It often happens that the student will make the draw-down correctly, but still will be quite confused about the interpretation, i.e. will not see any relationship between the paper work, and the actual weaving. The following exercise may bridge the gap: Give the student a sheet of graph-paper with 4 divisions to the inch. Make him draw the threading, tie-up and treadling drafts in proper order. Now in the place reserved for the draw-down cut with a razor-blade all vertical lines on the graph paper. From a piece of black paper cut a number of strips a little less than one quarter of an inch in width, and slightly longer than the width of the draw-down. Explain the situation when the first pick of weft is to be made - which warp-ends are sunk and which raised. Then with a pencil actually make a shed in the paper, and insert one of the black strips of paper. Push it up until it is in line with the first treadling mark. Proceed in the same way with the second, third, and so on - line of the draw-down. The basket work resulting from these operations will look similar to both the draw-down and the actual work on the loom. Now make the student copy the whole draft on the normal graph-paper (8 or 10 divisions per inch) this time without cutting. Make him compare all three: the weaving on the loom, the basket work, and the final draft. If this won't help - nothing will.

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WAFFLE WEAVES

Waffle Weave in handweaving means the same as Honeycomb in industrial terminology, and has nothing in common with Colonial Honeycomb. It is a "three-dimensional" weave i.e. that it has a certain depth, or thickness not due to the thickness of the yarn, but to the way the warp and weft are interwoven. Because of this third dimension the draw-downs give only an approximate picture of the fabric: the long floats both in warp and weft represent the raised areas, and the tabby - the sunk areas.

We can divide roughly all waffle weaves into: single (one long float in warp and one in weft in each repeat), double (two floats in each direction, single face (waffle effect only on one side of the fabric), and double face.

Fig.1 shows the draft for the smallest and simplest waffle, woven on four frames. Fig.2 is the same fabric woven on a 6x6 huckaback draft. This is double face, single waffle.

On fig.3 we have single face, single waffle. The squares are larger than in fig.1. The draft No.4 has still larger squares.

The draft on fig.5 gives double face, double waffle. It can be woven also on a 10x10 huckaback threading as in fig.6.

All the above drafts were for 4 frames. On 5 frames we can weave "perfect" waffle (see fig.8) - or rather perfect on the draw-down - in practice all waffle weaves give distorted squares, because the length of vertical and horizontal floats can not be the same. For instance in fig.8 the floats in warp are longer than the floats in weft. If we change the tie-up to the one on fig.7, we shall have the floats in weft longer than the ones in warp.

The drafts for waffle are not always symmetrical, as shown in fig.9. There is a great variety of drafts for higher number of frames, but they do not present any particular advantage.

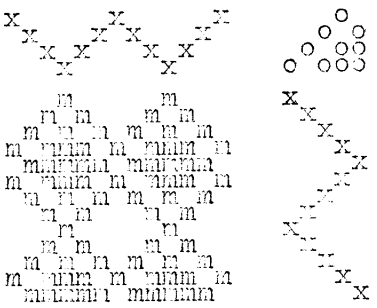

Fig.1

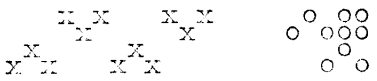

Fig.2

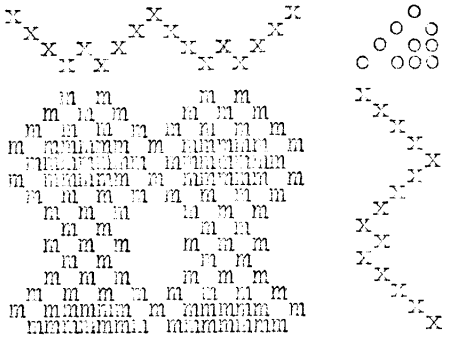

Fig.3

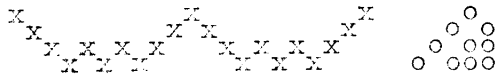

Fig.4

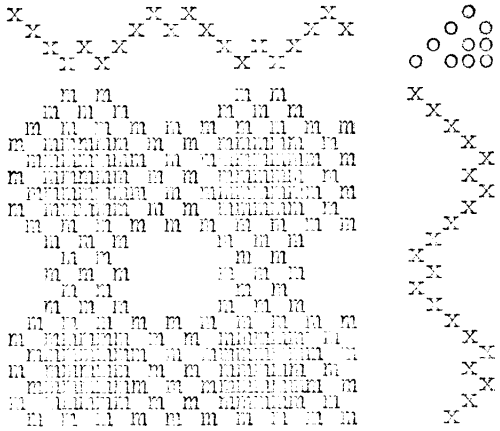

Fig.5

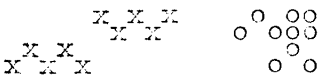

Fig.6

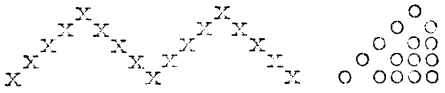

Fig.7

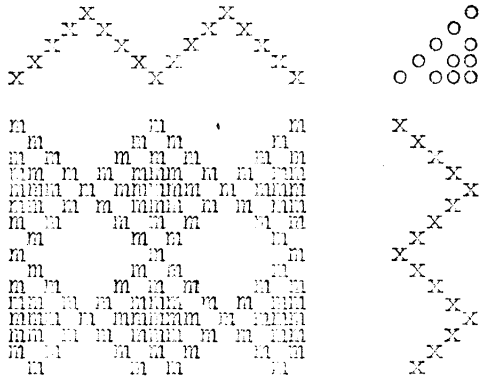

Fig.8

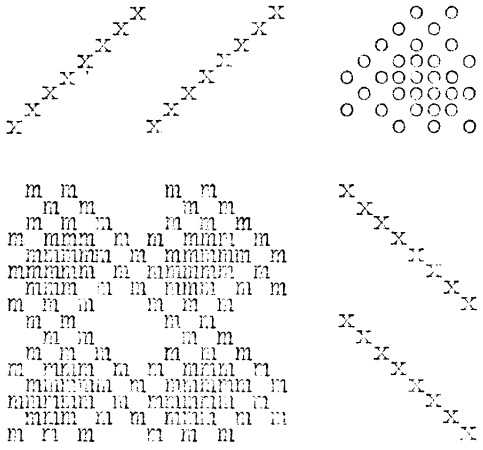

Fig.9

In fig.1, 3 and 8 we have floats which are tied to the ground only once in each repeat. Such a fabric is not very strong of course - the floats can be pulled out very easily. Drafts No.5 and 9 give stronger floats.

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