

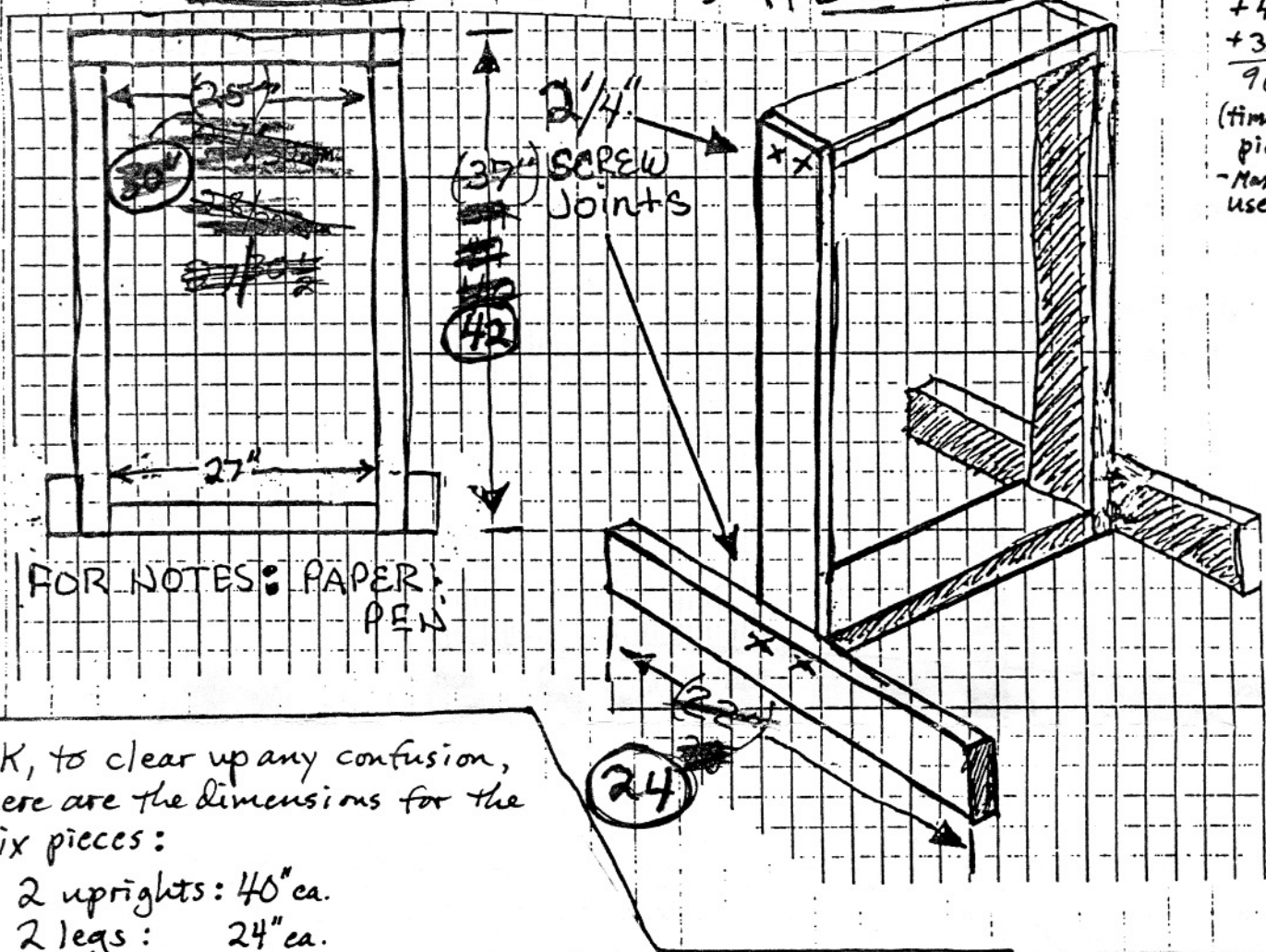
NAVAJO LOOM

by Mary McKibben

HAVE LOOM
ASSEMBLED BEFORE
1ST CLASS

* materials:

