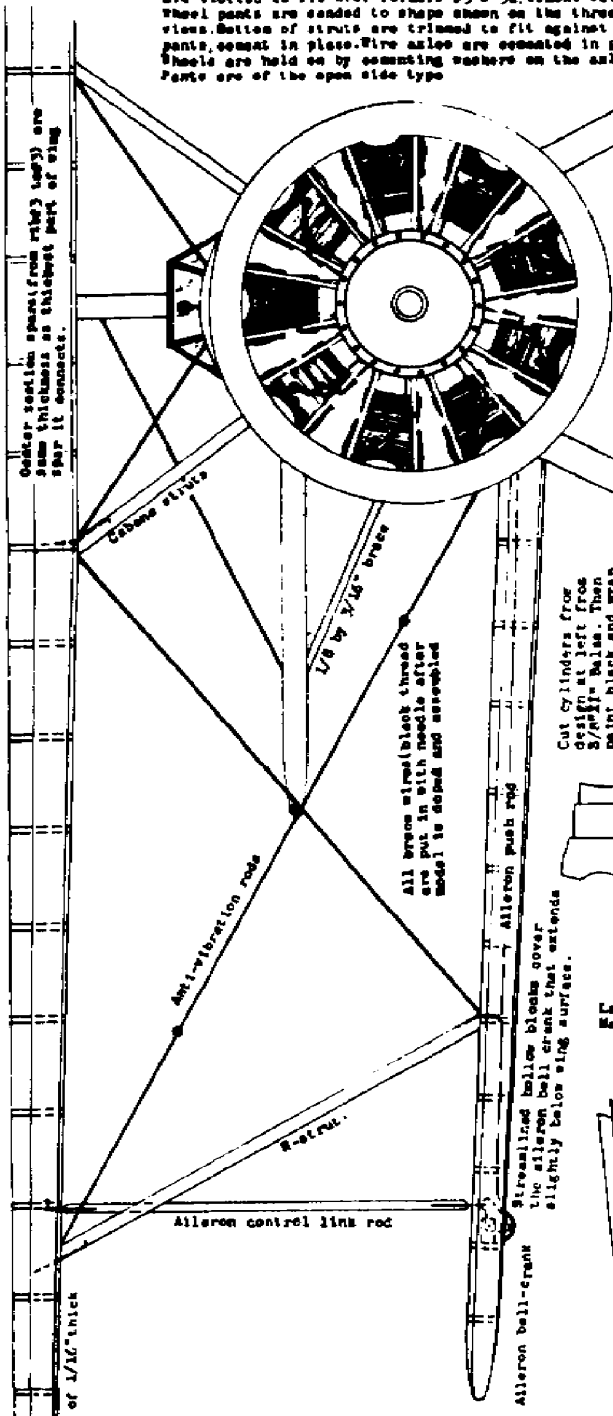


Landing gear
 After fuselage is assembled cement the landing gear struts, made from 1/8 by 7/16" sanded to streamline section, in position in fuselage, struts are slotted to fit over formers #3 & 3a. Cement wall. Wheel pants are sanded to shape shown on the three views. Bottom of struts are trimmed to fit against pants, cement in place. Wire axles are cemented in place. Wheels are held on by cementing washers on the axle ends. Parts are of the open side type.

Center section spacers (from ribs) left) are same thickness as thickest part of wing spar it connects.



All brass steel/black thread are put in with needle after model is sanded and assembled.

Cut cylinders from design at left from 3/16" Balsa. Then paint black and wrap with 1/2 thread as shown in front view at right.

Streamlined hollow blocks cover the alleron ball crank that extends slightly below wing surface.

Landing gear strut pattern. Make two from 1/8 by 7/8" balsa.



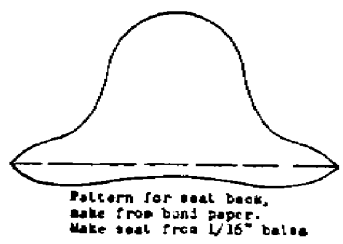
Tail tips are two pieces of 1/16" balsa cemented together, cut from the printed sheets.

Tail construction. Cover drawing with wax paper, pin spare over drawing. Leading edge is raised 1/16". Trailing edge (1/16 by 1/8") is raised 1/32". Cut ribs and tips from printed sheets and cement in place. Sandpaper and cover. Cement in place.

Wire hooks are cemented to strut and rib or spar.

