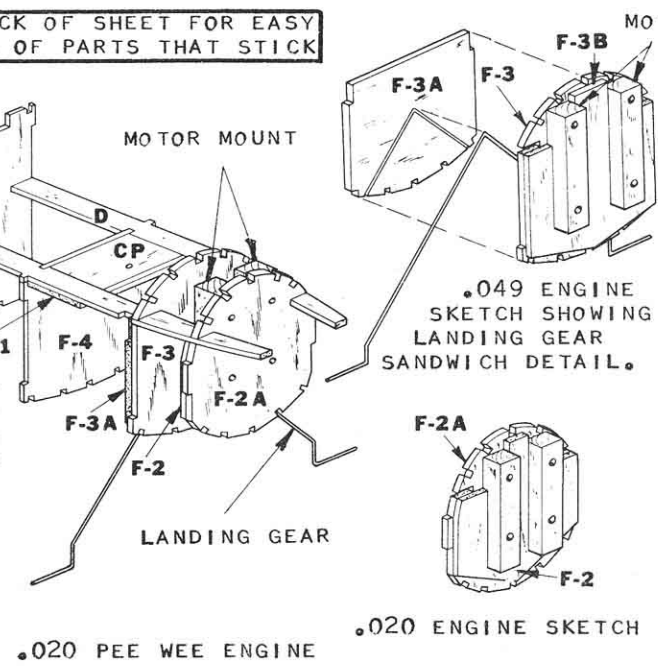


FUSELAGE CONSTRUCTION

STEP #1

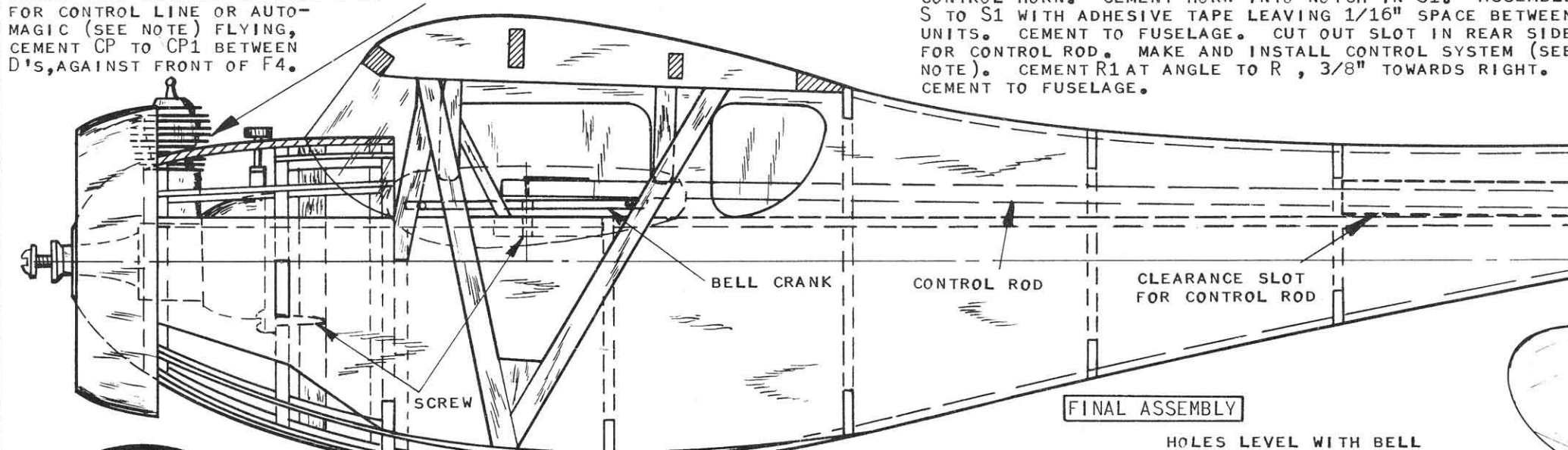
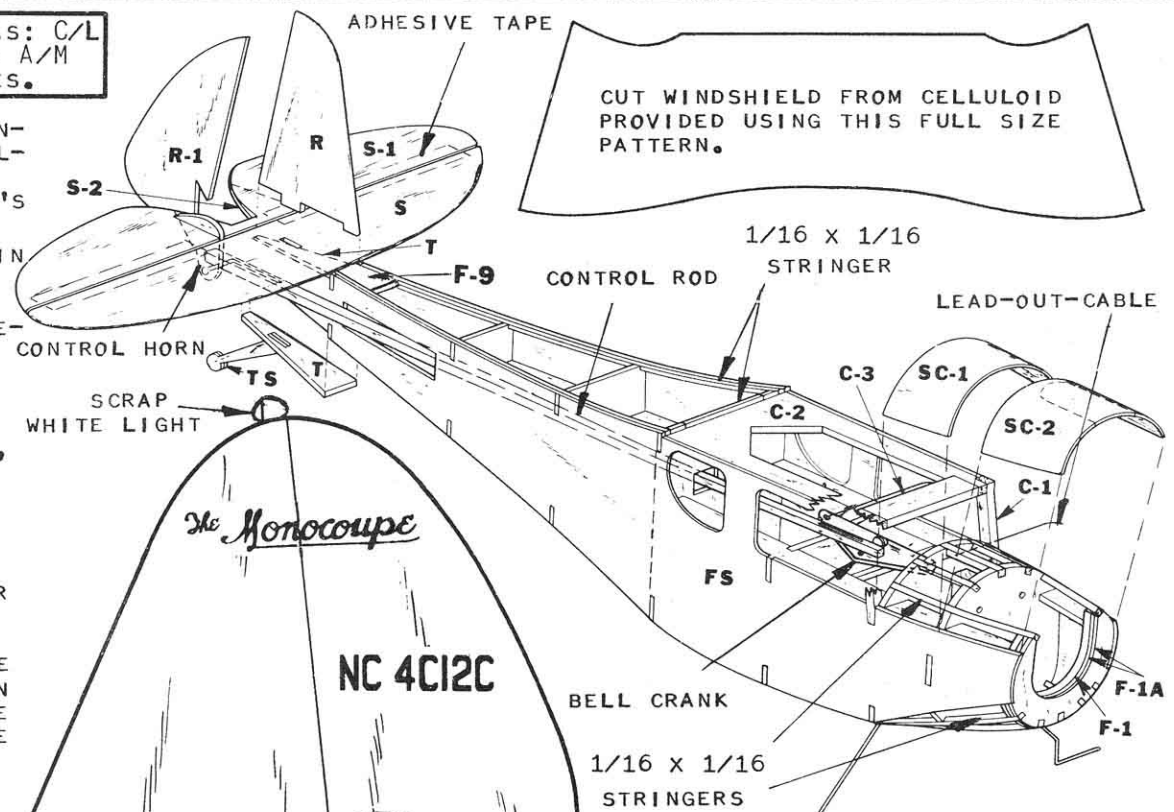
CEMENT REAR OF D'S TOGETHER. CEMENT LANDING GEAR INTO CREASES BETWEEN F3 AND F3A. (SEE .049 SKETCH) FOR .020 ENGINES (RECOMMENDED FOR FREE FLIGHT) ASSEMBLE MOTOR MOUNT BULKHEAD AS SHOWN IN .020 SKETCH, WITH F2 AND MOTOR MOUNTS ON REAR OF F2A. FOR .049 INSTALLATION CEMENT MOTOR MOUNTS AND F3B TO FRONT OF F3. DRILL SMALL HOLES AT PUNCH MARKS IN BULKHEADS THROUGH MOTOR MOUNTS, TO RECEIVE TINY WOOD SCREWS FOR ENGINE INSTALLATION. SLIP BULKHEADS INTO NOTCHES BETWEEN D'S. FOR CONTROL LINE OR AUTO-MAGIC (SEE NOTE) FLYING, CEMENT CP TO CP1 BETWEEN D'S, AGAINST FRONT OF F4.



