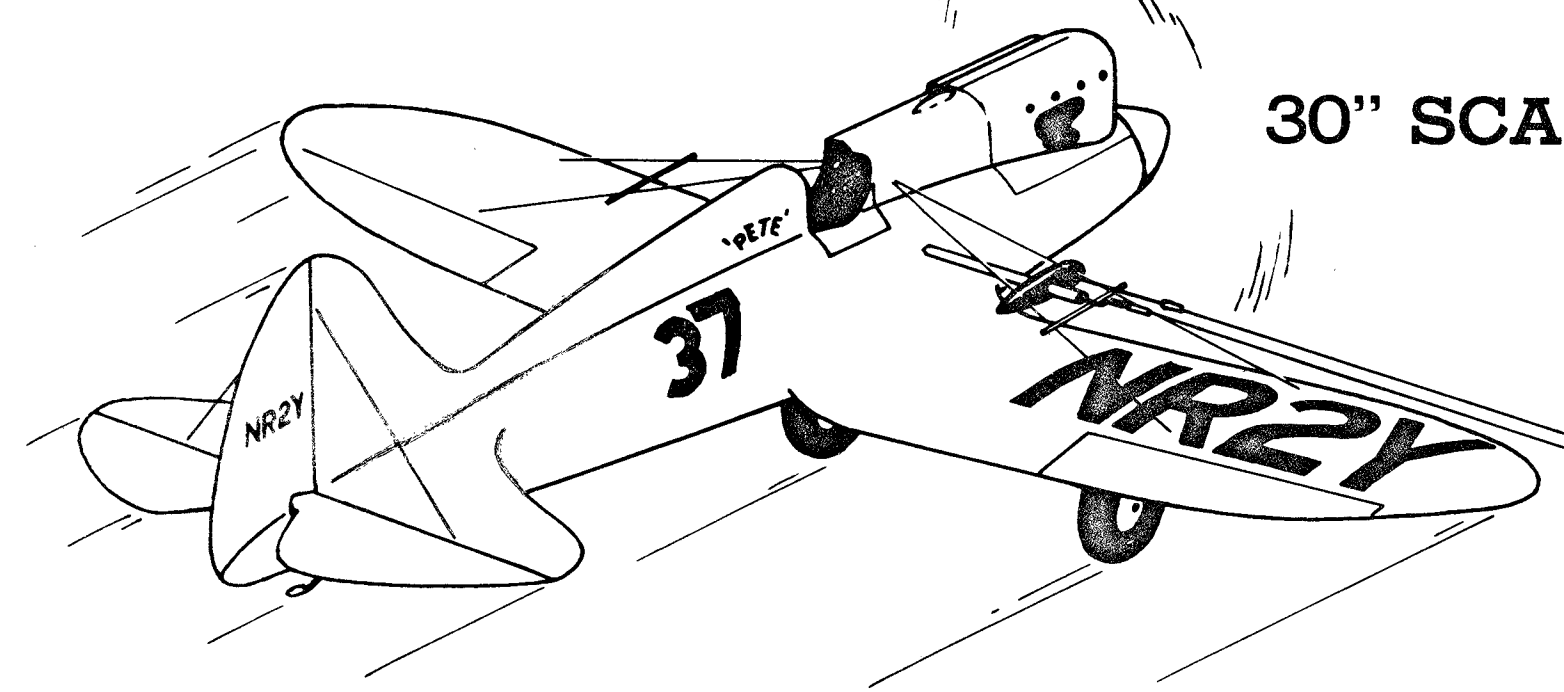


BEN HOWARD'S

'PETE'

30" SCALE CONTROL LINE MODEL

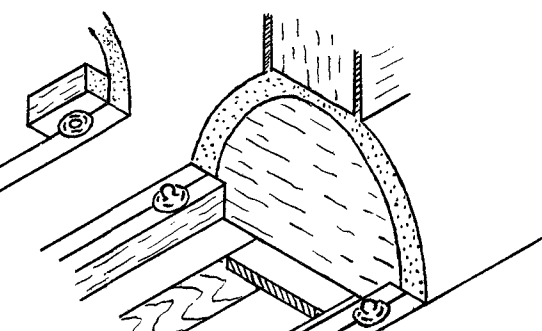
STERLING MODELS Phila. Pa.
ENGINEERED AND DRAWN BY *Wm. F. Hawley*



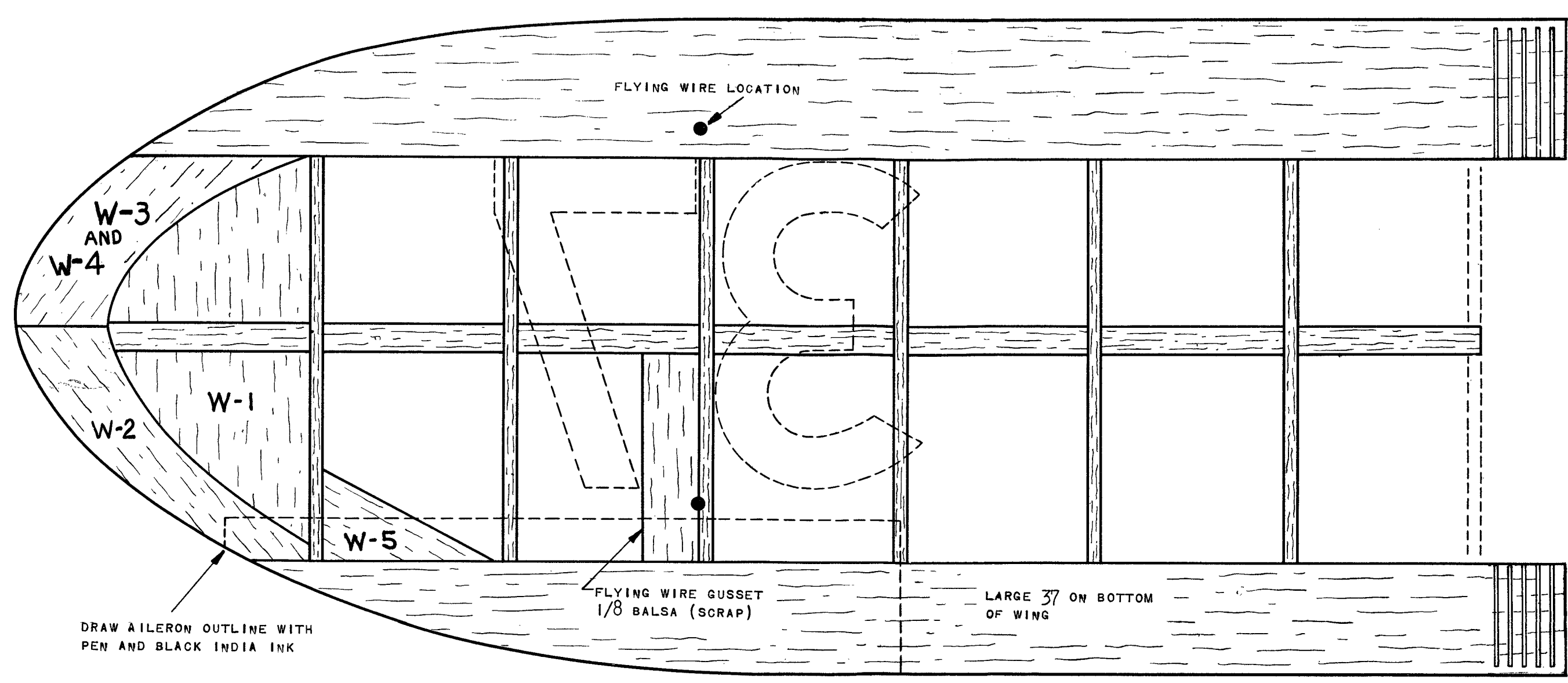
A POINT OF WHITE FLASHING IN THE DISTANCE, GROWING LARGER AND LARGER, THEN THE SOUND OF A HUNGRY WASP, A STEEP BANK, A FLASH OF GLEAMING WHITE WINGS, AND THERE GOES BEN HOWARD LEADING THE RACE ACROSS THE FINAL PLYWOOD ONCE AGAIN DISPLAYING HIS WIZARDRY OF NOT ONLY RACING MASTERY BUT OF DESIGN GENIUS AS WELL. THE 'PETE' IS PERHAPS ONE OF THE FASTEST RACERS EVER MADE WITH THE AMOUNT OF POWER USED. WITH ONLY A MIDGET COYOTE ENGINE OF MERELY 90 H.P., IT PUT UP A PERFORMANCE MATCHED AND BETTERED BY PLANES OF FAR GREATER POWER. ITS ENTIRE SUPERIORITY OF PERFORMANCE LIES IN ITS BEAUTIFUL STREAMLINED AND SMALL SIZE. HERETIMBER STERLING MODELS PRESENT A FAITHFUL REPLICA, WITH MANY OF THE EYE OPENING PERFORMANCE OF THE REAL BEN HOWARD'S PETE RACER.