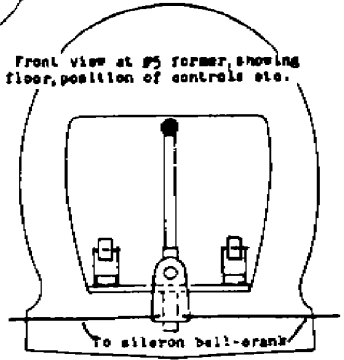
Cabane struts made from 1/8 by 5/16" balsa.

E-strut. Make two from 1/8 by 5/16" balsa sand to streamline shape as shown.



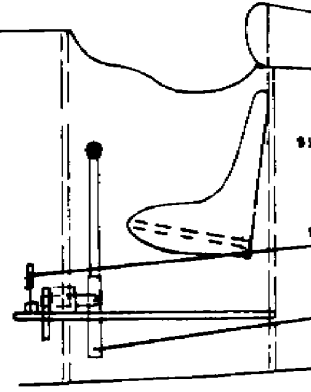
Pattern for seat back, make from bond paper. Make seat from 1/16" balsa.

Front view at #5 former, showing floor, position of controls etc.



To alleron ball-crank

Wire axle, make two.



Detail views of rudder

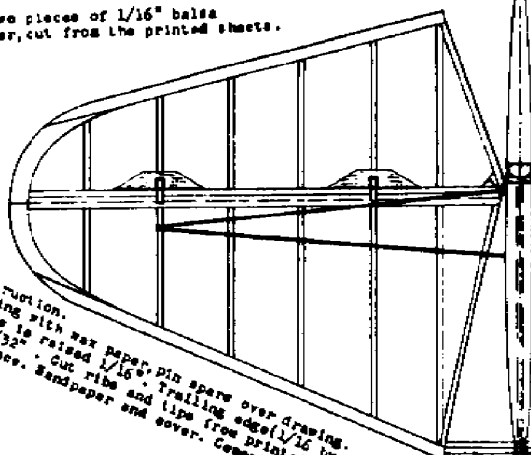
Cement this block to rest of unit cemented and free to rock in.

Aluminum tube, stick is removable for fly.

Details of control stick and mounting.

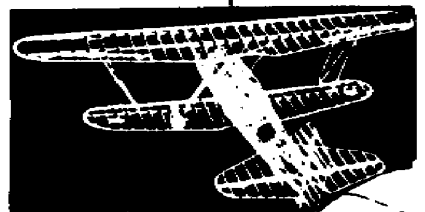


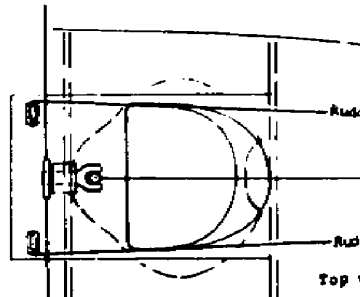
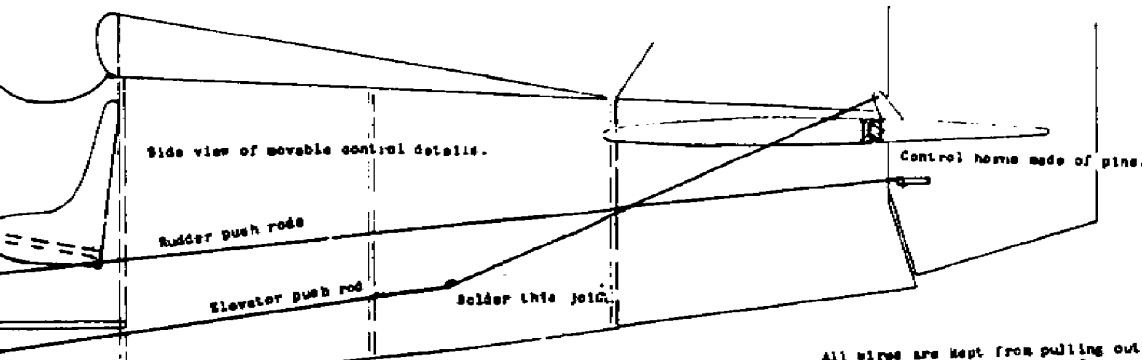
Sketch make



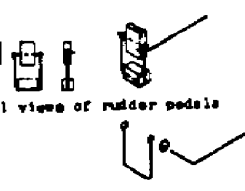
Wire hooks are cemented to strut and rib or spar.

