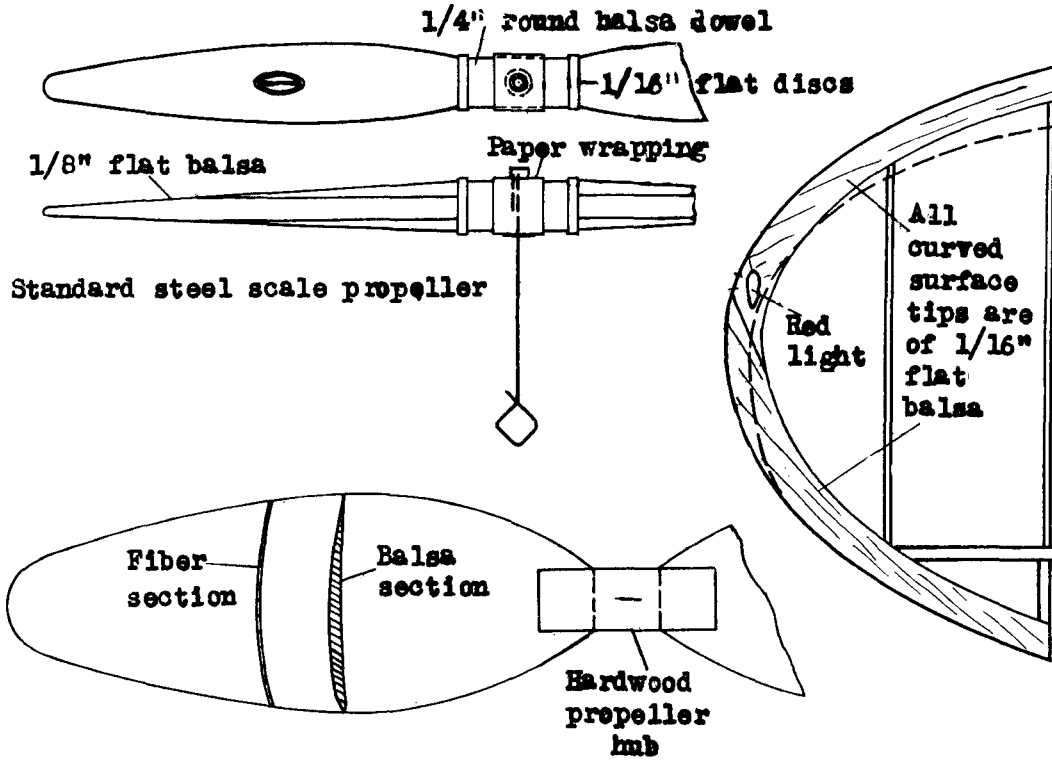


C O N S T R U C T I O N N O T E S

Make the fuselage first. Begin by carefully cutting out bulkheads #1 to #8 and assemble as note of "Fuselage Construction" tells on drawing. Fill in all the openings between bulkheads #1 and 3 with scrap pieces of 1/8" flat balsa. After cementing in place, trim with a sharp razor blade and sandpaper to an even contour all around. Give one coat of paper cement and sandpaper when dry. Cover the surface with Jap tissue by cutting small pieces, coating them with paper cement and while wet, stick them to fuselage being careful so that air bubbles will not form by pressing with the fingers. When covered, sand with very fine sandpaper and give two coats of paper cement. This procedure is used to cover the large grain marks in balsa wood, leaving a metal-like finish. Cover rest of fuselage and build landing gear.

The wheels and pants are cut from flat balsa. Cement pants to landing gear strut solidly and insert landing wire which also serves as an axle. Cement struts to fuselage being sure of good alignment and when dry, give another coat of cement to insure strength. Make the speed ring and engine. The cooling fins on the cylinders can be indicated by scoring them with knife after they are painted black. Add spark plugs, wires and exhaust tubes to proper places. Cement the motor stick solidly to the nose and add rear hook for rubber motor.

