

## Q-2 SLIDING CANOPY INSTRUCTIONS

Canopy cut-out should be the same as plans except, for best results, angle your cut at 45° across the front of canopy. This will allow the canopy to move up and forward about 3".

The rear canopy bulkhead should be installed per plans. After glassing to canopy is complete, remove all except 1-1/2" (see photo) radius cut and glass over with one bid two uni and one bid.

Before the rails can be installed, they must be modified per attached sketch. After modification, the rails should be attached to the right and left sides of the canopy, recessed as far as practical and parallel to each other. One-fourth inch plywood mounting plates, with 8-32 flat head machine screws in place, should be floxed into the canopy in the appropriate places and the entire recess covered with two bid.

To determine the proper length of the aluminum stand-off supports, place the canopy in the open position with the rails attached to the canopy. Allow at least 1/4" to 3/8" distance between the fixed rail and the fuselage side for clearance. Next, measure the distance between the center of the fixed rail and the center of the fuselage wood longerons (remember the 3/4" wood piece you had trouble bending). This measurement becomes the hole-to-hole dimension for the aluminum stand-offs. It might be advisable to add 1/4" to 1/2" to this length if you intend the stand-offs to go "over center," as I have in N1711Q.

You can now cut, drill, and mount the stand-offs to the sliding rail. The only thing important here is to not tighten the nuts so

tight that the stand-offs will not move freely.

The next step is one of the more critical and will require two people. Place the canopy in the closed position and make sure the sliding rails are in the furthest forward position. One person will be in the cockpit while the other lowers the canopy into position. Now rotate the stand-offs forward until the bottom hole is in the center of the wood longeron. You will now notice a gap between the stand-offs and this wood longeron. Measure this distance for all four stand-offs and make wood blocks to fill this void. Reduce the blocks' width enough to allow a two bid glass and a washer. Measure the distance between the two front blocks and the two rear blocks. This distance should not be more than 1/8" difference, otherwise your canopy will bind.

Now, re-position yourself in the cockpit and have someone lower the canopy in place. Again rotate the stand-offs until they are in the middle of the previously glassed in blocks. Drill through the blocks, stringer, and fuselage. Insert the bolts and make a trial move of the canopy. If everything works OK, enlarge the holes on fuselage enough to flox in a fiber lock nut. The bolt thread should be coated with vaseline to prevent a permanent bond.

It is now time to make an aluminum stop that will prevent the stand-offs from rotating too far forward. These stops will be placed in front of the front stand-offs and should allow an "over-center" movement of the canopy when in the open position. Allow enough room to attach a spring on each front stand-off to "lock" the whole thing open. This will prevent an inadvertent closure and will allow you to taxi without fear of the wind loads forcing

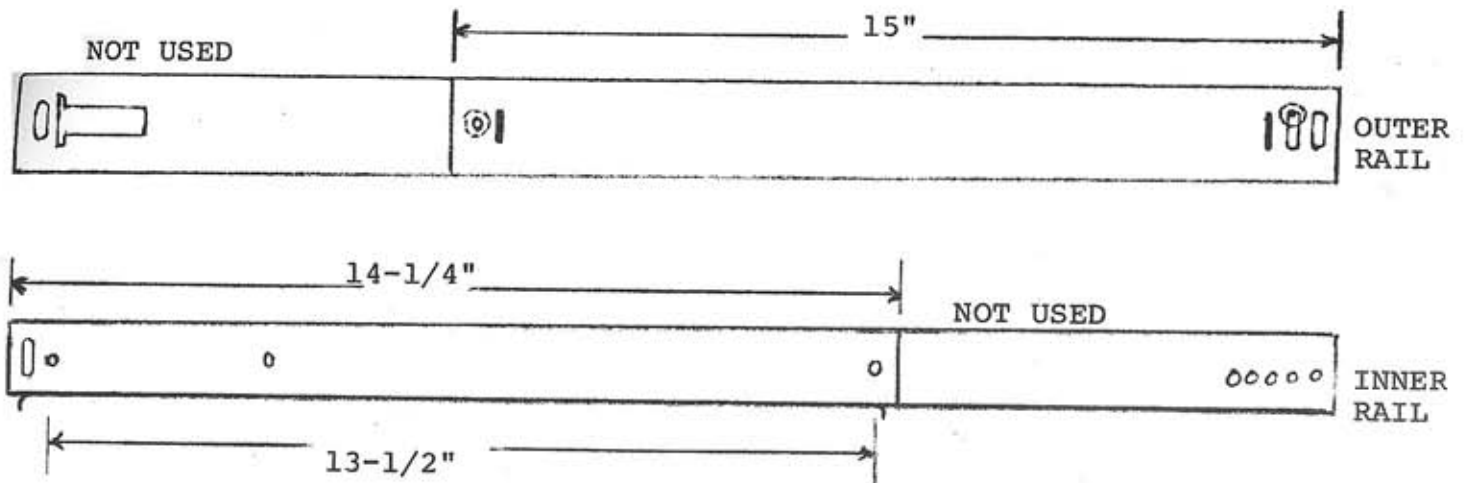
the canopy shut.