THE CONTROL SYSTEM SHOWN HERE MANUFACTURED BY VICTOR STANDEL & CO. HAS PROVEN TO BE HIGHLY SATISFACTORY. THE COMBINATION OF THE "THUMB IT" AND "CONTROL IT" ARE MOST EFFECTIVE IN AS MUCH AS THEY RESULT IN SMOOTH, EFFORTLESS AND PRECISION CONTROLLED FLYING. THIS SYSTEM HAS BEEN THOROUGHLY TESTED AND CARRIES OUR APPROVAL, HOWEVER, ANY OTHER SATISFACTORY SYSTEM MAY BE INSTALLED AT THE OPTION OF THE MODEL MAKER.

CONTROL SYSTEM



COILING SHAP FASTENER DETAIL. PLACE SHAP FASTENERS AS INDICATED FOR EASY REMOVAL OF COILING. CARE MUST BE TAKEN TO SEE THAT COIL IS FLUSH ON ALL POINTS OF CONTACT. FOR CLOSE FIT, SMALL BLOCKS MUST BE ADDED TO INSIDE OF COIL TO SEAT TOP FASTENER AS SHOWN. THESE MUST BE CEMENTED IN PLACE WITH GREAT CARE TO SEE THAT FASTENERS ARE SECURELY CEMENTED.



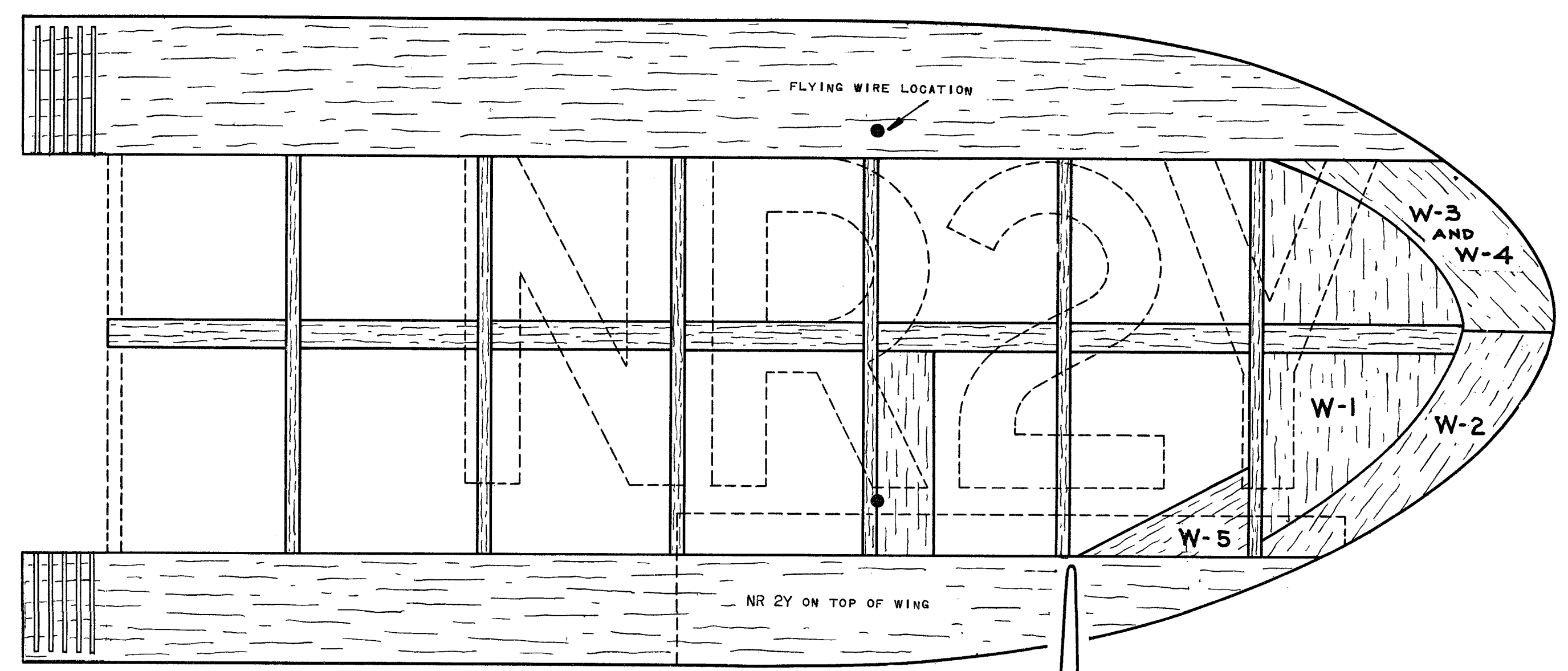
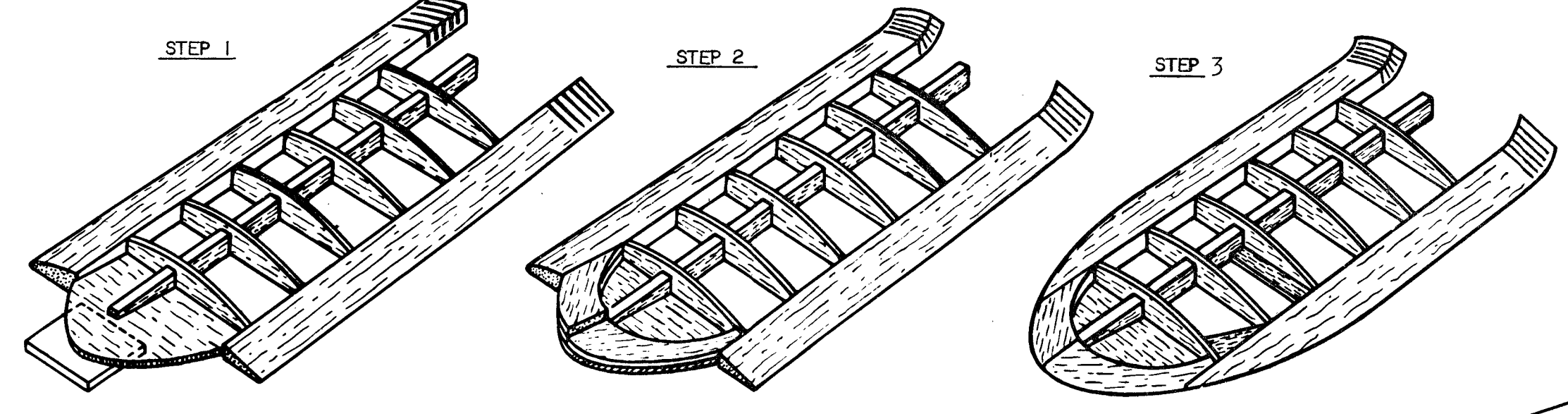
DRAW A SILKON OUTLINE WITH PEN AND BLACK INDIA INK

