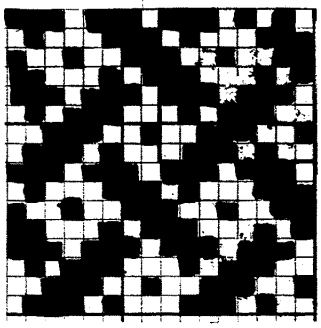
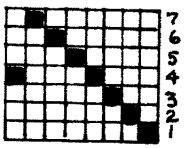


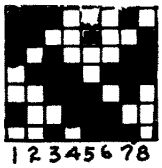
The MULTIPLE-HARNESS WEAVER

BRAIDED TWILLS

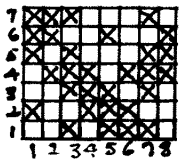
By Harriet Tidball



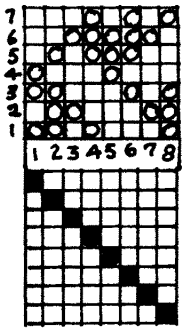
The multiple-harness weaver who has never met the braided twills has a fine friendship ahead. The braided twills are high-quality pattern twills with charming double-diagonal design. The high quality of the fabrics from braided twills rests in the fact that neither warp nor weft floats extend longer than three threads, and that the twill lines oppose each other at right angles and serve somewhat as braces to give equal elasticity to the fabric in all directions. The charm of the patterns is self evident, and is altogether in keeping with current trends toward small, intricate patterns in both woolens and worsteds. The functional applications for these patterns is much broader than for suitings, and they should serve many decorating needs when interpreted in suitable materials.



Given below are designs with drafts, tie-ups and weaving directions for braided twills threaded on four, six, seven and eight harnesses. In the following article on determining draft, tie-up and treadling from a diagram, are braided twills on ten and twelve harnesses. The four-harness pattern gives a rather minute effect, and the patterns increase in strength and clarity as more harnesses are added. The six-harness pattern weaves effectively and makes an excellent design for the weaver with but six harnesses, but it is what one might call a forced pattern. The diagram shows the typical braided pattern, but there are several unavoidable irregularities which are indicated by dots. These irregularities are hardly evident in the woven fabric, so the threading should not be avoided because of them.

