

Beechcraft

BONANZA

Designed and drawn by Albert E. Hatfull.

BUILDING INSTRUCTIONS

Smear candle wax on the plan to prevent constructed parts sticking to it.

FUSELAGE.

Pin the printed pieces "C" and 11, and strips of $3/16 \times 1/16$ " (constituting Keel and Backbone) to plan, cement all the joints. Note piece "A" is temporarily left out. Cement the half formers 2, 3, 4, 5, 6, 7, 8, 9 and 10 over their correct positions on the keel and backbone, check that all the formers are at right angles to your building board. The $1/8 \times 1/16$ " main stringer and the other $1/16 \times 1/16$ " stringers may now be cemented into notches in the half formers (notice their arrangement as shown in side view) but leave out the stringers which pass under the wing position, i.e., the extreme lower stringers, until later. Add pieces "B" (left) and "M" flush with stringers. Remove this first or left hand side from the plan when dry and cement the corresponding half formers to the other (right) side in similar manner to the first. Bend the nose wheel wire as shown mount the wheel and install to the inside face of former 2, cement liberally. Add the stringers and pieces "B" (right) and "M" as before. Cement former 1 to the front face of former 2, cut the windscreen pieces from celluloid and cement in place, also the side windings. Roughly shape the nose block with a sharp knife, cement pieces 1A and 2A to the back face of same, "plug" the unit into the hole provided in formers 1 and 2 and carefully finish with fine sandpaper while mounted thus on fuselage. Bore a hole in the nose block and cement in the nose plug after filing flat as on the plan. Bend a hook on the wire supplied, push the other end through nose plug from the rear, place two cup washers on the wire then the plastic airscrew, bend the wire at a right angle and push into slot in the spinner and cement. Lightly sand the fuselage all over. Tissue cover the top and sides of the fuselage, leaving the underside until the wing is installed.

WINGS.

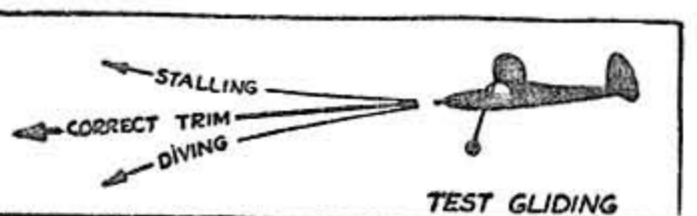
Retain the $1/16 \times 1/16$ " lower span in position on the plan by placing pins on either side, pin the $1/4 \times 1/16$ " trailing edge in place. Cement the ribs to these members, notice the template used to tilt ribs R1 to obtain $1 1/4$ " dihedral when the two halves are joined to the fuselage. Push the $1/8 \times 1/16$ " leading edge into slots in the "noses" of wing ribs, cement the joints. Add the tip pieces of $1/4 \times 1/16$ " and top spar of $1/16 \times 1/16$ " x $1/16$ " check the tilt in R1 again. Add scrap sheet gussets. Leave the spans and leading and trailing edges protruding to the amount shown on the plan. When both wing halves are dry, remove from plan, sand smooth all over and tissue cover the top surfaces. The wing halves may now be cemented in position on parts "B" of the fuselage pushing the protruding spars into notches in parts "B", cement well. Bend the undercarriage wire as shown, mount the wheels on axles, and bind and cement wire to the undercarriage spar, this unit is installed into notches provided on underside of wing ribs R1-2-3. Piece "A" of the fuselage may now be added, also the four lower stringers which butt join at the rear to the inside front face of former 6. Tissue cover the remaining underneath part of the fuselage and the lower surfaces of the wings. Water shrink and apply a coat of dope.

TAILPLANE.

Build the two tailplane halves by pinning the strip wood outline over the plan and cementing the cross pieces of $1/16 \times 1/16$ ". When dry remove from the plan and tissue cover upper and lower surfaces of both halves, water shrink and dope, then with one half flat on your building board cement the other half to it with the tip raised to $5 1/2$ ". Cement piece 9A where shown dotted on the leading edge this will retain the dihedral. Cement the "Butterfly" tail where arrowed on top of the fuselage, cut out the paper fairing "T" and cement in place over piece 9A and the top of the centre of the tail.

FLYING.

Tie the ends of the strip rubber together, lubricate the whole motor with ordinary castor oil, double over to form four strands then drop the knotted end down through the hole in the nose. Use the small peg pushed through the holes in pieces "M" to retain the rubber motor. Wind about 25 turns on each of the loops separately then place both loops on the motor hook. With the model now fully assembled it should be made to balance level when held on the fingertips at the wing spar position by adding small pieces of plasticine to either the nose or tail whichever is required. When balance is obtained test glides may be made preferably over long grass to avoid undue damage to the model. Handlaunch the model gently from shoulder height on a slightly downward path directly into the wind. If a dive results add a small piece of plasticine to the tail, if the model stalls add a small piece to the nose (or weight previously added when balancing the model may be removed to obtain a similar effect). When a long flat glide has been perfected, hand turns may be applied to the rubber motor, starting with about 75 turns and gradually increasing to 200 to 250. If the model should stall under power, insert a piece of $1/32$ " balsa in the top of the nose block (more if necessary) this will apply downthrust to the propeller and avoid power stalling. When the model is properly "trimmed" for flight it may be made to take-off from a smooth surface.



Why not build the other models in this range? Ask your dealer for the Cessna 170, D.H. Chipmunk, Auster Arrow, Globe Swift, Fairey Junior, etc.

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