Patterns are cut out for tail and put over layout. The ribs are simply flat strips cemented in place. After assembling, they are streamlined to shape with a sandpaper block. Put in hinges and cover with tissue. The scallops are painted on with a fine camel's hair brush using soft pencil guide lines. The [illegible] lettered before cementing to fuselage. The lettering is penciled on and inked with India ink. Use a fine lettering pen or we recommend Gillott's #659 Crow Quill. The stabilizer is cemented on top of rear stringers. When dry, cement fin onto stabilizer. Use scrap pieces of 1/8" flat balsa for fillets, shape with razor blade and dowel or pencil wrapped with sandpaper.

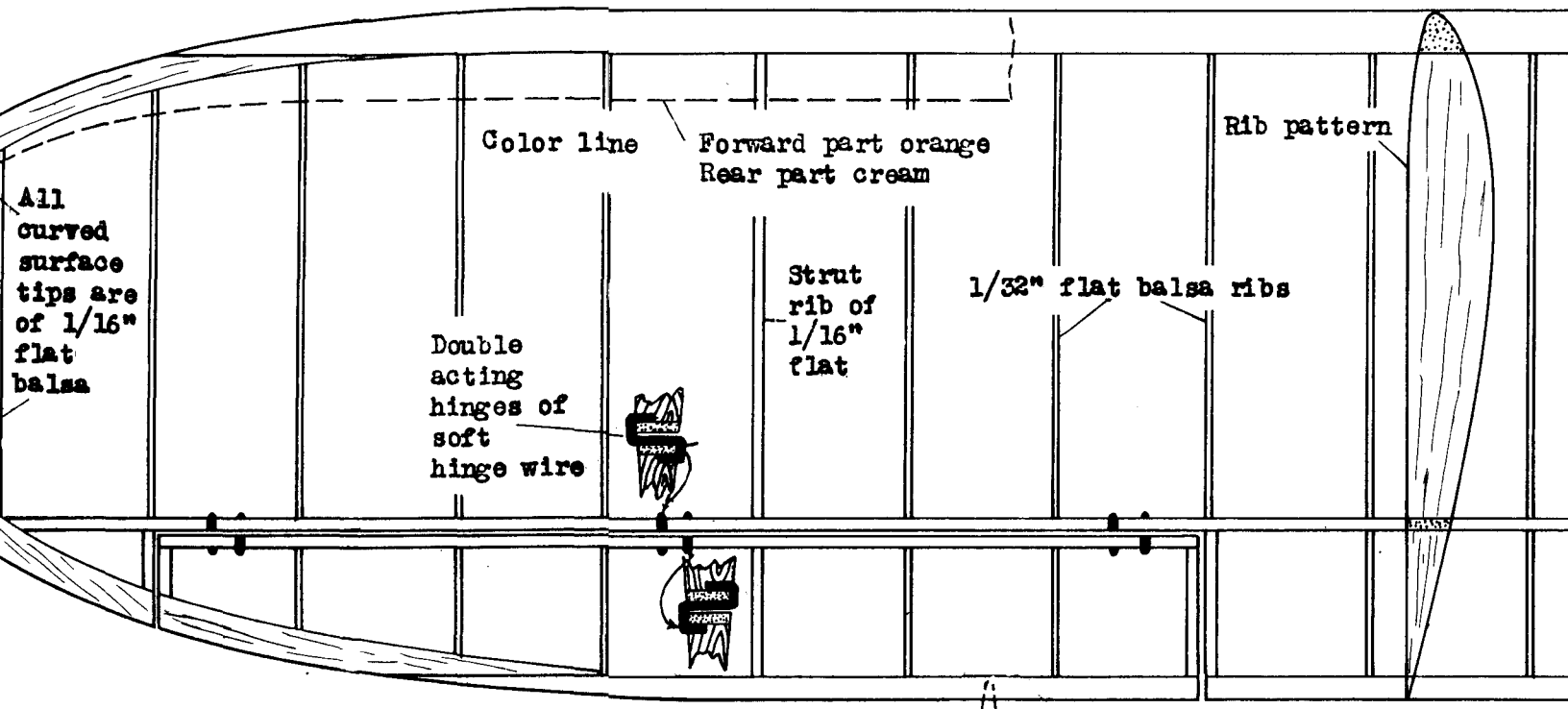
Cut 27 ribs for wings. 24 of them are cut of 1/32" flat balsa, and 3 of 1/16" flat balsa. Elevate 1/4" square leading edge spar over drawing 1/16". (Do not shape it until wing is assembled.) The rear spar and trailing edge is not elevated. Us to hold spars and ribs in place while ailerons are not made separately, but as the wing proper on the layout. Now panels for dihedral angle. Cement fla tips as drawing of left front wing tip shape. Put in window frames of 1/16" of wing and trim wing all around with Cement window in place. Cement aileron place and cover wing with Jap tissue b ailerons loose.

