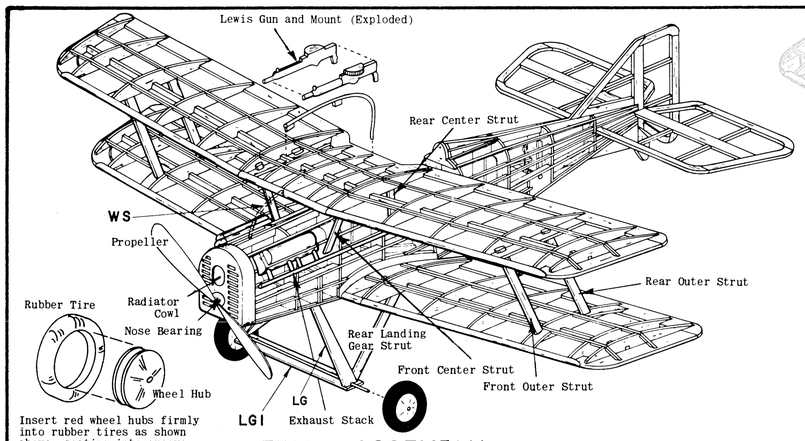
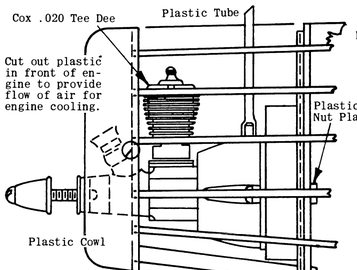
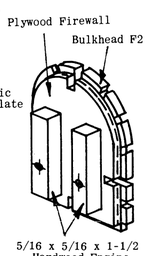


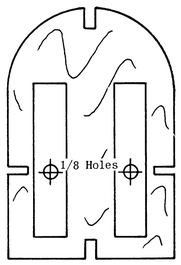
Insert red wheel hubs firmly into rubber tires as shown above, seating into groove.

FINAL ASSEMBLY

Assemble and trim all plastic parts, see detail note. Cement cowl to F1. Cement stabilizer into slot between L2 and L3, against F10. Cement rudder to top of L2 and against rear of fuselage. Cement lower wing in place on bottom of fuselage, lining up W1's with L5's. Lower wing must be dry before proceeding. Trim out notches in all Gussetts in both wings and fuselage. Prepare all struts as shown and described in detail note. Pin temporary wing support WS to top of L1, 11/16 back from rear of F1. Pin top wing in place, center rib W1 over WS. Insert outer struts into gussetts in top and bottom wings and cement in place, making sure wings are parallel with each other. Insert center struts into wing gussetts, then into gussets L7 and L8 in fuselage. Cement securely. Apply second coat of cement to strut joints. When thoroughly dry, remove pins and WS. It is necessary to have access to rear hook to replace rubber motor. Fit a piece of 1/16 balsa between F8 and F9 on bottom of fuselage. Cement cloth tape to front end, half over door for hinge. Trim out 1/16 from bottom of center keel to act as stop, so door is flush Hold free end in place with Scotch Tape. Complete bomb dropping mechanism as described in detail note. Prepare 2 rear struts from 3/32 x 1/4 strip balsa using full size drawing. Cement spreader bar LG1 to bottom of wire landing gear axles. Wrap securely with thread, then apply a second generous coat of cement. Make sure at least 1/2" of axle extends past spreader bar. Groove insides of front strut L.G. (for wire struts) as shown on side view. Bevel bottom to fit on LG1 and cement in place. When dry add additional coat of cement and wrap with tissue or silk for added strength. Rear struts are securely cemented at bottom only. Tops are inserted thru slots in E's. Tops remain free, providing shock absorbing travel. On engine powered models, make landing gear struts from hardwood. Model is now painted. If it is to be painted scale colors, see three view drawing or box top. For best flight performance, use a minimum of color dope. Apply decals by dipping in water and sliding off into position shown. Cut instrument panel from plan and cement to F6 in cockpit. Cement machine guns in place, as described in detail note. Plastic engine covers and exhausts are now assembled directly over side view. Round off 3/16 sq balsa provided for long exhaust stacks. Balsa provided for lightness. 3/16 dowel (not provided) may be used on engine powered models. Cut stacks to length, rounding both ends. Cut 8 pieces of 1/8 x 5/32 dowel cementing them between engine cover and exhaust stack in position shown. MAKE ONE EACH RIGHT AND LEFT! Paint black and cement in place. Outline windshield in black and cement in place. Outlines of scale control surfaces can be drawn on with India Ink. Slip rubber tires on wheel hubs. Place wheel on axles. Secure by bending up end of axle or with drop of cement or solder. Insert straight end of propeller shaft through rear of nose bearing. Slip on two washers provided and insert shaft through back of free wheeling propeller. Bend back about 1/4" of shaft as shown on side view. Tie double square knot in length of rubber. Wet rubber first to prevent fraying. Double up to make 2 loops, then insert rubber through bottom trap door and engage in rear hook. Slip down todwards nose. Make hook on end of a piece of wire. Slip through hole in cowl and capture rubber on hook. Pull through cowl and engage prop shaft. Nose bearing fits into center hole in cowl. Your Royal Air Force Fighter Scout S.E.5a is now completed. See flight instructions before flying model. GOOD LUCK AND HAPPY LANDINGS!!!