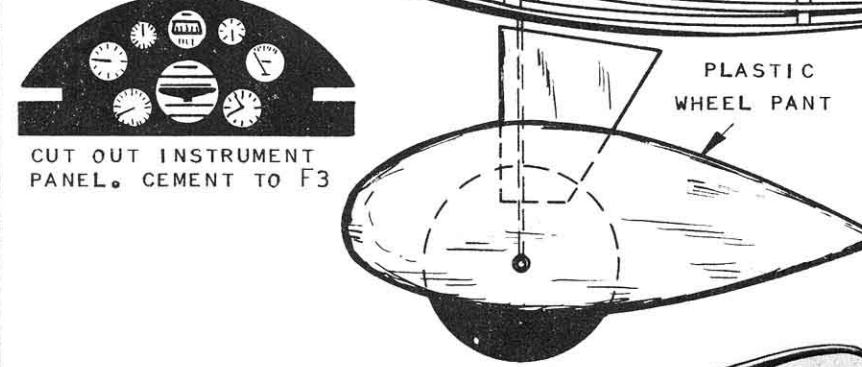
STEP #2

CEMENT SIDES FS TO EITHER SIDE OF FUSELAGE. CREASE INSIDE OF FS'S AT F5 (ALONG DOTTED LINE ON SKETCH) TO ALLOW SHARP BEND. MOISTEN SHEET WITH WATER TO OBTAIN CURVES. HOLD IN PLACE WITH PINS UNTIL DRY. GLUE F1A'S AND F1 TOGETHER. CEMENT TO FRONT OF FUSELAGE AGAINST D'S. FINISH CABIN BY CEMENTING BOTH C1'S, C2 AND C3 IN PLACE. CEMENT 1/16" SQ. STRIP TO TOP OF C2 AT F5. CEMENT A "T" TO TOP AND BOTTOM AT REAR OF FUSELAGE. CEMENT TS'S TOGETHER AND INTO NOTCH IN BOTTOM "T". SELECT 1/16" SQ. STRIP FROM STRIP-SHEET AND CEMENT INTO BULKHEAD NOTCHES IN FRONT OF FUSELAGE, AS WELL AS TOP AND BOTTOM NOTCHES ON CORNERS OF FUSELAGE. CEMENT F9 AGAINST F8A FLUSH WITH TOP OF FUSELAGE. COVER TOP FRONT OF FUSELAGE WITH SC1 AND SC2. FOR EASY BENDING, MOISTEN OUTSIDE WITH WATER. HOLD IN PLACE WITH PINS. WHEN DRY, SAND ENTIRE STRUCTURE SMOOTH AND CUT OUT CREASED SECTION (INDICATED BY DOTTED LINES IN SKETCH) IN SC2 FOR ENGINE CLEARANCE. ON FREE FLIGHT MODELS, PERMANENTLY CEMENT S TO S1 AND R TO R1. SAND SMOOTH, ROUNDING OUTER EDGES; AND CEMENT IN PLACE. FOR C/L OR A/M FLYING, CEMENT S2 TO BOTTOM OF S1. DRILL SMALL HOLES THROUGH PUNCH MARKS IN PLYWOOD BELL CRANK AND CONTROL HORN. CEMENT HORN INTO NOTCH IN S1. ASSEMBLE S TO S1 WITH ADHESIVE TAPE LEAVING 1/16" SPACE BETWEEN UNITS. CEMENT TO FUSELAGE. CUT OUT SLOT IN REAR SIDE FOR CONTROL ROD. MAKE AND INSTALL CONTROL SYSTEM (SEE NOTE). CEMENT R1 AT ANGLE TO R, 3/8" TOWARDS RIGHT. CEMENT TO FUSELAGE.

CONTROL LINE IS REFERRED TO AS: C/L
 AUTO-MAGIC IS REFERRED TO AS: A/M
 THRU-OUT THE ASSEMBLY NOTES.