The dark portions as the photos sh orange. The light portions are cream. stripes through the fuselage are pieces colored cream and stuck on with paper orange part between these is painted i brush. The curved light stripe is brus part and on the wheel pants. Color cr first and orange portions later.

Two or more coats of enamel dope around coloring. If high lustre is des over the colored portions with a 1/2 oz Cleveland paper cement and 1/2 oz. anti careful of the orange color running int when putting on the lustre dope. Cut wing and stick on with paper cement. paper cement over their surfaces.

Cement the wing over the cabin bei proper angle of attack is installed. and forward windshield. Make exhaust them dull silver or gray to represent air speed indicator into leading edge s

Insert six or more strands of 1/8" between rear hook and propeller shaft. with tall grass for test hops. Give pr 50 winds by hand and launch. If it sta tendency), add a bit of lead or other bulkheads #1 and 2. When correct balan cement the weights in place and wind mo and launch. If a good job has been mad reason why your model will not be an ex A few control adjustments may have to the movable controls to get the best re



T E S

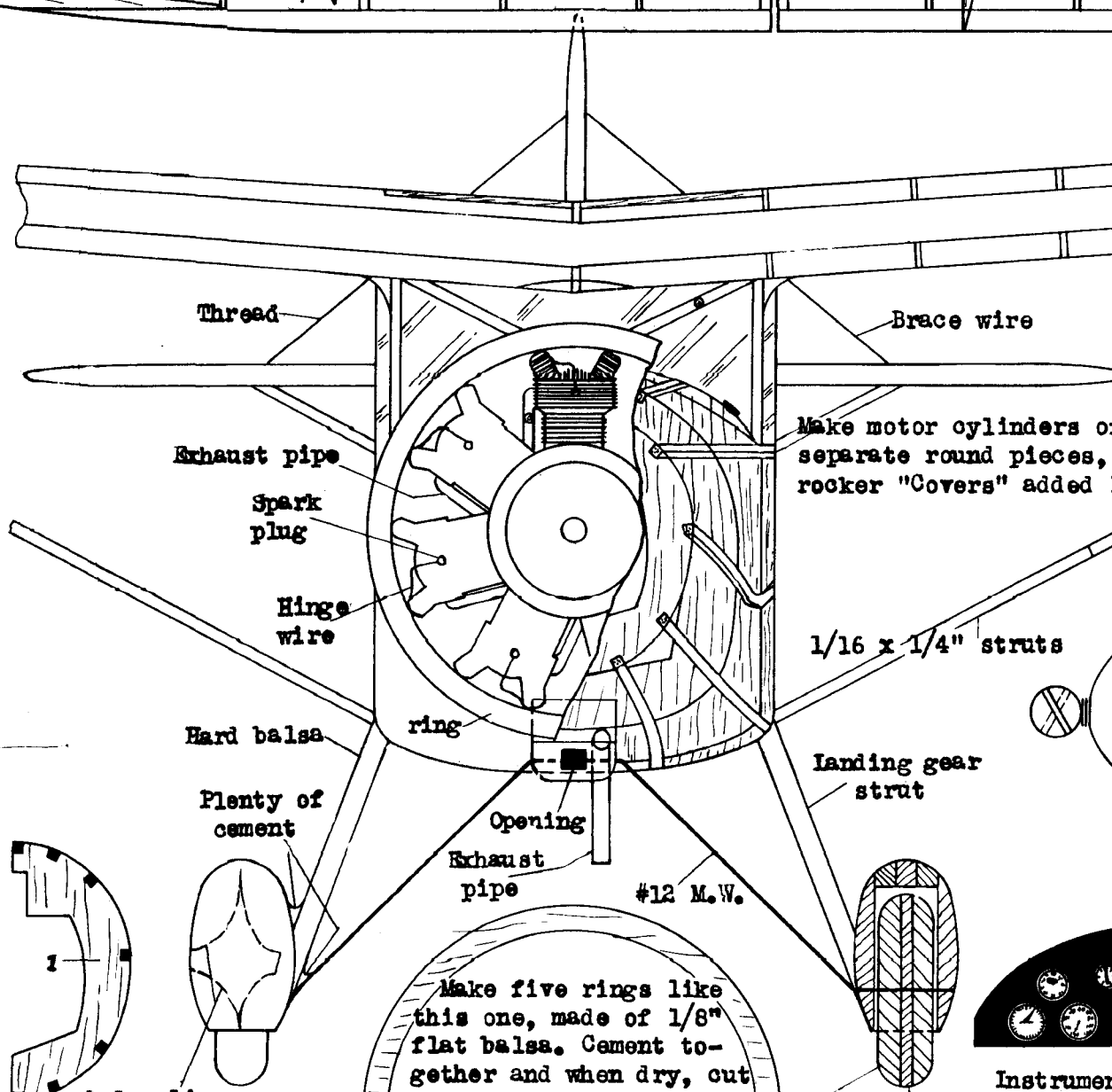
t elevated. Use straight pins in place while cementing. The eparately, but at the same time he layout. Now cement both le. Cement flat pieces to front wing tip shows and rames of 1/16" flat at center ll around with sandpaper. Cement aileron hinges in th Jap tissue before cutting