Cabane struts made from 1/8 by 5/16" balsa.

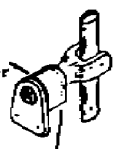




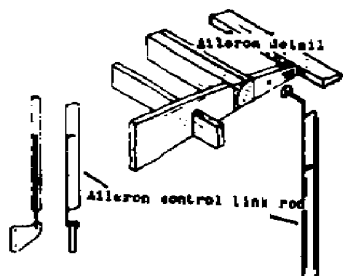
Movable control stick not recommended for exhibition. Use pine or hard wood. Detailed instructions clearly give



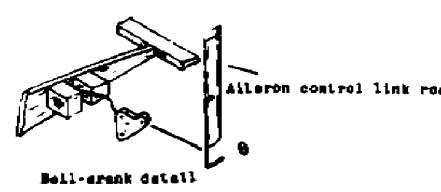
Cement this block to floor. Rest of unit cemented together. Free to rock in the block.



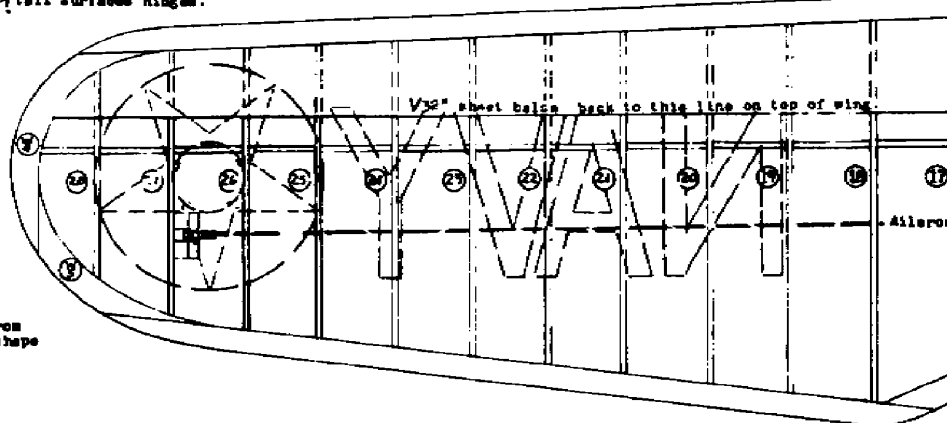
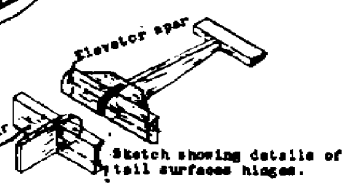
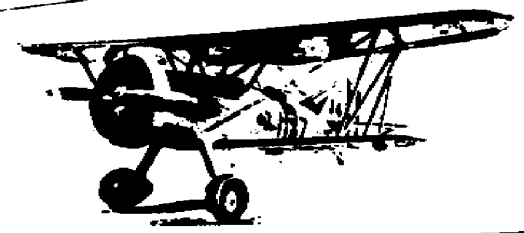
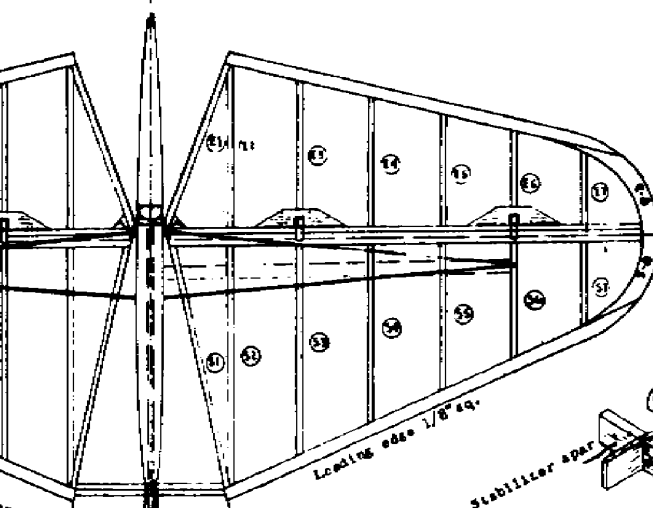
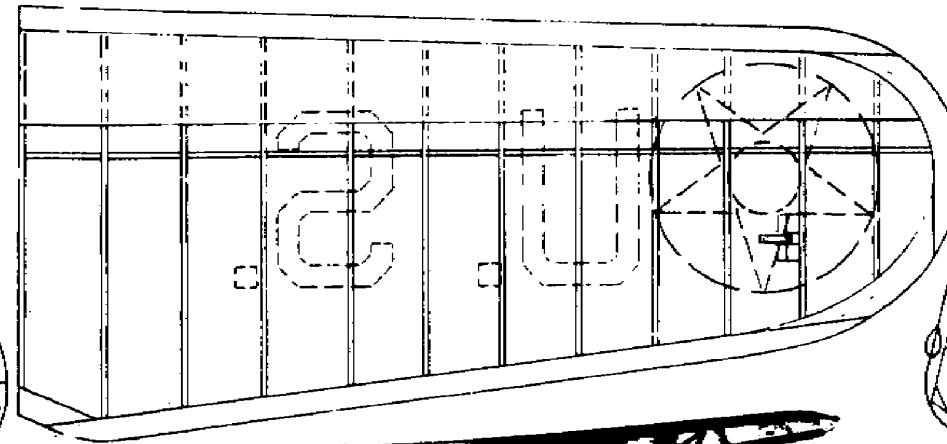
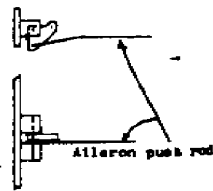
Minimum tube, stick removable for flying model.