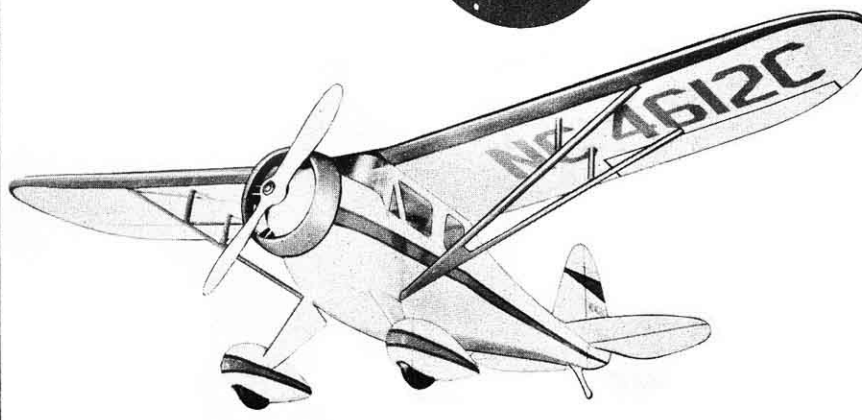
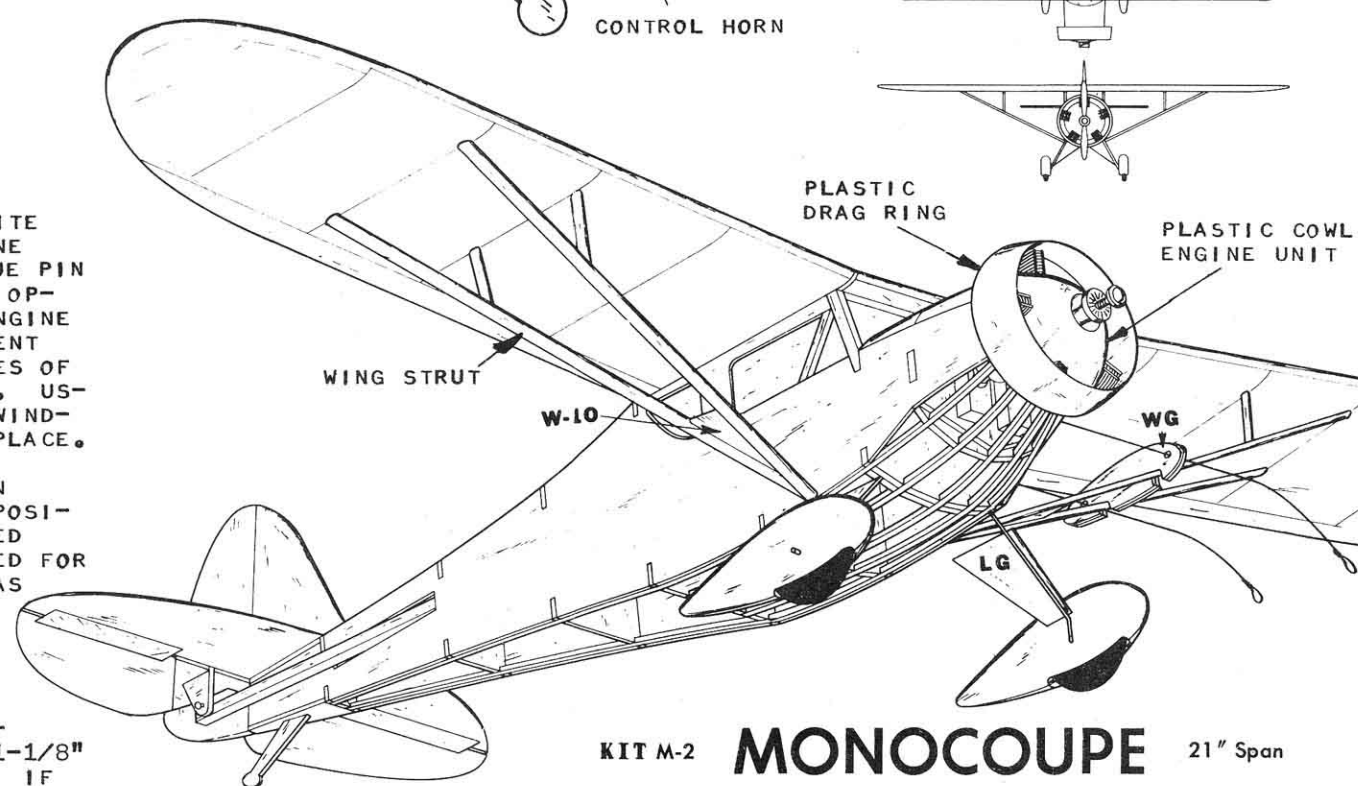


FINAL ASSEMBLY



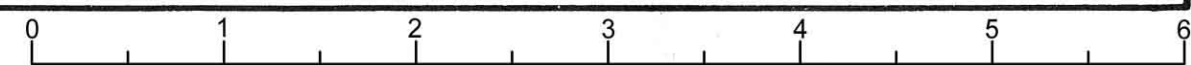
CEMENT FINISHED WING TO TOP OF CABIN AGAINST 1/16" SQ. STRIP. COVER FUSELAGE WITH TISSUE APPLIED WET. GIVE ALL WOOD AND TISSUE PARTS TWO COATS OF CLEAR DOPE. USING TINY WOOD SCREWS, SECURE ENGINE TO MOTOR MOUNT. CUT MOLDED WHEEL PANT HALVES FROM PLASTIC SHEET. TRIM OUT BOTTOM FOR WHEEL CLEARANCE. CEMENT GROOVED AND PLAIN HALF TOGETHER TO FORM UNIT. PLASTIC IS TRIMMED SMOOTH WITH SAND PAPER. WITH PIN, PUNCH THROUGH LOCATING HOLES IN WHEEL PANT. SLIP ON AXLE WITH WHEEL. CEMENT LANDING GEAR IN GROOVE, ALSO CEMENT END OF AXLE. WHEELS MUST ROLL FREELY. CEMENT LG'S TO WHEEL PANT AND LANDING GEAR. CUT MOLDED COWL-ENGINE UNIT FROM PLASTIC SHEET. CUT OUT CENTER HOLE FOR PROP SHAFT. CUT TOP AWAY (CYLINDER INCLUDED IF NECESSARY) TO FIT AROUND ENGINE LEAVING 1/8" CLEARANCE AND CEMENT IN PLACE. CUT OUT DRAG RING FROM PLASTIC SHEET. THIS IS CEMENTED IN PLACE AFTER THE MODEL HAS BEEN PAINTED. MAKE WING STRUTS (SEE NOTE). IF MODEL IS C/L OR A/M FLIER, CEMENT WG'S TOGETHER, AND DRILL SMALL HOLES AT PUNCH MARKS. TEMPORARILY MOUNT WING STRUT ON LEFT SIDE AND CEMENT WG'S TO WING STRUT,

