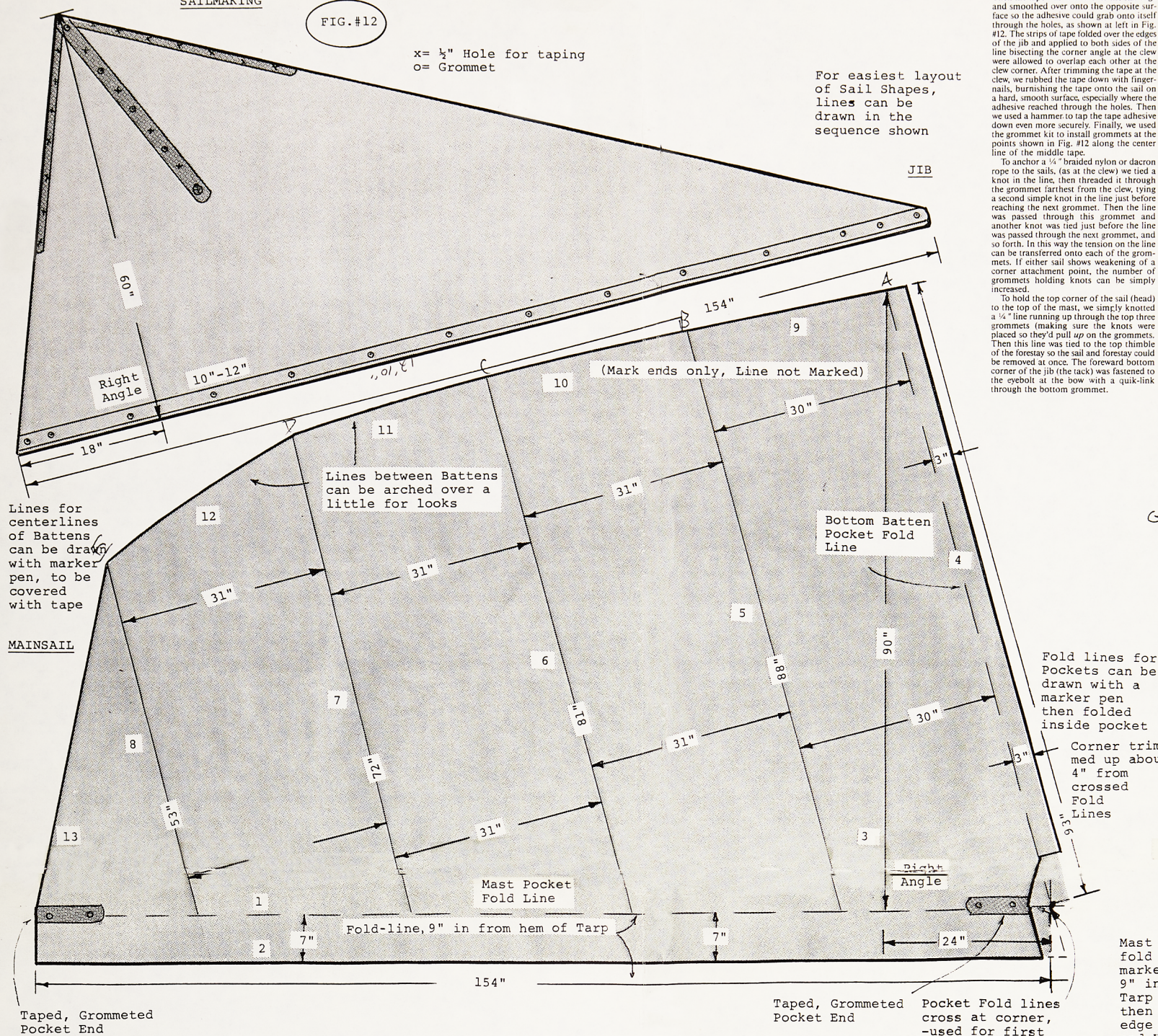


FIG.#12

x = $\frac{1}{2}$ " Hole for taping
o = Grommet

For easiest layout of Sail Shapes, lines can be drawn in the sequence shown



Then the tape was folded over the sail edge and smoothed over onto the opposite surface so the adhesive could grab onto itself through the holes, as shown at left in Fig. #12. The strips of tape folded over the edges of the jib and applied to both sides of the line bisecting the corner angle at the clew corner. After trimming the tape at the clew, we rubbed the tape down with finger-nails, burnishing the tape onto the sail on a hard, smooth surface, especially where the adhesive reached through the holes. Then we used a hammer to tap the tape adhesive down even more securely. Finally, we used the grommet kit to install grommets at the points shown in Fig. #12 along the center line of the middle tape.