FLYING WIRE GUSSET 1/8 Balsa (SCRAP)

LARGE 37 ON BOTTOM OF WING

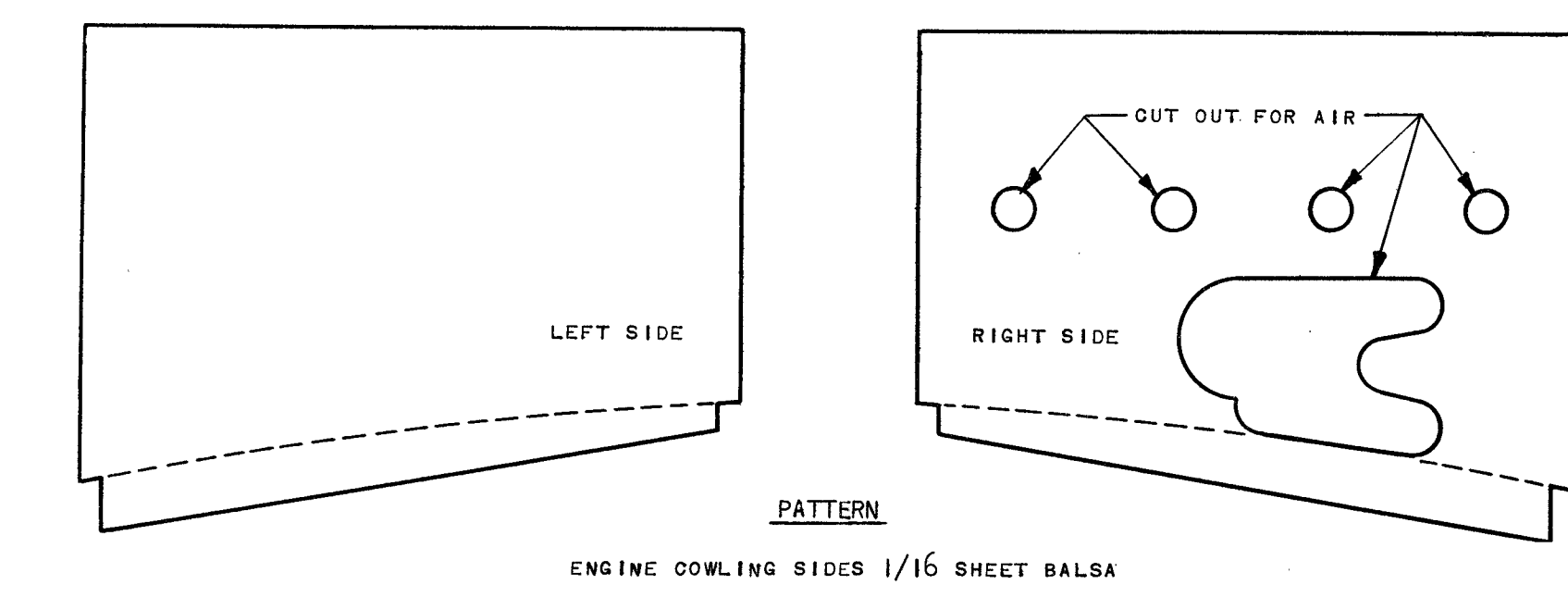
WING CONSTRUCTION NOTES

- STEP 1** PLACE LEADING AND TRAILING EDGES AND SPAN DIRECTLY OVER PLANS. MAKE SURE FILLET SLOTS ARE EXACTLY OVER DRAWING OF SAME. CEMENT RIBS IN PLACE, OMITTING SHORT CENTER RIBS. CEMENT WING TIP FLOOR W-1 IN PLACE USING 3/16 SHIM AS SHOWN.
- STEP 2** CEMENT W-2 INTO POSITION. NOW GLUE W-3 AND W-4 TOGETHER AND CEMENT IN PLACE AS A UNIT. REMOVE WING FROM PLANS, CAREFULLY BEND LEADING AND TRAILING EDGE FILLET SECTIONS AS INDICATED IN DRAWING. CHECK CURVE OF EACH WITH PLYWOOD WING ROOT.
- STEP 3** CARVE AND SAND WING TIP TO SHAPE. INSTALL GUSSET W-5 AND FLYING WIRE GUSSET.