It is now time to place the locating pins in their respective places on the canopy similar to the present plans, except now there will be four pins and they will be placed at about a 45° angle facing rearward. You may need to change this angle slightly depending on construction variations. You can now drill the mating holes and fill with floc. Drop the canopy in place (after coating the pins with vaseline) and let cure. Enough weight should be placed on the canopy to insure a tight fit.

The latch mechanism proposed in the present plans is adequate with only minor modification needed to the canopy to make it work. Of course, it will be necessary to make a mirror duplicate for the right side. I would prefer to see a double latch on each side; however, this is not necessary.

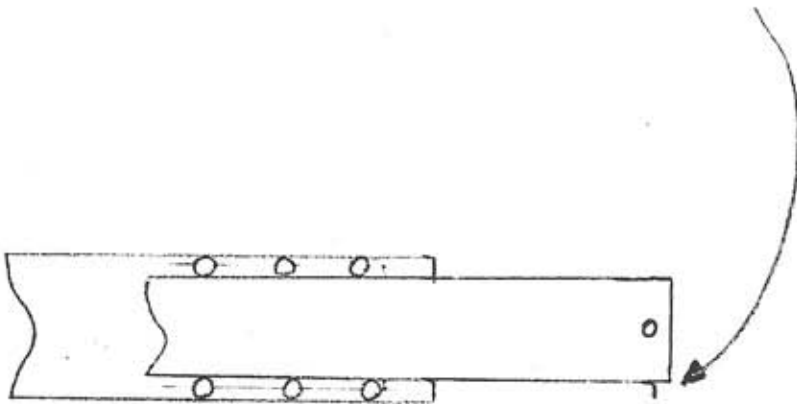
It is important to remember to allow enough space around the canopy opening for some type of seal. This, of course, is true regardless of opening method.

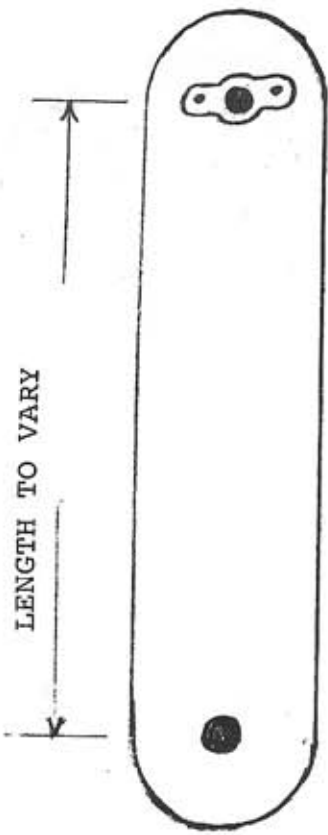
DO NOT DETACH INNER RAIL FROM OUTER RAIL  
TO MAKE MODIFICATIONS



MODIFY INNER RAIL TO PREVENT FROM PULLING APART FROM  
OUTER RAIL BY HACKSAW CUTTING A 1/4" SLOT ON THE  
BOTTOM OF THE INNER BALL GUIDE AND BENDING THE  
RESULTING TAB DOWN AT 90°. (BOTH ENDS)

YOU MAY HAVE TO TRIM DOWN THIS TAB TO ALLOW INNER  
TRACK FREEDOM OF MOVEMENT WITHIN THE OUTER GUIDE.



