

## X WHAT IS WEAVING

Weaving is done by interlacing the threads of the warp with those of the weft.

The interlacing of warp and weft threads is done in two ways:

- A) **Rising shed:** treadle 1, tied up to harness 1, is pressed, thus raising harness 1. Jack-type looms are rising shed looms.
- B) **Lowering shed:** treadle 1, tied up to harness 1, is pressed, thus lowering harness 1. Counter-balanced looms are lowering shed looms.

### WEAVING WITH TWO HARNESSSES

Weaving can be done with 2 harnesses. One harness carrying the odd numbers and the other harness carrying the even numbers of threads. The harnesses being raised one after the other to make the shed for the passing of the shuttle.

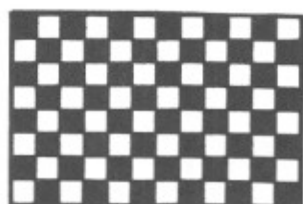


Fig. 385A



Fig. 385

With only two harnesses, you are limited to plain weave or tabby. (Figs. 385 and 385 A)

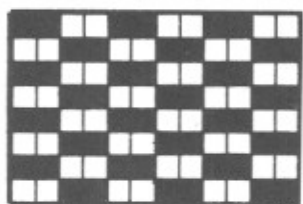


Fig. 385B

Passing two threads on the first harness and two threads on the second harness and repeat will give Basket Weave. (Fig. 385 B)

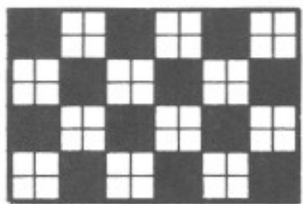


Fig. 385C

Using two shuttles and passing them on the same shed will also give Basket Weave. Consider that the warp is made with threads of one color and the weft threads are of another color. (Fig. 385 C)

Using professional weaving language, a black square on the draft is called a “float” — it represents the weft thread that goes over the warp thread at a predetermined place. A white square is called “taken” — it represents the weft thread that goes under the warp thread at the same place.

If this threading is made with three or four threads on the same harness and an equal amount of threads is passed through the shed, you get the following pattern.

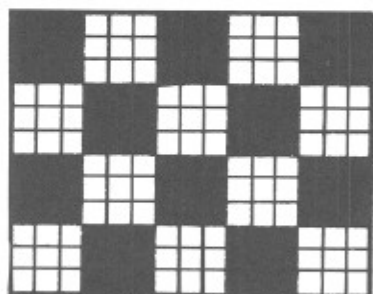


Fig. 386A

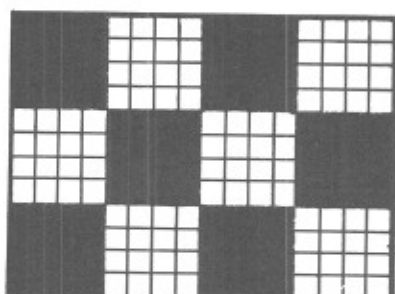


Fig. 386B

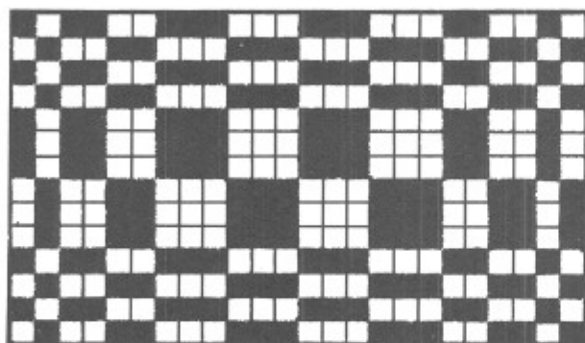


Fig. 386C

This pattern is made with groups of various numbers of threads in the harnesses and in the shed.

We should not have too many threads passing together on the same harness or the same shed as it will result in a long float and it will not be a durable weaving.

For more variety, consider experimenting with colors in the warp as well as the weft.

## WEAVING WITH FOUR HARNESSSES

With four harnesses, the possibilities are numerous. In addition to the variation on a same threading by different treadling, we have the possibility of variations in the threading.