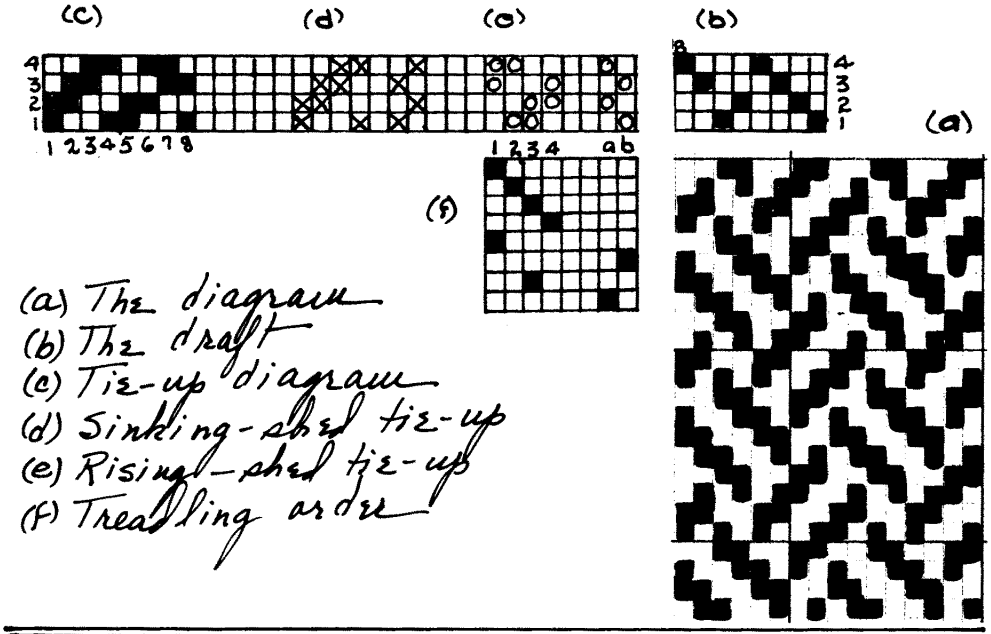


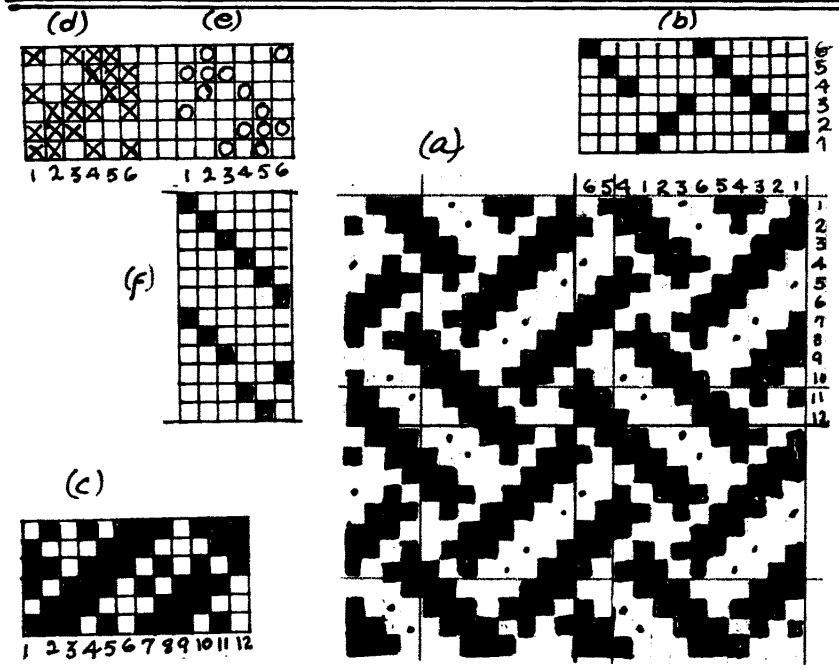
The drafts for the braided twills are based on the straight twills, but with a turned-draft element added to reverse the direction of the twill line. The second 8-harness draft is of particular interest in that it utilizes the theory of two foundation harnesses to extend the pattern beyond the limits which could ordinarily be achieved with eight harnesses. It is more accurately a six-harness twill design with the foundation harnesses added. Most of the drafts have twice as many warp ends as harnesses, and a complete pattern repeat requires as many shots as there are warp ends in the pattern. For the full tie-up, this would mean twice as many treadles as harnesses, an impossibility for most weavers who wish to utilize all of their harnesses. However, there is always a limited repeat element in the tie-up, so for each of the patterns the minimum tie-up is given,