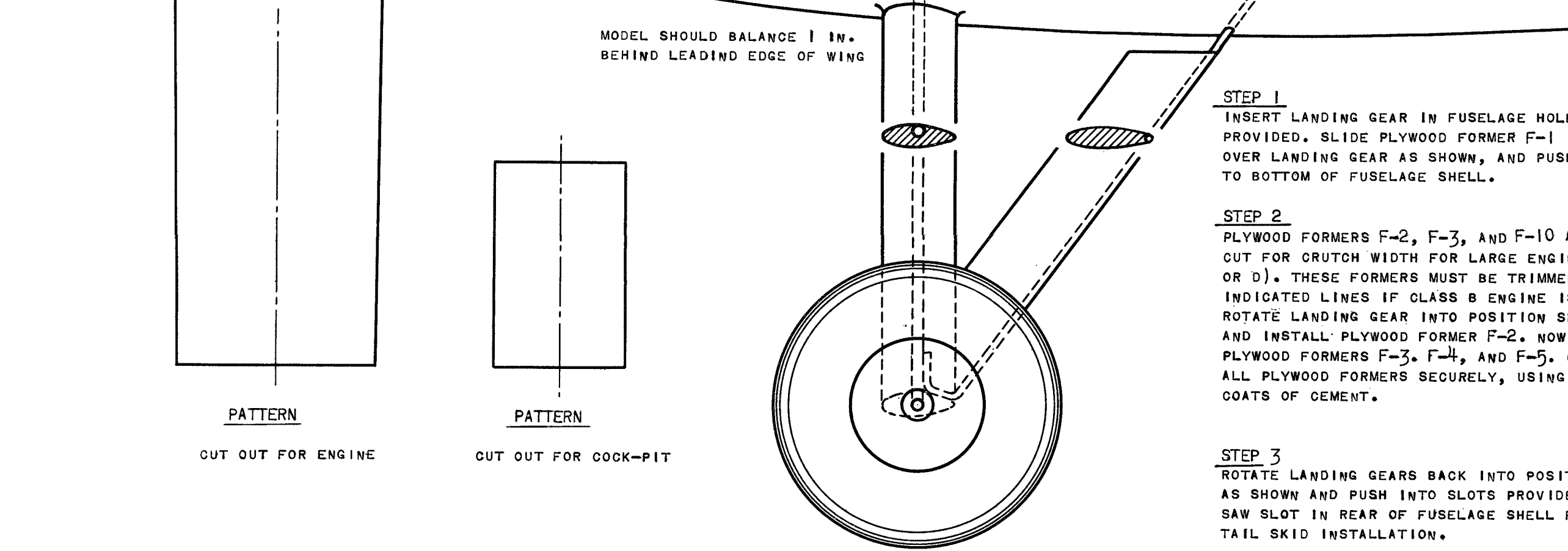
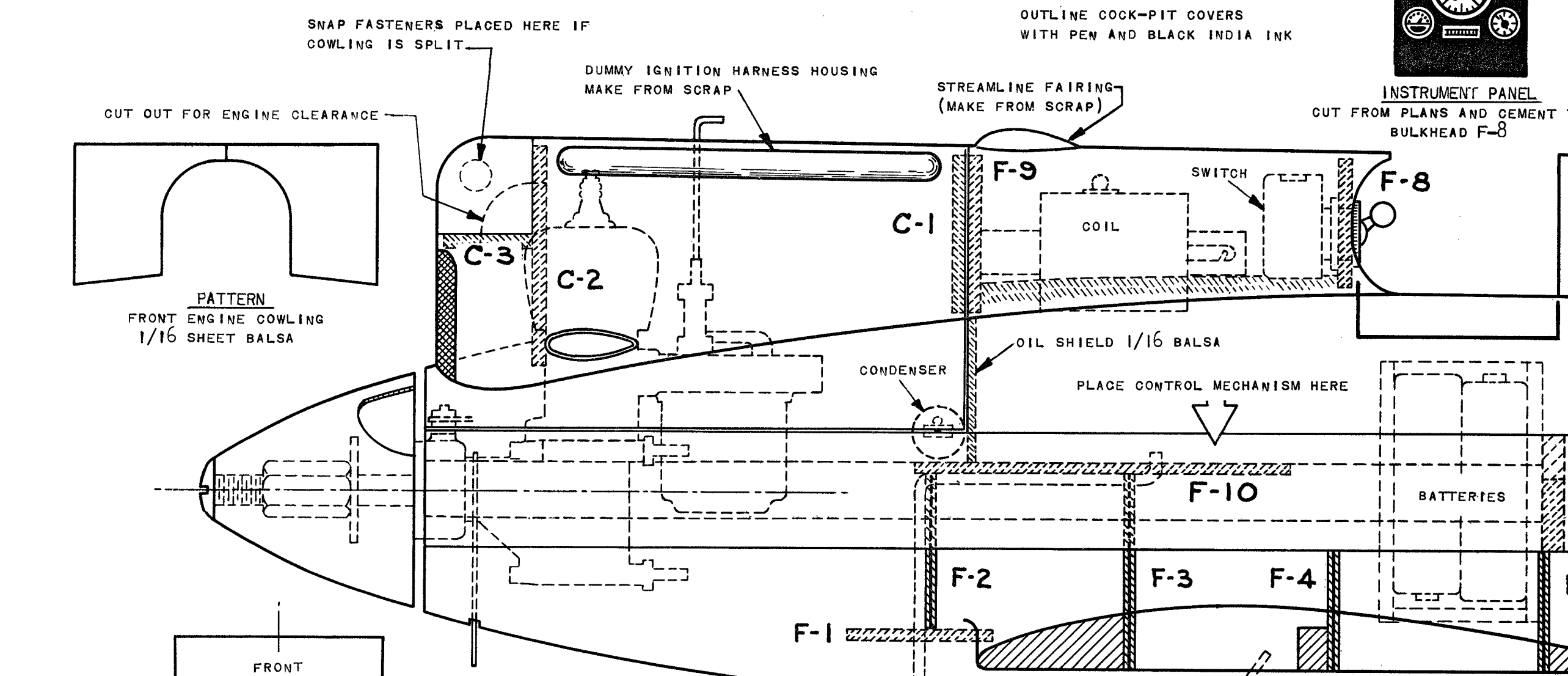


SPLIT COILING DETAIL. SPLIT COILING ALONG THIS LINE BETWEEN 1/8 IN. COILING STRINGERS. PLACE SHAP FASTENERS AS SHOWN IN DETAIL DRAWING. CUT HOLE IN SIDE OF COILING AS REQUIRED BY EXHAUST PIPE OF ENGINE USED.

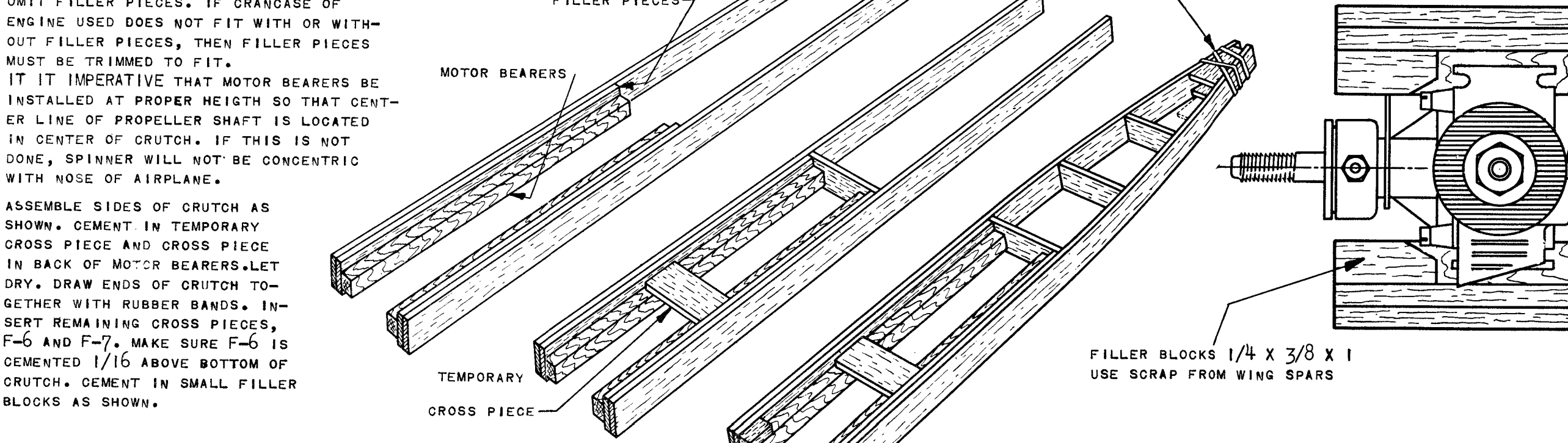
FLYING WIRE DETAIL. FLYING WIRES ARE SIMULATED USING HEAVY BLACK THREAD. USING A NEEDLE THREAD IS PUNCHED THRU SURFACE AT POINTS INDICATED. CEMENT SECURELY AT ALL POINTS OF ENTRY AND EXIT.