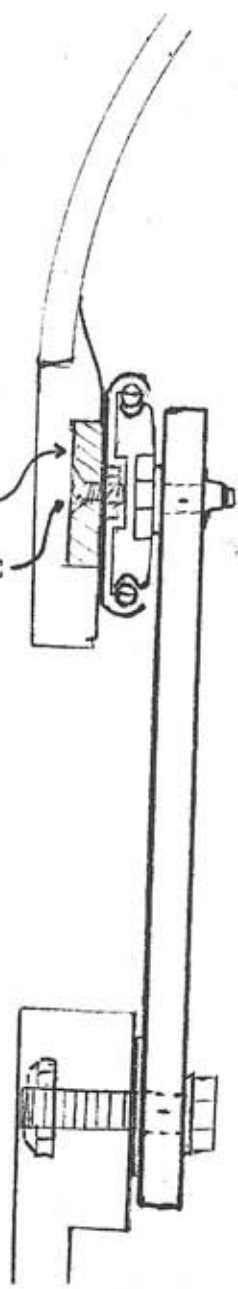


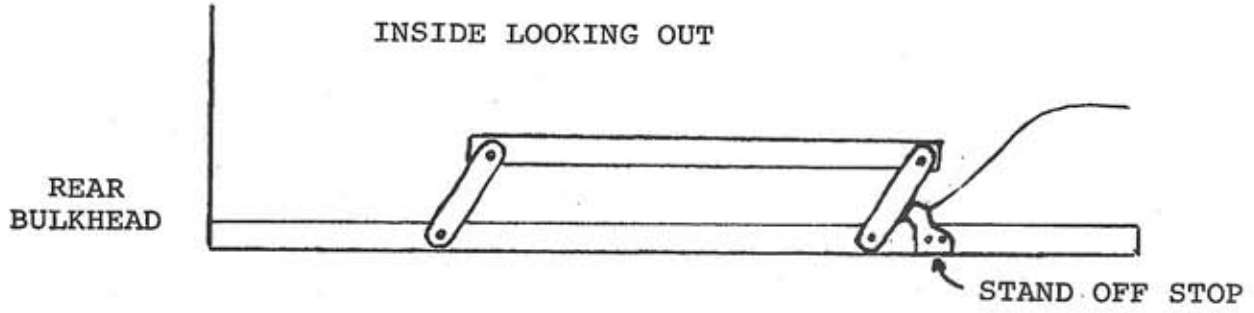
2 ANCHOR NUT

1/4" PLYWOOD  
F. H. MACHINE  
SCREW

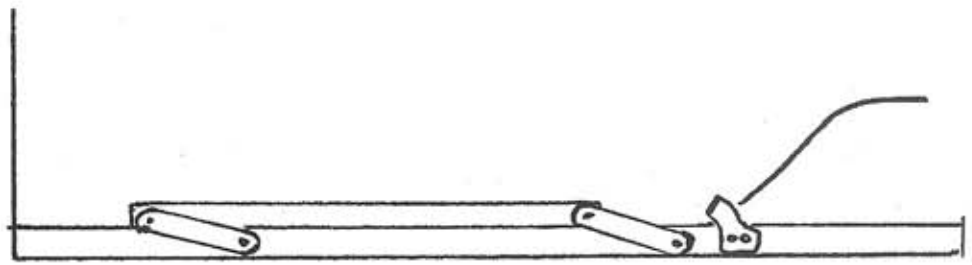
~~AN3 Bolt & Washer~~  
8-32 MACH SCREW