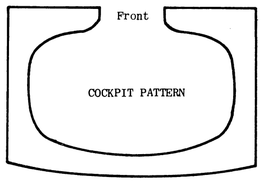


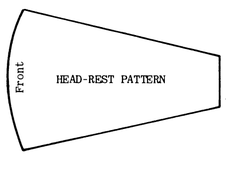


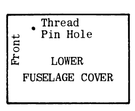


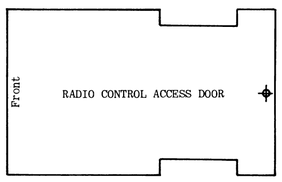
ENGINE INSTALLATION

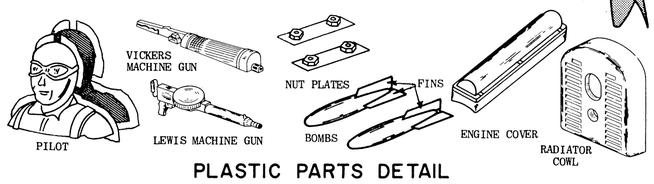
Engine is used if model is being built for control line, free flight or radio. Engine and installation material not provided in kit. Drawing shows installation of Cox .020 Tee Dee Engine, however, any other similar engine may be used. Front of model should be covered with 1/32 sheet balsa back to F6. Top is cut out for engine clearance. Obtain a piece of 1/16 plywood and cut engine fire wall, using full size drawing, drilling holes indicated. Cut two engine mount blocks 5/16 x 5/16 x 1-1/2 from hardwood. Cement them securely to plywood fire wall in position shown. When dry, drill 1/8 holes through blocks and fire wall. Mount engine to fire wall with #2 nuts and bolts, tightening nuts securely. Cut plastic nut plates from molded sheet and securely cement to back of fire wall over nuts, drilling hole through so that bolts can protrude. Use cement generously. Nut plate keeps nuts from turning so that engine can be removed by just unscrewing bolts. When dry, remove engine. Securely cement fire wall to front of F2. Cut molded engine cowl from plastic sheet as described in detail note and fit over F1. Trim cowl to clear engine. Cowl is not installed until after model is painted, and engine is installed. Cowl is then cemented or held in place with small wood screws. If it becomes necessary to remove engine for any reason, break cement joint of cowl. Engine is then re-installed and cowl re-cemented or screwed back in position. Add a 1-3/8" length of 1/16 I.D. plastic tubing to fuel tank fill and overflow tubes. Cut top of tubing at angle facing forward for easy admission of air stream. Make needle valve extension by forcing a length of 1/8 I.D. plastic tubing over head of needle valve. Force a length of 1/8 dowel into end of tubing. Dowel should protrude at least 1/2" past cowl.





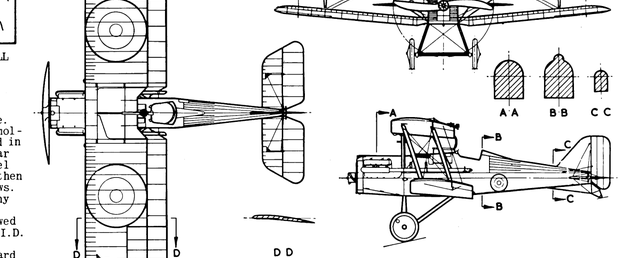






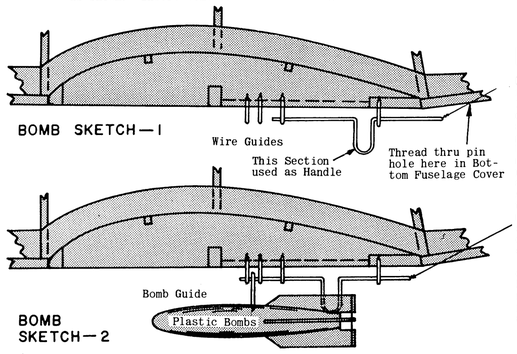
PLASTIC PARTS DETAIL

For best results, follow instructions carefully. COWL: Cut from sheet leaving about 1/16 of material for trim. Excess material may be trimmed with knife or razor blade and then sanded with fine sandpaper. Cowl is placed on bulkhead F1 for support while sanding. LEWIS MACHINE GUN: Leave about 1/8 excess material when cutting halves from sheet. Carefully trim out slots about 1/8" wide on top, bottom and ends, right to the edge of the machine gun as shown. This will permit accurate assembly. Cement halves together, lining up carefully at slots. Use cement sparingly however, since excessive use may distort the plastic. After assembly, allow to dry thoroughly then trim and sand off smooth. Complete Lewis gun mounting as described in detail note. VICKERS MACHINE GUN: Cut from sheet and trim carefully. Paint dark grey and cement to fuselage as shown on side view. PILOT: Cut halves from plastic sheet, leaving about 1/8 material. Cut 1/8 slots on all four sides as shown, then carefully cement together in same manner as the Machine Guns. BOMBS: Cut out of sheet in same manner as pilot, making notches in excess material for assembly. Cement halves together. When thoroughly dry, trim and sand smooth, then cut out 4 bomb fins each which are scribed on plastic sheet. Cement fins to ends of bomb at right angles, along seams as shown. Make two pin holes in each bomb and cement "U" shaped guide (see Bomb Release Detail Sketch #2) securely in place. NUT PLATES: Cut from sheet right along trim line and install as described in Engine Installation. ENGINE COVERS: Cut from sheet and trim as shown above. PAINTING: Regular plastic model paint or enamel can be used. Model airplane dope can be used only if applied in LIGHT spray coats, allowing paint to dry thoroughly between coats. Excessive use of dope may deform plastic. Parts may be used red as provided or if painting parts a lighter color than red, apply a light coat of silver, followed by a light coat of white before painting final color. Darker paints may be applied directly to red plastic. When cementing parts in place on model, use light coats of cement applied sparingly. If necessary, use more than one coat, but DO NOT APPLY A THICK COAT AT ANY TIME.