- ✓ 4 - 1" pipe brackets ~~23~~ 25¢ each → \$1.00
- ✓ 2 - 1" dia x 30" BLACK PIPE ~~23~~ 2.50 ea → 5.25
- ✓ 3 - 1" dia x 30" DOWELS ~~26~~ 2.79 each (36") → \$9.00
- ✓ 2 - 3/8" dia x 30" DOWELS ~~37~~ 2 = 0.75 - for heddles + shed rod
- ✓ 12 - 2 1/2" WOOD SCREWS w/ PHILLIPS HEAD → 1/4" dowels - 2 x 36" ✓ 40¢
- 8 - 1/2" WOOD SCREWS w/ PHILLIPS HEAD
- ✓ 3 - 3" RADIATOR HOSE CLAMPS 23 \$1.69 ea → \$5.40
- ✓ 2 - 8' x 2" x 4" PINE (Few/NO KNOTS) \$19 (I used poplar); 8' = 96" ⇒ 24" leg + 42" up + 30" across = 96" (times two pieces) - Maximizes use of wood



FOR NOTES: PAPER
PEN

* OK, to clear up any confusion, here are the dimensions for the six pieces:

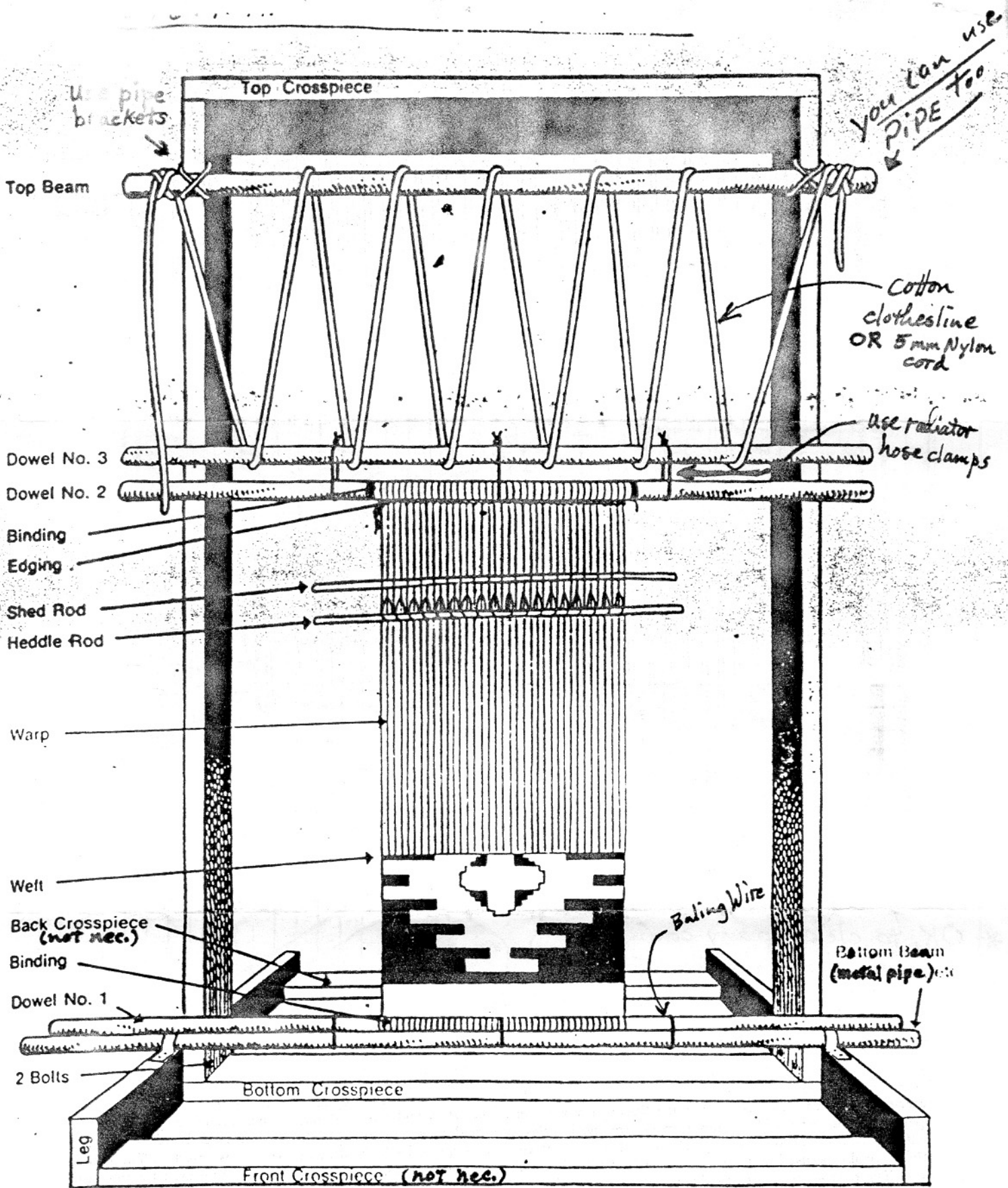
2 uprights: 40" ea.