To anchor a $\frac{1}{4}$ " braided nylon or dacron rope to the sails, (as at the clew) we tied a knot in the line, then threaded it through the grommet farthest from the clew, tying a second simple knot in the line just before reaching the next grommet. Then the line was passed through this grommet and another knot was tied just before the line was passed through the next grommet, and so forth. In this way the tension on the line can be transferred onto each of the grommets. If either sail shows weakening of a corner attachment point, the number of grommets holding knots can be simply increased.

To hold the top corner of the sail (head) to the top of the mast, we simply knotted a $\frac{1}{4}$ " line running up through the top three grommets (making sure the knots were placed so they'd pull up on the grommets). Then this line was tied to the top thimble of the foresay so the sail and foresay could be removed at once. The forward bottom corner of the jib (the tack) was fastened to the eyebolt at the bow with a quick-link through the bottom grommet.

The line attached to the jib clew was simply tied into a knot so a jib-sheet line, controlling the set of the jib can be tied on when rigging for a sail.

To make the mainsail we laid out the tarp and marked the longest straight side of the sail just in from the hemmed edge of the tarp with long, straight batten and marker pen. The mainsail was made with a doubled-over pocket up the front that the mast is inserted into, and a pocket at the bottom that holds a batten. The mast pocket is cut 7" wide, while the batten pocket was cut 3" wide, so that a 3" flap was folded back over and taped along the doubled-back edge. We used a straight batten and marker pen to mark the batten placements and rear edge of the mainsail, then cut out the mainsail shape.

The steps used to make a pocket are shown in Fig. #13 at left. First a mark was placed 7" in from the corner (or 3" in, for the bottom pocket). The pocket was folded over and temporarily taped every few feet just to hold the positioning. Then a board was slipped under the tarp material and $\frac{1}{8}$ " holes were punched through BOTH layers of material, spacing the holes about $\frac{1}{4}$ " in from the edge of the material and about 4" apart. Next, nylon string was tied around the sail at the hole nearest to the sail edge. Then the string was threaded in and out of the holes all along the pocket seam to the other end, where the string was pulled tight and tied off. Then 2" duct tape was laid carefully straight down along the seam, with its centerline along the edge of the material. The sail was carefully turned over and tape was laid down on the opposite surface, following the same path as the first line of tape. Then the tape was burnished down onto the tarp, and through the holes onto the opposite layer of tape. After burnishing, the tape was tapped all over its surfaces on both sides of the sail to lock on the adhesive.

However, before the pockets are made we punched holes down the fold point for the mast pocket near the top and bottom (as shown just to the right of the pocket making sketch in Fig. #13) to attach tape to both sides, grabbing through holes, and set with grommets so that lines can be knotted onto the multi-grommets, as at the head of the jib, to hold the top of the pocket up at the mast head and the bottom down onto the eyebolt on the forward end of the boom.

A grommet was installed near the aft end of the bottom pocket of the mainsail on BOTH sides of the pocket so that a line can be tied through one side of the pocket at the rear, through a hole near the end of the batten inside the pocket, and out through the other side of the pocket (as shown in Fig. #13, center bottom).

After the mainsail pockets were made we turned our attention to cutting battens. We found plastic moldings at the home center panelling dept. measuring $\frac{1}{4}$ " wide and about $\frac{1}{8}$ " thick, made of a flexible plastic (not the plastic foam moldings) that would resist snapping when used as battens. The bottom batten was inserted into the bottom batten pocket, cut off flush at the rear, then drilled through at the grommets with a $\frac{1}{8}$ " bit. The other battens were laid over the batten lines drawn on the sail and cut off at the rear edge (leech) of the sail. Next, we punched holes through the sail about 4" apart and with their centers $\frac{1}{4}$ " out to both sides of the lines marking where the centerlines of the batten were to be laid out. Then we laid down a line of the 2" tape so that one edge lay along one side edge of the batten. The tape was smoothed across the batten, down the opposite edge, and cut on the sail to the side of the batten. A second layer of tape was laid on over this so its edge was placed along the opposite side edge of the batten as the first layer, then smoothed down across the batten and onto the sail.

Two layers of tape were then applied to the other side of the sail, as shown in Fig. #13, center, with their side edges lined up with the side edges of the tape layers applied over the batten.

To hold the battens from pulling the tape free at the sail edge, Batten ends can be rounded down with a surform to prevent snagging the sail material. The clew corner of the mainsail was reinforced with tape

Mast Pocket fold line marked about 9" in from Tarp Hem, then pocket edge is marked and Hem trimmed off

Pocket Fold lines cross at corner, -used for first layout steps, then trimmed away to clear Gooseneck

