

# *Point Weaving on Multi-Harness Loom*

by L. L. WINANS

I have used my eighteen harness loom principally for "Point Weaving." In this technique a white warp and a single shuttle with a colored weft is used.

Good effects have also been obtained with white weft also. So far I have used only cotton, Bernat's Perugian Filler and Perle No. 10, but better effects can no doubt be secured with linen or silk.

Sixteen harnesses are used for the pattern and two for the Selvage.

Many different small patterns and textures may be made with one threading of the loom. With one set of cards in the Jacquard operating mechanism a great variety of pattern effects can be made by running the cards forward and backwards with selected portions of the card belt and an entirely different series of patterns made by putting other cards in the Jacquard machine.

Each card is equivalent to a tie up to a treadle and makes a shed for a single pattern shot of weft. The Jacquard machine is reversible so the pattern may be pointed at will. In order to reduce the reversings, I usually duplicate cards for a given pattern so that it will be produced by not more than one reverse and leave a space in the belt to warn me when I have completed the set. Otherwise mistakes are made by not reversing at the proper place. Mistakes made are easy to unweave however by running the cards in reverse until the correct shed is obtained.

The accompanying threading diagram has been used for

all of the different patterns shown in the illustrations.

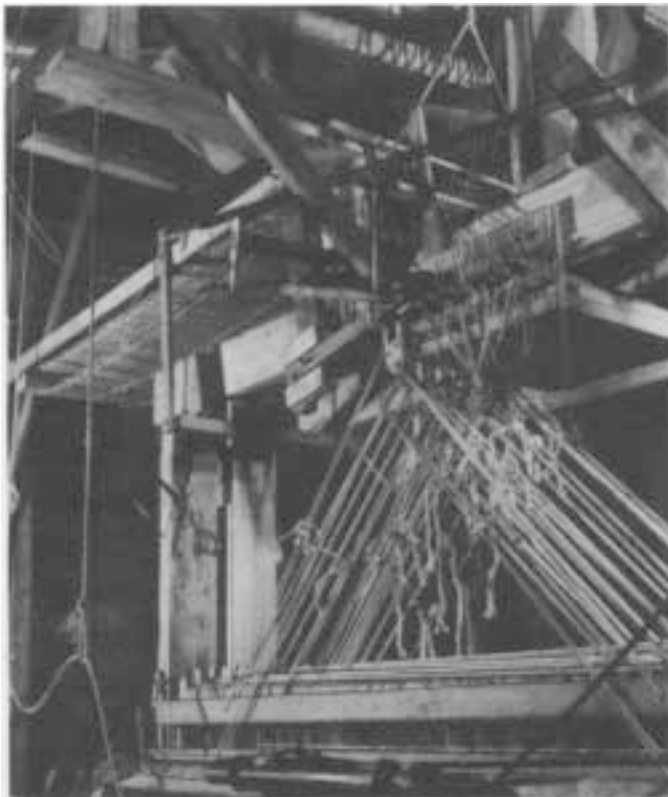
The sampler illustrated was made by variations of a series of twills and the different designs were produced by running selected portions of the card belt forward and backward as desired.

The slip covers and draperies illustrated were woven with other sets of cards as were other designs shown in the composite illustration.

These pieces have been used for pillow covers, luncheon sets, draperies, slip covers, bed spreads and towels.

The threading of the design thru the heddles has been an onerous chore to the writer and the ability to change the design completely without having to rethread the harness and reed has been a source of great satisfaction. It has also been a great pleasure to work out different designs on paper and see them developed on the loom.