AN4 BOLT, WASHERS, & NUT

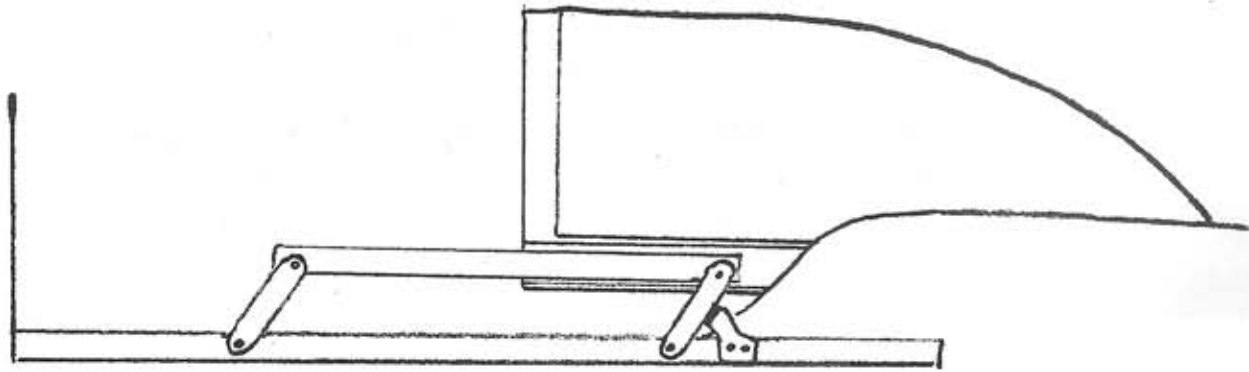




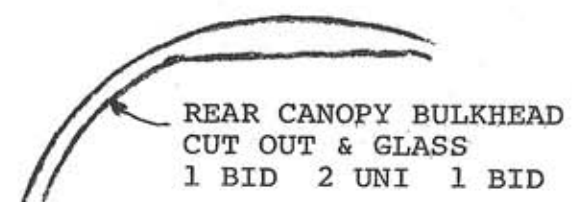
OPEN POSITION FIXED TRACK ONLY



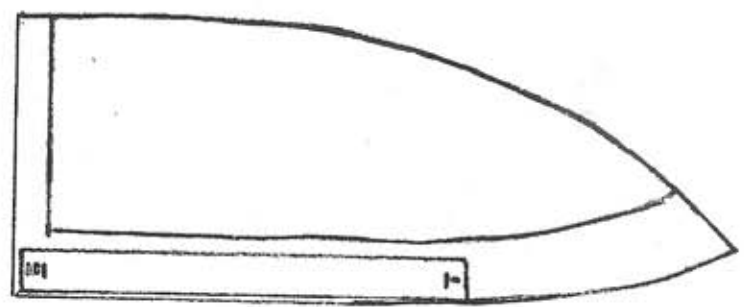
SAME THING IN CLOSED POSITION



