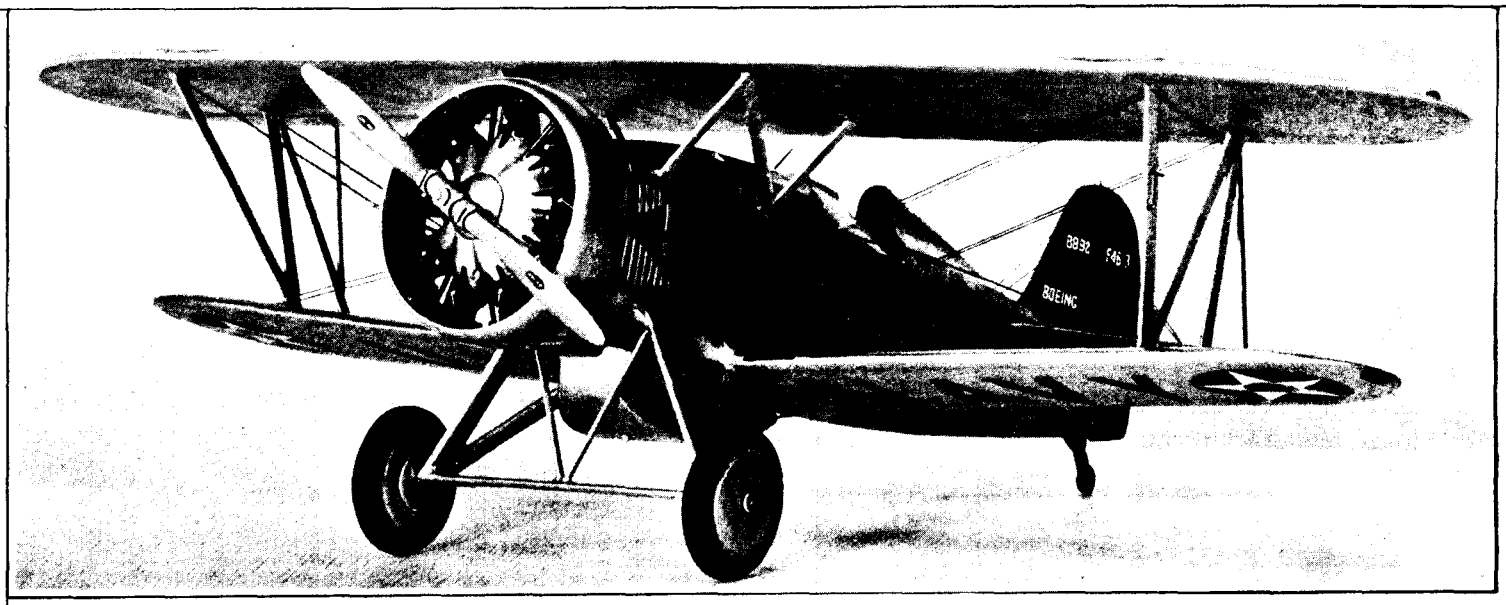


C O N S T R U C T I O N N O T E S

Begin by cutting out bulkheads and assembling fuselage. Build up cockpit and headrest of 1/8" flat balsa. The motor and ring are all balsa. Cut 16 half-rings of 1/8" flat balsa and cement together. When dry, shape with razor blade and sandpaper block and paint silver with Enamel-Dope. Shape 9 cylinders from 1/2" sq. balsa, score for fins and paint black. Cement them onto the center piece which is built up of 1/8" flat balsa. Fillet sharp corners at base of cylinders with balsa and cement. Add push rods and spark plugs. Cement motor stick and rear hook in. Build belly tank. The tail is made next. Notice streamline section on drawing. Add tail wheel.

Wings are built by cutting out ribs of 1/32" flat balsa. Lay the spars in place with pins. Slip in the ribs and cement well. Add tips, then build aileron making a good fit. Remove wing from layout and shape leading and trailing edges with sandpaper and block. Put dihedral angle in bottom wing then cover. Slip in bottom wing to center beam. Be sure proper angle of attack is had and cement well. Cement struts on for landing gear solidly. Add wheels. (Paint before putting them on).

General Painting and Assembly Notes: If a fine finish is desired give all exposed wood parts about three coats of paper cement, sanding between coats. If extra fine finish on tissue is desired, give one coat of lustre dope. (Mix 1/2 oz. paper cement and 1/2 oz. Anti-Blush,) before applying silver. Stir silver dope well and put on two coats over all parts except top surface of upper wing and tail. Give top surface of upper wing two coats of yellow enamel dope leaving one hour lapse between coats.

Cement on the tail surfaces and add the strut for supporting the stabilizer. Thread in the brace wires. When dry, give tail two coats of red enamel dope. Cut out louvers with sharp razor blade. They should taper 1/32" deep at front portion to nothing at rear. Paint or cut out black holes near louvers.

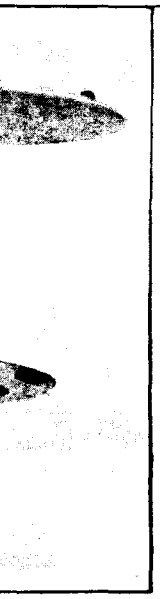
Cement center section struts on to fuselage top wing to these. Line up wing accurately sure you have about 2° angle of attack i expect your model to fly well. Fit in outer struts by the cut and try method. Note: Th improperly drawn on side view for clearness (dihedral is not indicated). Cement them solidly. Sew in threads to represent landi flying wires. Note that they are double, spaced 1/8" apart.