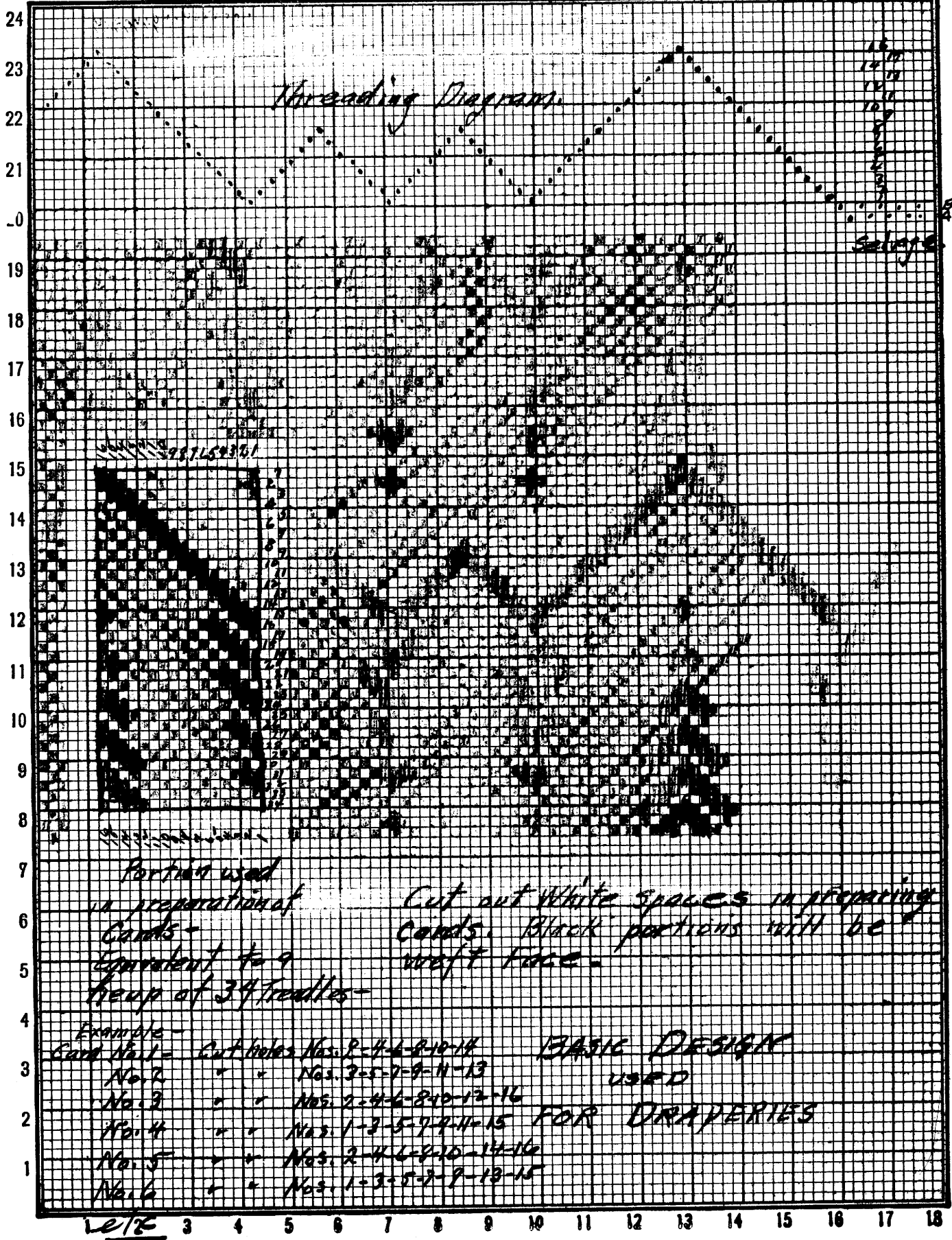
When the construction of a multi harness loom was contemplated, the number of treadles, the appalling number of tie-ups and their adjustment in the limited space under the loom and the trouble of selecting the proper treadle during weaving operations seemed prohibitive obstacles. From a study of the "Jack-in-the-Box", Draw-Boy Machine, Dobbie machines and the Jacquard machine, I decided to construct a Jacquard machine for the operation of the harnesses. After several trials and many modifications, mostly by the trial and error method, a reliable device was produced. With this Jacquard machine the eighteen harnesses are operated faster



*Jacquard operating mechanism 18 harnesses.*



*Draperies and slip covers woven on "point" threading.*



*Threading Diagram.*

18  
17  
16  
15  
14  
13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1

*Seloge*

*Portion used  
in preparation of  
Cards -  
Equivalent to a  
heap of 34 treddles -*

*Cut out white spaces in preparing  
Cards. Black portions will be  
wraft face -*

*Example -*

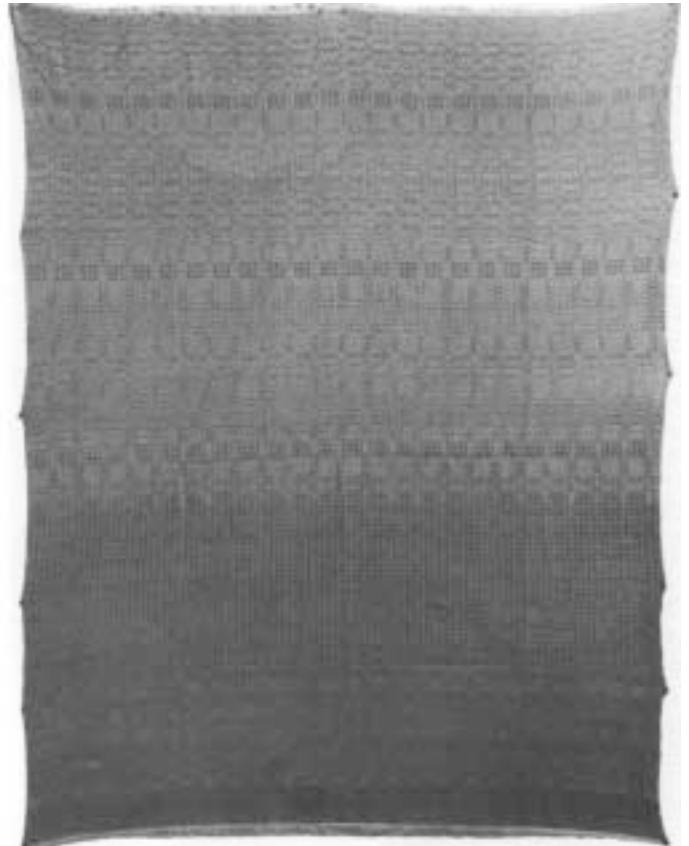
<i>Card No. 1 -</i>	<i>Cut holes Nos. 2-4-6-8-10-14</i>
<i>No. 2</i>	<i>" " Nos. 3-5-7-9-11-13</i>
<i>No. 3</i>	<i>" " Nos. 2-4-6-8-10-12-16</i>
<i>No. 4</i>	<i>" " Nos. 1-3-5-7-9-11-15</i>
<i>No. 5</i>	<i>" " Nos. 2-4-6-8-10-14-16</i>
<i>No. 6</i>	<i>" " Nos. 1-3-5-7-9-13-15</i>