OPEN WITH CANOPY OPEN



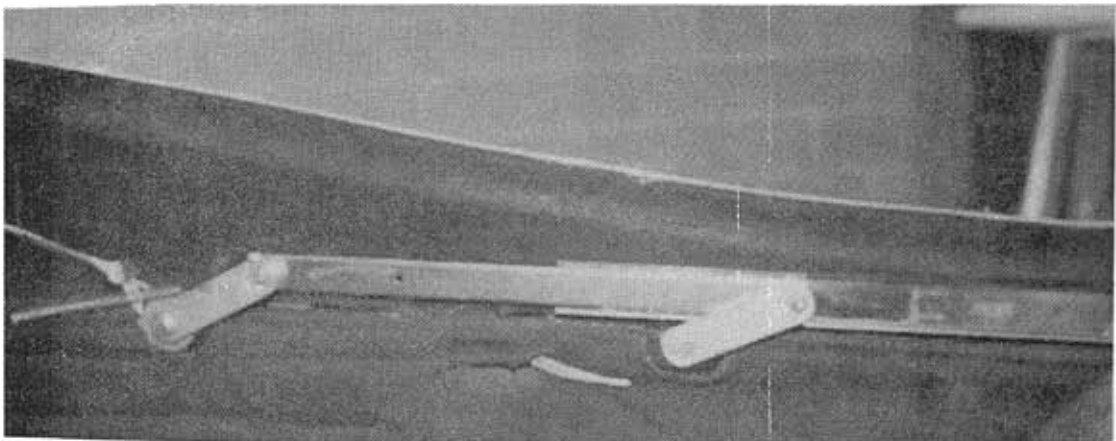
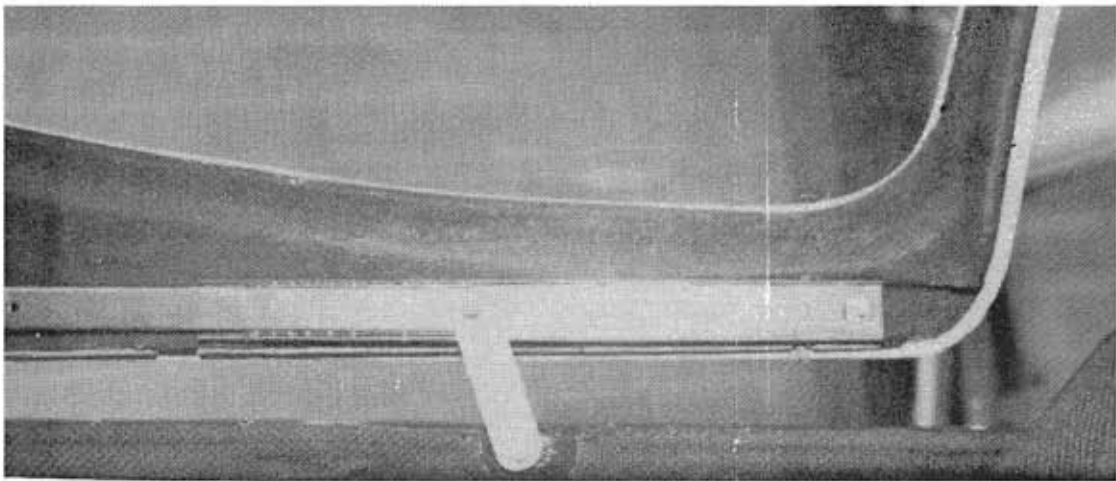
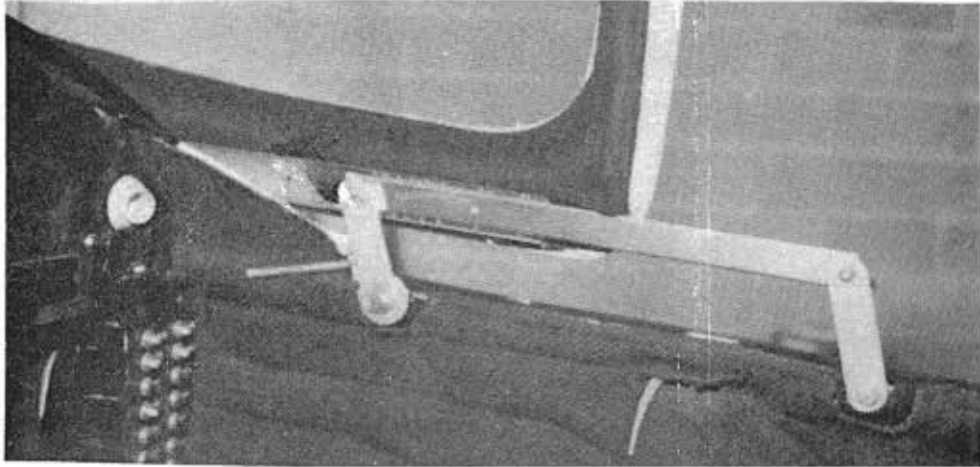
RECESS TRACK AS NECESSARY TO  
ACHIEVE MAX. WIDTH & PARALLEL  
RIGHT & LEFT.