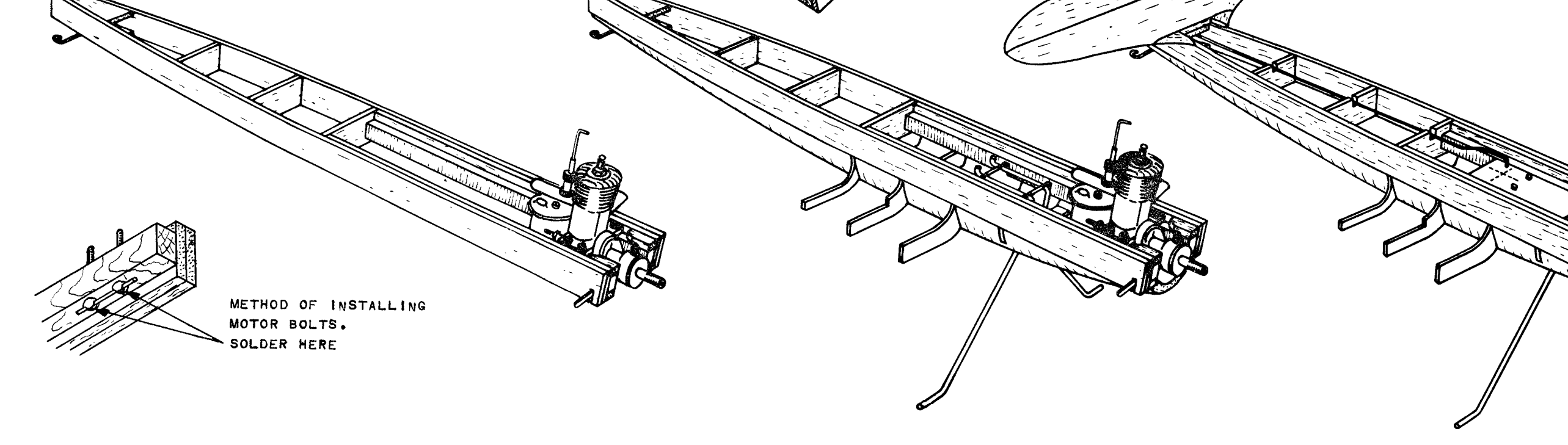
ENGINE COWLING SIDES 1/16 SHEET Balsa



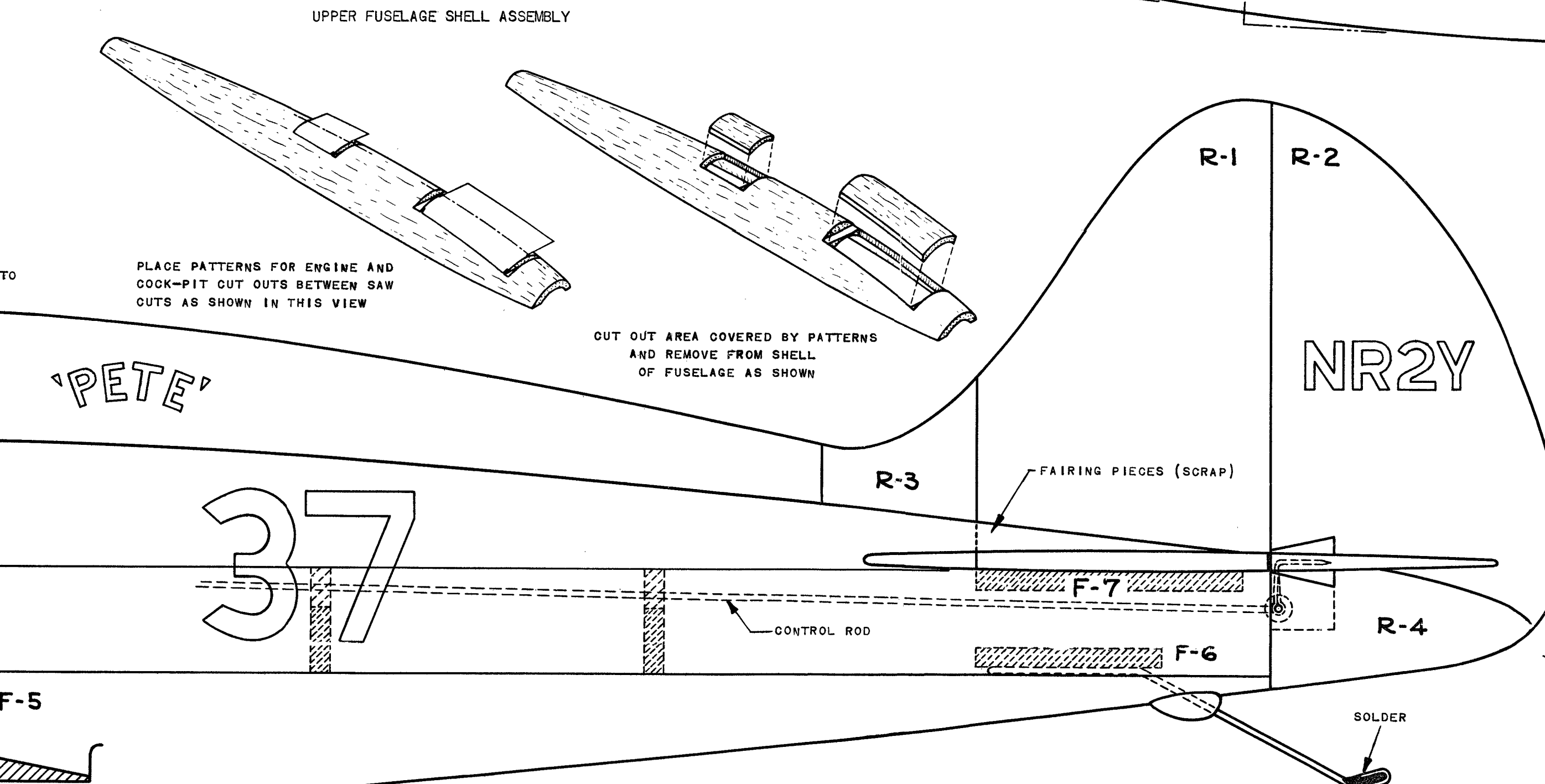
CRUTCH ASSEMBLY NOTES— READ! IMPORTANT! FILLER PIECES SHOW ARE FOR CLASS B ENGINE ONLY. IF CLASS C ENGINE IS USED OMIT FILLER PIECES. IF CRANCASE OF ENGINE USED DOES NOT FIT WITH OR WITHOUT FILLER PIECES, THEN FILLER PIECES MUST BE TRIMMED TO FIT. IT IS IMPERATIVE THAT MOTOR BEARERS BE INSTALLED AT PROPER HEIGHT SO THAT CENTER LINE OF PROPELLER SHAFT IS LOCATED IN CENTER OF CRUTCH. IF THIS IS NOT DONE, SPINNER WILL NOT BE CONCENTRIC WITH NOSE OF AIRPLANE. ASSEMBLE SIDES OF CRUTCH AS SHOWN. CEMENT IN TEMPORARY CROSS PIECE AND CROSS PIECE IN BACK OF MOTOR BEARERS—LET DRY. DRAW ENDS OF CRUTCH TOGETHER WITH RUBBER BANDS. INSERT REMAINING CROSS PIECES. F-6 AND F-7, MAKE SURE F-6 IS CEMENTED 1/16 ABOVE BOTTOM OF CRUTCH. CEMENT IN SMALL FILLER BLOCKS AS SHOWN.



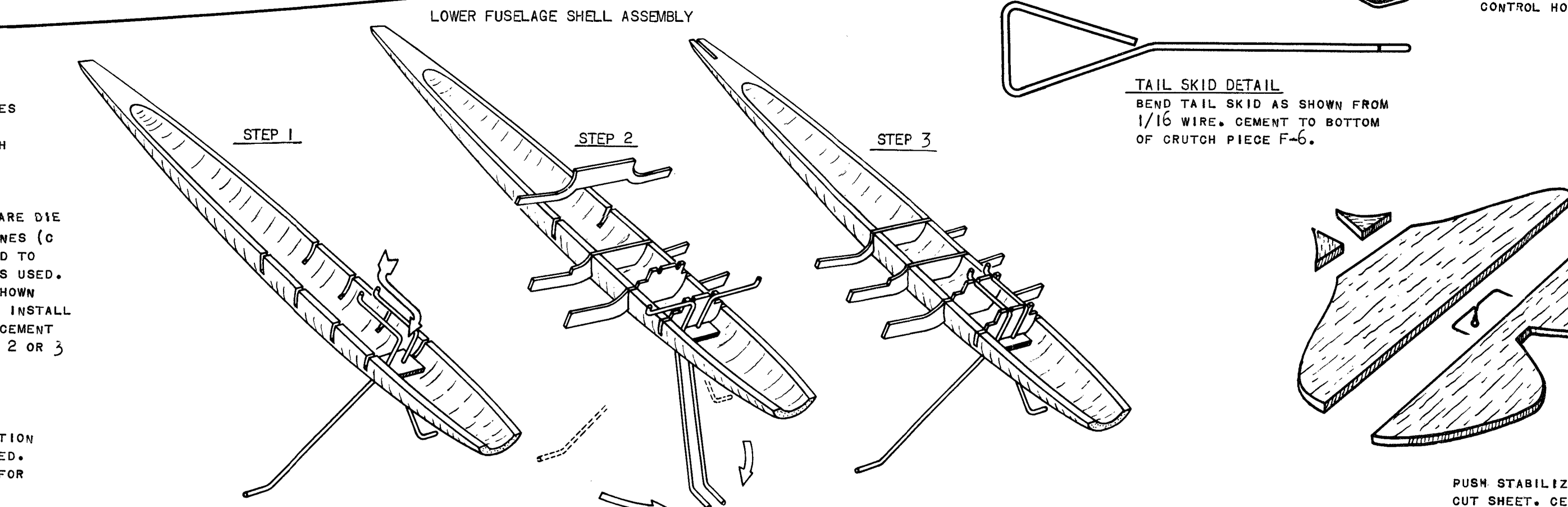
GENERAL ASSEMBLY PROCEDURE— FOLLOW CAREFULLY