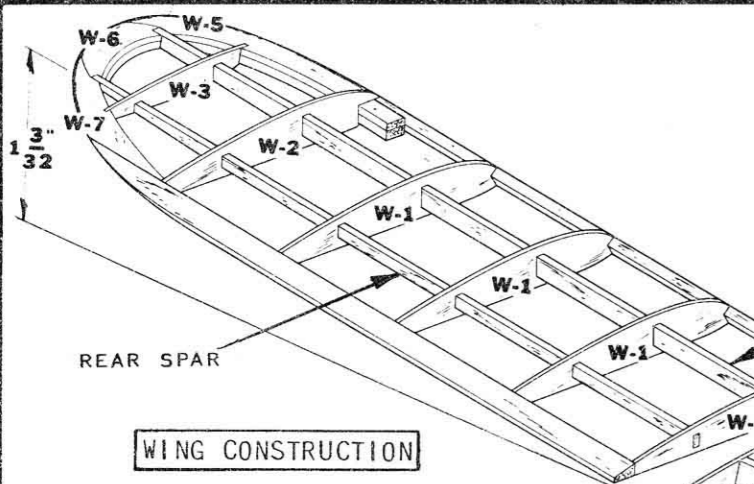
HOLES LEVEL WITH BELL CRANK. REMOVE STRUT. PAINT ENTIRE MODEL WHITE WITH RED TRIM. OUTLINE WITH BLACK OR DARK BLUE PIN STRIPE. (COLOR SCHEME OPTIONAL) PAINT DUMMY ENGINE CYLINDERS BLACK. CEMENT CELLULOID TO BOTH SIDES OF CABIN AND TOP OF WING. USING PATTERN, CUT OUT WINDSHIELD AND CEMENT IN PLACE. CEMENT WING STRUTS IN PLACE. SOAK DECALS IN WATER AND SLIDE INTO POSITION ON MODEL. COLORED SCOTCH TAPE MAY BE USED FOR PIN STRIPING AS WELL AS AILERON, ELEVATOR AND RUDDER MARKINGS. CUT STRIPS ABOUT 1/32" WIDE. FREE FLIGHT MODELS SHOULD BALANCE LEVEL (SIDE) WHEN BALANCED ON FINGER TIPS 1-1/8" BEHIND FRONT OF WING. IF NECESSARY, ADD WEIGHT IN FRONT OR REAR OF FUSELAGE. FOR C/L OR A/M FLIER, CHECK THAT CONTROLS OPERATE FREELY. DRAW LEAD-OUT LINES THROUGH WG, TIEING LOOPS FOR FLYING LINES.



KIT M-2 **MONOCOUE** 21" Span

Sterling models
 Phila. Pa., U.S.A.

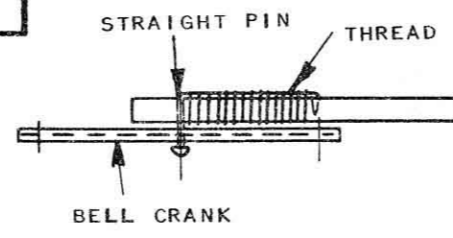




WAX PAPER OVER PLANS WILL PREVENT FRAMEWORK FROM BEING CEMENTED TO PLAN.