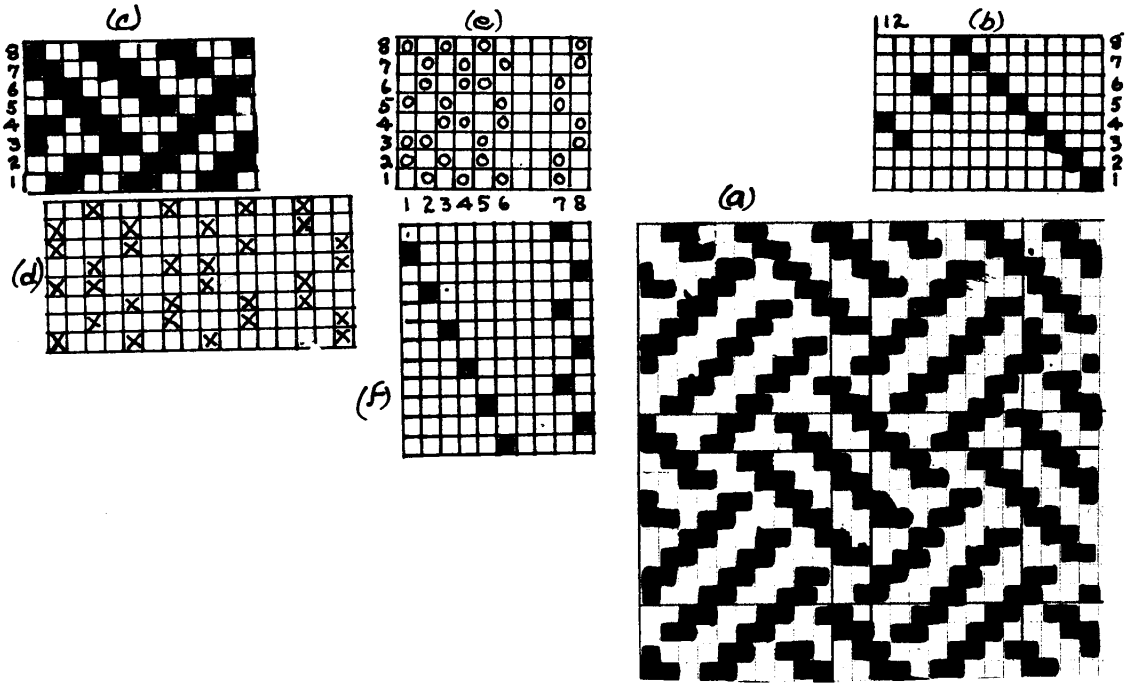


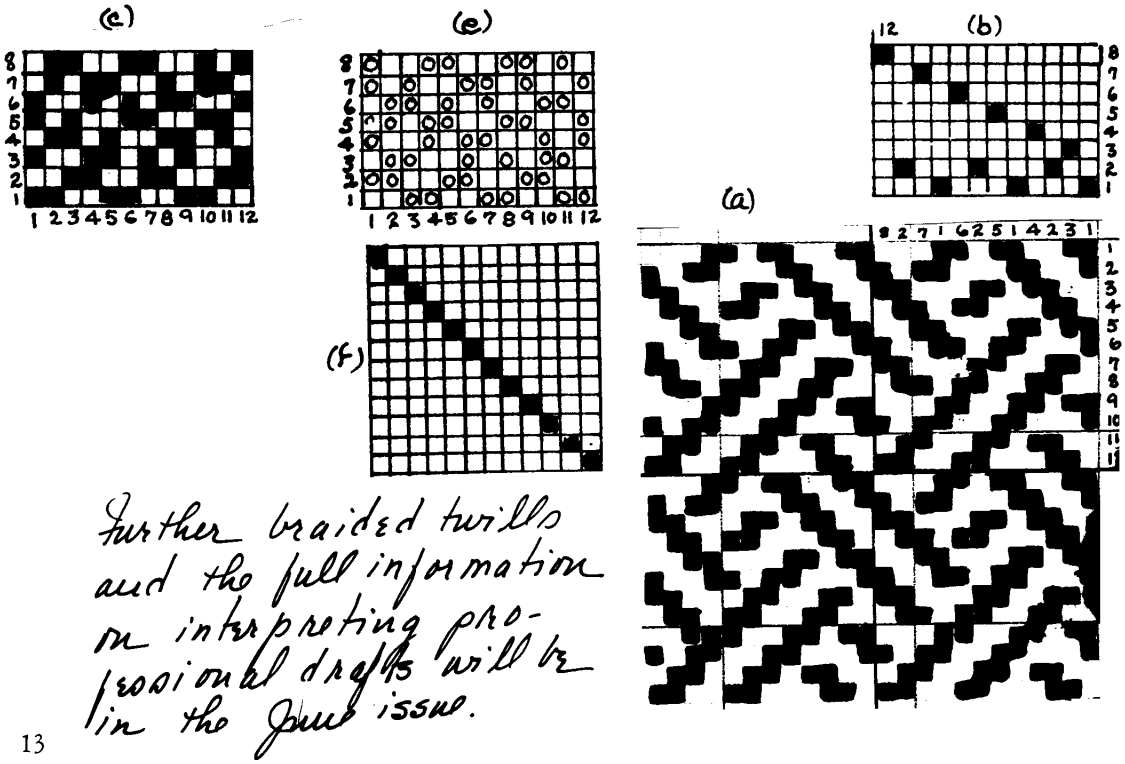
with the treadling-order which shows repeated use of certain treadles. Although the full tie-up diagram is given in each case, and the sinking-shed tie-up derived from this, it is the converted rising-shed tie-up (indicated by circles) which is made on the loom. In this rising-shed tie-up, the treadles have been arranged in some cases to simplify the mechanics of treadling.

These twills should be used with smooth yarns only, and the stronger the contrast between warp and weft, the stronger the pattern will stand out. For those patterns based on two-thread floats, the warp set should be the same as would be used for the ordinary four-harness 2-2 twill. The patterns with three-thread floats predominating require a slightly closer warp set.









Further braided twills and the full information on interpreting professional drafts will be in the June issue.

Sample on next page.