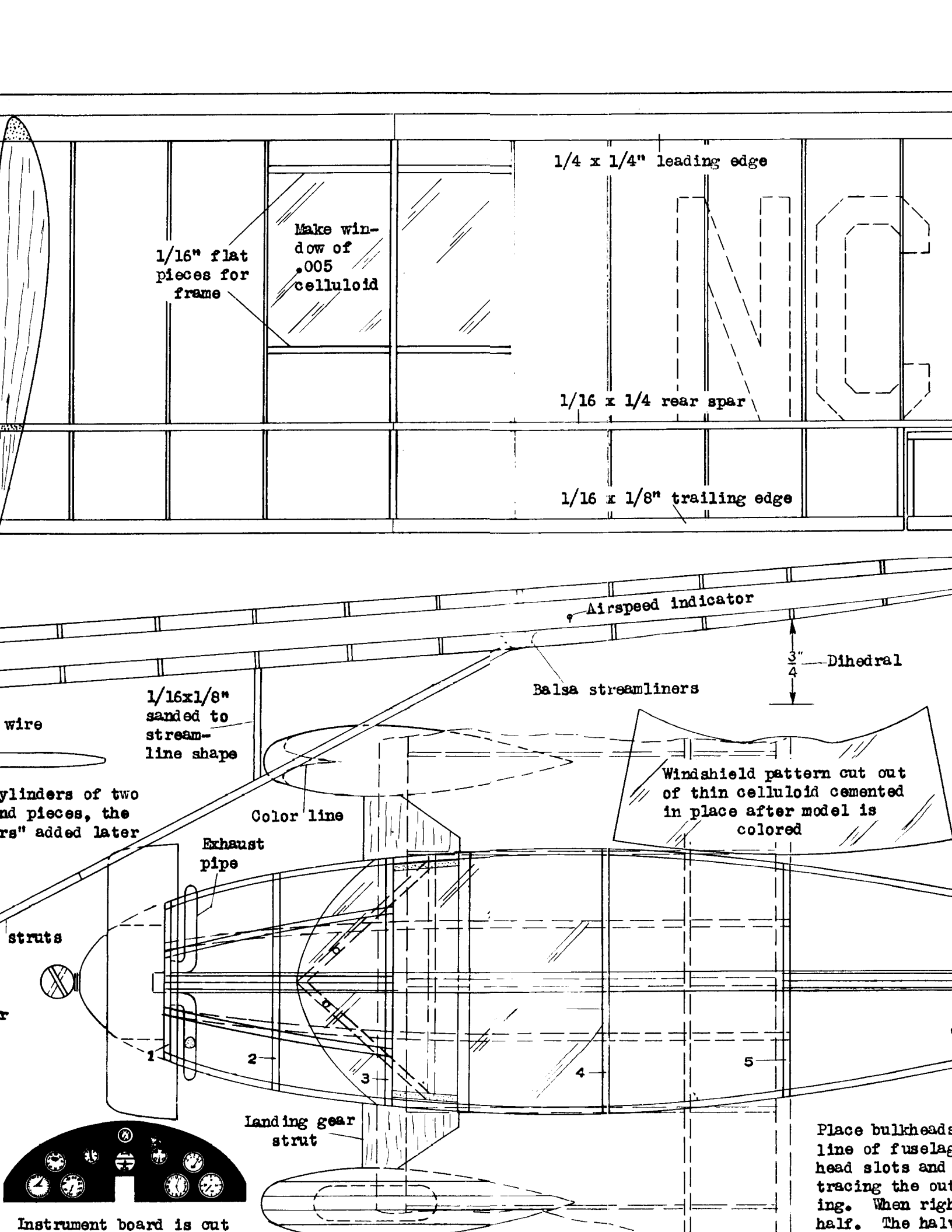
as the photos show are colored ions are cream. The straight elage are pieces of tissue on with paper cement. The se is painted in with a fine t stripe is brushed on the nose ants. Color cream portions ns later.