2 legs: 24" ea.

lower crosspiece: 27"

upper " " " : 30 1/2"

Note that the difference is twice the thickness (1 3/4") of my lumber - yours may differ!



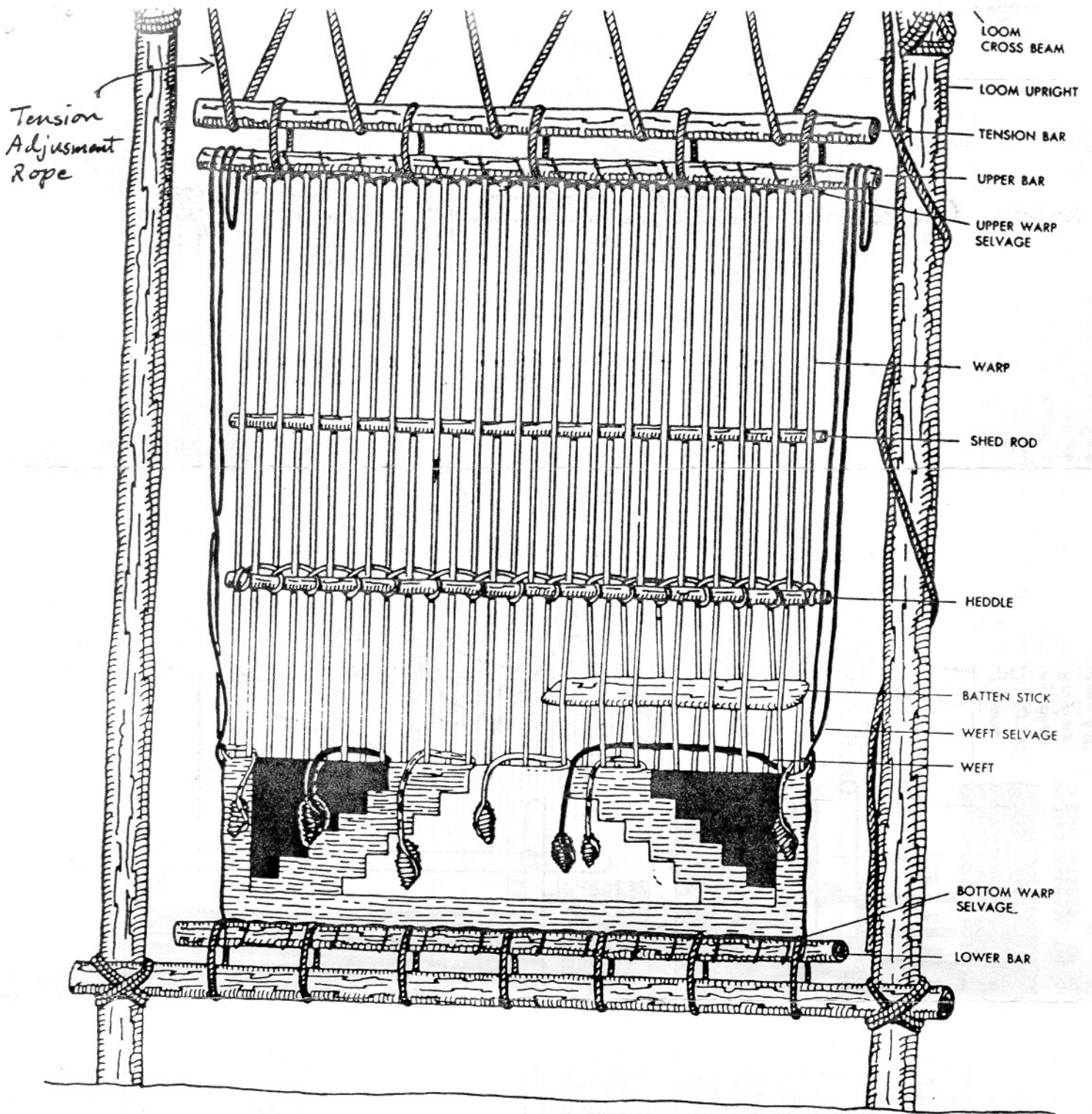


FIGURE 3.2 Sketch of the true loom used by Navajos. This was inherited from the prehistoric past. In this Navajo type, beams are set up in the hogan or in the open, with cross beams securely tied to them. From the top horizontal beam is suspended a secondary and smaller beam (tension bar); to the latter is attached, in turn, the bar to which the warps have been secured. The opposite warp bar is attached to the bottom beam. Weaving begins at the bottom, with weft threads inserted largely by hand; sometimes the thread is wound on a long stick and passed through a number of warps. To aid in opening warps (or shed) for this purpose are the heddles and shed rods. For example, the heddle is pulled forward (the batten stick inserted to hold it open), and all threads attached thereto will be in front of the wefts now inserted. The batten stick may also be used to pound down the weft threads, or, if the space is small, the wooden comb may be used for this purpose. The rope at the top of the loom can be used to lower the loom so that the weaver can always sit at her work.