2 REQUIRED	FRONT SPAR	3/32" x 5/32" (SELECT FROM STRIP-SHEET)	WING TIP
2 REQUIRED	REAR SPAR	3/32" x 1/4" (SELECT FROM STRIP-SHEET)	WING TIP

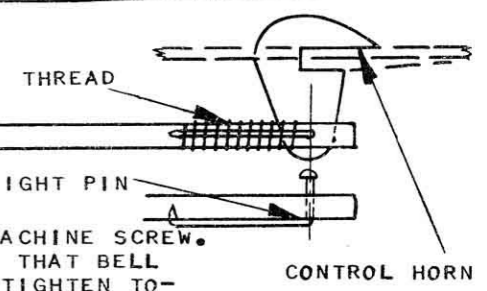
WING SPAR NOTE
DRAWING OF WING SPARS IS FULL SIZE. CUT THEM TO EXACT LENGTH AND TAPER WING-TIP END, AS PER DRAWING.



CONTROL SYSTEM NOTE

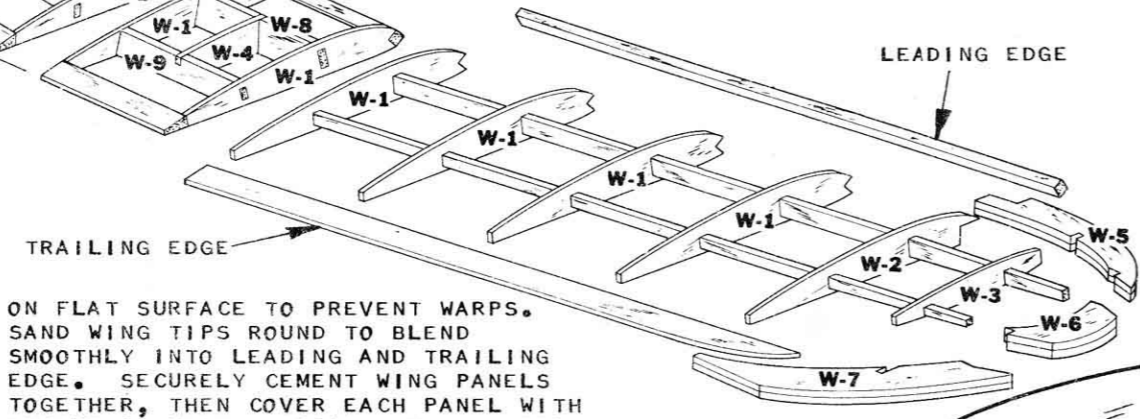
DRAWING SHOWS CONTROL SYSTEM FULL SIZE. CUT 1/8" SQ. BALSA CONTROL-ROD TO LENGTH. INSERT STRAIGHT PIN THROUGH SMALL CENTER HOLE (NEAR POINT) IN BELL CRANK AND THROUGH ROD AS SHOWN. USING NEEDLE-NOSE PLIERS, BEND PIN OVER (INCLUDING SPUR POINT). CEMENT AND WRAP WITH THREAD. THERE SHOULD BE CLEARANCE BETWEEN ROD AND BELL CRANK TO ALLOW FREE MOVEMENT. PUSH PIN THROUGH REAR OF ROD LOCATING PIN HOLE FOR HORN THEN REMOVE. PLACE ROD IN FUSELAGE INSERTING THROUGH HOLES IN BULKHEADS. SECURE BELL CRANK TO CP ASSEMBLY WITH SMALL MACHINE SCREW. PLACE WASHER BETWEEN BELL CRANK AND CP. SLIP WASHER AND

TWO NUTS ON PROTRUDING MACHINE SCREW. RUN NUTS CLOSE TO CP (SO THAT BELL CRANK MOVES EASILY) AND TIGHTEN TOWARDS EACH OTHER. A COAT OF CEMENT OR DROP OF SOLDER WILL PREVENT NUTS FROM LOOSENING. INSERT PIN THROUGH CONTROL HORN AND HOLE MADE IN ROD. BEND OVER, AND SECURE IN SAME MANNER AS FRONT PIN. MOVEMENT OF BELL CRANK SHOULD MOVE ELEVATOR UP AND DOWN FREELY AND EASILY. ANY STICKING TENDENCIES MUST BE REMOVED. TIE A LENGTH OF NYLON (OR STRONG THREAD) LINES TO HOLE ON BOTH SIDES OF BELL CRANK. KNOTS WILL BE TIED AFTER WING GUIDE (WG) IS INSTALLED IN FINAL ASSEMBLY.