All wires are kept from pulling out of the wood pieces by small drops of cement on ends of the wires. Take care that the cement does not bind the joint.

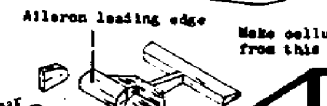


To aileron bell-crank

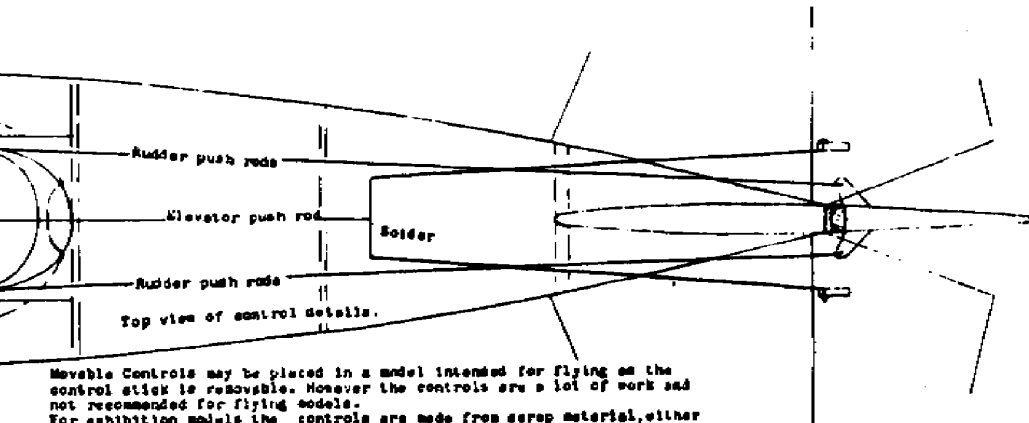


Aileron and tail spars are all made from 1/8 by 1/4". See detail sketches for shape of each spar.

Wing construction. Cover drawings with wax paper and place on smooth board. Pin trailing edge and spars to board directly over drawing. Leading edge is raised on blocks of balsa to meet front of ribs. Top wing is cut at rib #3 for proper dihedral as shown on front view.