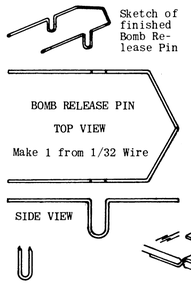
AUTOMATIC BOMB RELEASE

Automatic bomb dropping in flight operates on rubber powered models only, using spring rear hook. (Bombs can be released using a 3rd line on control line models or with escapement on R/C models). Installation is simple and action is positive, if directions are followed carefully. Make hole and cement eyelet to bulkheads F7 and F8, to right of keel L3. Bend ten "U" shaped guides from straight pins, using pattern provided. Bend bomb release pin from 1/32 wire, using full size pattern. Cement the 8 guides in place on each side of wing as shown in bomb release sketch #1, and full size drawing. Assemble bombs as described in Plastic Parts Detail & cement wire guides in place as shown. Cover bottom of fuselage on right side between F6 & F7 with stiff paper. Insert thread from rear hook through eyelets and pin hole made in stiff paper as shown. Insert bomb release pin through wire guides, then securely tie thread to hook, with bomb release pin handle against rear wire guides as shown. Thread must be snug when release pin is in this position. Coat knot on release pin with cement. This completes mechanism. To operate: Wind rubber motor. This will pull rear hook forward to a horizontal position, loosening thread. This now permits release pin to be slid forward, through front wire guides to position shown in Sketch #2; while at the same time engaging bombs through their wire guides. Push pin forward until line is snug. Mechanism should now look exactly as drawn in Bomb Sketch #2. Bombs are now loaded. Model is now released, and towards the end of flight when motor unwinds, rear hook pulls back into vertical position. This tightens the lines, pulling release pin back past second guide, which releases and drops bombs. GOOD HUNTING!!!



BOMB RELEASE DETAIL

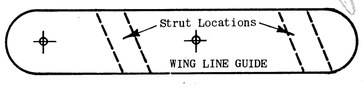
Prepare installation by bending ten wire guides from straight pins; bend bomb release pin from 1/32 wire, using full size patterns above. Cement eight wire guides in exact position shown above, and on full size bottom wing drawing. All guides must be the same level, about 1/8" below bottom of ribs as shown, and bomb release pin must enter freely. Sketch #1 shows bomb release pin handle at rear guide when motor is unwound and rear hook is in vertical position. Thread should now be snug as originally installed. Sketch #2 shows position of bomb release pin when motor is wound and rear hook is in horizontal position. This loosens the thread permitting front of bomb release pin to be slid through wire guides on bomb and front guides on model, holding bombs in place. Sketch #2 is also used as location for cementing wire guides in bombs as described in Plastic Parts Detail. When motor unwinds, hook pulls back to vertical position, pulling release pin out of the front guides, dropping both bombs at the same time.



WIRE GUIDE
Make 10 from Straight Pins

HINGE DETAIL

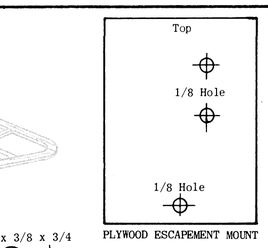
Use cloth tape for hinges. Cement only on top and bottom, alternating hinges as shown above. Keep cement out of hinged area between sections.

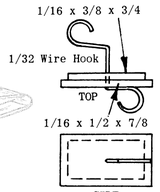


S.E.5a SPECIFICATIONS AND COLOR SCHEME

Wing Span - 26 Ft. 7 In.
Length - 20 Ft. 11 In.
Height - 9 Ft. 6 In.
Maximum Speed - 121 M.P.H. (at 15,000 Ft.)
Ceiling - 22,000 Ft.
Fuel Capacity - 35 Gallons
Engine - Hispano-Suiza 200 Horsepower
Armament - One Vickers Machine Gun on Fuselage, One Lewis Machine Gun on Top Wing, Two Fragmentation Bombs

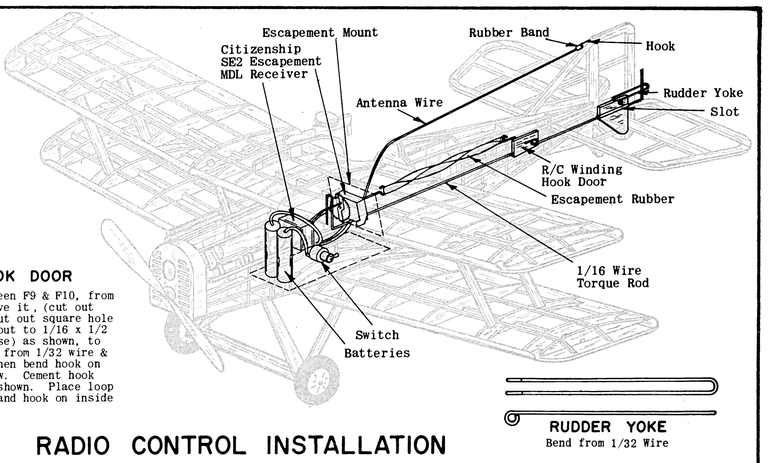
COLOR SCHEME:
See box lid for authentic color scheme, decals for which are provided in kit. Color schemes varied with individual squadron and pilot. Many were left natural Linen (off white) color and finished with Bulls-Eye insignia.