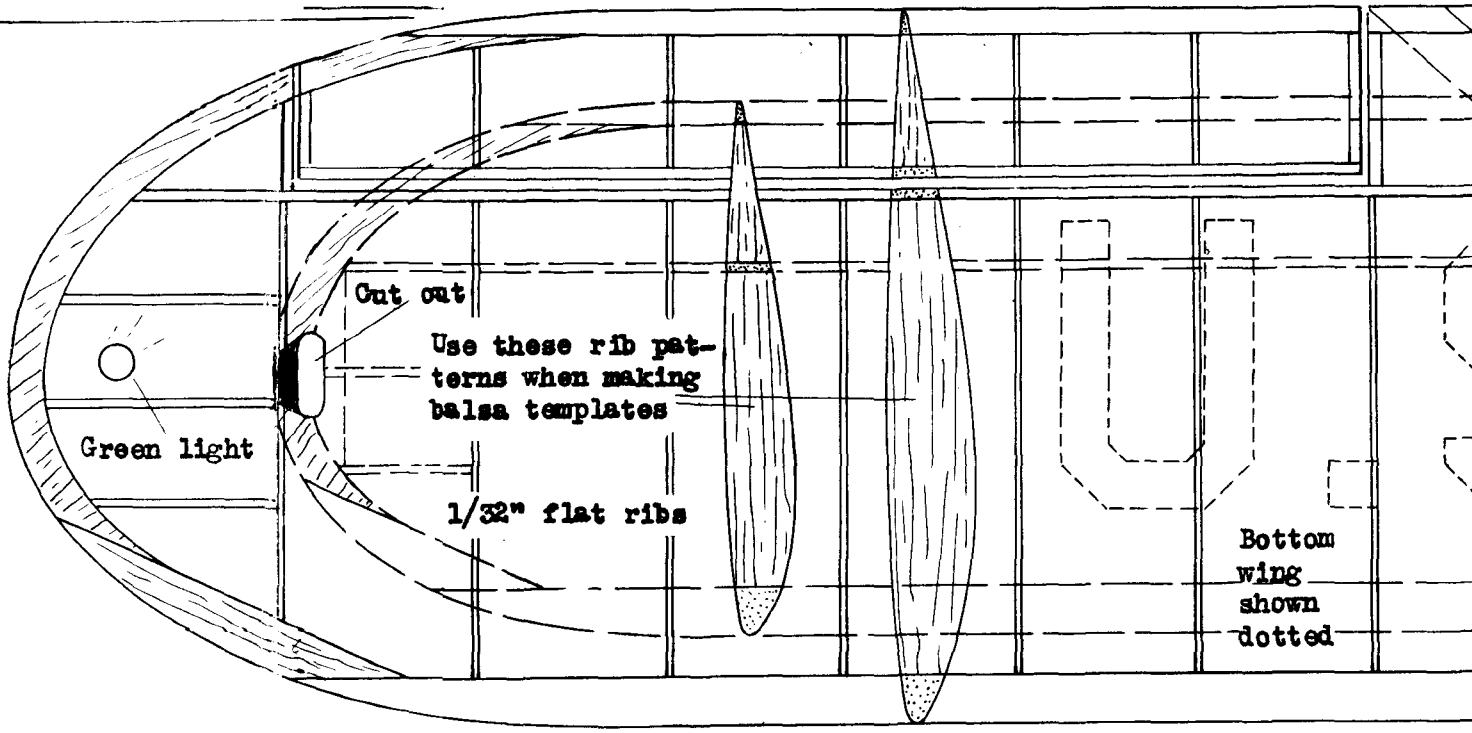
Stick on U.S.Navy letters and insignia with cement. To make a snappy looking model pai the insignia of your favorite squadron. C lights to wings and fin. Outline cockpit p with black ink or thin rubber insulator tub which is found on electric wires. Cement shield on and outline all its edges with l stripe of India ink so that it will show clearly. Control horns on tail may be adde desired. The white letters on the tail ar painted on a separate piece of red colored with water color or China White and placed paper cement.

Flying: Insert 8 or more strands of 1/8" rubber between rear hook and propeller sha you have made the model exceptionally light will need less rubber but it is probable even more than 8 strands will be needed. S field with tall grass for test hops. Give pr about 50 winds by hand and launch. The mo may stall a trifle, if so, add some lead be bulkheads #1 and #2. When correct balance found, give all the winds it can take with winder and launch.

Note: Both Navy jobs F4B-3 and F4B-4 are c as described thruout this sheet but if the P12-E is to be made the F4B-3 outline is to followed and the coloring changed to yellow and tail surfaces (except Army blue vertica is alternate horizontal red and white rudde stripes). Balance olive drab except detail course.

See page 37 of CLEVELAND MODELMAKING NE Hobbies Vol. 1 - No. 2 for good front





on to fuselage.Cement
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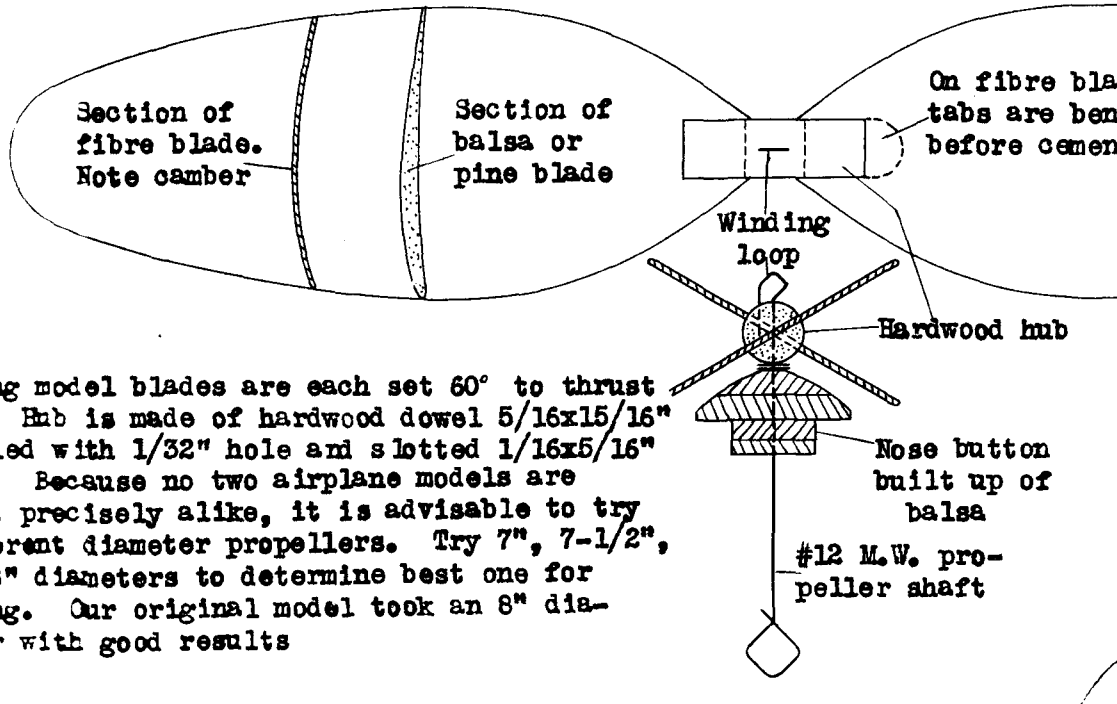
Fit in outer "N"
od. Note: They are
for clearness sake
Cement them in
present landing and
are double, being