Red string around fuselage

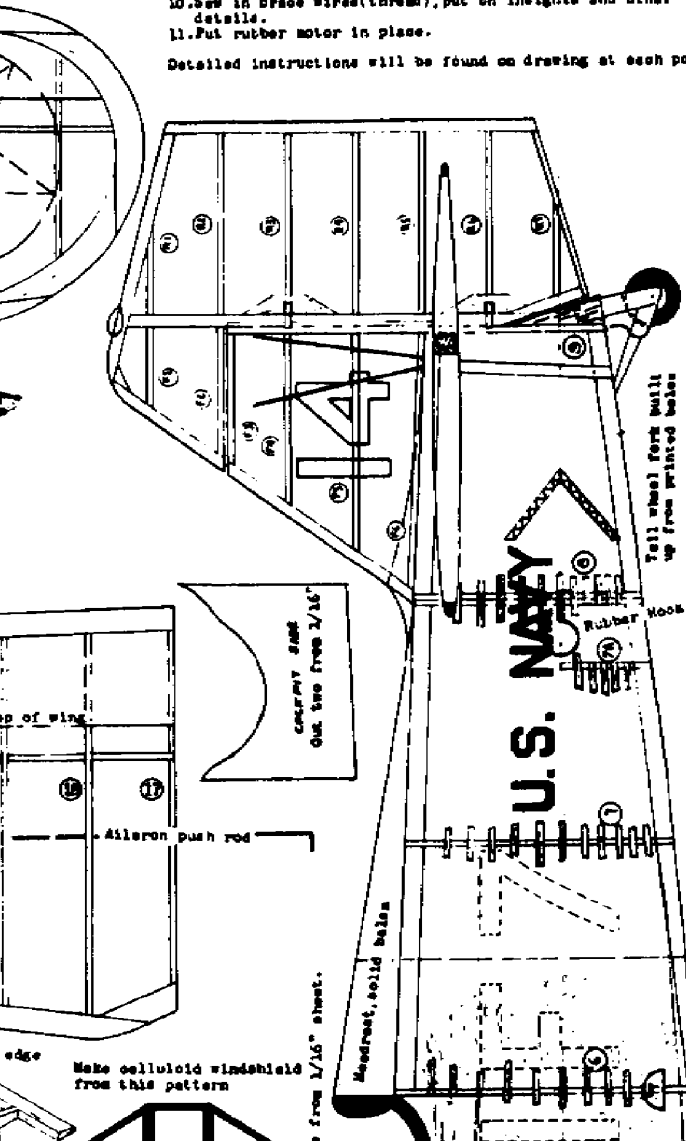


Movable Controls may be placed in a model intended for flying as the control stick is removable. However the controls are a lot of work and not recommended for flying models. For exhibition models the controls are made from scrap material, either pine or hard balsa. Push rods are music wire. Detailed instructions are not given for making the controls as the drawings clearly give all details full size.

CONSTRUCTION STEPS

1. Cut all parts from the printed balsa.
2. Build wings and wing struts.
3. Build tail surfaces.
4. Fuselage and landing gear.
5. Cover all surfaces with tissue, after sandpapering.
6. Cement lower wings and tail surfaces to fuselage.
7. Spray all tissue covered surfaces with water.
8. Tape all surfaces grey, except top of top wing, this is yellow with red stripes. Fuselage has red band around it.
9. Cement cabane struts to fuselage. Cement top wing to cabane struts and fit N-struts in place.
10. Saw in brace wire (thread), put on insignia and other details.
11. Put rubber motor in place.

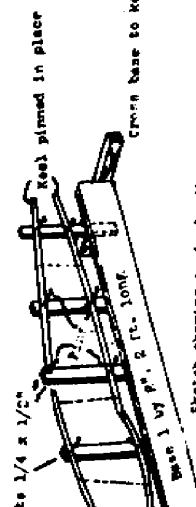
Detailed instructions will be found on drawing at each point.



Tail wheel fork built up from printed balsa

Fuselage Construction

Cut all formers and keel pieces from the printed balsa. Cover the drawing with wax paper and build the "keel" directly over the drawing. The straight parts of the keel are made from 1/16 by 3/16 cut to fit the drawings.
A simple jig is made from scrap material (see below) to hold the keel while the formers are cemented in place (take care that the formers are at right angles to the keel when vised from above) and then the stringers are cemented in the notches in the formers.
When all possible stringers (1/16 square) are cemented in formers the fuselage is removed from the jig and the remaining stringers may be cemented in the formers. The cockpit slides and landing gear struts are cemented in place.
Cover fuselage with tissue in small pieces - spray with water to shrink tissue. Color grey with red band around just behind cockpit details are added and markings are put on with black ink and drawing pen.