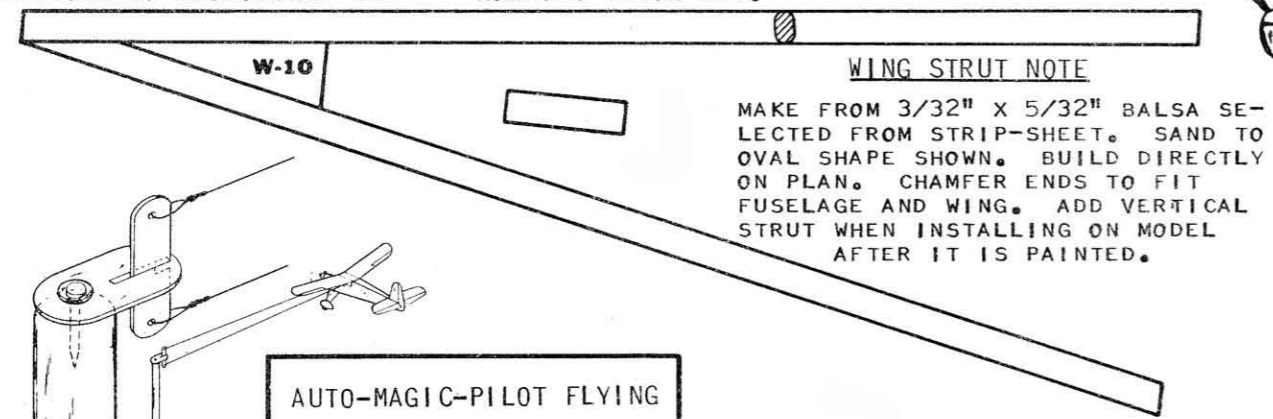
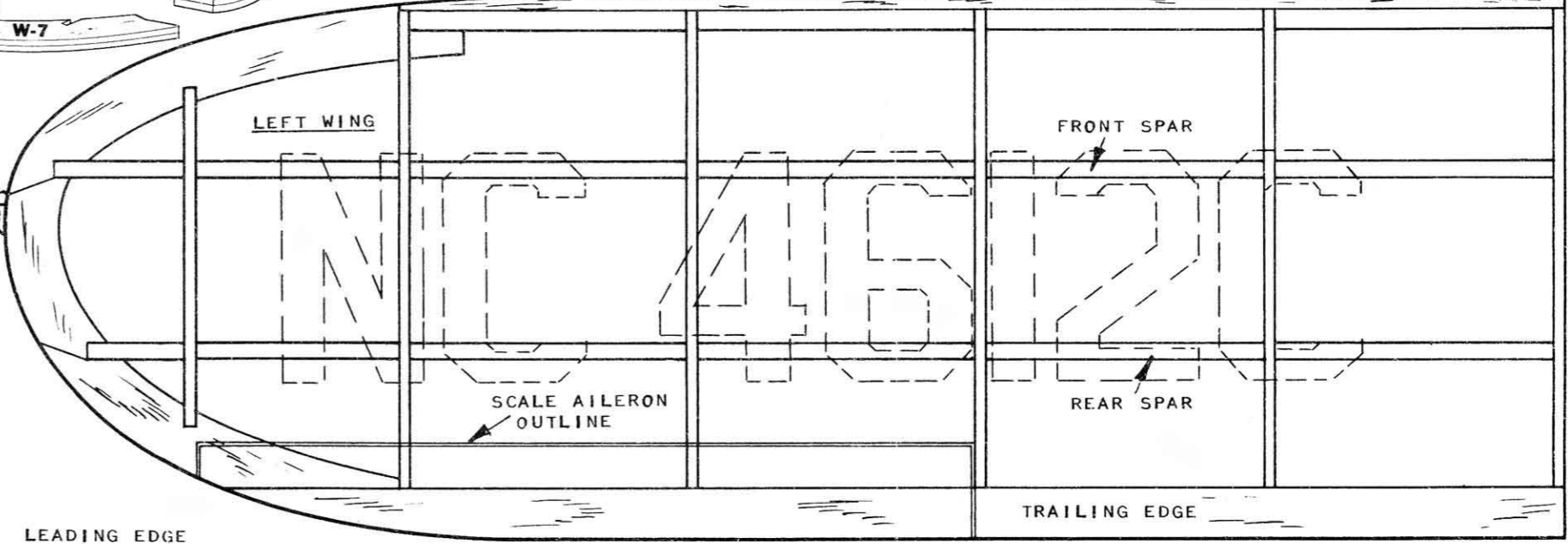