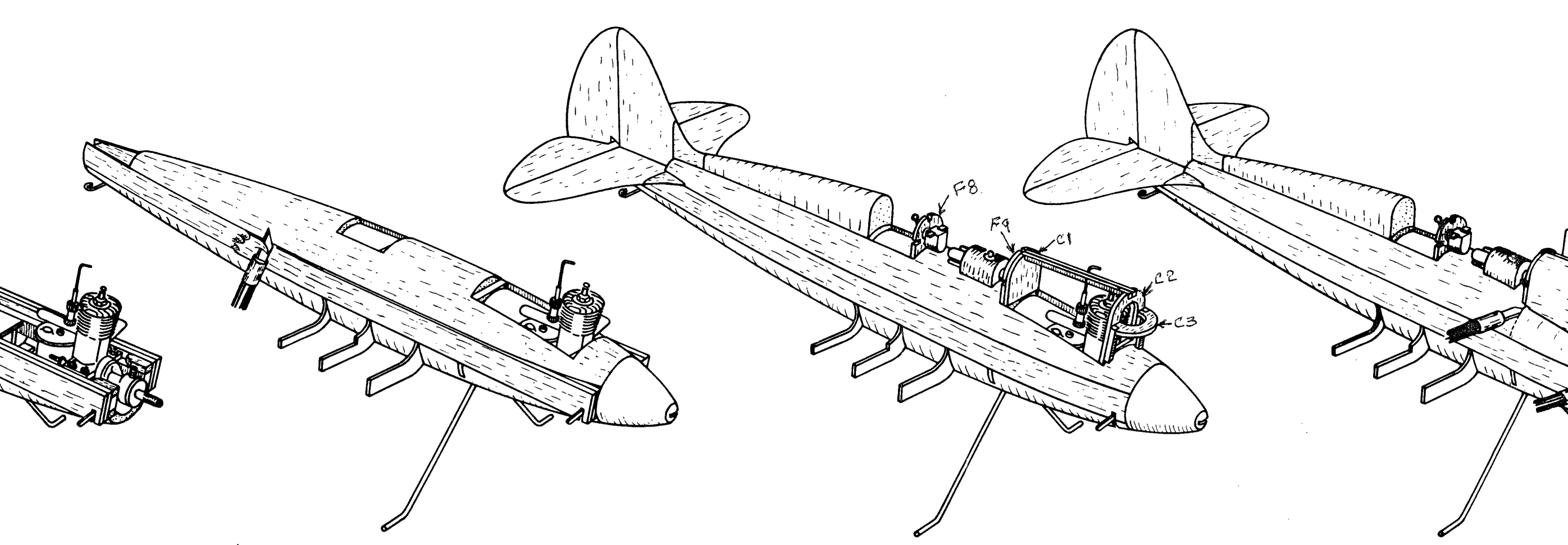
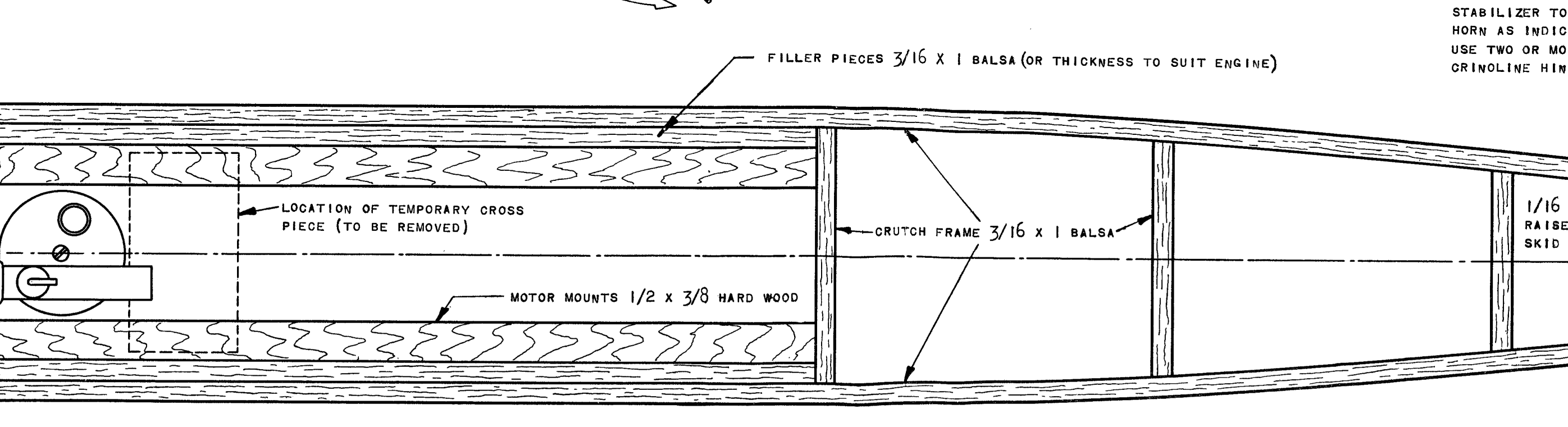
STEP 1 BUILD CRUTCH AS SHOWN IN DRAWINGS ABOVE. BEND TAIL SKID AND CEMENT INTO PLACE AS NOTED ON DETAIL DRAWING. LOCATE AND DRILL HOLE FOR ENGINE SO THAT REAR FROM WASHER CLEAR FRONT OF MOTOR MOUNTS BY 1/16 IN. PUSH MOTOR BOLTS THRU FROM FRONT AND SOLDER PIN THRU BOLTS. THIS WILL KEEP BOLTS FROM TURNING WHEN TIGHTENING NUTS. INSTALL ENGINE.