**BASIC DESIGN  
USED  
FOR DRAPERIES**

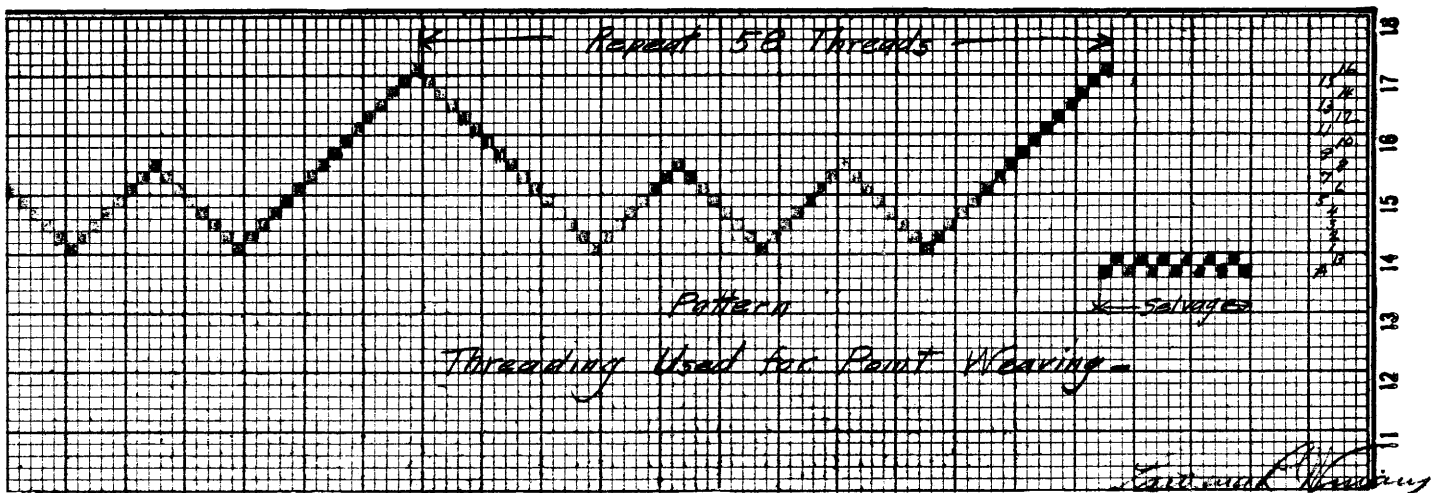
Le 12 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18



*Different textures woven on same "point threading".*



*Samples of varied twills woven on "point threading".*



and with less effort than were four harnesses of a counter-balanced rig.

Cards to select the sheds are prepared by punching the holes thru a steel template from the design drawn on cross section paper one card for each different shot of weft. Either all of the pattern spaces or all of the background spaces are punched, selecting the part to punch that, in the whole pattern, has the fewer number of threads. Each hole in the card lifts the corresponding harness and shows the warp in the finished goods. Since it is immaterial which side is uppermost in the loom, it is better to so cut the cards to obtain a majority of weft on the upper side. This reduces the number of holes to be punched and the number of harnesses to

be lifted during the weaving operation. This difference is great if small separated figures or satin effects are made.

It would be especially beneficial to weave weft face if jacks and many treadles are used as a minimum of lifters, means a minimum of tie-ups and effort expended raising the weighted harnesses.

The accompanying Illustration shows the machine used in weaving all goods illustrated. Blue prints of an improved Jacquard machine, to operate up to 26 harnesses have been prepared by the writer and may be secured from L. L. Winaus, 2812 Travis Avenue, Fort Worth, Texas, for \$5.00 per set. These are drawn 1/2 full size.