

HOW TO MAKE AN INSPECTION COVER

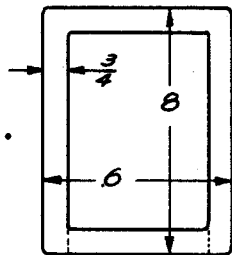
An inspection plate designed to be fastened to a wood frame in the model wing section, can be built with little material and the use of only a few tools. By making this inspection cover and plate, some idea will be had of the construction and use of inspection covers.

MATERIAL: Two pieces of .035" aluminum, 8" x 10"; one piece of 3/32" pyralin, 6" x 8"; one dozen #6 binder head aluminum rivets; round head wood screws, #6 x 3/4"; one cowling stud; one cowling pin; 1/8" x 3/4" strap iron.

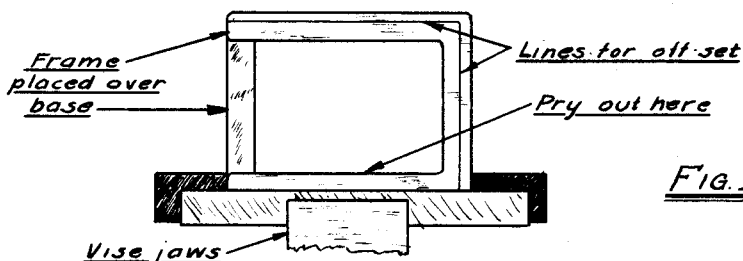
TOOLS: Steel scale, square, tin snips, ball pein hammer, rivet set, files, screw driver, drill.

PROCEDURE:

1. Cut a base for the cover by squaring one piece of aluminum to 6" x 8".
2. Cut out the inside of the base, leaving a 3/4" frame, Fig. I. Refer to sheet on "Tin Snips".
3. Finish the base by filing away all burrs and giving a small radius to all corners.
4. Make the second frame identical to the first, except one is cut out straight as shown by the dotted lines on Fig. I.
5. Mark a 1/4" line around the outside edges of the frame.
6. From the 1/4" line, bend a 1/8" offset in both sides and the end of the frame to allow the pyralin plate to be slipped between the frame and the base.

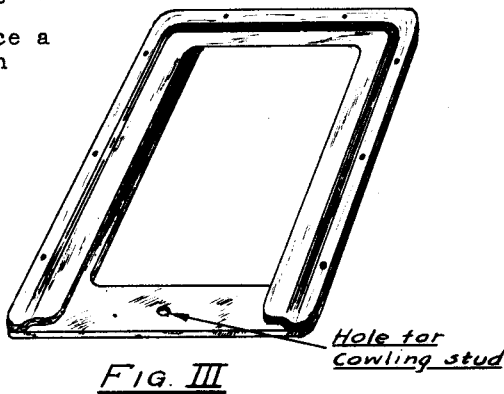
Fig. I

Note: This may be done by clamping the frame and the base between two steel bars held in the vise, as shown in Fig. II. One steel bar should support the entire width of the base frame, while the other should be even with the 1/4" line on the outside frame. Pry the outside frame outward to permit the 1/8" iron strap to be placed between the frame and the base. Hammer the frame back straight over the strap. This should be repeated on the end and the other side. This will give an offset in the frame, as shown in Fig. III.

Fig. II

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(continued)

7. The frame and base can be held together with two or three #6 rivets on each side.
8. The pyralin should be fitted to slide into the frame, or to a size of approximately 5-1/4" x 7-1/2".
9. Slide the pyralin into place and drill a small hole through the pyralin and through the base in the middle of the base frame, at the open end. See Fig. III.
10. Remove the pyralin and place a cowling stud (Fig. IV) in the hole drilled in the frame.
11. Enlarge the hole in the pyralin to fit over the cowling stud.
12. The entire frame should be gone over with a smooth file to remove any possible burrs, and should be polished with emery cloth.



After the fabric has been put on and doped, the inspection frame can be screwed to the previously made framework. The frame should be put on so that the open end is toward the trailing edge of the wing. The fabric is then cut from the inside of the frame, leaving enough excess fabric to allow it to be folded back and tacked to the under side of the framework. This prevents the fabric from pulling away from the inspection plate.

The pyralin plate can now be slid into place, hooked over the stud and secured with a cowling pin, Fig. V.



FIG. IV



FIG. V

Cowling pin

Cowling Stud