

the frames. More than two ends broken at once may have the same origin, or they may have been struck by the shuttle. This is often the result of a too fast weaving.

This is about all. Now comes the final disappointment. We take the fabric off the loom, and if it was raw silk, we do not like it too much. It is dark, yellowish, and it does not shine at all. Therefore we wash it in mild soap and iron. What we get is cardboard, and a very dirty-looking cardboard too. We wash it and iron it again and the result is the same. If not, that is if the fabric is soft and shiny, it was not raw silk. This is because raw silk contains up to 25% of gum, which should be removed before washing and ironing.

The proper way to "boil-off" the gum is to prepare first a very strong solution of mild soap. We take about 5 ounces of soap (Lux) to one gallon of soft water, bring it to the boiling point and boil or simmer our weaving for about one hour. The best temperature is about 200°F, if we can keep it at this point, but boiling does not injure silk in any visible manner. The weaving must be stirred all the time. Then it is rinsed in hot water to get rid of the gum and of the soap.

All these remarks concern comparatively heavy silk. With still finer yarn we must have special heddles, and be still more careful when warping, beaming and weaving.

We advise the reader to look up the article "Skill in Hand-weaving" (MW 12), where many of the operations mentioned here are described fully.

PROBLEMS IN TEACHING

8-th LESSON

DRAFTING.

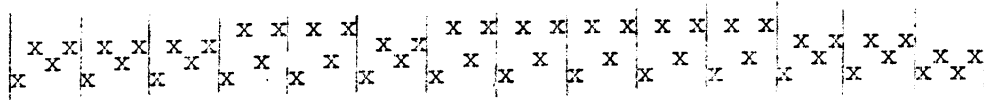
There is a whole group of weaves, which are alike in one respect, even if the fabrics they produce are entirely different. These weaves have so called units of threading, and usually also of treadling draft. This means that the drafts are composed of groups of heddles which occur always in the same number and order. When we make short drafts each group is represented by one square of the graph paper. If there are several identical groups one after another we may also indicate their presence by a number. E.g.:

mmmmmmmmmm = 9

As an example of this kind of a weave can serve Summer-and-Winter. It has two different units in drafts for 4 frames:

1-st unit: $\begin{matrix} & x & x \\ x & x & x \end{matrix}$; 2-nd unit: $\begin{matrix} & x & x \\ & x & x \end{matrix}$;

In making a short draft we shall mark the first unit on the lower line and the second unit on the upper line. Thus a draft:



will be represented by a short draft: mmm^m m^m mmm^m mmm or: 3²1⁵3

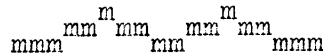
In the first case we call it a Graphical short draft or a Profile; in the second - a Numerical short draft, or just Short draft.

Profiles are always longer than the numerical short drafts, but they are more useful in finding the patterns which can be woven with a given threading. We shall discuss the variations of patterns woven from the same profile in one of the coming lessons.

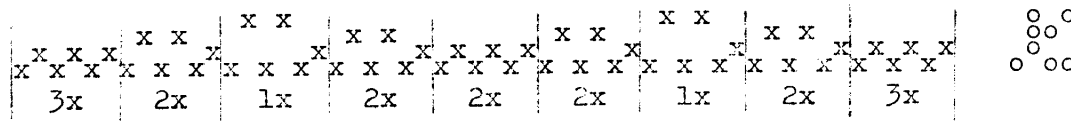
Thus for making notes and keeping records we use numerical short drafts, but for working out patterns, and in general for experiments on the graph paper the profiles are more indicated.

Since the same profile or numerical short draft may be used for many weaves, it does not in itself contain enough information for the weaver. Therefore it should be accompanied by a short note as to the weave. Otherwise it is a short draft of a pattern, and not of a threading draft.

As an example let us take the following profile:



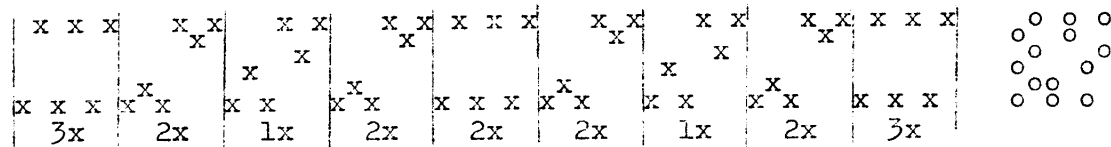
It can be developed into Bronson Lace (condensed draft):



where the units are: 1-st: $\begin{matrix} x & x & x \\ x & x & x \end{matrix}$; 2-nd: $\begin{matrix} x & x \\ x & x \end{matrix}$; 3-rd: $\begin{matrix} x & x & x \\ x & x & x \end{matrix}$;

The first unit is really tabby, and one might argue that a unit of tabby has only 2 and not 6 heddles. But in a profile all units must be of the same length. Since other units have 6 heddles, the ground must have 6 heddles also. Otherwise the pattern would be distorted.

The same profile may be used for Huckaback-lace:



which can be written also:

