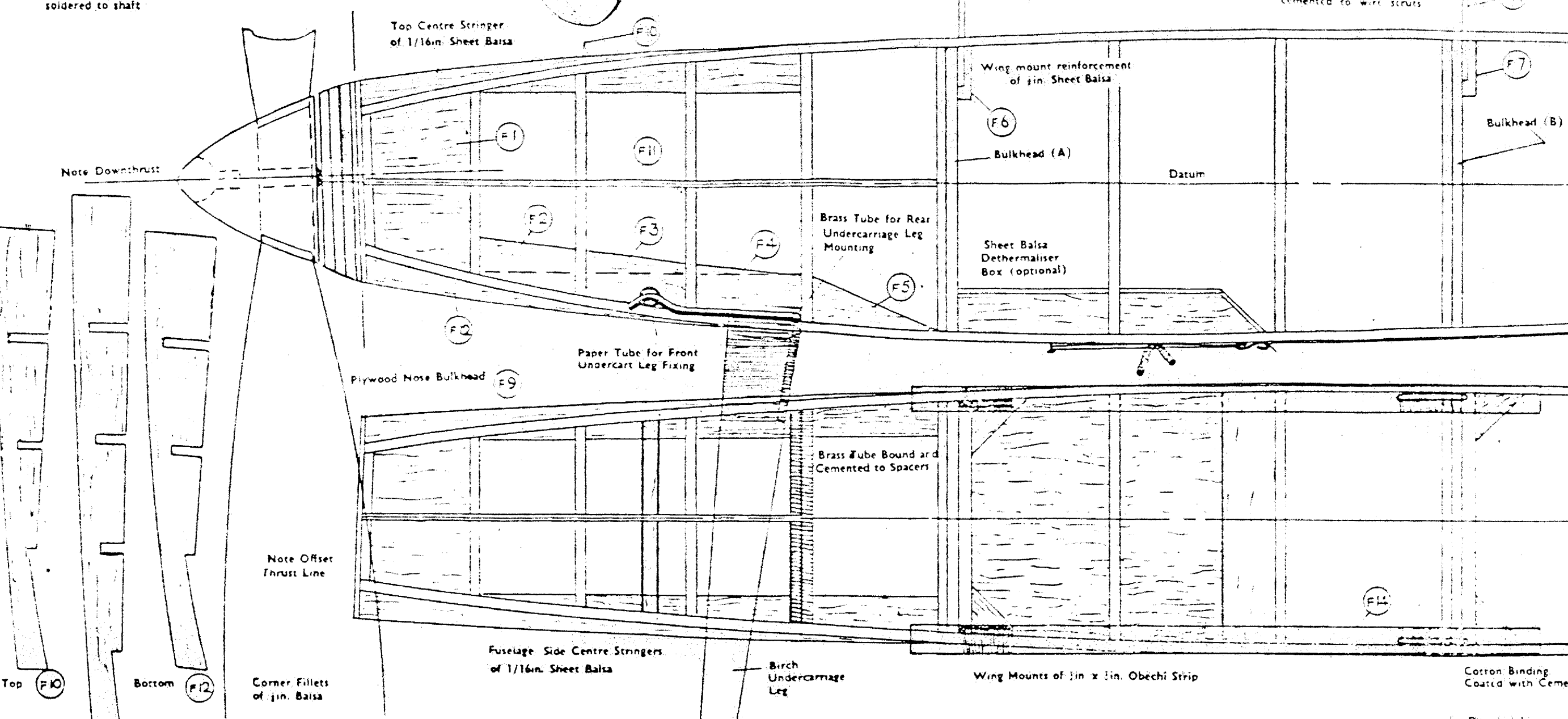
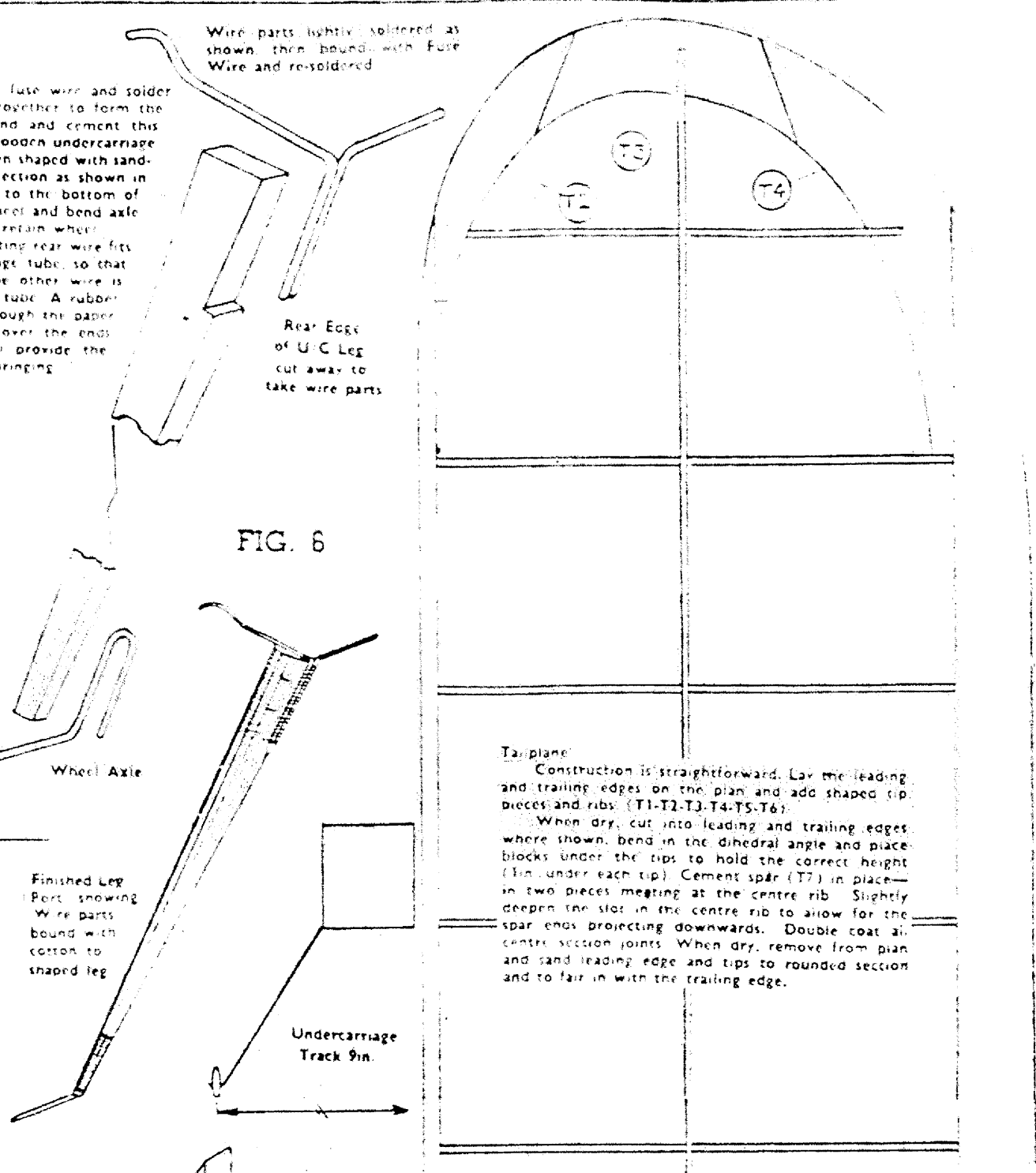
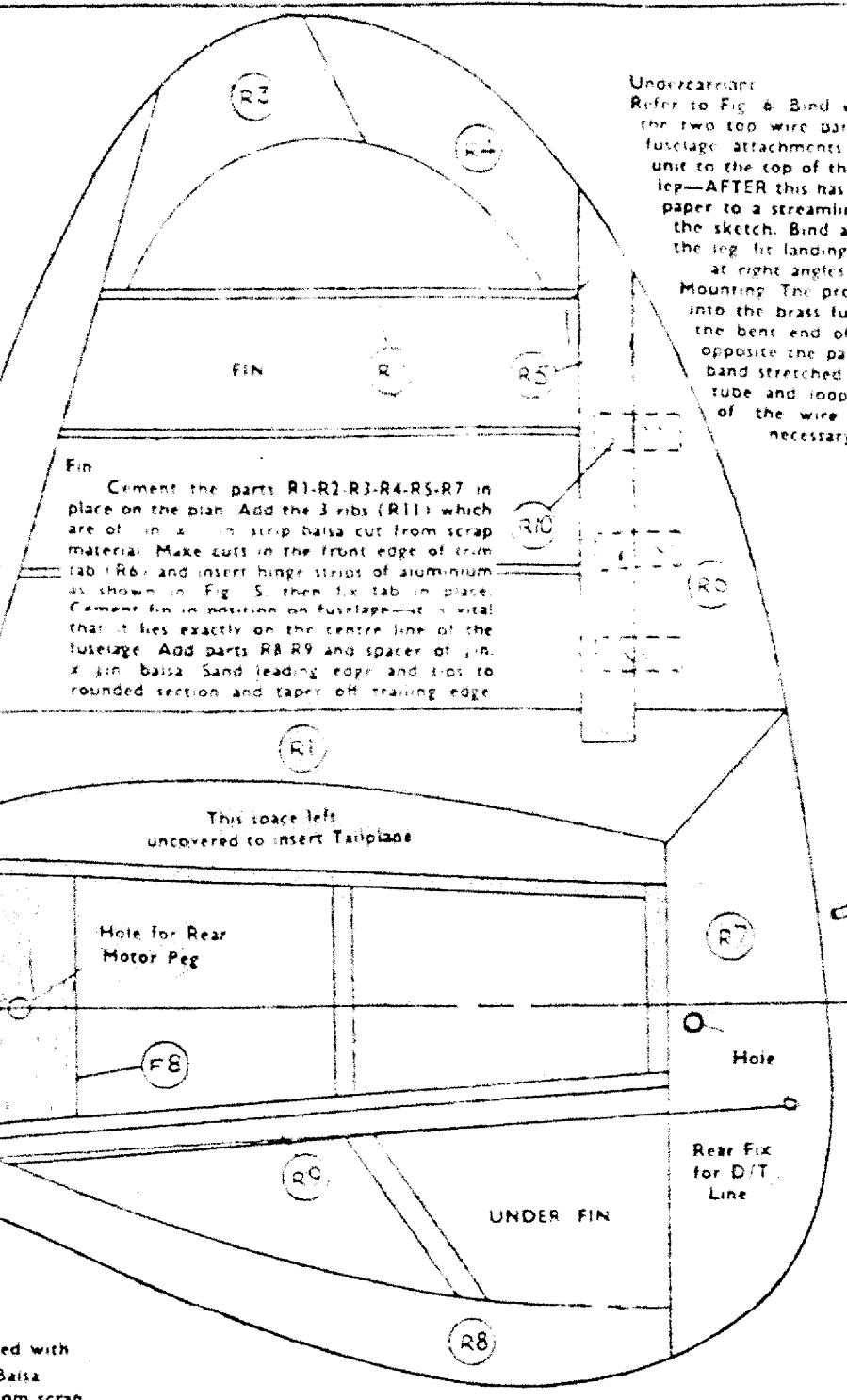


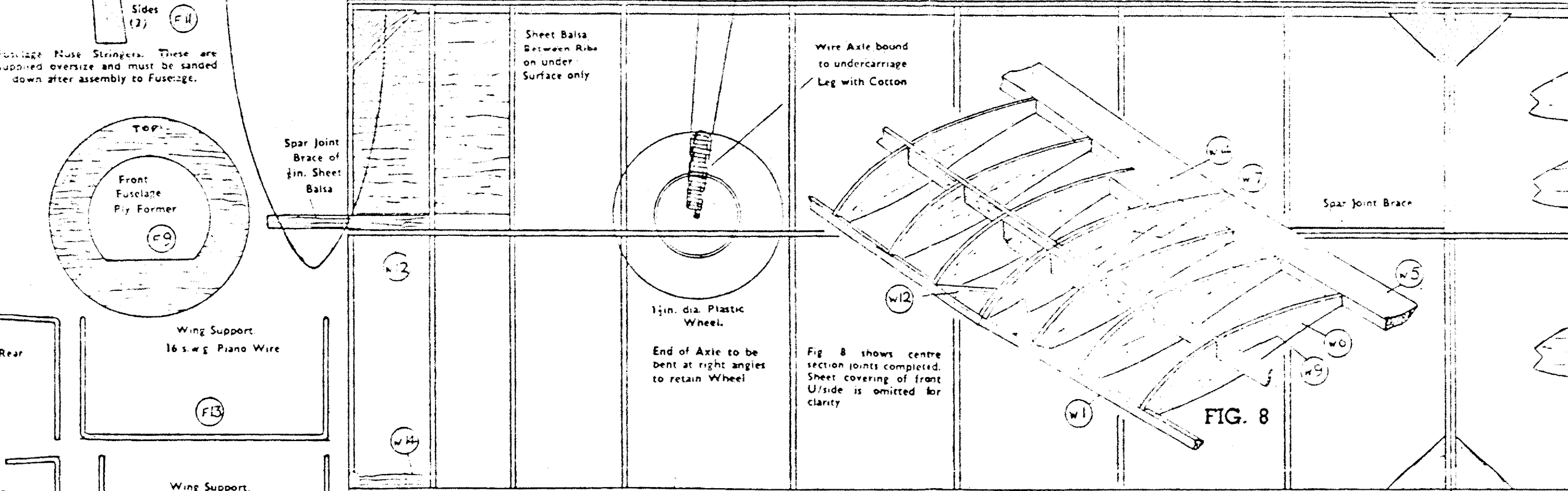
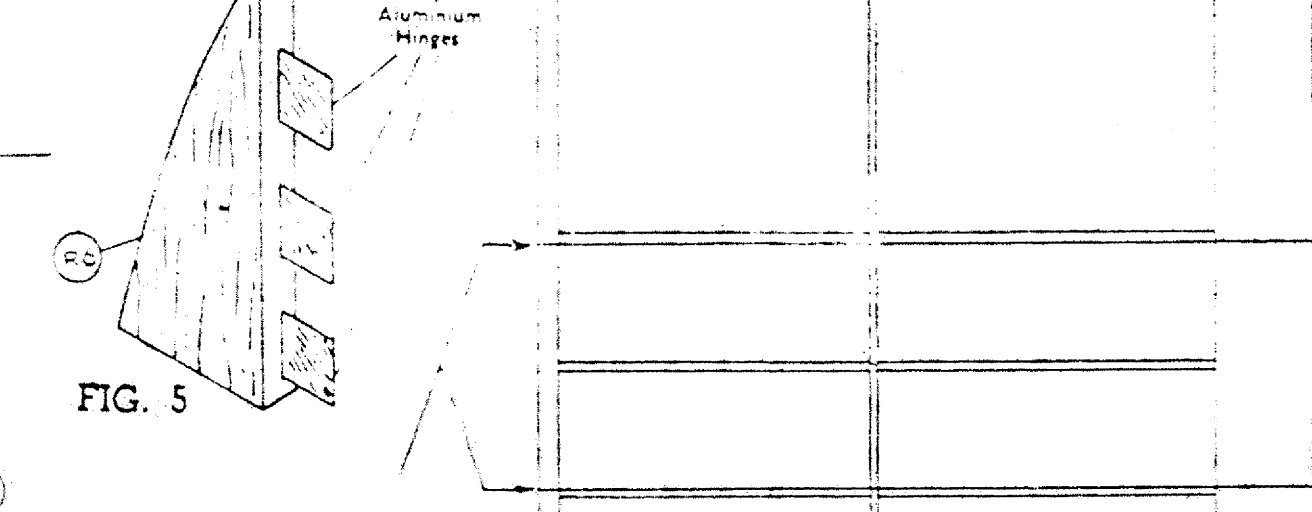
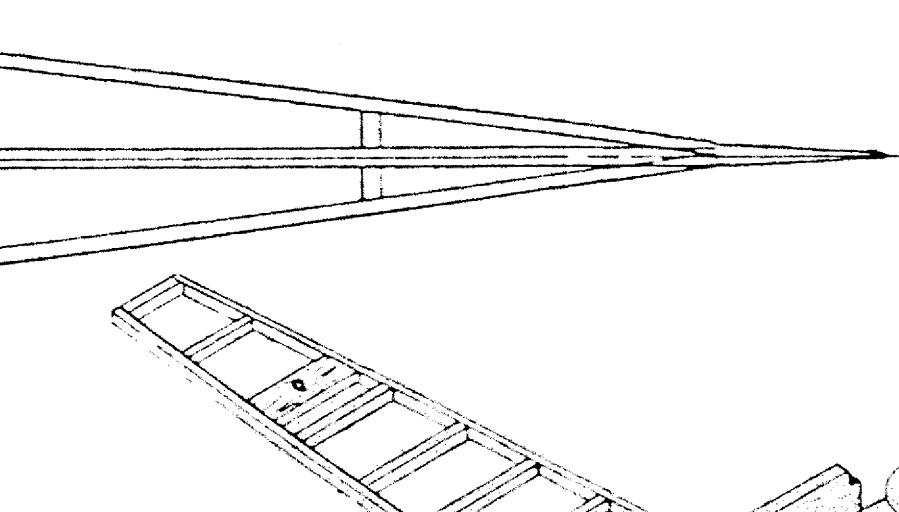
Now Assembly
The nose block is made up from 3 laminated balsa blocks with a total thickness of 1/16 in. plywood (Fig. 7). The rear-to-fore spacer is cut from two layers of balsa. Cement a sheet (optional) with the plastic nose block between the centre. A screw assembly being added after the ribs between blocks and spacers have set. During base assembly, make the wire on the shaft to check that the blades are resting flat. Sand off the blades to aerodynamic section and cement the axle.
The order of assembly of nose block and axle is indicated in Fig. 7. The angle of the wire must be adjusted to meet the motor. The wire must be secured to the motor reasonably tight between front nose and rear peg during the glue. An 18 s.w.g. wire may be soldered and bound to the rear front end of the shaft to enable a motor to be used.