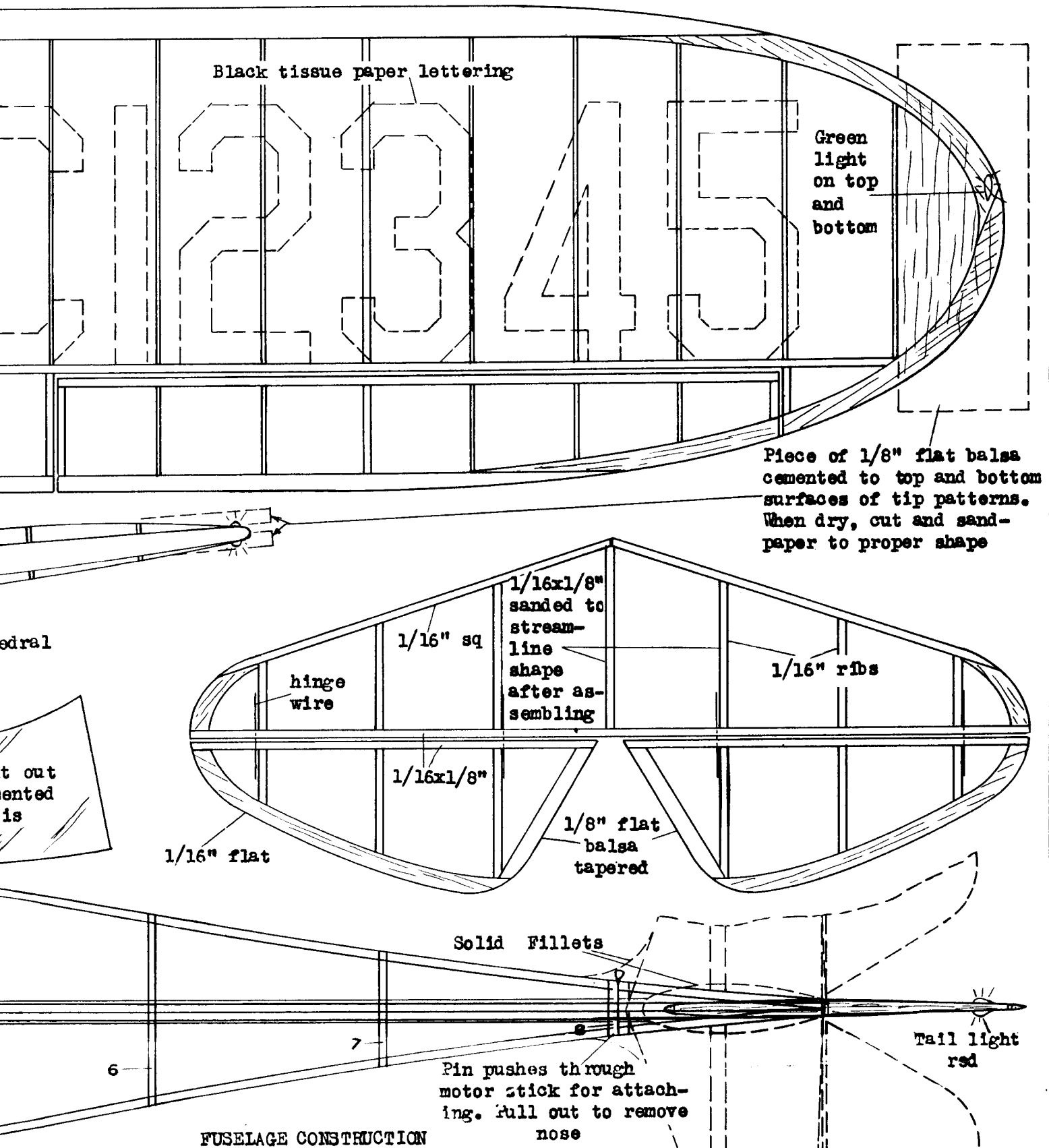
of enamel dope is used for all gh lustre is desired, paint ns with a 1/2 oz. solution of and 1/2 oz. anti-blush. Be olor running into the cream re dope. Cut out letters for paper cement. Give one coat of surfaces.