Wing tips are made from 1/16" balsa, cut from the

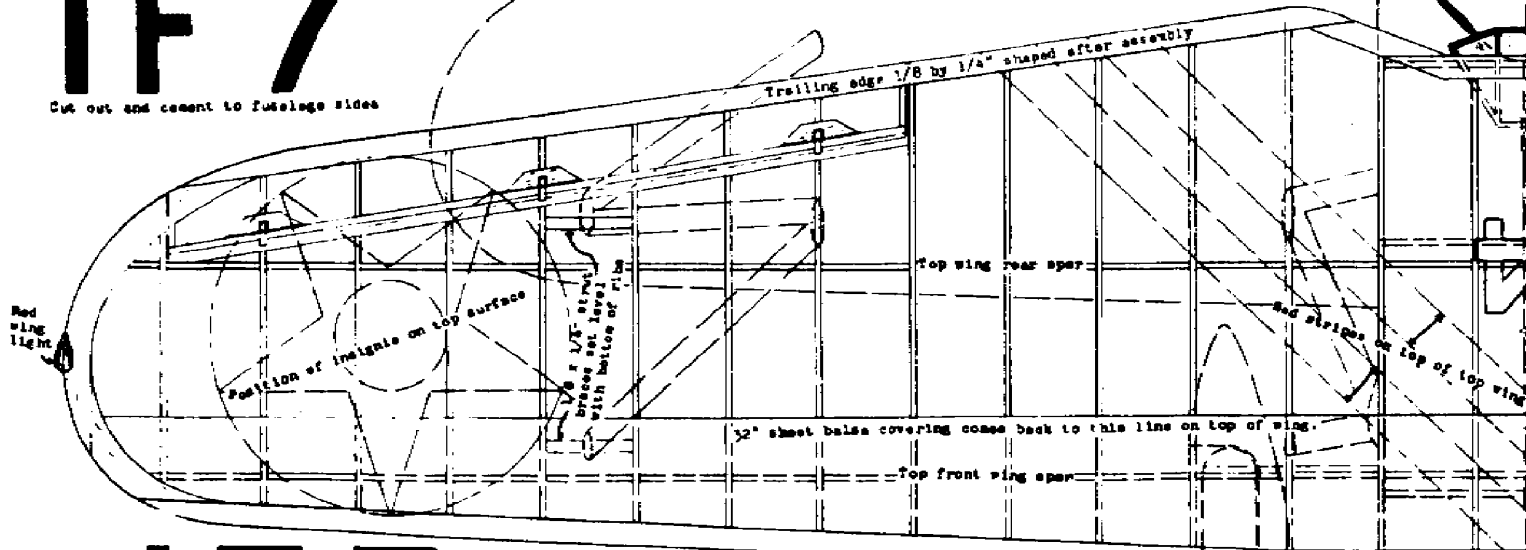
Pattern for seat back, make from bond paper. Make seat from 1/16" balsa.

band to strengthen the structure

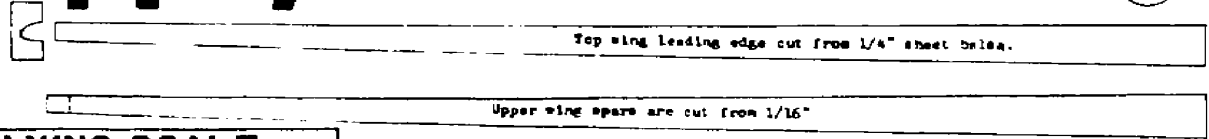


IF 7

Cut out and cement to fuselage sides



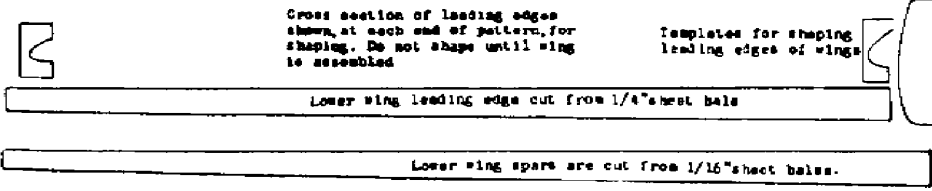
IF 7



**FLYING SCALE
CURTISS F-11C-4
CYCLONE ENGINE**

Span 32 1/2 Length 22 3/4 Weight 7 oz.

MINIATURE AIRCRAFT CORP.
83 LOW TERRACE NEW BRIGHTON, N.Y.



Cross section of leading edges shown at each end of pattern, for shaping. Do not shape until wing is assembled.