insignia with paper
ing model paint on
squadron. Cement
ine cockpit padding
insulator tubing
es. Cement wind-
edges with 1/32"
will show up
l may be added if
the tail are
red colored tissue
e and placed with

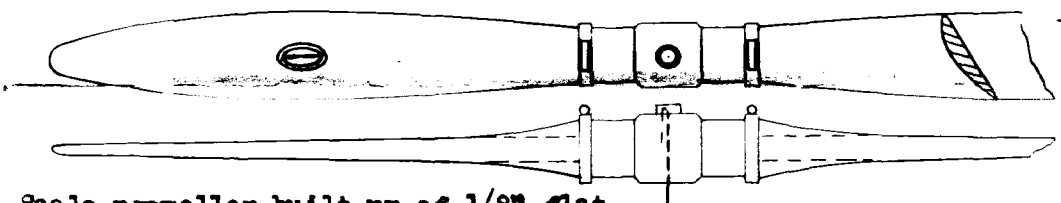
nds of 1/8" flat
propeller shaft. If
ionally light you
t is probable that
be needed. Select
hops.Give propeller
nch. The model
some lead between
rect balance is
an take with a

d F4B-4 are colored
but if the Army
outline is to be
ged to yellow wings
blue vertical, and
white rudder
except details of

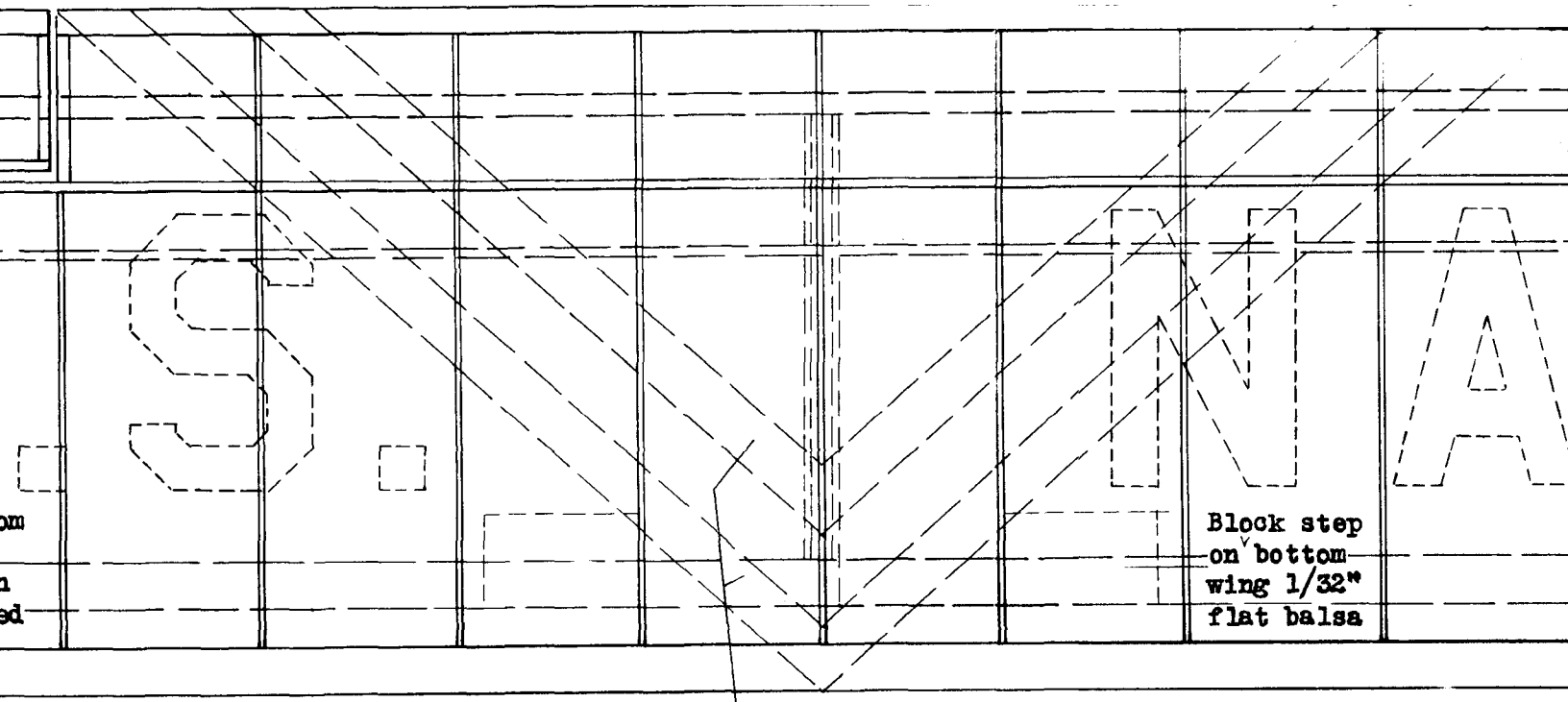
ELMAKING NEWS & Practical
ood front detail view