Fuselage
Build the two fuselage sides, one above the other, from strips of 3/32 in. x 3/32 in. obachi insert front reinforcing pieces (F1, F2, F3, F4, F5) rear motor attachment strips (F6). Allow to dry. Cement bulkheads A and B in position (Fig. 1). Pull up rear ends of sides and cement together. Cut two of each horizontal spacer and cement in place. Bend wing supports (F13, F14) from 18 s.w.g. piano wire supports—these parts are most important and must be exact: as shown on drawings. Carefully cement them on to the rear face of the bulkheads A and B so that the vertical distance between the top of the supports and the top of the wire mount is correct as indicated on the plan. Refer to Fig. 3 and add the reinforcing pieces (F4, F7) later. Grooving them to fit the wire. Add 3/16 in. balsa corner fillets (F15) (General view in Fig. 2). Securely bind the obachi wing mounts to the struts as shown (F15).

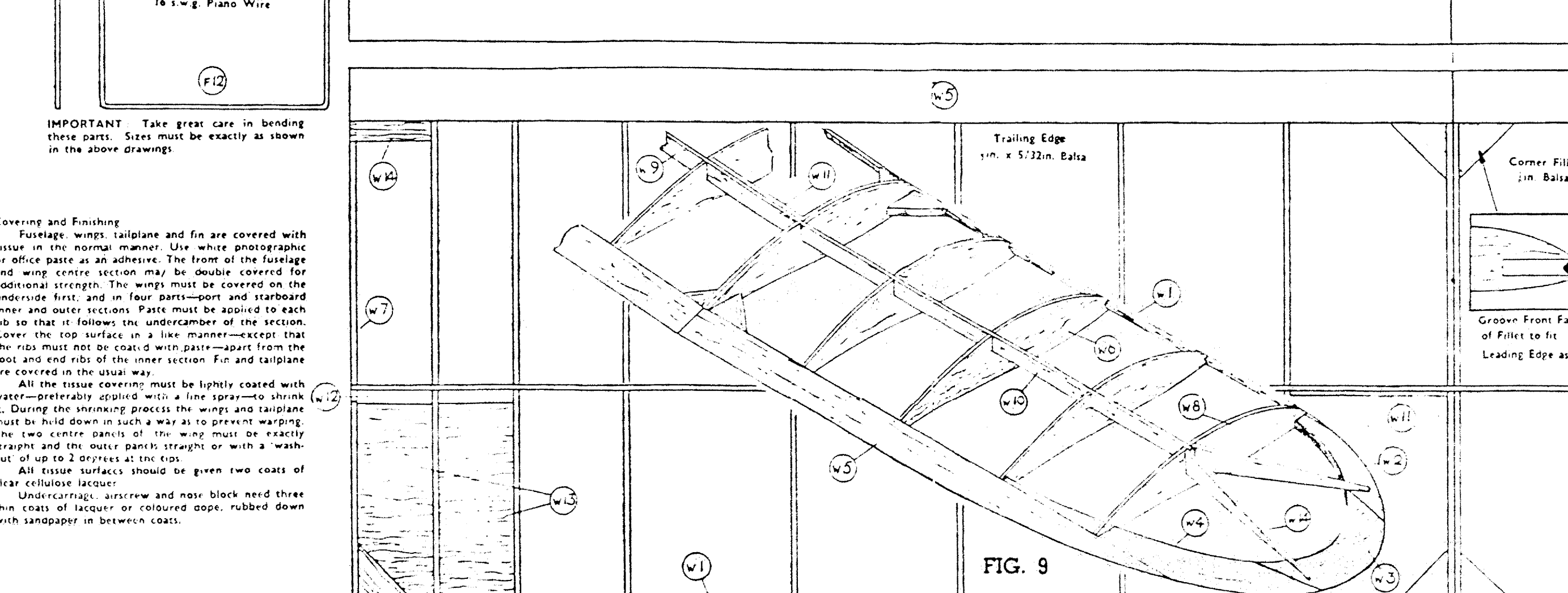
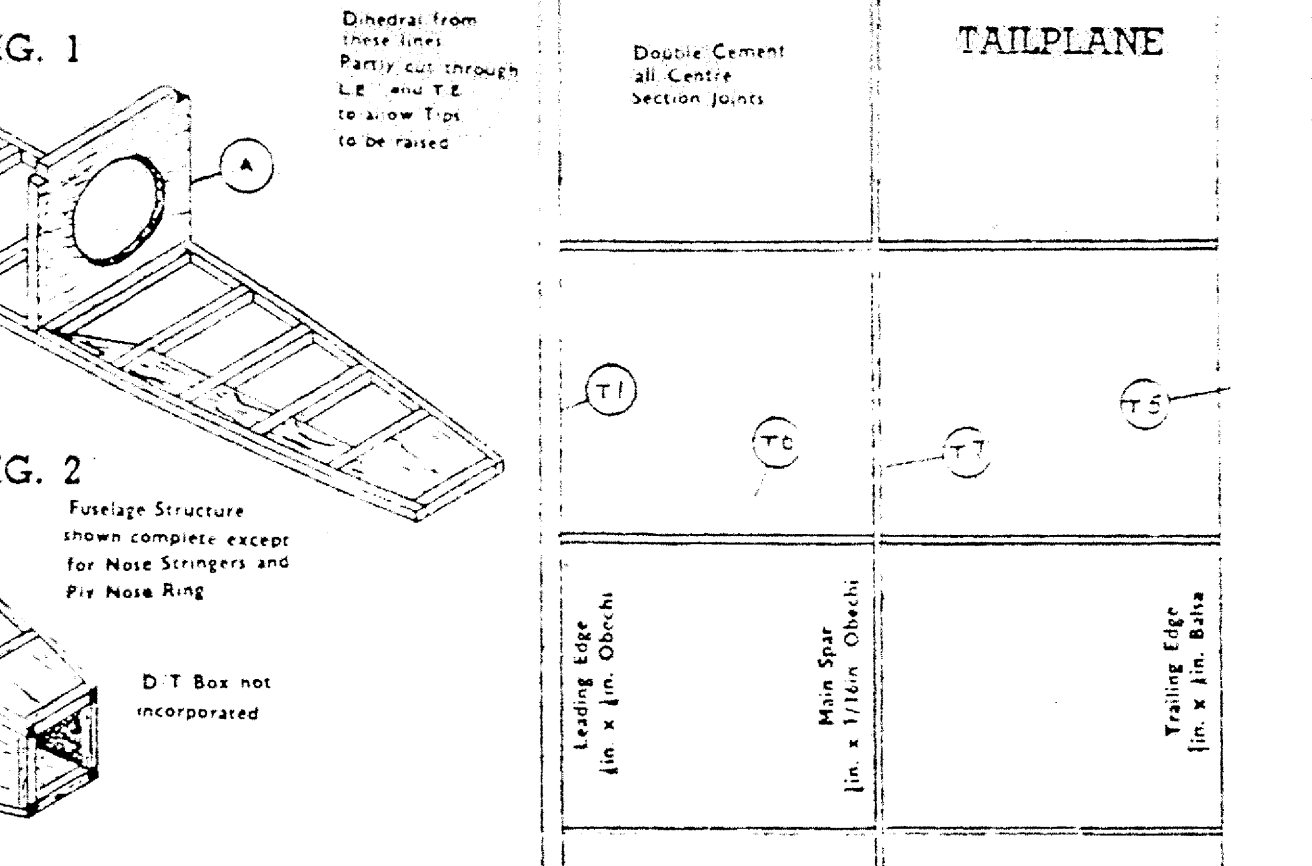
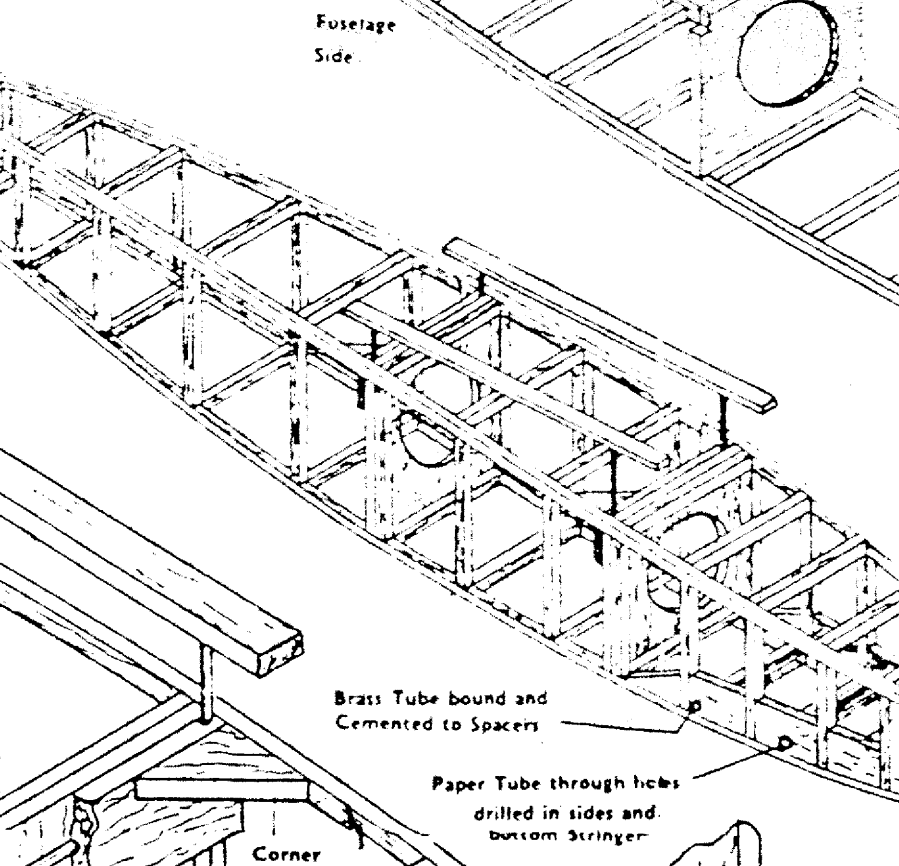
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Cement plywood nose former (F9) in place. Fit nose top and side stringers (F10, F11, F12). These parts are supplied slightly over-size and must be sanded to shape after assembly.