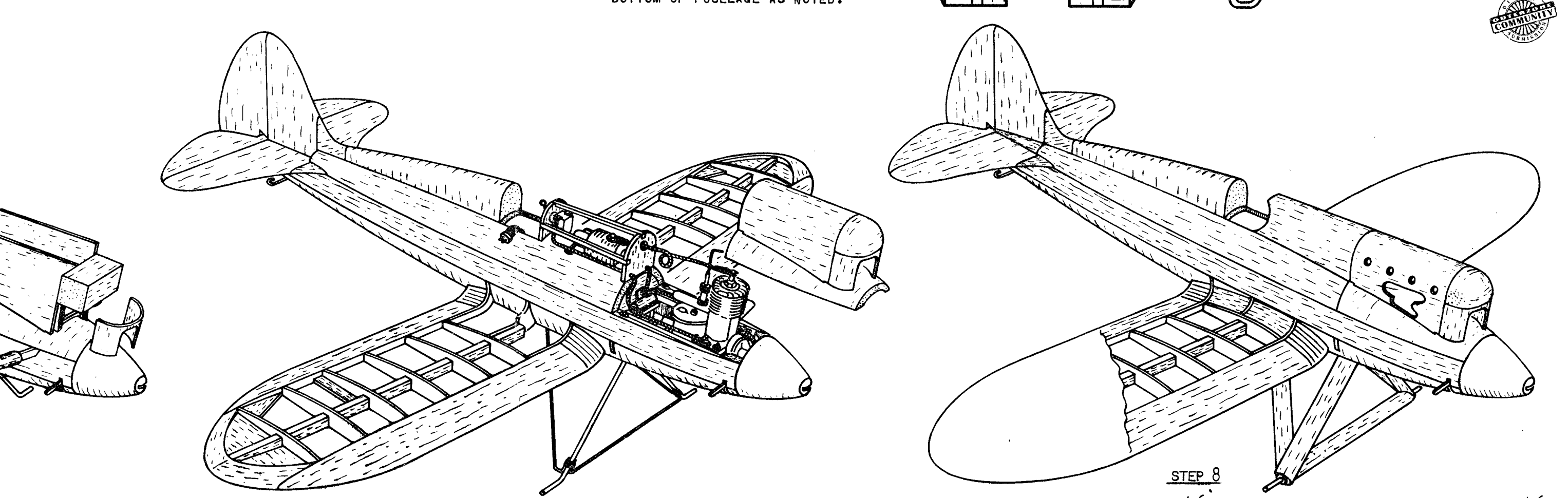
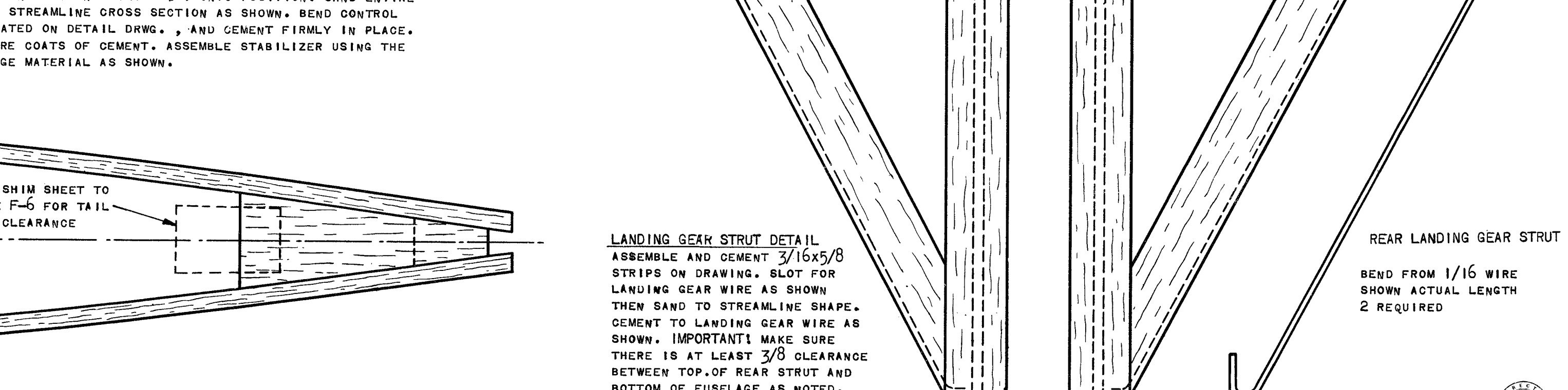
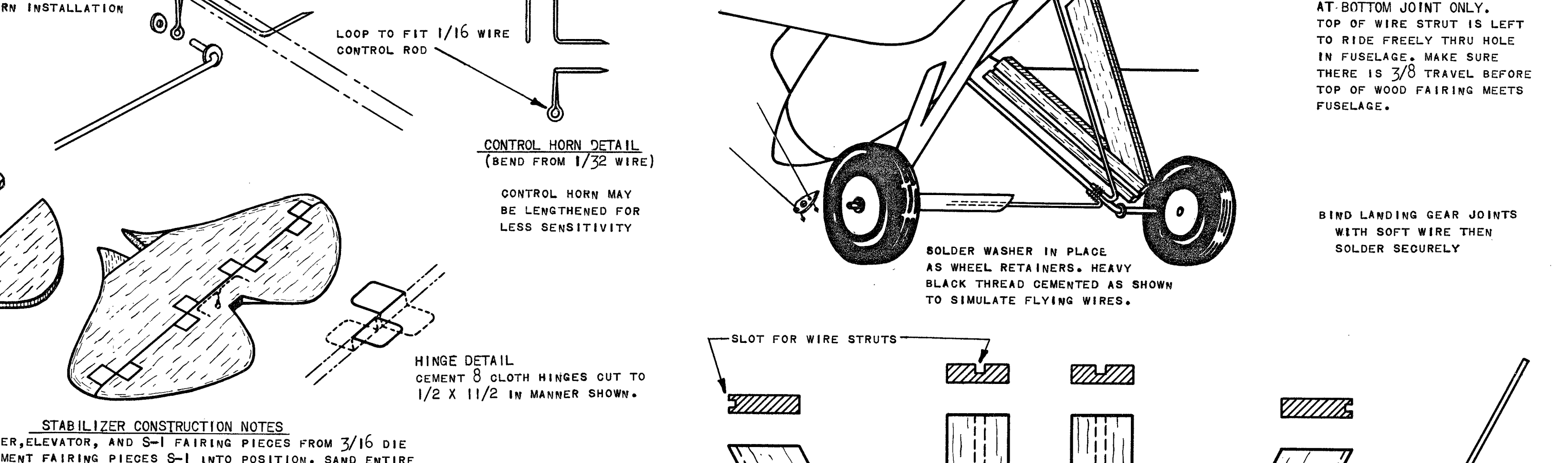
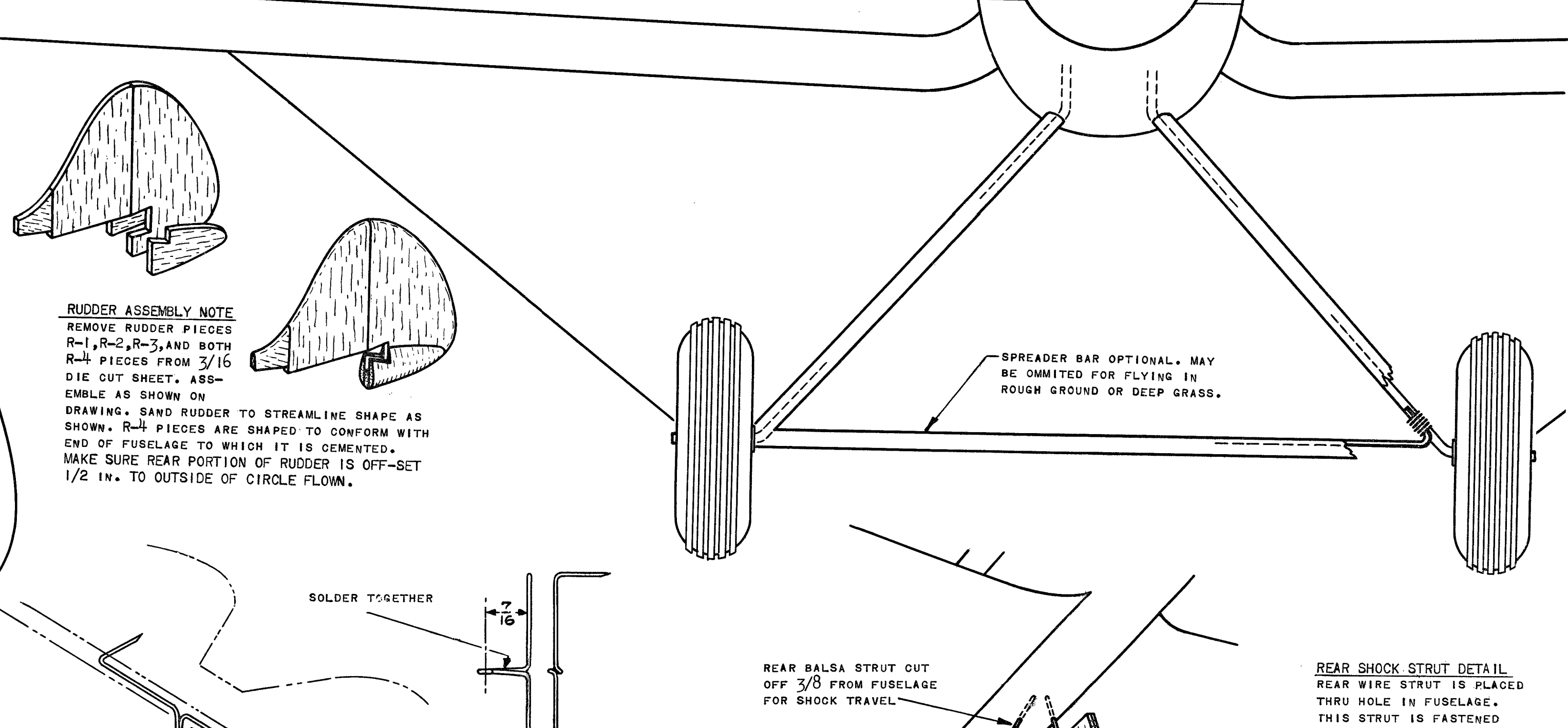
UPPER FUSelage SHELL ASSEMBLY