WING CONSTRUCTION
BUILD WING ON PLANS. PREPARE SPARS (SEE NOTE). CEMENT DOUBLE-LAYER WING TIP SECTIONS TOGETHER AS SHOWN. PIN TRAILING EDGE DOWN. POSITION RIBS ON SPARS (DON'T CEMENT UNTIL AFTER CEMENTING THEM TO LEAD & TRAIL EDGES) AND CEMENT TO TRAILING EDGE. RIBS SHOULD BE VERTICAL. CEMENT LEADING EDGE TO FRONT OF RIBS. CEMENT WING TIP SECTIONS TOGETHER AND INTO POSITION, RAISING SO THAT IT IS FLUSH WITH SPARS. BUILT OPPOSITE PANEL IN SAME MANNER. BUILD CENTER SECTION IN SAME MANNER USING W8 AND W9 AS SPARS. RIBS ARE ANGLED, SO THAT WHEN SECTIONS ARE CEMENTED TOGETHER, WING TIPS ARE 1-3/32" HIGH ON EACH SIDE AS SHOWN. CEMENT W4 INTO NOTCHES IN W8 & W9. ALLOW FRAMEWORK TO THOROUGHLY DRY

ON FLAT SURFACE TO PREVENT WARPS. SAND WING TIPS ROUND TO BLEND SMOOTHLY INTO LEADING AND TRAILING EDGE. SECURELY CEMENT WING PANELS TOGETHER, THEN COVER EACH PANEL WITH TISSUE PROVIDED, APPLIED WET. APPLY TWO COATS OF CLEAR DOPE, CHECKING STRUCTURE CONSTANTLY AGAINST WARPS. IF WARP OCCURS - APPLY CLEAR DOPE AND TWIST IN OPPOSITE DIRECTION, HOLDING UNTIL DRY.



SCRAP RED LIGHT



WING STRUT NOTE
MAKE FROM 3/32" x 5/32" BALSA SELECTED FROM STRIP-SHEET. SAND TO OVAL SHAPE SHOWN. BUILD DIRECTLY ON PLAN. CHAMFER ENDS TO FIT FUSELAGE AND WING. ADD VERTICAL STRUT WHEN INSTALLING ON MODEL AFTER IT IS PAINTED.

AUTO-MAGIC-PILOT FLYING

NEW METHOD OF CAPTIVE FLYING FOR SMALL AREAS. HAND CONTROLLING AS IN U-CONTROL NOW UNNECESSARY. PREVENTS CHASING AND POSSIBLE LOSS OF MODEL, OR COLLISION DAMAGE, AS EXPERIENCED IN FREE-FLYING. MODEL AUTOMATICALLY FLIES TO PRE-DETERMINED HEIGHT UNTIL GRACEFUL LANDING IS MADE. INSTALL CONTROLS IN MODEL AS DESCRIBED IN CONTROL SYSTEM NOTE. DRILL OUT SMALL HOLE (IN VERTICAL) AND LARGE HOLE (IN HORIZONTAL) PLYWOOD A/M UNITS AND SECURELY CEMENT TOGETHER. SECURE A POST (BROOMSTICK) APPROXIMATELY 4 FT. HIGH. DRIVE POST INTO GROUND OR NAIL BOARD TO BOTTOM AND WEIGHT SAME TO PREVENT POST FROM SHIFTING. FASTEN A/M PILOT UNIT TO TOP OF POST WITH NAIL. USE WASHERS ABOVE AND BELOW UNIT. BE CERTAIN HOLE IS LARGE ENOUGH SO THAT IT SWINGS FREELY AND EASILY. TIE 12 FT. TO 15 FT. NYLON (OR STRONG THREAD) LINES FROM A/M UNIT TO LINES COMING FROM MODEL. BE CERTAIN LINES ARE SAME LENGTH. WHEN LINES ARE TAUT, AND MODEL IS HELD AT SAME LEVEL AS A/M UNIT, ELEVATOR IS NEUTRAL. WHEN MODEL IS LOWERED ELEVATOR GOES UP; WHEN RAISED, ELEVATOR GOES DOWN. RUDDER "R" MUST BE ANGLED 3/8" TOWARDS OUTSIDE OF CIRCLE. TO FLY MODEL, START ENGINE, PULL MODEL AWAY FROM POST UNTIL LINES ARE TIGHT, THEN RELEASE FOR TAKE OFF.