Flying model blades are each set 60° to thrust line. Hub is made of hardwood dowel 5/16x15/16" drilled with 1/32" hole and slotted 1/16x5/16" deep. Because no two airplane models are built precisely alike, it is advisable to try different diameter propellers. Try 7", 7-1/2", and 8" diameters to determine best one for flying. Our original model took an 8" diameter with good results



Scale propeller built up of 1/8" flat



fibre blades the
bs are bent over
fore cementing

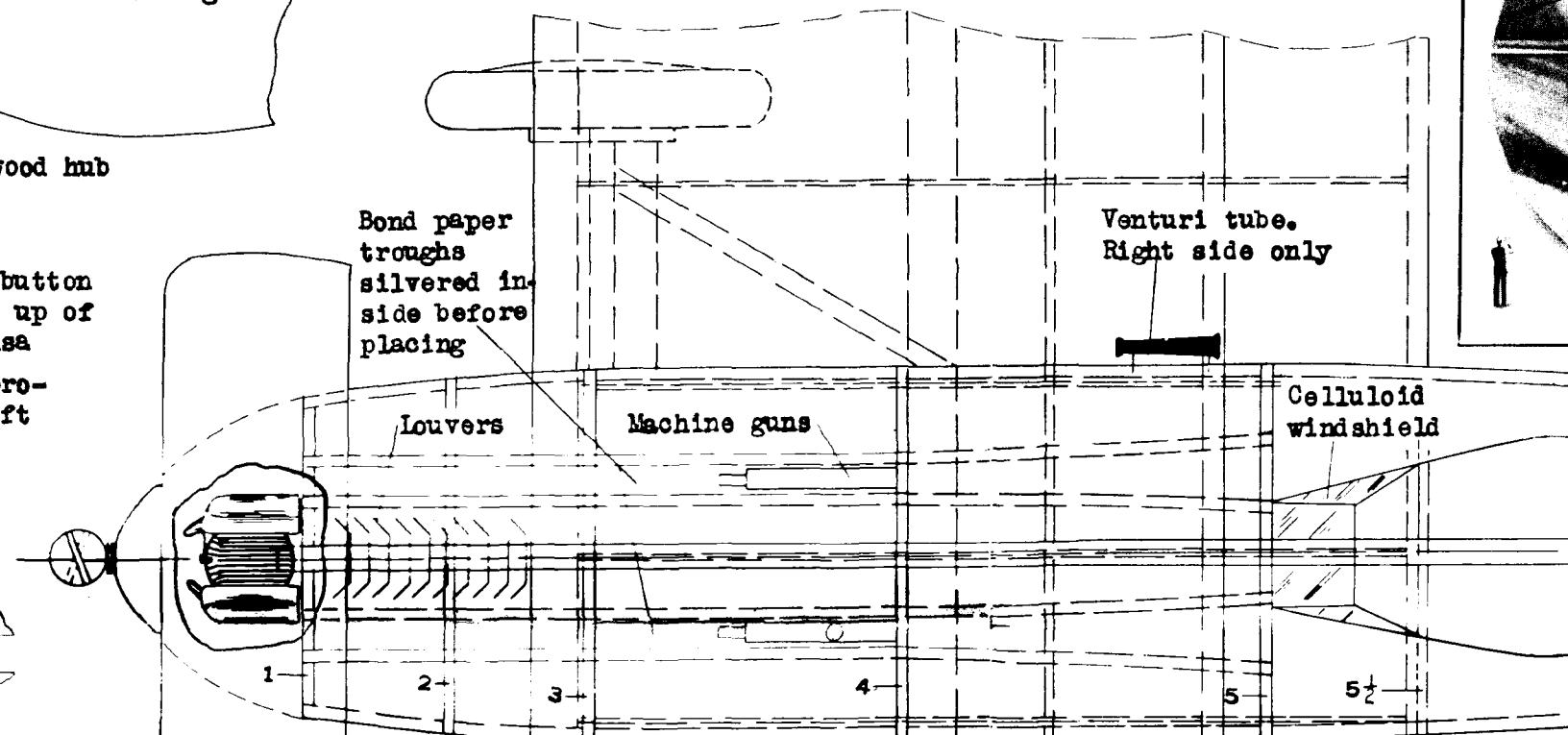
ood hub

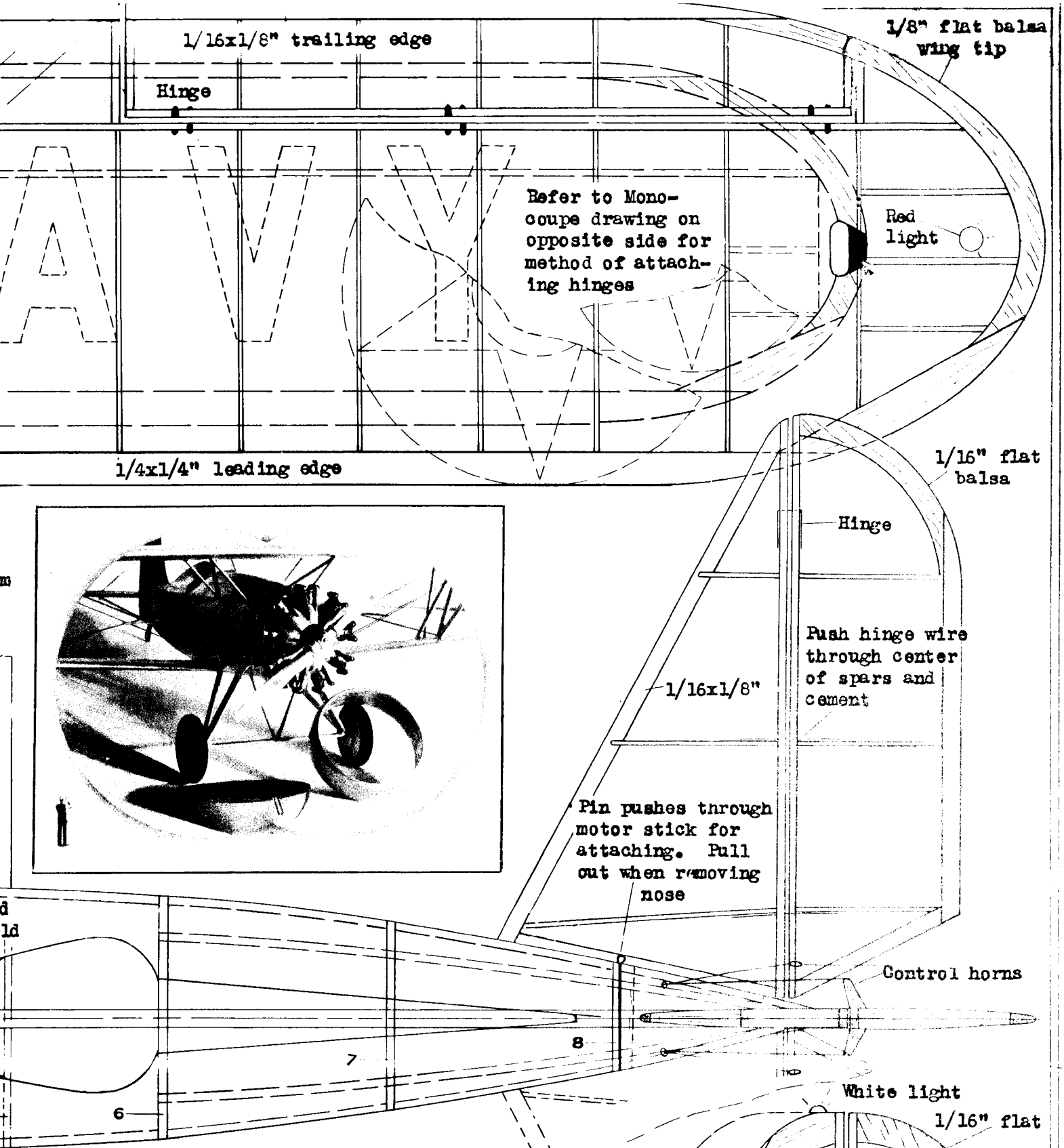
button
up of
sa

ro-
ft

Two red squadron stripes are painted on the top surface of the upper wing. The red dope may be flowed on with a draftsman's ruling pen