Templates for shaping leading edges of wings

Red stripes around fuselage

Wing construction. Cover drawings with wax paper and place on smooth board. Pin trailing edge and spars to board directly over drawing. Leading edge is raised on blocks of balsa to meet front of ribs. Top wing is cut at rib #5 for proper dihedral as shown on front view

Aileron leading edge

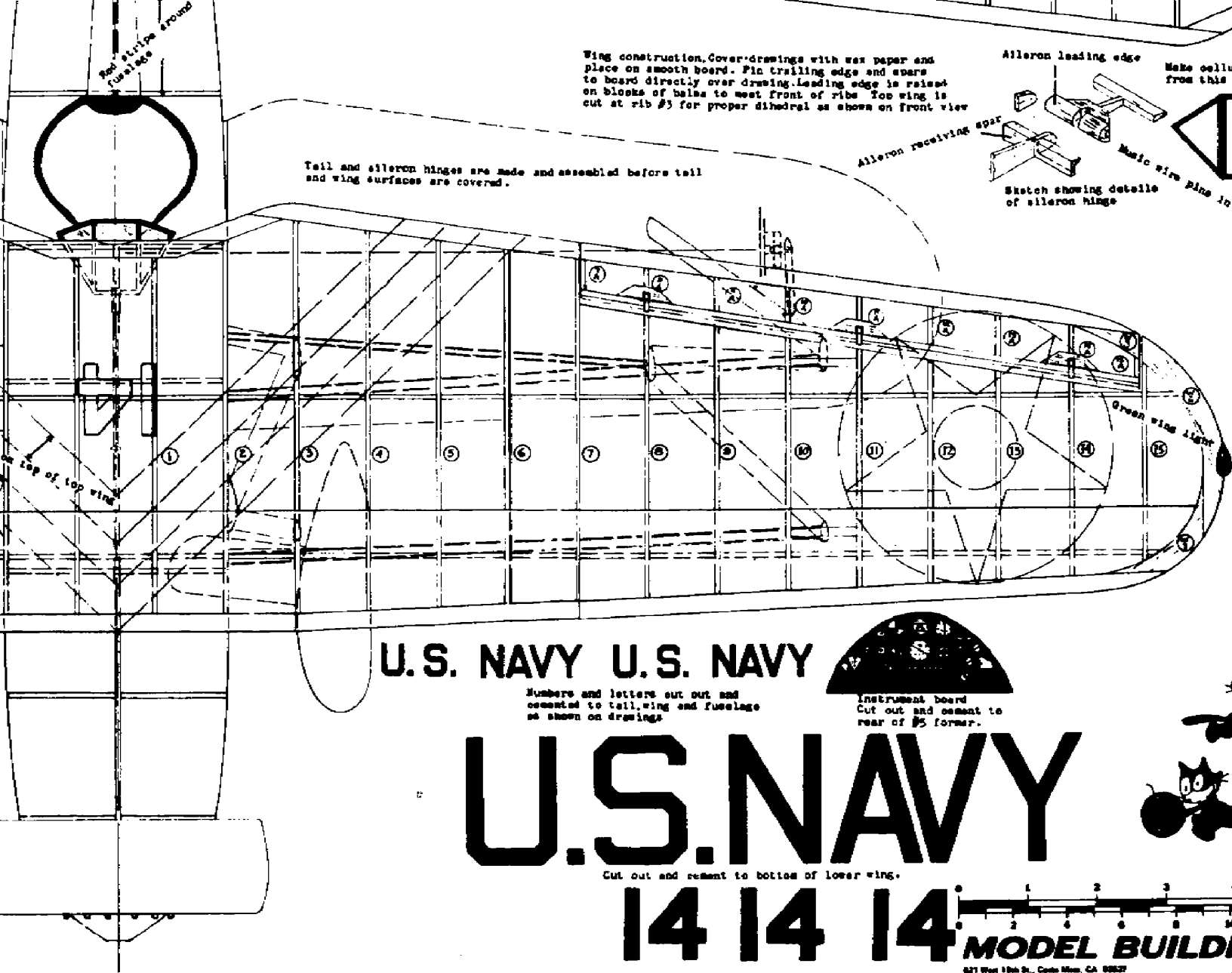
Make collar from this

Tail and aileron hinges are made and assembled before tail and wing surfaces are covered.

Aileron receiving spar

Sketch showing details of aileron hinge

Music wire pins in



U.S. NAVY U.S. NAVY

Numbers and letters cut out and cemented to tail, wing and fuselage as shown on drawings



Instrument board
Cut out and cement to rear of #5 former.