R.C. WINDING HOOK DOOR

Inset 1/16 Sheet in area between F9 & F10, from side keel to 2nd Stringer above it, (cut out first stringer). When dry, cut out square hole 3/8 x 3/4. Cement piece cut out to 1/16 x 1/2 x 7/8 (grain running cross-wise) as shown, to form door. Bend half of hook from 1/32 wire & push straight end in door - then bend hook on other end as shown in top view. Cement hook securely to door in position shown. Place loop of rubber between escapement and hook on inside of door.

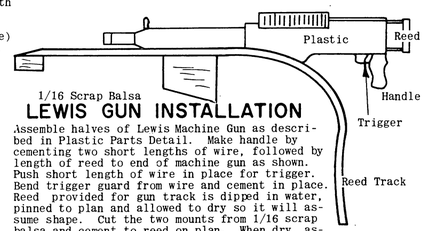


RADIO CONTROL INSTALLATION

Test models used, and drawing shows, Citizen-Ship MDL Receiver, SE2 Escapement, used with SPX Transmitter. This equipment and other material necessary is not provided in kit. Radio is installed after lower wing is cemented in place as described in Final Assembly. Access to R/C equipment is through 1/16 plywood (not provided) door made using full size drawing above. Door fits between outer ribs W1. Cut out center rib W1 and fuselage keel above it as well as 1/16 sq spars. Trim E's to fit door. Recess center spar 1/16 to act as door stop, keeping door flush. Cement 1/8 x 3/16 x 1-5/8 hardwood strip, across bottom of E's to act as door stop. Cement cloth tape to front end, half over door, for hinge. Rear of door is held with small wood screw into hardwood strip. Cut rudder apart at location shown by dotted lines. Fill in lower section of rudder with scrap balsa as shown, then cut off top of rudder. Cement bottom section back in place and assemble top section with cloth hinges. Bend wire yoke from 1/32 wire, install on rudder with 2/56 nut and bolt. Cut escapement base from 1/16 plywood and mount escapement, then cement to front of bulkhead F6 as shown. Cut a 3/32 slot in rear of fuselage & thru lower section of rudder for torque rod. Using a length of 1/16 wire at least 16" long, insert through hole, then bend U in front of wire according to R/C manufacturer's instructions and as shown above. Pull back and engage U in escapement. Bend rear at right angle as shown, to engage in yoke. Cut off wire 3/4" above yoke. Raising and lowering yoke will increase or decrease the amount of rudder movement. Wire all radio equipment together in accordance with R/C manufacturer's instructions. Batteries are stored between F4 and F5. After they have been soldered, line compartment with foam rubber, then insert batteries. Wrap receiver with foam rubber and place in fuselage between F4 and F5. Close radio mount door and secure with screw. Bend small wire hook for antenna attachment and cement to front of rudder. Bring antenna out of cockpit and fasten to hook with rubber band as shown. When model has been completely finished, it must balance as shown on side view. If necessary, add weight but DO NOT ATTEMPT TO FLY UNTIL BALANCE HAS BEEN ACHIEVED. Check wings and tail for warps if any have developed, remove with steam method as described in Covering Instructions. Wait for calm weather for test flights. Field test R/C equipment before flying, as described in manufacturer's instructions. Start engine and THROTTLE DOWN TO LOW SPEED, then launch model with nose pointed slightly down at a point 50 or 60 feet in front of you and release at approximate flying speed. Model should fly in a straight line and either maintain or slightly lose altitude. If model turns to either side, rudder or engine may be off set to opposite side to achieve a straight flight, which is how it should glide and fly. If model glides well but stalls under power, point front of engine down (down thrust) by placing shim under top of fuel tank. Increase engine RPM as adjustment are made, checking R/C controls before each flight. GOOD LUCK AND GOOD FLYING!!!

CONTROL LINE INSTALLATION

Materials required are not provided in kit. Make bell crank platform from 1/16 plywood using full size plan above. Securely cement across L4's against rear of F4. Fill in area between F4 and F6, from side keel L4 to stringer above it, with scrap 1/16 sheet balsa; flush with outside of frame. Fill in area from F9 to F10 between L4 and stringer above it in same manner. Cut 1/8 slot in rear for control rod as shown. Cut two 18" lengths of lead-out lines and fasten them to bell crank. Push rod is 1/16 wire at least 13" long. Make a right angle bend at one end. Place in fuselage, insert in bell crank, and mount assembly to plywood platform as described in instructions that come with bell crank. Cut stabilizer in half through wide main spar as indicated by dotted lines. Round edges and install control horn at location shown on drawing, then join together with cloth hinges shown. Bend "U" shape elevator joiner from wire. Make hole for joiner in rudder - then cement spurs to both elevators in position shown. Elevators now move as one unit. Cement stabilizer horizontally, into slot between L2 and L3, against F10. Tape elevators in neutral position (in line with stabilizer, neither up or down). Make right angle bend at rear end of control rod at precisely the location of hole in elevator horn, with bell crank in neutral position as shown. Trim off excess and insert into horn. Solder washer on end to prevent rod from coming off. Controls are now in neutral position and must work freely and easily. Cut rudder from fin on dotted lines shown on full size drawing. Cement rudder back on fin with rear of rudder turned at angle 1/2" towards outside of circle flown as shown. Cement vertically to top of L2 and against rear of fuselage. Assemble wings to fuselage as described in Final Assembly Detail. Make wing guide from 3/32 balsa, drilling holes indicated. Cement securely to bottom wing against struts as shown. Reinforce holes for lines in fuselage and wing guide with washers or eyelets. Thread lines through holes in wing guide and tie loops in end of lines at least 2" past wing tip. Lines must be of equal length when elevator is in neutral position. Control system must operate freely and easily. CAUTION: Model must balance (or slightly nose down) at point shown on side view. If necessary, add weight. Use regular 1/2A control lines and handle when flying your Royal Air Force Scout-Fighter S.E.5a. GOOD LUCK!!! GOOD FLYING!!!