Stringing the Warp

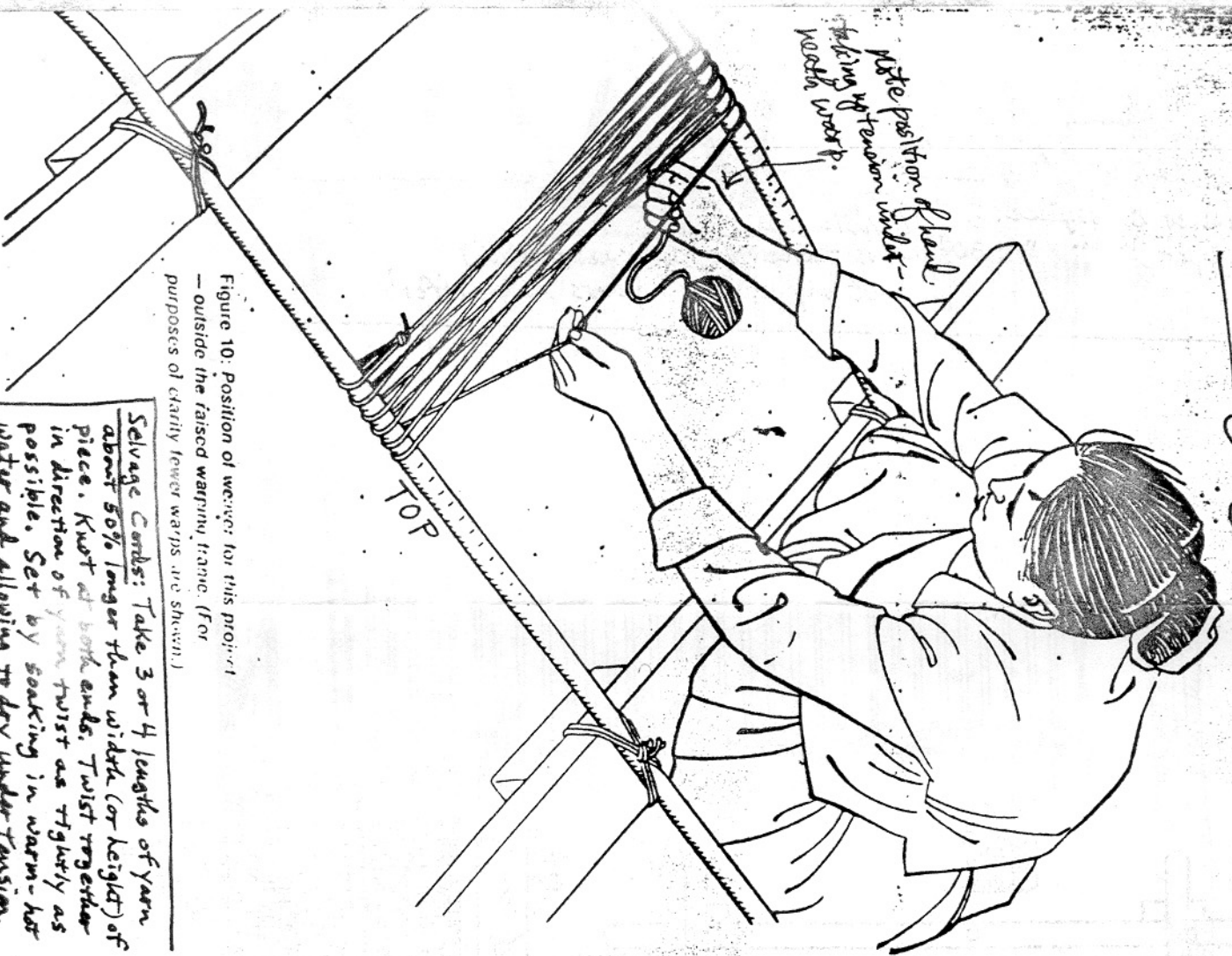


Figure 10: Position of weaver for this project — outside the raised warping frame. (For purposes of clarity fewer warps are shown.)

Salvage Cord: Take 3 or 4 lengths of yarn about 50% longer than width (or