Solid scale modelbuilders note. These plans are accurately reproduced. Make your solid model from them

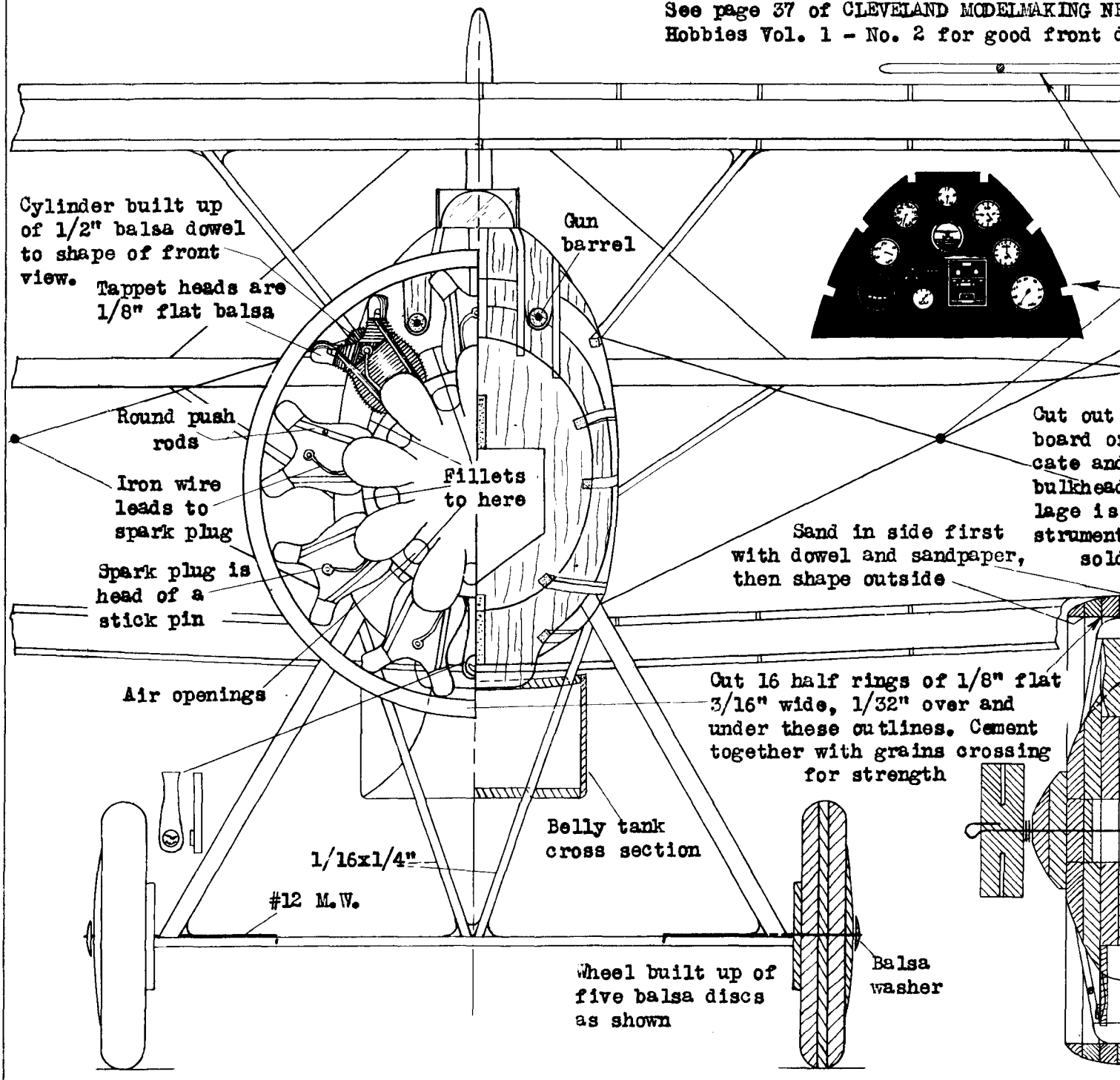



1/16x1/8" trailing edge
1/8" flat balsa wing tip
Hinge
Refer to Monocoupe drawing on opposite side for method of attaching hinges
Red light
1/4x1/4" leading edge
1/16" flat balsa
Hinge
Push hinge wire through center of spars and cement
1/16x1/8"
Pin pushes through motor stick for attaching. Pull out when removing nose
Control horns
White light
1/16" flat
6
7
8

wires. When dry, give tail two coats of red enamel dope. Cut out louvers with sharp razor blade. They should taper 1/32" deep at front portion to nothing at rear. Paint or cut out black holes near louvers.