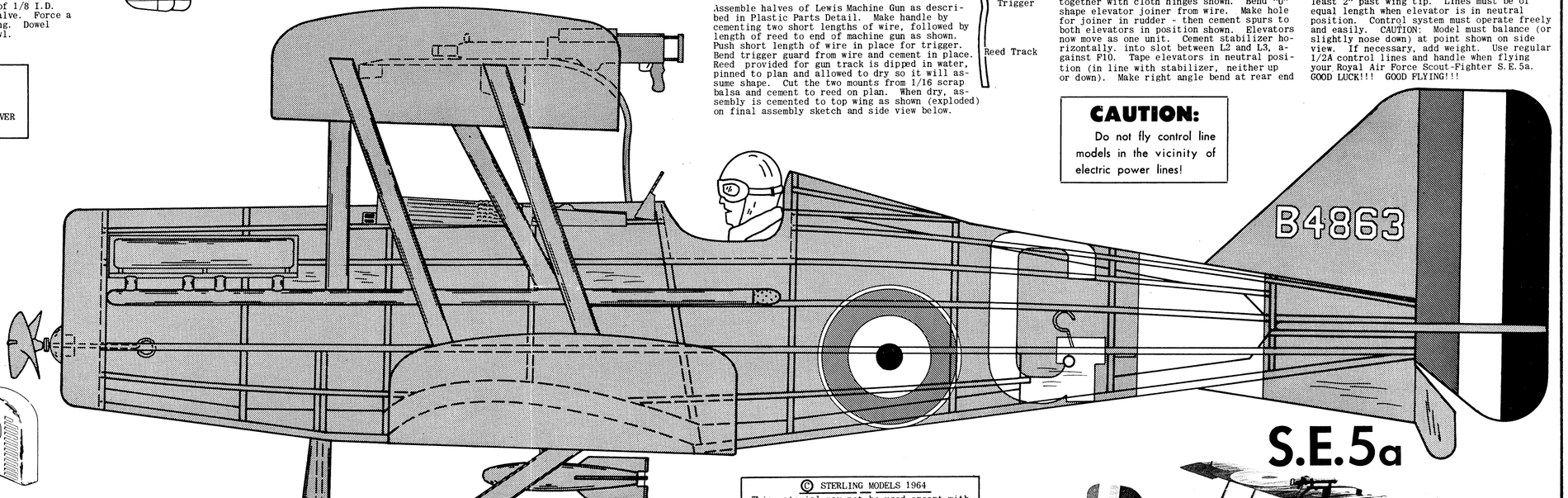


1/16 Scrap Balsa

LEWIS GUN INSTALLATION

Assemble halves of Lewis Machine Gun as described in Plastic Parts Detail. Make handle by cementing two short lengths of wire, followed by length of reed to end of machine gun as shown. Push short length of wire in place for trigger. Bend trigger guard from wire and cement in place. Reed provided for gun track is dipped in water, pinned to plan and allowed to dry so it will assume shape. Cut the two mounts from 1/16 scrap balsa and cement to reed on plan. When dry, assembly is cemented to top wing as shown (exploded) on final assembly sketch and side view below.

CAUTION:
Do not fly control line models in the vicinity of electric power lines!



S.E.5a

FLIGHT INSTRUCTIONS

When model has been completed, it must balance at point shown on side view. DO NOT ATTEMPT TO FLY MODEL UNTIL BALANCE HAS BEEN ACHIEVED, add weight if necessary. Check wing and tail. If warps have developed, remove using steam method described in Silkspan Step. Model is now ready. Pick a calm day for test flying. On rubber powered models, wind propeller clockwise approximately 100 turns and launch into any prevailing wind slightly nose down at a point on the ground approximately 50 feet ahead of you. If model noses up and then falls off and stalls, (AFTER MODEL WAS BALANCED) then bend elevators down slightly using hot breath in same manner as steam. If model dives, bend elevators up. If model veers too much to one side, bend rudder to opposite side. Take-offs require more power and therefore more turns in rubber motor. For longer flights and competition, it is recommended that the loops of rubber be lubricated with model lubricant (Available at most Hobby Shops) or Castor Oil. Apply sparingly AND KEEP OFF KNOT OR IT WILL COME UN-DONE! Use winder which you can make by tightening hook into hand drill. To store winds in motor, stretch rubber out three to five times original length, then proceed to wind, moving slowly back to model. Feeling rubber from time to time to be certain it does not get so taut that it breaks. Upon reaching the nose, motor should be completely wound. When replacing rubber motor, purchase contest grade T56 brown rubber at your favorite hobby shop. Engine powered free flight models are tested and flown in same basic manner as above and is described in Flight Instructions at end of Radio Control Installation Note. GOOD LUCK AND GOOD FLYING !!!