U.S. NAVY

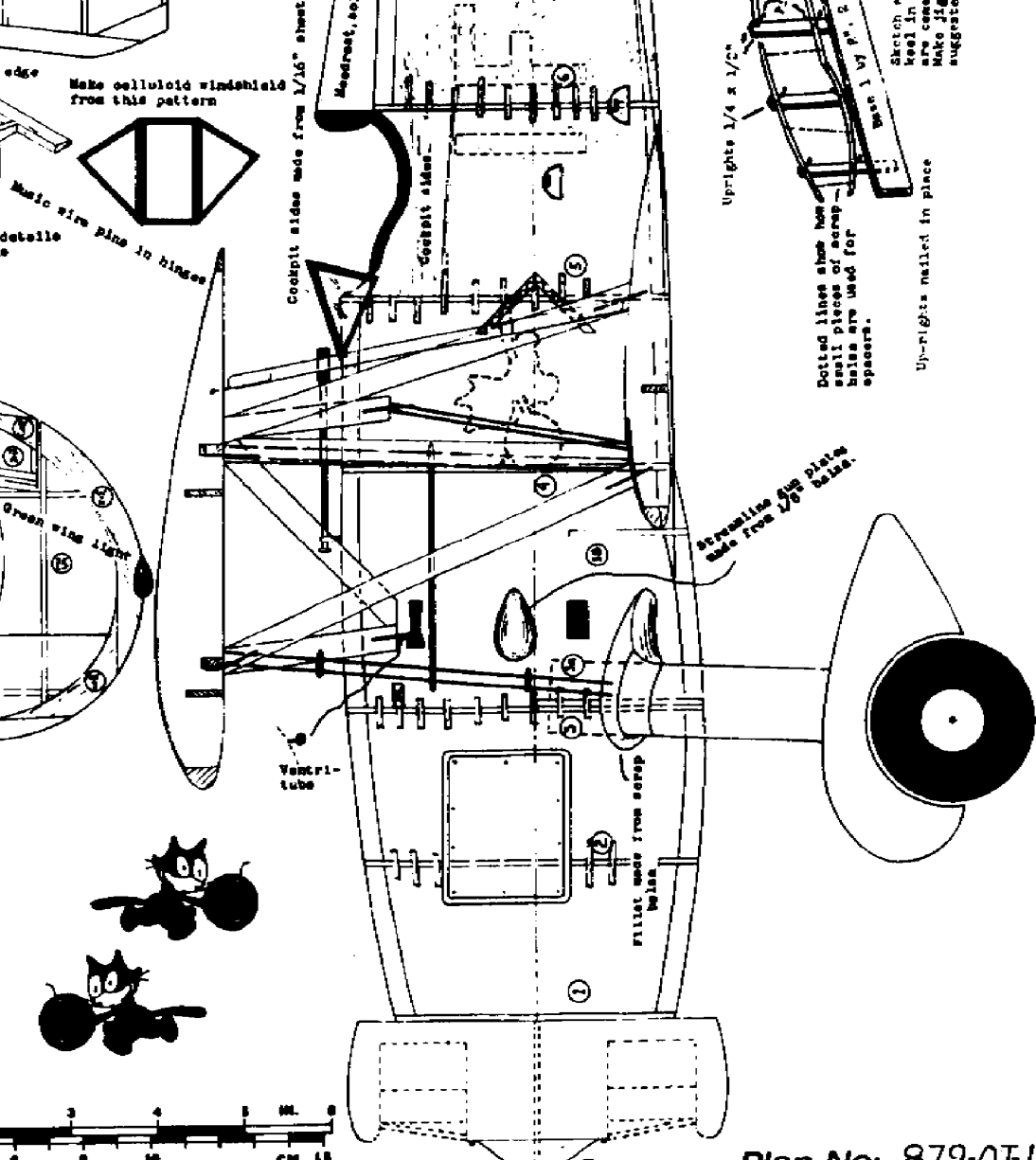
Cut out and cement to bottom of lower wing.

14 14 14

MODEL BUILD

621 West 13th St., Costa Mesa, CA 92627





Uprights 1/4 x 1/8"

Dotted lines show how seat pieces of scrap brass are used for spacers.

Sketch of seat in rear in case. Make one. Make jig suggest.

Uprights milled in place

Streamline lip plate made from 1/8" brass.

Fillet made from scrap brass

3 4 5 IN. 6
CM 10

BUILDER
magazine

Plan No: 879-0E1

Design by: Frank F. Roberts, Jamesburg, N.J.