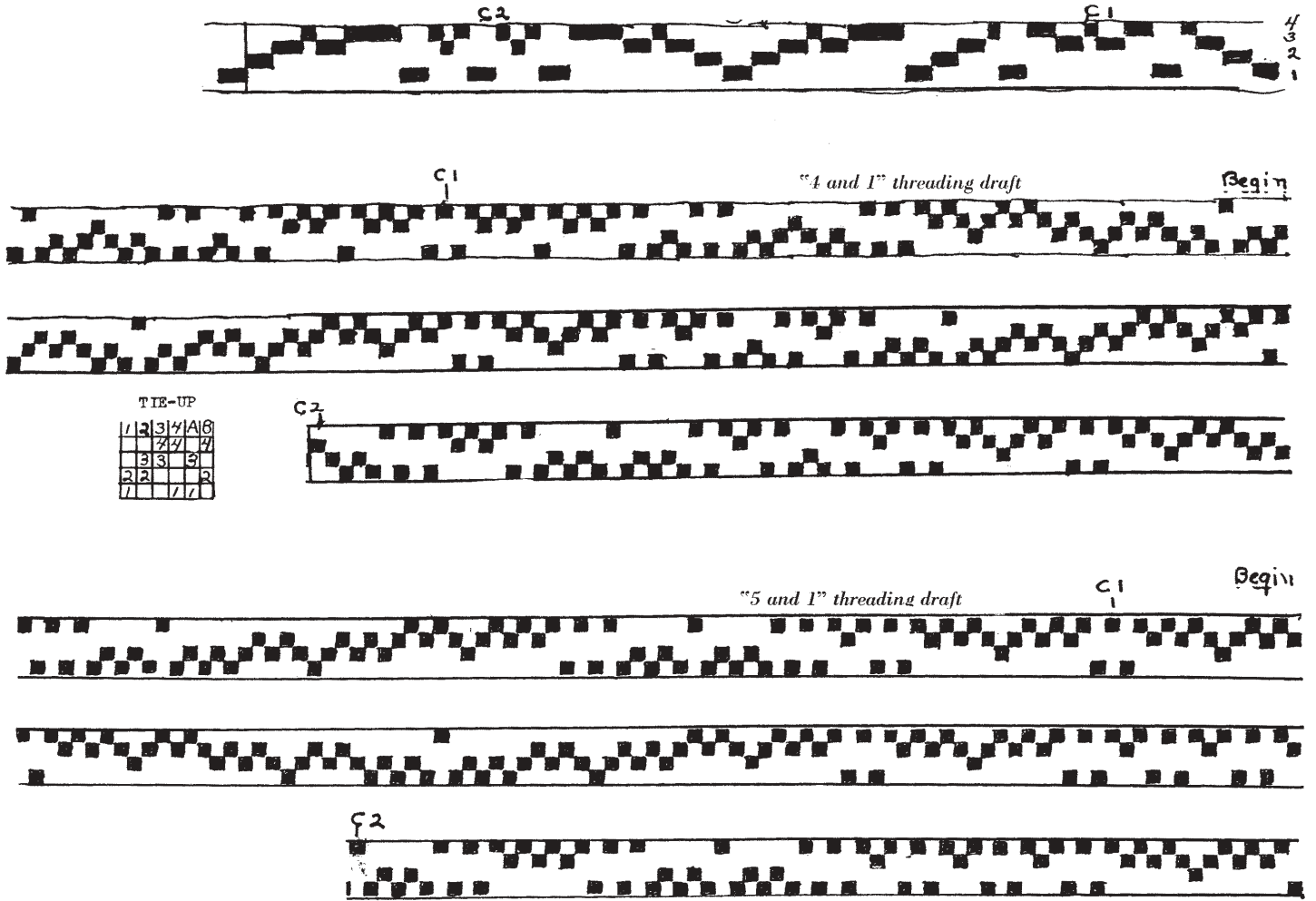
At Figure No. III is shown another key draft, and at Figure No. IV the pattern threadings for the 4 and 1, and 5 and 1 types of threading drafts. The c 1, and c 2 on these drafts refer to the centers as marked on the key draft. Only one half of the complete pattern repeat is given in these threading drafts. Thread from the beginning to the end of the draft, and repeat right back to the beginning again for the complete repeat threading. Illustration No. 3 shows the woven effect of the 4 and 1 threading draft of Figure No. III, and Illustration No. 4 shows the woven effect of the 5 and 1 threading taken from the same key draft



*Illustration No. 4*  
Woven effect of “5 and 1” threading draft at Figure No. 3

at Figure No. III. Both of these pieces were woven on a 20/2 cotton warp set at 30 threads to the inch, with tabby like the warp and six-strand green soft cotton for the pattern weft. While the difference in effect is not very clear in the photographs, it is considerably different in the woven

fabric itself. This kind of drafting of new patterns offers a wide field of adventure for the person who desires to get some original patterns of their own to use, and we hope that many of you will find this of much interest, and inspire you to create for yourself.



*Pattern by Mrs. F. D. Brabster*

Figure No. IV  
Threading drafts from key draft at Figure No. III