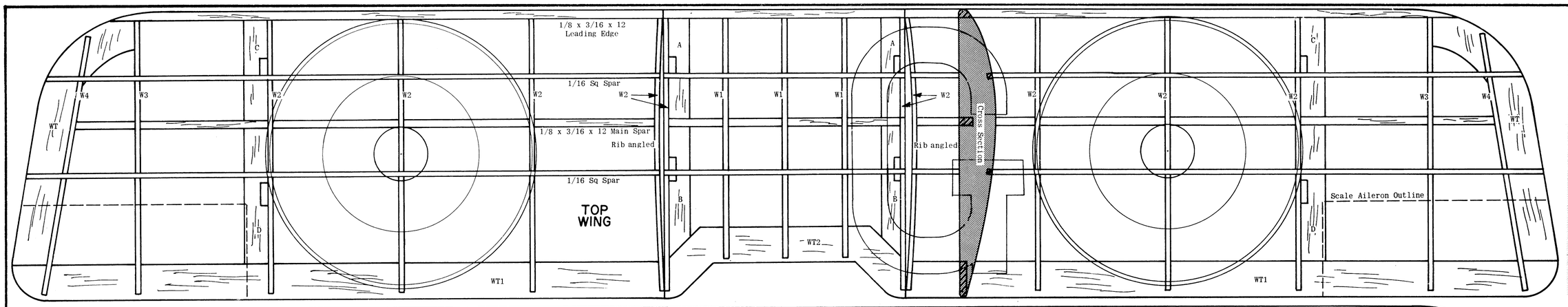
Cut from plans and cement to F6.

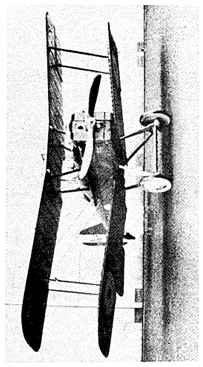
L24UJ4

Sterling MODELS
PHILA.PA.USA

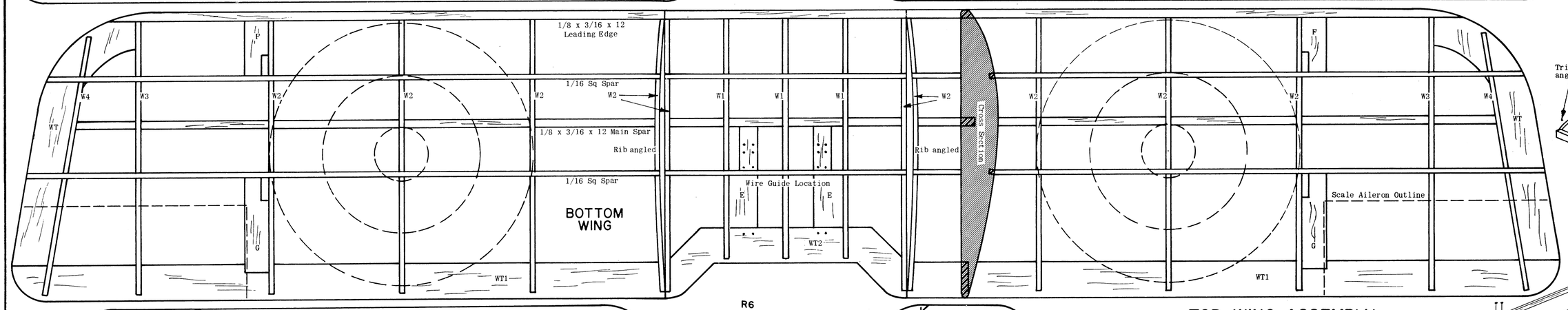
During World War I, this fighting scout of the Royal Air Force wreaked havoc on the top fighters of the Imperial German Air Force. This great biplane was also used to knock out enemy airfields and rail centers. Our authentic scale model **DROPS** its twin **BOMBS** automatically, in flight.

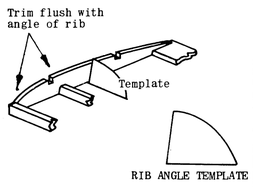
KIT A17
WING SPAN 22"





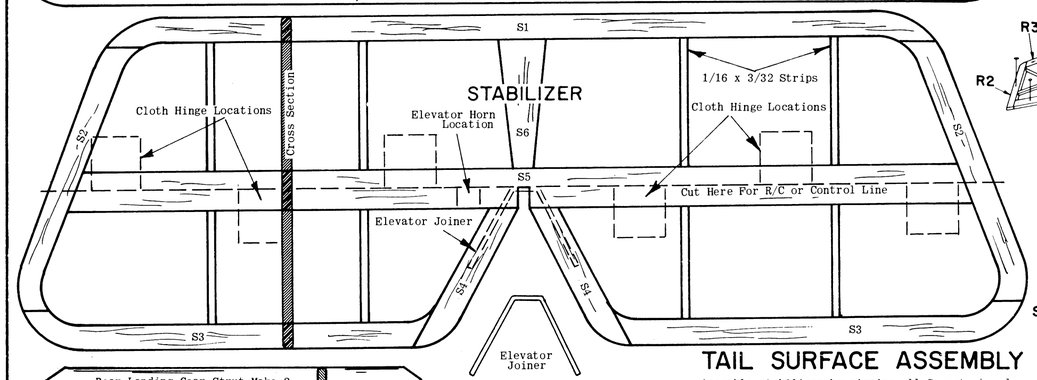
Excellent photo reveals classic World War-1 beauty of S.E.5a

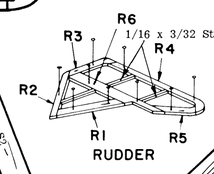




RIB ANGLE DETAIL

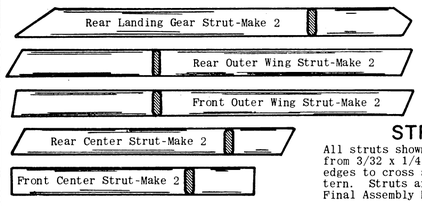
Sketch above shows how wing rib angle template is used as described in Wing Step 2.