r the cabin being sure the is installed. Attach struts Make exhaust pipes and color to represent metal. Attach leading edge and cement well.

strands of 1/8" flat rubber ropeller shaft. Select a field hops. Give propeller about nch. If it stalls (natural lead or other weight between n correct balance is found, ace and wind motor with winder ob has been made, there is no ll not be an excellent flier. s may have to be made with get the best results.




1/4 x 1/4" leading edge
1/16" flat pieces for frame
Make window of .005 celluloid
1/16 x 1/4 rear spar
1/16 x 1/8" trailing edge
Airspeed indicator
3/4" Dihedral
Balsa streamliners
1/16x1/8" sanded to streamline shape
wire
ylinders of two
nd pieces, the
rs" added later
Color line
Windshield pattern cut out of thin celluloid cemented in place after model is colored
Exhaust pipe
struts
r
1
2
3
4
5
6
7
8
Landing gear strut
Instrument board is cut
Place bulkheads
line of fuselag
head slots and
tracing the out
ing. When righ
half. The halv

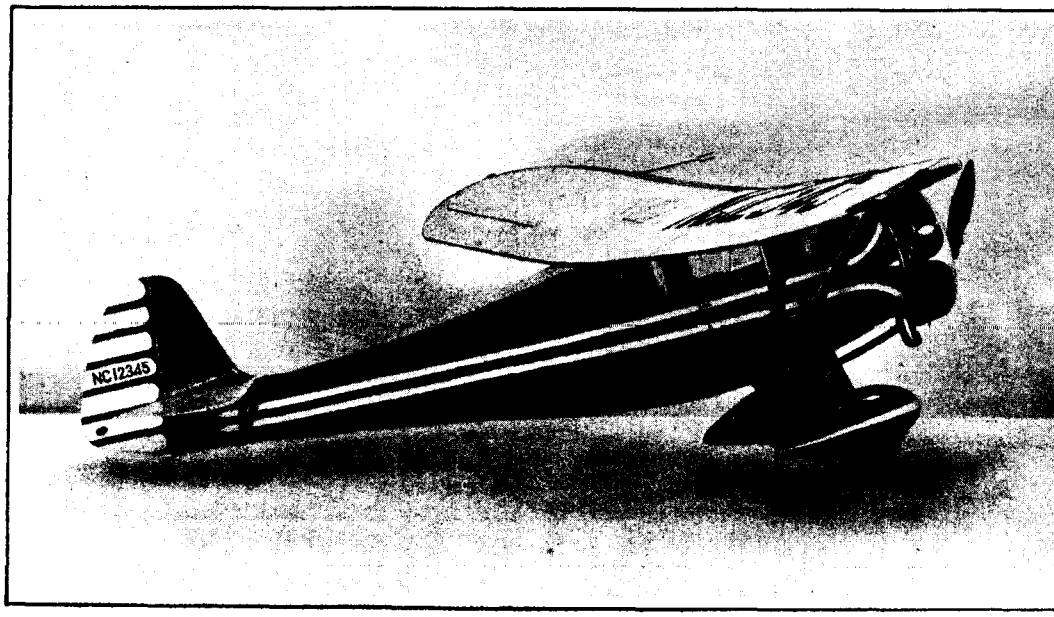


FUSELAGE CONSTRUCTION

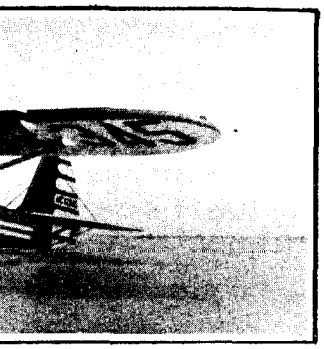
e bulkheads between 1/16" sq stringers which are pinned to out- of fuselage and cement well. Put 1/16" sq stringers in bulk- slots and cement. When dry, make other half of fuselage by ing the outline and bulkhead positions and reversing the trac- When right half is dry, take from form and cement to left . The halves may be held together by special small wood

Dotted lines indicate scallops

Note the clearness of line of both Monocoupe and the Scare



Side view showing color stripes and pen lettering



d the Soarer

ttering

1

Color line

Make five rings like this one, made of 1/8" flat balsa. Cement together and when dry, cut and sandpaper to shape. Give one coat of paper cement, sand, and cover with small pieces of tissue. Give two more coats of paper cement

1/16" disc

1/8" disc

Instrumen
right offi
ing and c
bulkhead
lage is a

Filler blocks between cylinders

2

Black squares indicate cut-outs for stringers

3

Spark plug

Motor stick

Cement solidly

Cross-sectional view of nose showing speed ring

Pin for
able

4

5

6

7

8

Make the 8 bulkheads fr
1/16" flat balsa. Cut
them accurately to assu
good alignment of fusel

Instrument board is cut right off of this drawing and cemented on bulkhead #3 after fuselage is assembled

strut

line of fuselag
head slots and
tracing the out
ing. When righ
half. The halv
clamps. Place
#3 and #4 and
cement in light
cementing piece
heads #1, #2, a
interior is all