LOWER FUSelage SHELL ASSEMBLY



STEP 2 CEMENT ASSEMBLED LOWER SHELL INTO POSITION. MAKE SURE PLYWOOD MEMBERS AND LANDING GEAR WIRE INSIDE OF FUSelage ARE LIBERALLY COVERED WITH CEMENT.



STEP 3 TRIM PLYWOOD PIECE F-10 TO FIT BETWEEN MOTOR MOUNTS AS SHOWN. MOUNT CONTROL MECHANISM ON F-10 OVER CROSS AND CEMENT INTO POSITION. TEMPORARILY MOUNT STABILIZER IN PLACE. INSTALL CONTROL ROD AND CHECK ENTIRE CONTROL SYSTEM FOR PROPER OPERATION. WHEN THIS HAS BEEN DONE, REMOVE STABILIZER LEAVING CONTROL ROD IN PLACE.

STEP 4 CEMENT UPPER SHELL INTO POSITION AS SHOWN. MOUNT SPINNER. TRIM OFF PROTRUDING EDGES OF CRUTCH SO THAT THE CRUTCH FAIRS SMOOTHLY INTO FUSelage SHELLS AND SPINNER-BAND ENTIRE FUSelage TO SMOOTH FINISH.

STEP 5 CEMENT STABILIZER PERMANENTLY INTO POSITION. HOOK UP CONTROL SYSTEM MAKING SURE OF SMOOTH OPERATION. IT MAY BE NECESSARY TO FOLLOW UP END OF FUSelage AND RIGIDIFY FOR CONTROL. HORN CLEARANCE. CEMENT RUDDER A D TURTLE BACK INTO POSITION. CEMENT STABILIZER AND RUDDER FOR ALIGNMENT. CEMENT BULKHEADS F-8, F-9, C-1, C-2, C-3 INTO PLACE. INSTALL 1/8" STRIPS AS SHOWN. LIMED COIL AS SHOWN CEMENTING SECURELY IN PLACE. INSTALL SWITCH ON INSTRUMENT PANEL.

STEP 6 CEMENT SMALL Balsa BLOCK TO FRONT OF COIL STRUCTURE. CUT COIL PATTERNS FROM PLANS. USING PATTERNS, CUT COIL COVERING FROM 1/16 SHEET Balsa. COVER COIL. NOW CARVE AND SAND SMALL BLOCK TO SHAPE. WITH SHARP RAZOR OR KNIFE, CUT COIL OFF OF AGAINST INNER RIB. BOTTOM OF WING SHOULD LINE UP WITH BOTTOM OF PLYWOOD WING ROOTS. DIBERHAL IS AUTOMATICALLY DETERMINED BY PLYWOOD, HOWEVER CARE SHOULD BE TAKEN THAT BOTH WING TIPS ARE RAISED THE SAME AMOUNT ON EACH SIDE. FILL SLOTS FOR WING FILLETS WITH CEMENT. BEND UP INTO POSITION USING PLYWOOD WING ROOT AS GUIDE. PIN INTO POSITION AND ALLOW TO DRY THOROUGHLY. SOLDER REMAINING LANDING GEAR WIRE IN PLACE. AND OIL DRESS-UP (SEE NOTE).

STEP 7 INSTALL IGNITION SYSTEM. CEMENT 1/8" STRIPS IN REAR COIL AS SHOWN. SOLDER LANDING GEAR AS DETAIL IN ABOVE SKETCHES AND NOTES. PRE GLUE ALL POINTS OF CONTACT OF PLYWOOD WING ROOT AND WING PANELS. NOW APPLY HEAVY COAT OF CEMENT TO BARE PLACES AND SLIDE WING PANELS INTO POSITION. END OF WING ROOT SHOULD NOW REST AGAINST INNER RIB. BOTTOM OF WING SHOULD LINE UP WITH BOTTOM OF PLYWOOD WING ROOTS. DIBERHAL IS AUTOMATICALLY DETERMINED BY PLYWOOD, HOWEVER CARE SHOULD BE TAKEN THAT BOTH WING TIPS ARE RAISED THE SAME AMOUNT ON EACH SIDE. FILL SLOTS FOR WING FILLETS WITH CEMENT. BEND UP INTO POSITION USING PLYWOOD WING ROOT AS GUIDE. PIN INTO POSITION AND ALLOW TO DRY THOROUGHLY. SOLDER REMAINING LANDING GEAR WIRE IN PLACE. AND OIL DRESS-UP (SEE NOTE).

STEP 8 COVER REAR COIL WITH 1/16 SHEET Balsa. COVER WING FILLET WITH 1/16 SHEET Balsa. UPPER SURFACE IS COVERED FIRST. CUT OUT AIR HOLES ON AS SHOWN ON PATTERN FOR RIGHT SIDE OF COIL. ADD FAIRING PIECES TO REAR OF FUSelage. MOUNT LANDING GEAR. Balsa FAIRING STRIPS AND FINISH LANDING GEAR AS SHOWN IN NOTE. AT THIS POINT THE ENTIRE AIR-PLANE SHOULD BE Sanded CAREFULLY AND ALL BUMPS AND KICKS ELIMINATED. WINGS ARE NOW COVERED WITH SILKSPAN PROVIDED IN KIT. A HIGH GLOSS FINISH MAY BE OBTAINED BY USING 3 COATS OF CLEAR HOPE FOLLOWED BY 4 COATS OF AUTOMOBILE PRIMER (GODD) SAND SMOOTH WITH 400 WET OR DRY PAPER WITH WATER. FINISHED WITH 4 COATS OF LACQUER SPRAYED, HAND RUBBING WITH SUPERFINE COMPOUND WILL GIVE YOUR PETE THAT SUPER SATIN FINISH.