height) of piece. Knot at both ends. Twist together in direction of yarn twist as tightly as possible. Set by soaking in warm-hot water and allowing to dry under tension.

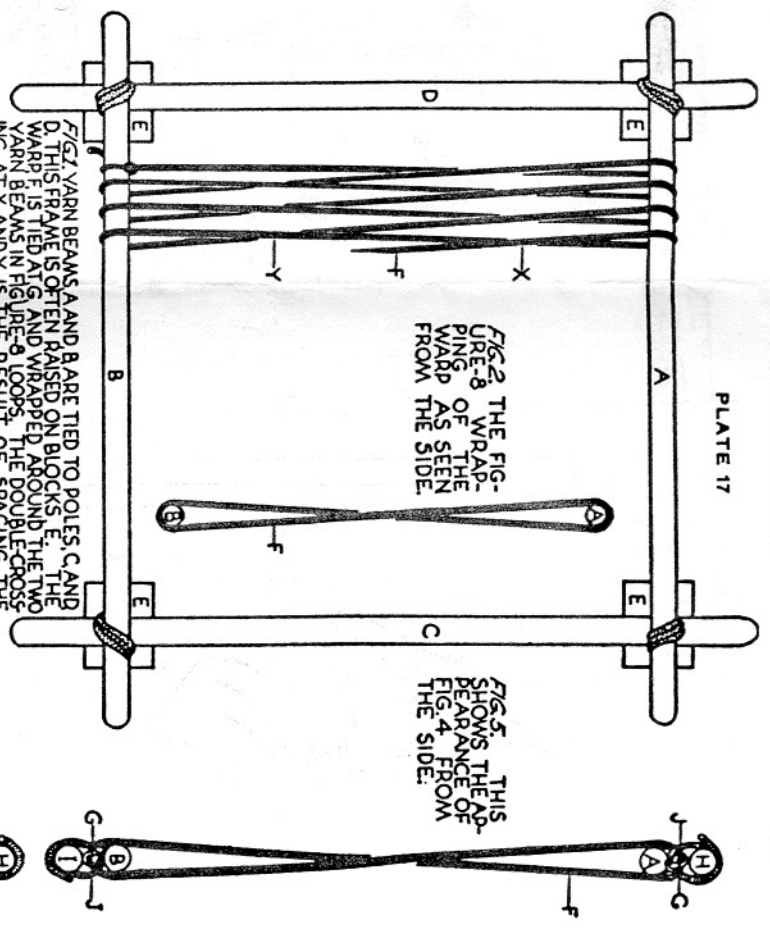


FIG. 2 THE FIGURE-8 WRAPPING OF THE WARP AS SEEN FROM THE SIDE.