Airspeed indicator

Balsa streamliners

1/16" dia. braces colored silver may be used

Color line

Exhaust pipe

1/16" flat windo
pieces

struts

Door outline on right side only. Make with India ink and pen

Cream color stri

1

2

3

4

5

ional view
owing
ng

Pin for removable nose

Brace put in after assembling fuselage

Landing wire

Sub bulkhead put in after assembling fuselage. 1/8" flat

1/8" flat piece pu
in between bulkhea
and sanded to insu
even covering job

Exhuast tube made of 1/8" flat balsa and colored silver

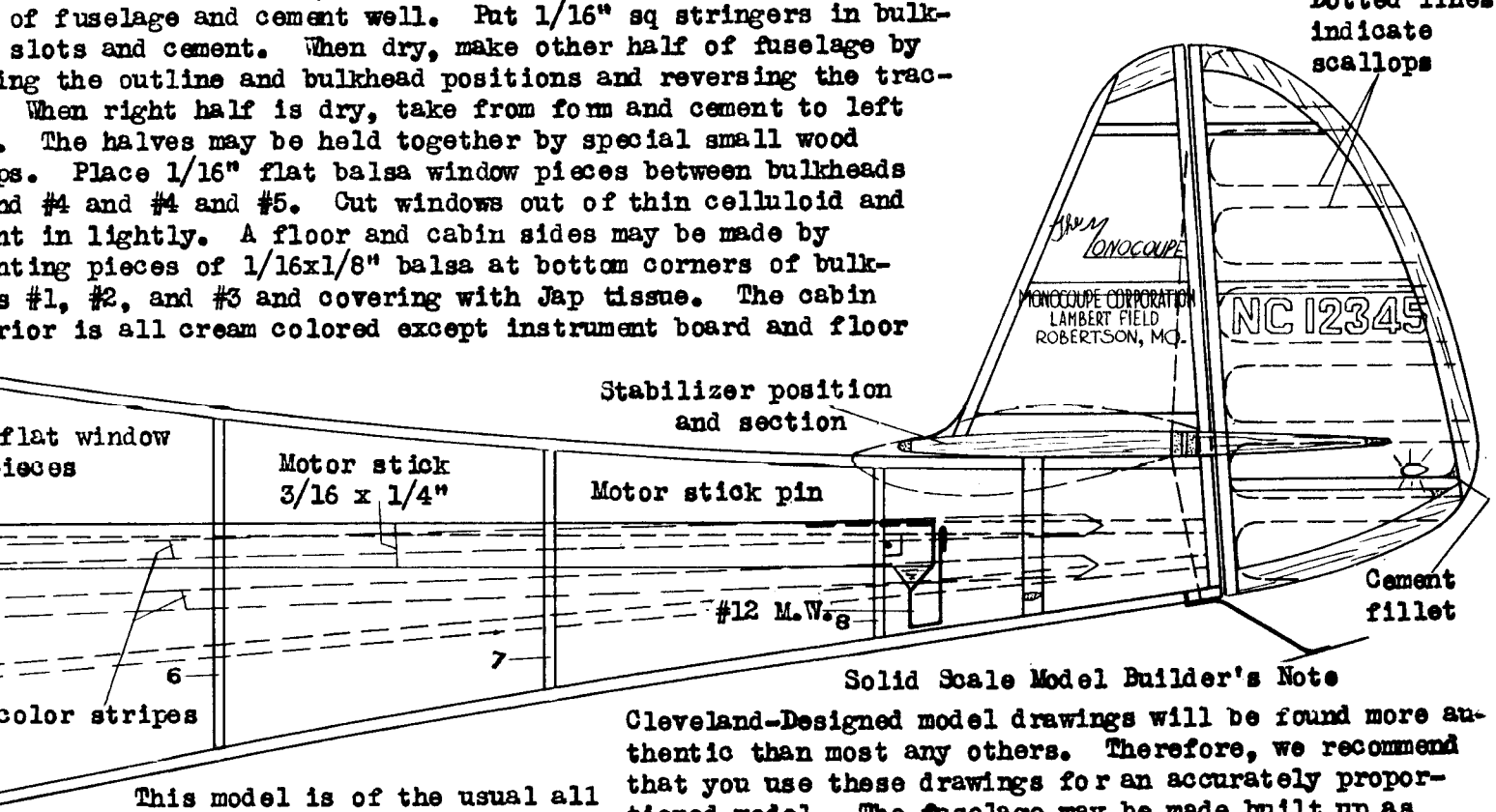
lkheads from
lsa. Cut
ly to assure
t of fuselage

color line

Make 4 outlines and 6 core pieces of 1/8" flat balsa for wheel pants

Soft hinge wire should be used for hinges. All other wire is #12 music wire

of fuselage and cement well. Put 1/16" sq stringers in bulk- slots and cement. When dry, make other half of fuselage by ing the outline and bulkhead positions and reversing the trac- When right half is dry, take from form and cement to left . The halves may be held together by special small wood ps. Place 1/16" flat balsa window pieces between bulkheads d #4 and #4 and #5. Cut windows out of thin celluloid and nt in lightly. A floor and cabin sides may be made by nting pieces of 1/16x1/8" balsa at bottom corners of bulk- s #1, #2, and #3 and covering with Jap tissue. The cabin rior is all cream colored except instrument board and floor



This model is of the usual all balsa construction as originated by Cleveland model engineers. However, some parts, out of necessity, are made of stronger materials

t piece put en bulkheads ed to insure ering job

inge wire be used nges. All wire is #12 wire

Solid Scale Model Builder's Note

Cleveland-Designed model drawings will be found more authentic than most any others. Therefore, we recommend that you use these drawings for an accurately proportioned model. The fuselage may be made built up as drawing shows and the spaces between the stringers and bulkheads filled in with 1/8" flat balsa. Trim off excess balsa with sandpaper block and coat with paper cement. Cover with Jap tissue and give two or three coats of paper cement. Apply dope, lacquer or enamel

Cleveland-Designed 3/4" Scale Model SF-28
THE MONOCOUPE 7-cylinder Warner Scarab Engine
Drawing is full size. Scale off any dimensions desired

CLEVELAND MODEL & SUPPLY CO.
Model Engineers Since 1919
1866 West 57th St. Cleveland, Ohio, U.S.A.