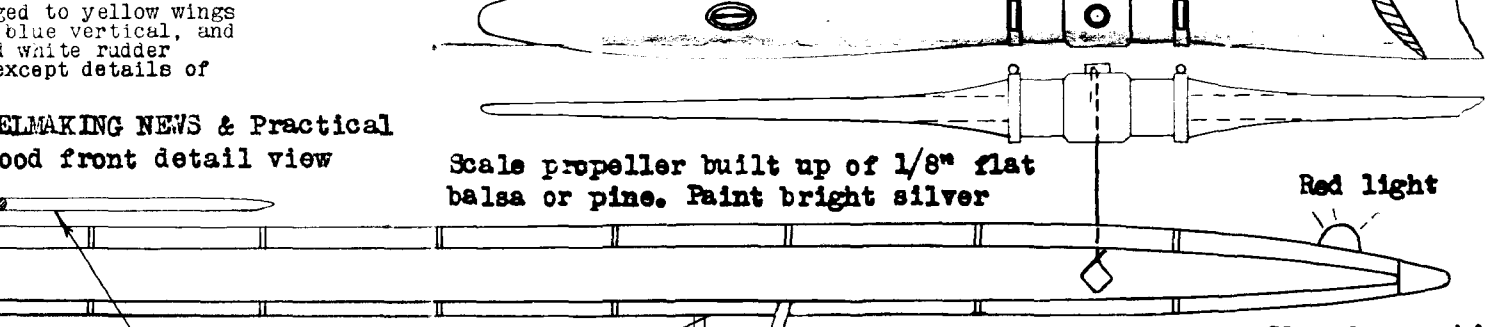
followed and the coloring changed to yellow and tail surfaces (except Army blue vertical is alternate horizontal red and white rudder stripes). Balance olive drab except detail course.

See page 37 of CLEVELAND MODELMAKING NE Hobbies Vol. 1 - No. 2 for good front d



ged to yellow wings
blue vertical, and
white rudder
except details of

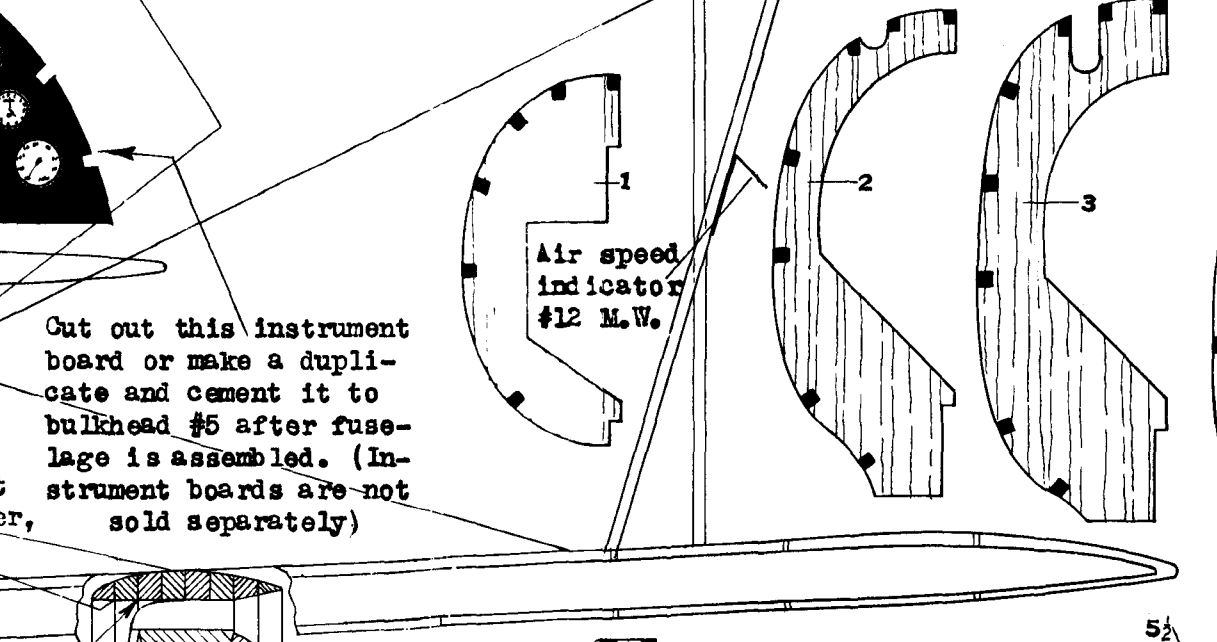
ELMAKING NEWS & Practical
ood front detail view



Scale propeller built up of 1/8" flat balsa or pine. Paint bright silver

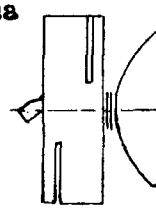
Red light

Slot for machine guns

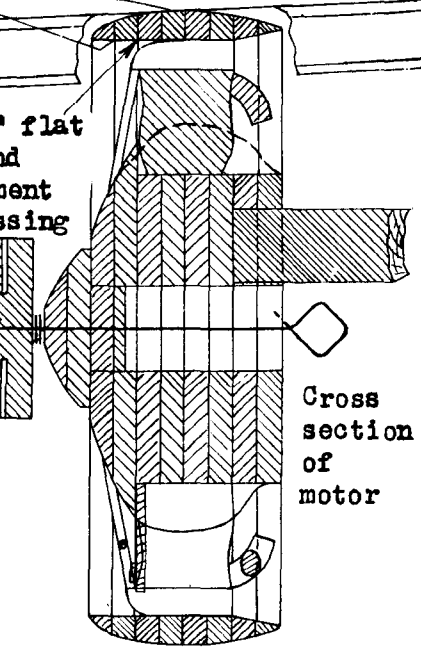


Air speed indicator #12 M.W.