TAIL SURFACE ASSEMBLY

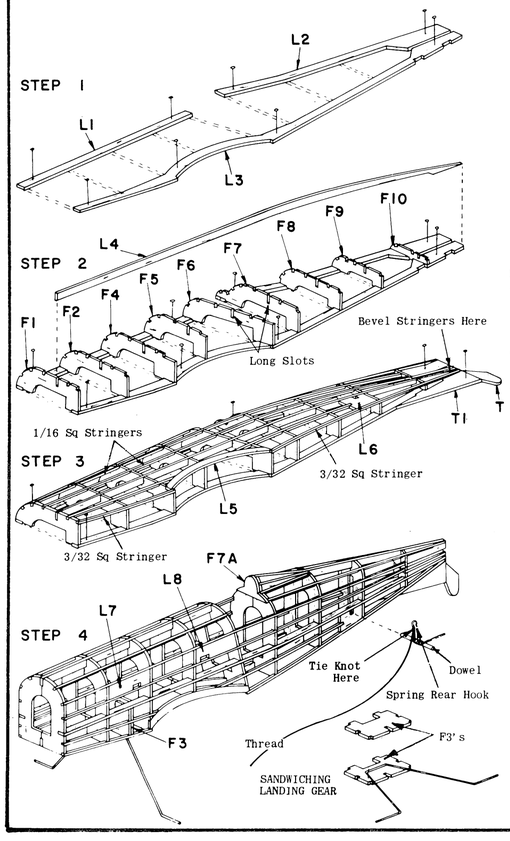
Assemble stabilizer by pinning all S parts to plan on flat surface as shown, cementing them to each other where they join. Cut 1/16 x 3/32 strips to fit and cement in place upright. Rudder is built in same manner, pinning all R parts to plan and cementing to each other, then adding 1/16 sq strips. Allow assemblies to dry thoroughly on flat surface, then sand smooth, rounding edges (except R1 and bottom front of R6) as shown on cross-section. If model is being constructed for control line or radio, see respective detail notes BEFORE covering with tissue.



STRUT DETAIL

All struts shown full size on left are made from 3/32 x 1/4 strips provided in kit. Round edges to cross section shown and cut to pattern. Struts are installed as described in Final Assembly Note.

FUSELAGE ASSEMBLY



STEP 1

Fuselage construction is started on flat surface directly over plan. Pin L parts in place as shown.

STEP 2

Cement all bulkhead halves from F1 to F10, (except F3 which is added in next step) vertically in place as shown, then add L4, which is inserted into long slots in center of bulkheads.

STEP 3

Pin and cement side keel L5 into notches in corners from F5 to F6. Note 3/32 space left for corner stringer. Cement 3/32 sq stringer into lower corner of bulkheads from F1 to F4, and from F6 to rear. Moistening stringer with water will help it bend. Bevel end to fit. Cement L6 between L4 and stringer, against F9 as shown. Cement the rest of the stringers which are 1/16 sq, into their respective notches, beveling ends to knife edge at rear. Any stringers not visible are clearly seen in next sketch. Cement T1 and T in place as shown. It is recommended that assembly be permitted to dry over night to prevent warping or twisting. Assembly of wing or tail surfaces can be started in the meantime.

STEP 4

Carefully pull out pins and remove frame from flat surface. Cement opposite halves of bulkheads in place, then add L4. Landing gear provided in kit is now installed. In the event that model is to be gas engine powered, it is recommended that you obtain a piece of 1/16 dia. music wire and bend a new landing gear to exact shape of one provided in kit. Installation of both are similar, being sandwiched between F3's as shown in detail sketch. Use cement generously when cementing unit in fuselage at location shown in sketch and side view - install stringers and L6 in same manner as opposite side, then add L7's, L8's and F7A. Install spring rear hook (omit on gas powered models) by inserting 1/8 dowel through coils of rear hook. Securely tie and cement a 10" length of thread to hook at location shown, then insert and cement ends of dowel between L6's. Push straight end of spring rear hook thru left side of bulkhead F9 beneath side keel L4 and cement securely in place. Only straight end of hook is fastened, leaving coil of hook free for spring movement. Allow fuselage frame to dry thoroughly, then sand lightly to present a smooth surface for tissue covering described in detail note. See respective notes for R/C, Control Line, etc.