FIG. 5 THIS SHOWS THE APPEARANCE OF THE WARP FROM THE SIDE.

FIG. 1 YARN BEAMS A AND B ARE TIED TO POLES C AND D. THIS FRAME IS OFTEN RAISED ON BLOCKS E. THE WARP F IS TIED AT G AND WRAPPED AROUND THE TWO YARN BEAMS IN FIGURE-8 LOOPS. THE DOUBLE-CROSSING AT X AND Y IS THE RESULT OF SPACING THE WARP FAR APART FOR CLARITY. THE EXACT APPEARANCE IS SHOWN IN FIG. 2.

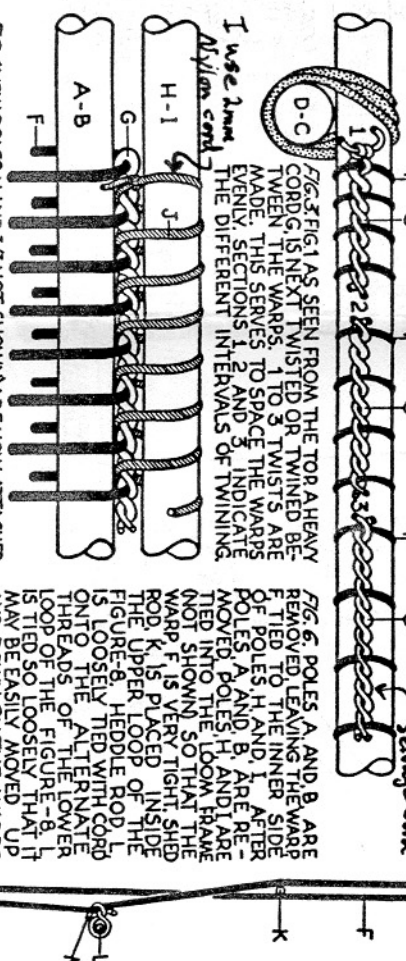


FIG. 3 FIG. 1 AS SEEN FROM THE TOP. A HEAVY CORD G IS NEXT TWISTED OR TWINED BETWEEN THE WARPS 1 TO 3. TWISTS ARE MADE. THIS SERVES TO SPACE THE WARPS EVENLY. SECTIONS 1, 2, AND 3 INDICATE THE DIFFERENT INTERVALS OF TWINING.

FIG. 6 POLES A AND B ARE REMOVED LEAVING THE WARP TIED TO THE INNER SIDE OF POLES H AND I. AFTER POLES A AND B ARE REMOVED, POLES H AND I ARE TIED INTO THE LOOM FRAME (NOT SHOWN) SO THAT THE WARP F IS VERY TIGHT. SHEET ROD K IS PLACED INSIDE THE UPPER LOOP OF THE FIGURE-8. HEDDLE ROD L IS LOOSELY TIED WITH CORD ONTO THE ALTERNATE THREADS OF THE LOWER LOOP OF THE FIGURE-8. IT MAY BE EASILY MOVED UP AND DOWN ON THE WARPS WEAVING BEGINS AFTER THE COMPLETION OF THE STEPS SHOWN ON THIS DIAGRAM.

FIG. 4 NEW POLES H AND I (NOT SHOWN) ARE NOW ATTACHED AS SHOWN IN THIS FIGURE. A HEAVY WOOLEN CORD J IS WRAPPED SPIRALLY ABOUT H AND I, PASSING UNDER THE CORD G, WHICH IS TWINED BETWEEN THE WARPS F. THIS PROCESS FIRMLY ATTACHES THE WARP TO POLES H AND I AND RELEASES POLES A AND B.