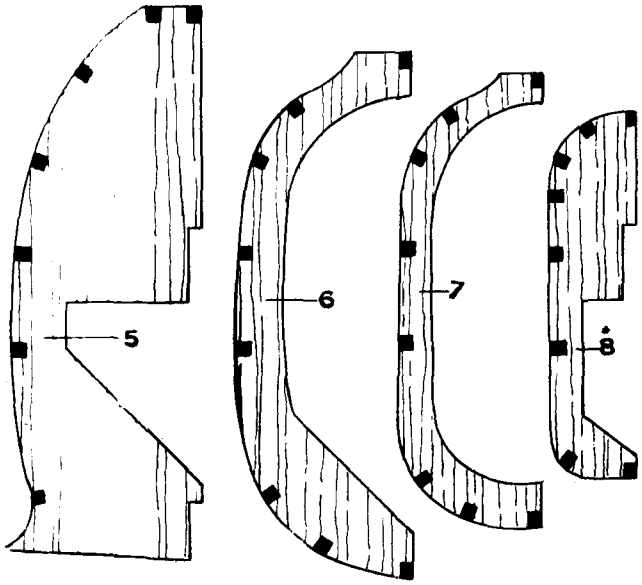
Cylinders are cemented onto this disc which is built up of 1/8" flat balsa

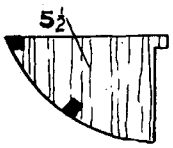


Cut out this instrument board or make a duplicate and cement it to bulkhead #5 after fuselage is assembled. (Instrument boards are not sold separately)



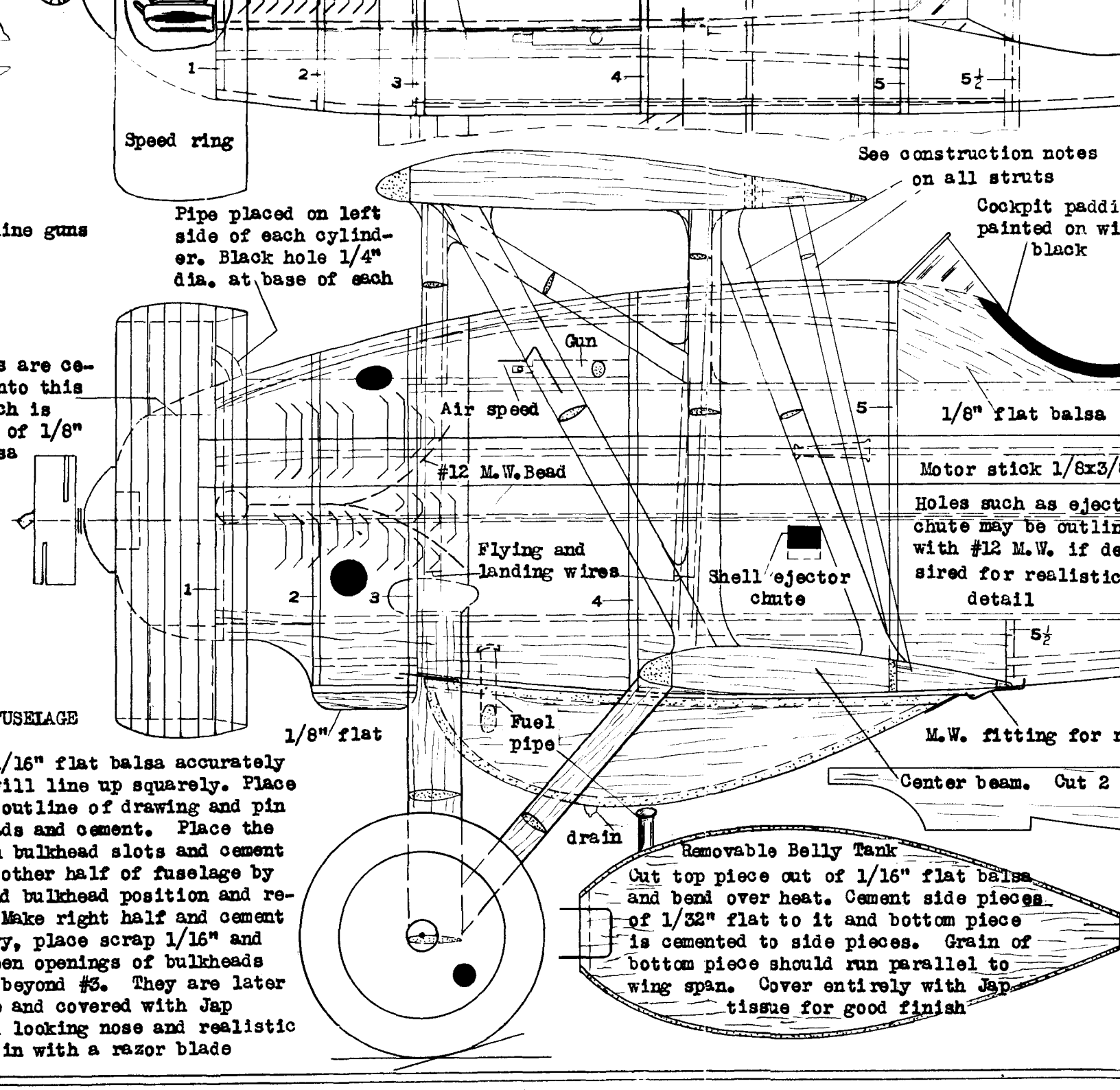
Cross section of motor





FUSELAGE

Cut bulkheads out of 1/16" flat
so that the fuselage will line u
1/16" sq stringers on outline of
down. Slip in bulkheads and cem
1/16" sq. stringers in bulkhead
well. When dry, make other half
tracing the outline and bulkhead
versing the tracing. Make right
to left half. When dry, place s
1/8" flat pieces between opening
#1, #2 and #3 to 3/8" beyond #3.
sanded to proper shape and cover
tissue to make a solid looking n
louvers which are cut in with a