The way in which the threads interlace depends on the way the warp threads are threaded through the heddles, and this operation is called threading. This is the foundation. From a simple and continuous threading, more than sixty-four weaves can be achieved.

The combination of threading and treadling, which makes a solid cross of threads placed in both directions, is called fabric.

With seven notes and various octaves of music and infinity of sounds can be created; with four heddle frames and six treadles, on which the tie-up can be changed at will, plus pick-up, leno, and a variety of fibers and colors brought together in the same weave, the field of imagination and creativity is endless.

Before attempting to weave on eight or twelve harnesses, it is important to understand four-harness weaving thoroughly, and this requires a lot of study and practice.

The evolution of threading and patterns produced by various treadlings will be explained in this chapter. It is impossible to explain them all in detail, but the important elements will be described.

In this book, all the threadings are read from right to left and are shown by four rows of squares, which represent the four harnesses (six rows for treadles). The large X in these squares indicates where a thread should go through. It is necessary to follow the instructions exactly. In a continuous pattern we proceed from right to left, then return to right again. The directions may sometimes specify a return from the center from right to left instead of reversing the pattern to make the other half; this method gives the same result as if we repeated the draft.

Handweaving stirs the imagination and captivates the weaver. A large variety of different designs can be made with the same threading, and by changing the tie-up and treadling order, up to forty-eight different twill weaves can be created.

Example: Instead of using the conventional tie-up — 1-3, 1-2, 2-3, 3-4, 1-4, 2,4, — the tie-up can be made so that there is only one harness rising, or three rising at the same time. The designs thus obtained are often pleasing, but they are sometimes impractical when the floating threads are too long.

When choosing a pattern in any book, it must be remembered that the author is describing his own achievements. Using other looms, thread count, different weaving methods, etc. might give different results.

Twill threading, one of the easiest, is done by following the order 1-2-3-4, that is: thread first heddle for the first harness, second heddle for the second harness, and so on, or 4-3-2-1 (beginning with the last harness and threading heddle 4 and continuing in this manner to the first harness).

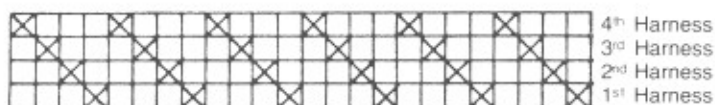


Fig. 387

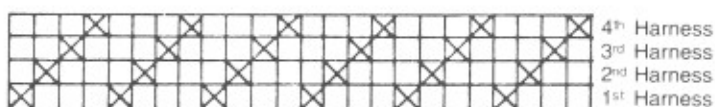


Fig. 388

Basket weave threading is achieved by repetition of each heddle: 1-1-2-2-3-3-4-4, 1-1-2-2-3-3-4-4, and repeat

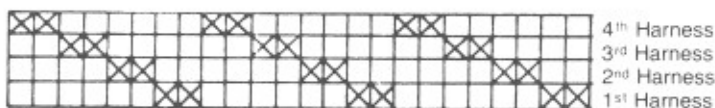


Fig. 389

Bird's eye threading: 1-2-3-4-3-2, 1-2-3-4-3-2, and repeat. Here, the heddles of harnesses 1 and 4 are used less often, so that there are less threads rising on harnesses 1 and 4.

