

# MODEL AEROPLANES

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## Covering and Proofing

Some drawings are given of the various methods of covering both wire and wooden planes. The first illustration shows how the fabric is cut when covering a wire plane. Vee pieces are notched out at the portions of the overlap

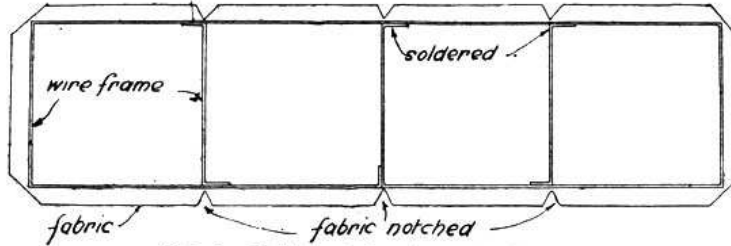


Fig. 1.—Method of Covering Wire Frame.

coming in contact with the rib. The plane is then laid over the silk on the bench, stretched tautly and fixed to the bench with drawing pins; the overlap is then stuck down with glue, removing the drawing pins one at a time.

The lower sketch shows a wooden plane. The fabric is notched out as before, and the overlap glued down to the spar, being held there by means of drawing-pins until the glue has set, when superfluous fabric may be trimmed off with a sharp pen-knife.

The fabric should be stretched sufficiently tautly to bow the frame to the dihedral shown at A, so that the cross bracing of the plane does not sag the silk. If the plane were to be covered flat and then bowed by means of the cross bracing to the required dihedral, the silk would be wrinkled up to an extent sufficient to materially affect the lift

of the plane. Or the plane may be bent by steam to the dihedral angle shown at B, which is much to be preferred.

When double surfacing a plane the fabric should be cut to the shape shown in the figure to the right. The fabric is then stretched from end to end, and secured, as before, with drawing pins until the glue has set, whereupon the notched out edge should be stuck down. When this is dry pull the second surface over (cutting a slot in it to clear the centre rib, if this

form of plane adjustment is being used), easing it tautly over and insert drawing pins to hold it temporarily in place. The sketch showing the drawing pins should make this clear.

Another method of attaching fabric is to hem a piece of fabric, so that, finished, it is about 1/16 of an inch smaller all round than

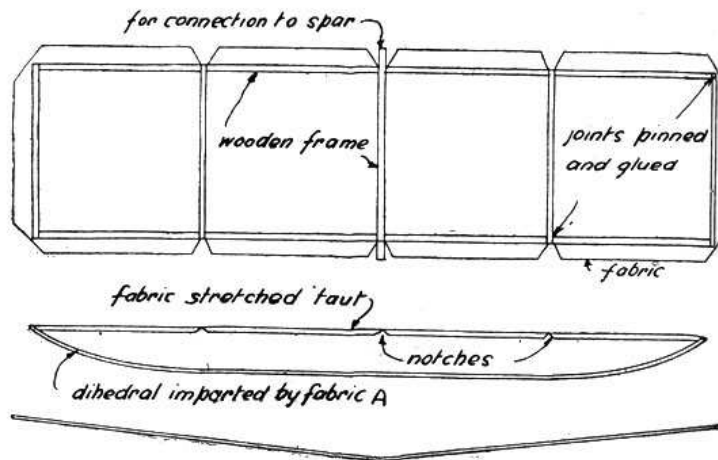


Fig. 2.—Method of Covering Wooden Frame. B

the plane, and then to lace it with thread to pull it tautly over the frame.

A perspective sketch shows the attachment of the dihedral bracing. It continues under the end rib, as shown dotted. This arrange-

ment admits the plane to be warped for steering purposes. The bracing should be attached to a hook shaped as in the upper sketch, thus making it possible to undo the bracing, so that the plane can be packed flat when it is desired to transport the model.

The final sketches show how the fabric is stitched with an over and over stitch, and also the method of notching the fabric to a curved plane. If the overlap were not so notched, it would wrinkle up upon being turned over.

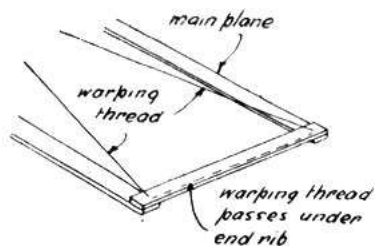


Fig. 3.—Attachment of Working Threads.

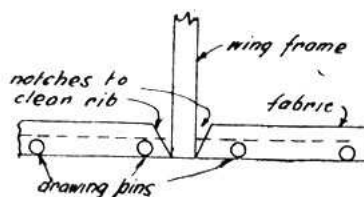


Fig. 5.—Showing use of Drawing Pins.

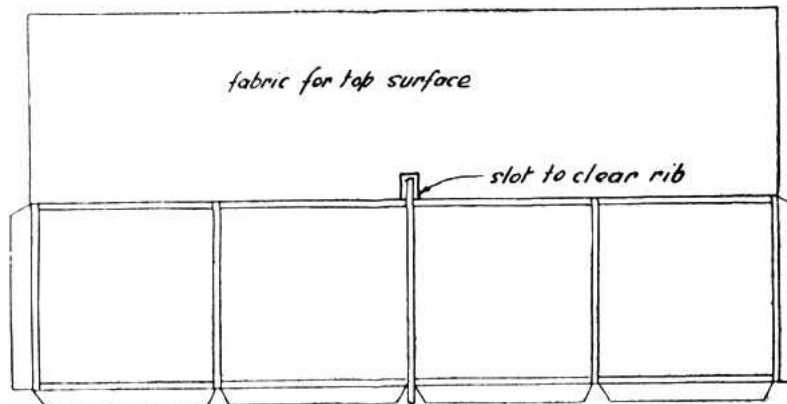


Fig. 4.—Double-surfacing a Plane.

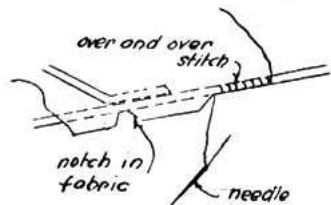


Fig. 6.—Stitching Fabric to Wire Frame.

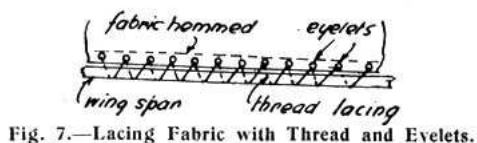
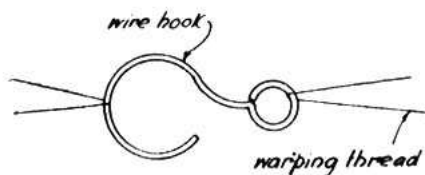


Fig. 7.—Lacing Fabric with Thread and Eyelets.

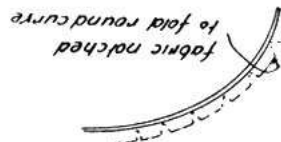


Fig. 8.—Notching Fabric round Curved Outline.