



**DETAILED INSTRUCTIONS** 

oughly before attempting model construction. Time and patience are allow cement to dry thoroughly before removing from plan.

model has been completely covered with tissue. As only one part of the plan will be used at a time, the remaining pordrawing board upon which to work and cement parts; about fifty removing from plan.

amail thin pins; a pair of pliers for bending shaft; some small pieces of sandpaper; and a piece of waxed paper 12"x36".

STEP 1 . RE-ENFORCED PRINTED SHEET

STEP 2 . SANDPAPERING

close or tight fit requires less coment. Consequently, less weight will

STEP 4 . WING-RIBS-WING TIPS

be added to the finished model.

rib sheets as they are needed in the process of building the wing. This to help round out body and support covering. will prevent pieces from being lost. Begin assembly by working over the wing in the top view. It is advisable to place a piece of waxed STEP 10 + TEMPLATES A. B. C. etc. After all ribs are in place, fit leading edges in position and complete wings by inserting wing tips. (See Fig. 6). Gement all STEP 11 • MOTOR COWL AND COWL COVER joints carefully and when they are thoroughly dry remove wings from

STEP 5 . ELEVATORS AND STABILIZER

The tall is assembled in one unit, namely, stabilizer and elevators. Istic appearance when dummy motor is inserted. Peel off paper tem-Work over top view. Sandpaper all strips as explained in Step No. 2, plate from front of cowil block and round edge of block to conform to STEP 16 \* ASSEMBLING before cutting to required lengths. Use waxed paper and pins in shape shown in top and side views. Trace cowling cover template from assembly. Gut cross members and cross braces to required sizes and front of plan onto stiff paper. Bend into a cylindrical form, overlap assembly. Cement elevator and rudder into positions shown and allow as you would a photograph in an allow. out curved tips from rib sheet. First, place cross members and then one edge until it reaches dotted line and then coment together. While

STEP 7 . BODY-SIDES

The second body construction step is the assembly of the two side: Material: Wood Block and Sandpaper (not furnished)

For sandpapering obtain a small block of wood and feld sandpaper

cutting out formers and cross braces to size. Start at rear and work

tightly around it. Rub sandpaper covered block with an outward mo
toward front. Crack or bend longitudinals where necessary. Cement al.

Templates "H."

The same kind of materials are used for both longerons and stringers, until model has been covered with tissue.

G TIPS

Smooth with sandpaper, cut to required lengths and cement into positions indicated BY NOTCHES IN FORMERS as stringers are pur.

STEP 15 \* COVERING

tion can be folded over for added reference and study during the process of assembly. The following few additional tools and materials. Cut required parts from printed rib sheets. Assemble rudder in one finished. Sandpaper corners and edges round. Propeller must be balstationary, on its shaft, in any position,

Material: "a" eq. Balla Sandpaper heavier blade until balance is attained. Cover side view on plan with waxed paper.

Assemble body sides over side view. First pin down longerons. Next STEP 13 + BEARING, ETC.

The tail wheel is made from three separate property defined and if ship does not strength. Cement the pieces together and when dry sandpaper to gliding, if nose of ship has a tendency to climb and if ship does not make a gradual glide downward, it indicates that tail is still a little

the wing in the top view. It is advisable to place a piece of waxed paper over plan to prevent weed parts from adhering to and tearing paper over plan hold down balsa parts with small thin pies. The wings are assembled in two units, namely, right and left panels. Printed on Plan to great these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to paper trace these templates onto stiff paper. Cut out traced forms to unwind growing propeller with right forest with some paper in one section at a time, then apply coment and finally attach tissue paper first, a section at a time, then apply coment and finally attach tissue paper first, a section at a time, then apply coment and finally attach tissue paper first, a section at a time, then apply coment and finally attach tissue paper first, a section at a time, then apply coment and finally attach tissue paper first, a section at a time, then apply coment and finally attach tissue paper first, a section at a time, then apply coment and finally attach tissue paper first, a section at a time, then apply coment and finally attach tissue paper first, a section at a time, then apply coment and finally attach tissue paper first, a section at a time, then apply coment and finally attach tissue paper and finally attach tis various parts covered with tissue from warping out of shape, it is advisable to pin them upon some flat surface and to permit them to dry. Unless the wings and elevator are covered on both sides, do not when its coils or twists are fairly small or tight.

Material: Balsa (y' sq. and Printed Rib Sheet Inside portion as shown in Fig. 1. This indentation gives a more real dry they are ready for assembling.

front and rear edges in position. Pin down firmly. Apply small amount this part is drying slip it ever motor cowl block to check size and wing tipe until proper dihedral single is attained. After these parts Study plans, perspective sketches and instructions carefully and therning down into position. When all pieces are in their proper places.

STEP 17 a DECORATIONS. Mesold in Proper places.

other than these supplied, are necessary to build this airplane model: unit. (See, Fig. 2.) Work over side view. Rudder is assembled in the A rator blade (preferably one with a heavy rounded back); a small same manner as stabilizer. Allow coment to dry thoroughly before drawing board upon which to work and coment parts; about fifty

STEP 18 . SCALE PROPELLER Material: Not Furnished Views of the scale propeller are shown on front of plan for those who Material: Furnished do not wish to use the two-blade propeller supplied.