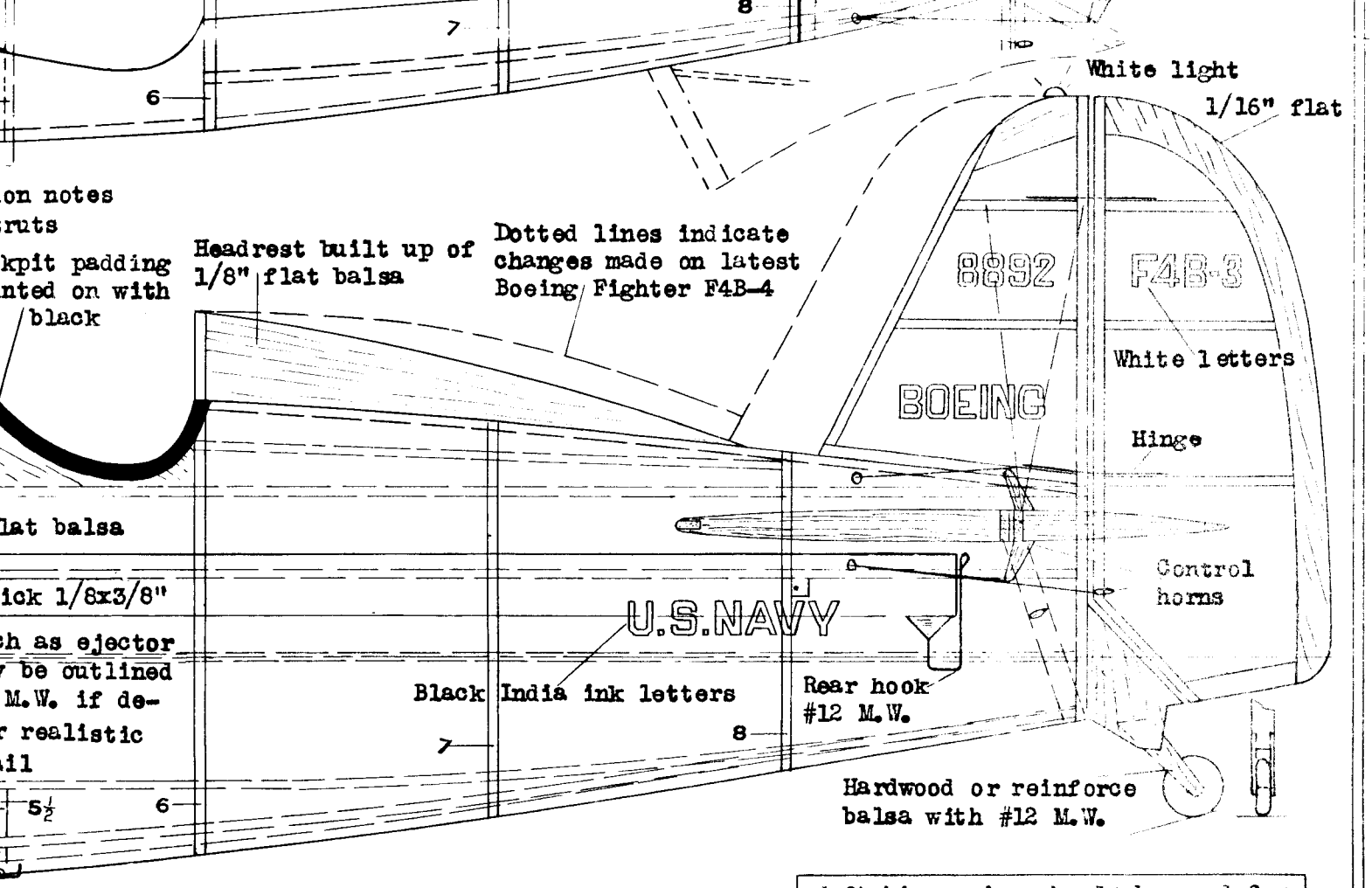


ine guns

s are ce-
nto this
ch is
of 1/8"
sa

USELAGE

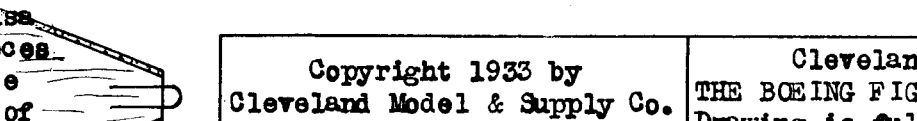
/16" flat balsa accurately
ill line up squarely. Place
outline of drawing and pin
ds and cement. Place the
bulkhead slots and cement
other half of fuselage by
d bulkhead position and re-
Make right half and cement
y, place scrap 1/16" and
en openings of bulkheads
beyond #3. They are later
and covered with Jap
looking nose and realistic
in with a razor blade



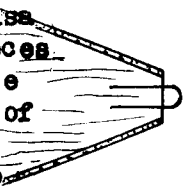
Soft hinge wire should be used for hinges. All other wire is #12 M.W.

tting for removable belly tank

m. Cut 2 from 1/16" flat Wing spars fit in these slots



This model is of the usual all balsa construction as originated by the Cleveland Model Engineers. However, some parts of necessity are made of stronger material



Cleveland-Designed 3/4" Scale Model SF-29
THE BOEING FIGHTER F4B3 Pratt & Whitney Wasp Engine
Drawing is full size. Scale off any dimensions desired

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