SILKSPAN TISSUE COVERING

The finest grade wet strength silkspan tissue provided in this kit permits covering of compound curves without wrinkling, when moistened with water before applying to frame. Tissue shrinks when dry, to a tight smooth surface. Follow directions for a smoothly covered warp-free flying model. Use clear dope to attach tissue as follows: Apply a light coat to the outside edges of area to be covered and allow it to dry. Cut tissue to shape needed, plus 1/4" over-size. Place tissue on flat surface and dampen with moistened cloth by dabbing. Apply a second coat of clear dope then place moistened tissue on frame. Pull tissue gently with fingers, working out all wrinkles. WHEN COVERING WINGS AND TAIL SURFACES, PIN FRAMEWORK TO FLAT SURFACE TO PREVENT WARPS AS TISSUE DRIES. Cut out any wrinkled areas (bound by nearest framework) and re-cover. Apply 2 or 3 coats of clear dope, cut 50/50 with thinner; to wings and tail surfaces before assembling, pinning on flat surface to prevent warps. COVER TOP WING FIRST: Cover entire bottom in 3 pieces, one each for center section and tip sections. Cover top in 3 pieces from dihedral joint to tip ribs W4 then the center section. Cover tips with separate pieces. On Control Line models add 1/2 oz. weight to lower wing tip on outside of circle flown. COVER BOTTOM WING NEXT: Bottom wing is covered in same manner as top wing. COVER STABILIZER AND RUDDER NEXT: Cover both sides of each in 1 piece. Install bomb dropping mechanism (see detail) before covering fuselage. COVER FUSELAGE NEXT: Cover sides first with 1 piece. Cover top from F1 to F6 in 1 piece. Cement Stabilizer and lower wing in place as described in final Assembly. Cover bottom of fuselage in 1 piece, tissue going right over bottom of lower wing. Slit to separate for long tail skid. Cover top rear of fuselage in halves joining over L2. Cover headrest using pattern provided and also cut the cockpit cover from stiff paper and cement in place. Apply 4 coats of thinned dope to tissue covering on fuselage. Check wings and tail surfaces for warps before assembly. Warps can be removed by holding over steam from boiling kettle, and twisting gently in opposite direction. Check again when cool.

TOP WING ASSEMBLY

STEP 1

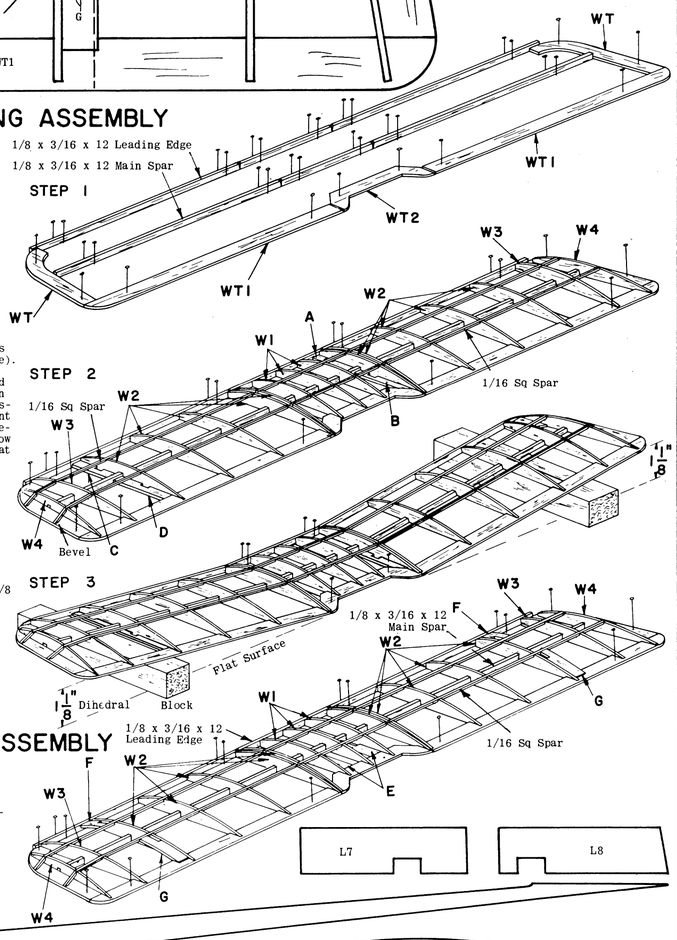
Build wings on flat surface directly on plan. Pin all WT parts in place, cementing to each other where they join, except at center joints. Using 1/8 x 3/16 x 12, cut main spar comprising of two outer spars and center section, to proper length. Pin in place upright, cementing to WT's. 1/8 x 3/16 x 12 is also used for leading edge. Cut three sections in same manner and pin in place in upright position, cementing to front of WT's.

STEP 2

Ribs W1's, W2's, W3's and W4's are now cemented in place. All ribs are vertical except ribs W2 at joint which are cemented in place at angle as shown, using rib angle template (see detail note). This provides for dihedral angle shown and described in next step. Cement strut Gussets A and B to inside of center joint rib W2's as shown on sketch and full size plan. Do likewise with Gussetts C and D to outside of outer ribs W2. Cement 1/16 sq spars into notches along top of ribs. Bevel ends of 1/16 sq to fit at tip as shown. Allow frame to dry thoroughly before removing from flat surface.

STEP 3

Pull out pins carefully and remove frame from flat surface. Separate sections and trim and sand leading edge to shape shown on wing cross-section. Round off tips and trailing edge as shown, to blend smoothly into each other. Trim off leading edge, spars and trailing edge flush to angle of ribs W2, then cement sections together on flat surface, blocking up each side 1-1/8 at tip rib as shown. Measurement must be the same at leading and trailing edge so that the wing is not warped. Center section should be pinned or weighted to keep flat on surface. Use cement generously and allow to dry thoroughly. When dry, sand frame smooth to prepare for tissue covering.



BOTTOM WING ASSEMBLY

Bottom wing is built same as top wing, only difference is installation of Gussetts E, which are cemented flush with bottom outer ribs W1 as shown on sketch and full size wing plan. Gussetts F and G are cemented FLUSH WITH TOP of outer ribs W2.

DIE CUT PART NOTE

Die cut parts used are given full size on plan or individual layout. This enables you to duplicate any part, for any reason. Die cut parts in sheet as in kit are available from factory as replacements.