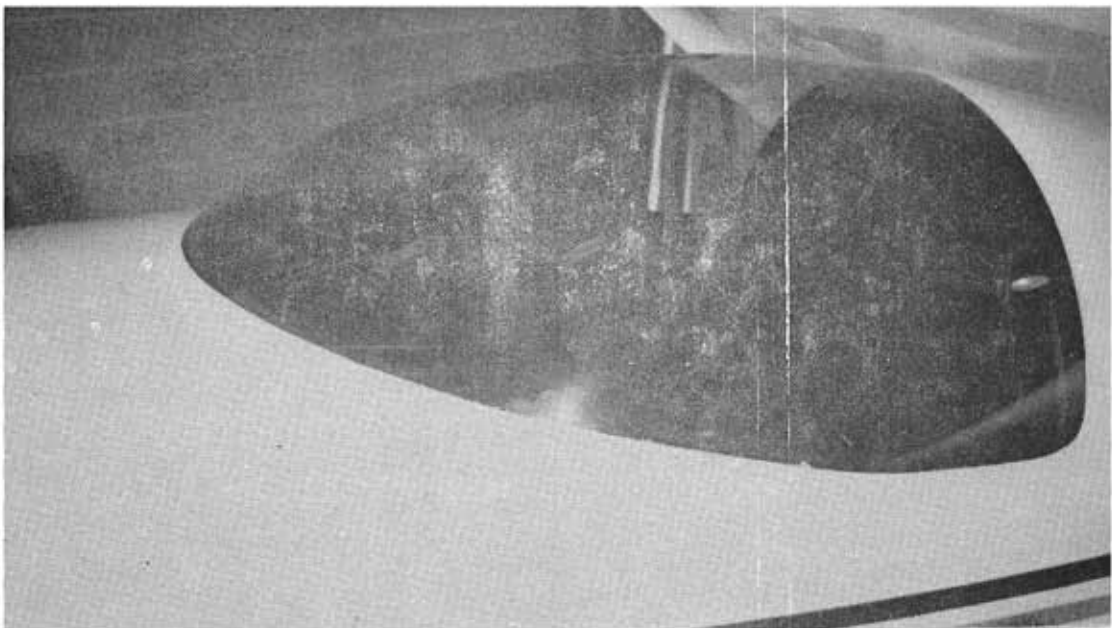
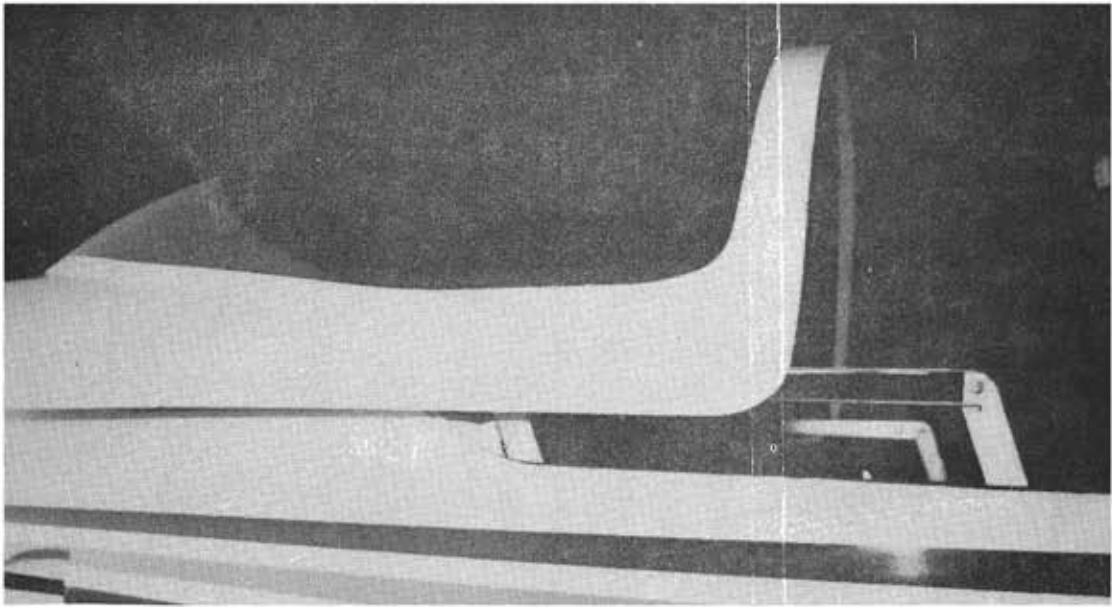