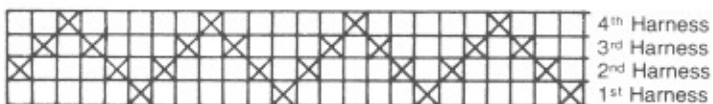


Fig. 390

Chevron threading: 1-2-3-4-4-3-2-1, 1-2-3-4-4-3-2-1, and repeat

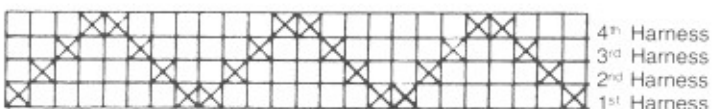


Fig. 391

Swedish Rose Path threading: 4-3-2-3-4-1-2-1, 4-3-2-3-4-1-2-1 and repeat

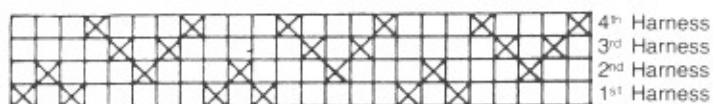


Fig. 392

Satin weave threading: 1-3-2-4, 1-3-2-4, and repeat

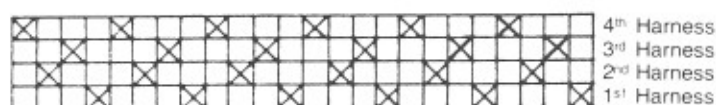


Fig. 393

Broken twill threading: 1-2-1-3-2-4-3-4-2-3, 1-2-1-3-2-4-3-4-2-3 and repeat

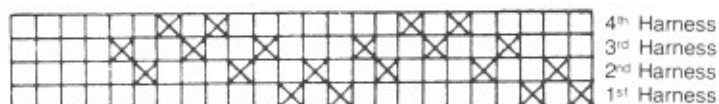


Fig. 394

Block design threading: 1-4-2-4-1-3-2-4-1-3-2-4-1-2-1-2-1-2-1-2-1-2 and repeat. Repeating the threading will give squares.

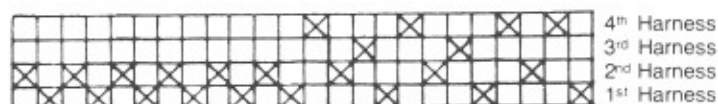


Fig. 395

Regular Block threading: 1-2-1-2-1-2-3-2-3-2-3-4-3-4-3-4-1-4-1-4 and repeat

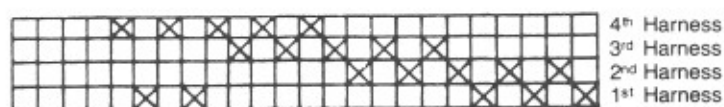


Fig. 396

Interrupted Block threading: 1-2-1-2-1-2-1-2-1-2-3-4-3-4-3-4-3-4-3-4 and repeat.

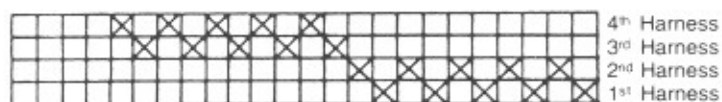


Fig. 397

Block threading, thread-to-thread: 1-3-2-3-1-4-2-4, 1-3-2-3-1-4-2-3 and repeat.

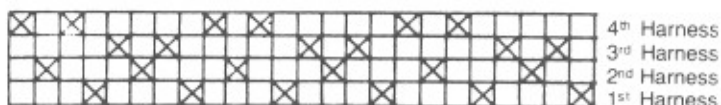


Fig. 398

Interrupted threading: 1-2-4-3-1-3-2-4, 1-2-4-3-1-3-2-4 and repeat.

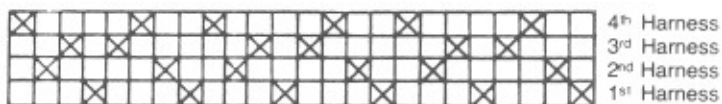


Fig. 399

Ever since weaving started, different countries have developed their own characteristic methods and have expressed by specific graphic designs their personal threadings. It is important to be able to read any threading.

The modern diagrammatic system most often used for weaving, especially North American weaving, is composed of five lines and four squares. Harnesses 1-2-3-4 are represented by the four squares 1-2-3-4, from bottom to top. Reading is from right to left, in the same order as the squares. Each square is numbered on the right side of the diagram to indicate the order of the harnesses. An (X) in the square represents the heddle through which the thread is inserted.

The design of Fig. 400 is read as follows: 1-2-1-2-1-2-3-2-3-2-3-4, etc., always in the same order of squares.

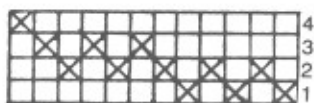


Fig. 400

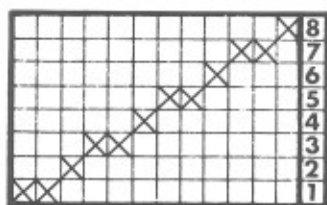


Fig. 401

This drafting can also be used for threading multiple harness looms since it is written in the same way. Just add rows of squares, a fifth row, a sixth row and so on.