STEP 1 • RE-ENFORCED PRINTED SHEET

Assemble body sides over side view. First pin down longerone. Next printed balsa rib sheets are supplied. But, when stronger models are supplied. But, when stronger models are required, plain sheets of white writing paper can be pasted to backs of rib sheets. Apply library paste to paper and attach to back of each rib sheet. Apply library paste to paper and attach to back of each rib sheet. Paper re-enforcements eliminate possibility of cracking balsa along the grain. White drying, place pasted parts between two flat surfaces and apply weights to them (some old magazines or books) to prevent warping. Do not remove paper re-enforcements from various pieces after they have been out from rib sheet.

Assemble body sides over side view. First pin down longerons. Next

STEP 13 • BEARING, ETC.

Material: Furnished profit up to the made work toward rear. Cut up rights to size and apply importance and spin to prove the bearing, that through the bearing, that through the washers are all furnished ready to use the same washers are all furnished ready to use the same washers are all furnished ready to use the same are all furnished ready to use the same washers are all furnished ready to use the same washer are all furnished ready to use the same washer are all furnished ready to use the same washer are all furnished ready to use the same washer are all furnished ready to use the same washer are all furnished ready to use the same washer are all furnished ready to use the same washer are all furnished ready to use the same washer are all furnished ready to use the same washer are all furnished ready to use the same are all furnished r

STEP 20 . FLYING When model has been completely assembled it must be checked for GEAR AND TAIL WHEEL

Material: Thick Balsa Block, Wheels and

Templates "H," "J," and "F"

whether it balances. If tail has a tendency to drop, it denotes tail Templates "H," "J," and "From the sanded strips select the correct sizes as required on this before any plan for leading edge, spar and trailing edge. Do this before any notches are cut in ribbs so that fit requires less connected, at tight fit for the stringers.

Templates "H," "J," and "From the made from a piece of \$\delta'' \text{S}'' \text{Disides and correct sizes as required on the body has been assembled into a square frame, cut out stringer notches are cut in ribbs so that fit will be very close or tight. A good at tight fit for the stringers.

Templates "H," "J," and "From the thick cowi block cut the please are in place and correct to be served to body by holding frame so that it can be everyomes of \$\delta'' \text{S}'' \text{Disides are strut is made from a piece of \$\delta'' \text{S}'' \text{Disides and correct sizes as required on the body has been assembled into a square frame, cut out stringer notches are cut in ribs so that fit will be very close or tight. A good at tight fit for the stringers.

Templates "H," "J," and "From the thick cowi block cut the please are in place and correct size as tendency to drep, it denotes tail becomes the long trained and correct size and correct size and correct size and correct size and trailing gas strut is made from a piece of \$\delta'' \text{S}'' \text{Distance.} If tail has a tendency to drep, it denotes tail places are in place and correct size and correct size and correct size and trailing gas strut is made from a piece of \$\delta'' \text{S}'' \text{Distance.} If tail has a tendency to drep, it denotes tail places.

From the thick cowi block cut the please and place and correct size and

Cut various decorations from Sav-A-Plan strip. Apply a thin layer of

too heavy. This must be offset by additional weight at front of model.

To be certain that model is correctly balanced, hold it, unwound, in

Material: Tissue

position for launching and if the glide after leaving the hand is steady With a razer blade cut out illustrated ribs and wing lips from printed posely not shown on plan. They run lengthwise along outside of body All individual complete parts are to be covered. Cover wings and and consistent and goes forward 10 or 15 feet, ship can be considered elevater on top side only and remaining parts all around or on both as making a normal glide.

sides. First sandpaper all rough edges and make all corners elightly Model is now ready for its trial flight. When gliding the ship do

Material: Balea Block and Template "A"

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When strink the covering on these parts as it is apt to warp them.

Cut moter cowl from balea block. Cut around outside printed circle

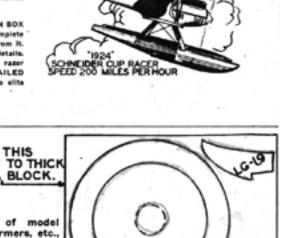
When shrinking tissue on rudder, wet BOTH sides at the same time,

with razer blade or scroll saw. Sandpaper edge until smooth and circle

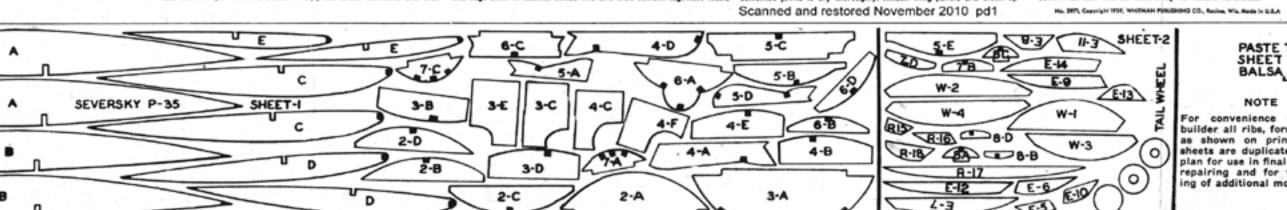
cutar. Next cut around inside circle to a depth of ½ inch and remove

tightly stretched covering. When parts are completely covered and

or instact. That is, no parts or templates should have been cut from it. Therefore, it can be looked over for small, possibly forgotten details. Carefully remove the colored portrait from packing box. With raps blade, elit rear of plan along dotted diagonal lines in DETAILED









For convenience of model builder all ribs, formers, etc., as shown on printed balsa sheets are duplicated on this plan for use in final checking, repairing and for the build-