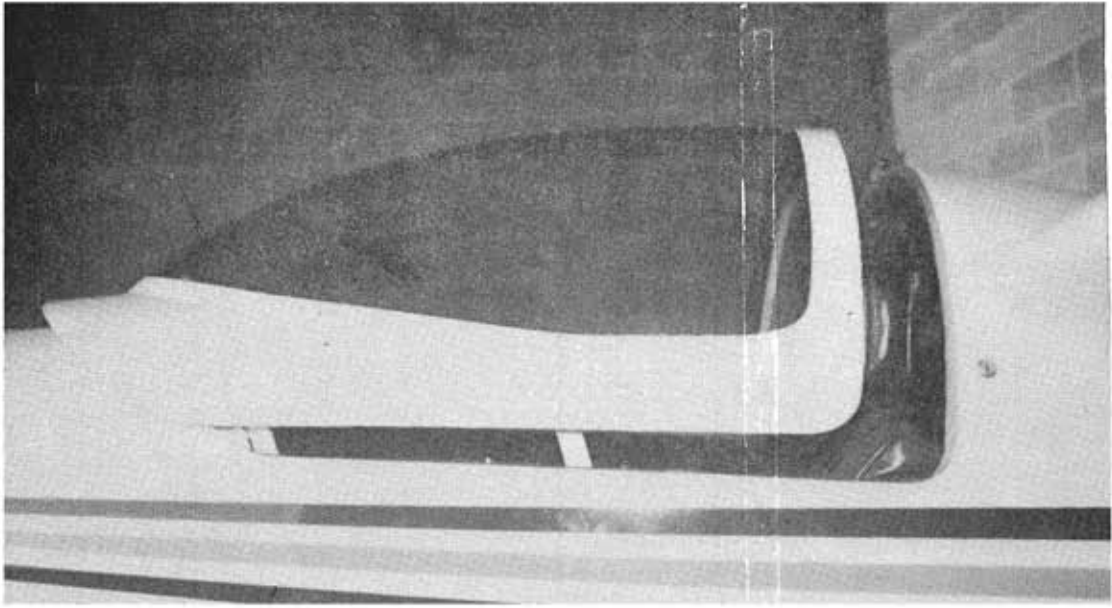
LARGER TRACK  
MOUNTED IN CANOPY  
INSIDE

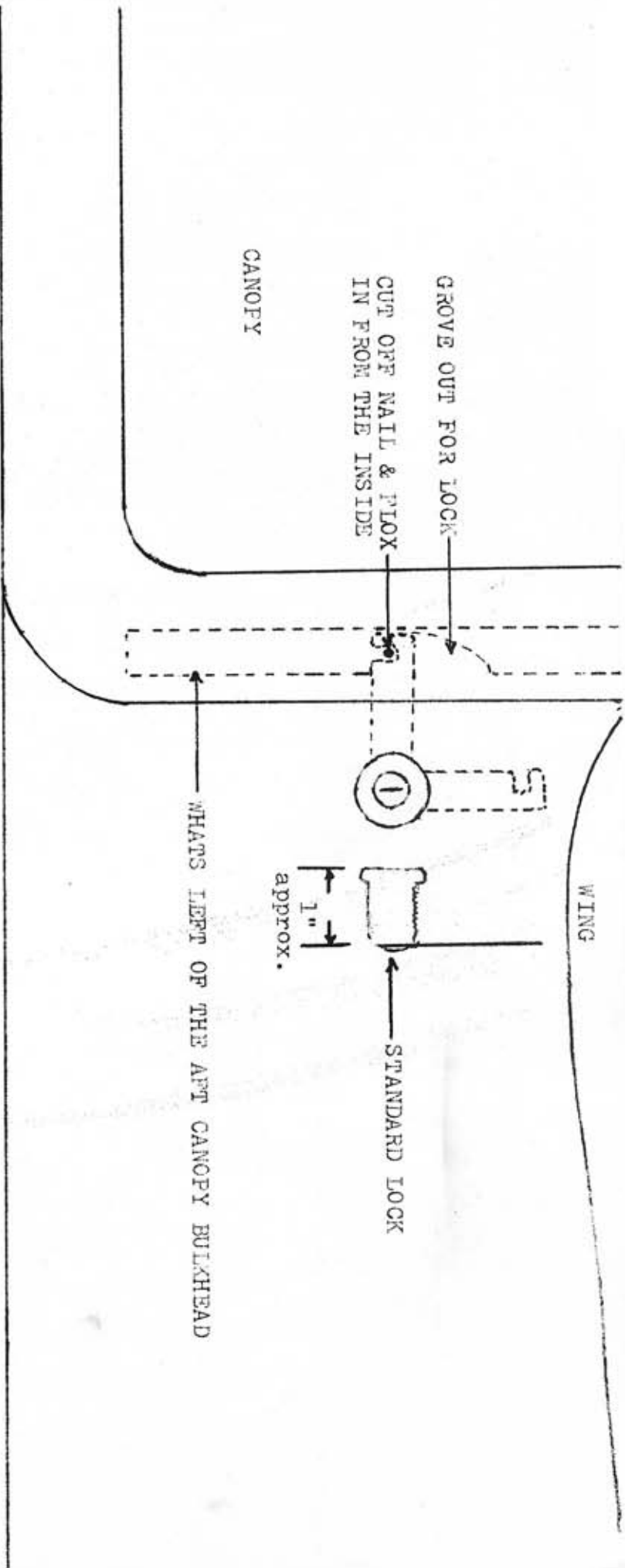
MATERIAL LIST

<u>QUANTITY</u>	<u>DESCRIPTION</u>
2	Belwith's Accuride Model B1029-24"
4	K3000- <del>2</del> Anchor Nuts
4	<del>AN3-4</del> Bolts 8-32-8 MACH SCREWS
2	AN4-16 Bolts
2	AN4-17 Bolts
4	AN364-428 Nuts
4	AN960- <del>10</del> <sup>8</sup> Washers
4	AN960-416 Washers
4	AN970-4 Washers
4	MS24693-S50 F.H. Machine Screws
4	8-32 Nuts
2	Springs
1	1/4" x 1" x 20" aluminum
1	Set Instructions







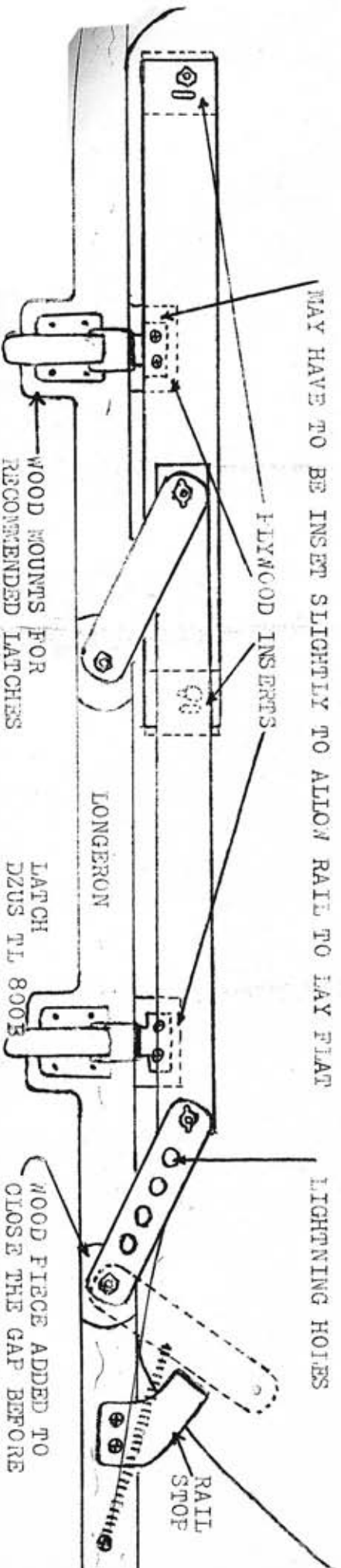


**CANOPY LATCHING RECOMMENDATION**  
(Not Included With Kit)

Dzus TL800B can be purchased from HB Aircraft 6080 Highland Rd. Pontiac, Michigan 48054 (313 666-2287) \$1.85 ea.

MAY HAVE TO BE INSERT SLIGHTLY TO ALLOW RAIL TO LAY FLAT

LIGHTNING HOLES



**NOTE:** HAVE ALL WOOD & PLYWOOD INSERTS IN BEFORE GLASSING BUT LEAVE ROOM FOR GLASS ON THE WOOD PIECES USED TO CLOSE THE GAP.