Undercarriage legs. The front leg consists of a paper tube cemented in place after a hole has been made in the reinforcing pieces and bottom stringer. The holes for the rear brass tube as indicated. Cement in position cut off a strip of 3/32 in. x 3/32 in. obachi and cement it in place immediately below the tube. Bind the tube to both bottom spacers with cotton.
A dethermiser box (constructed from 1/2 in. sheet balsa with a 1/4 in. trapdoor) may now be added if required. For general fixing this is not necessary but for contest work a dethermiser is nowadays considered essential. General arrangement of a standard type parachute unit is shown on the plan and in Fig. 4.

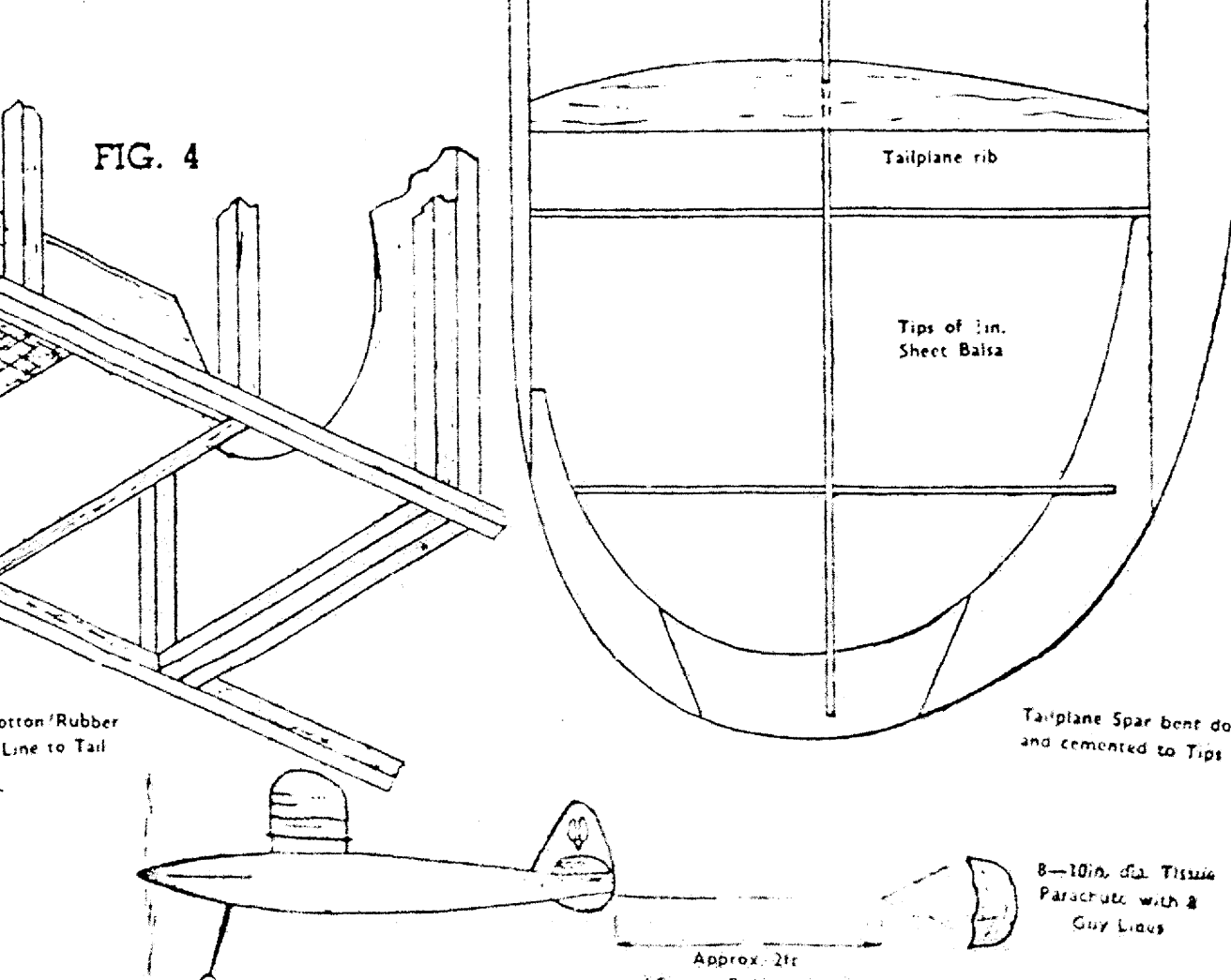
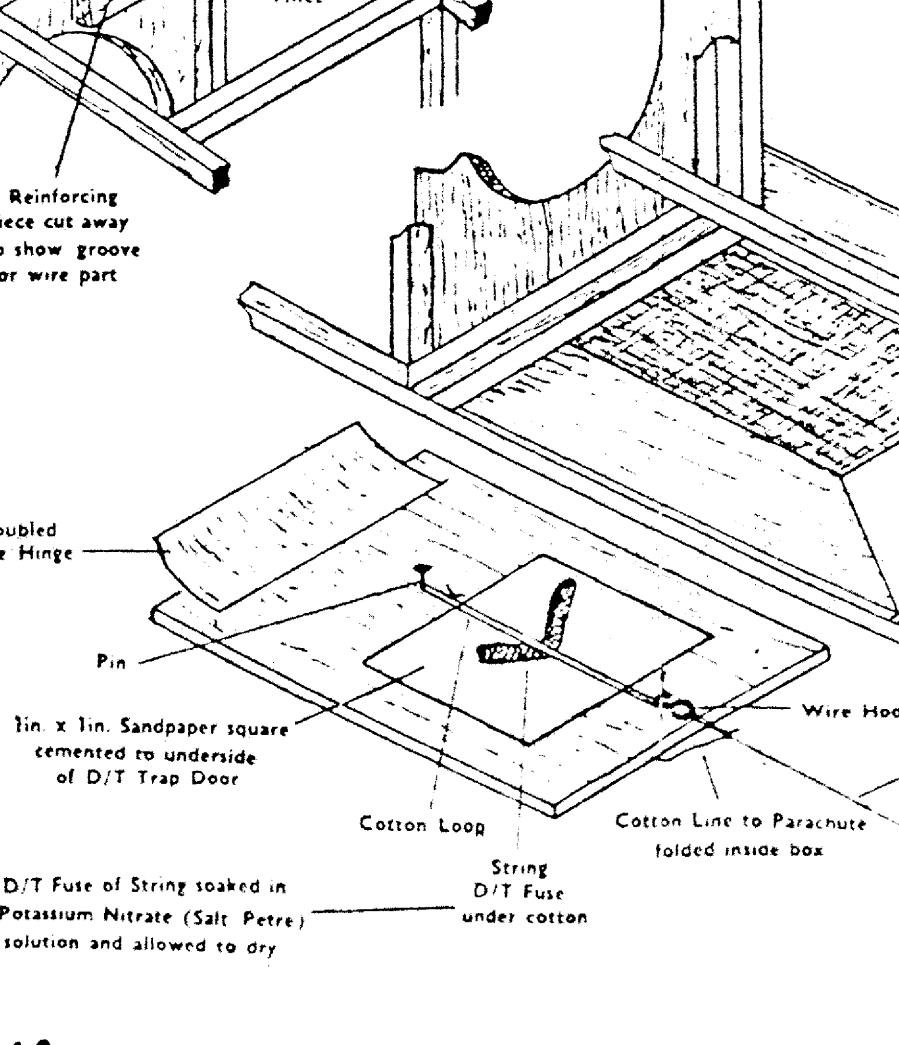


STARBOARD WING
Wing Rib—Standard
Wing Rib—Rear
Wing Rib—Tip

Sand down 2 tip ribs to shape shown here.



PORT WING
Wing Tip of 1/16 in. Balsa Sheet
Wing Tip Braces of 1/16 in. Balsa Sheet
Main Spar 3/16 in. x 3/16 in. Obachi
Leading Edge 1/4 in. x 1/4 in. Obachi



IMPORTANT Take great care in bending these parts. Sizes must be exactly as shown in the above drawings.

Covering and Finishing
Fuselage wings, tailplane and fin are covered with tissue in the normal manner. Use white photographic or office paper as an adhesive. The front of the fuselage and wing centre section may be double covered for additional strength. The wings must be covered on the underside first, and on four parts—port and starboard inner and outer sections. Paste must be applied to each rib so that it follows the undercarriage of the section. Cover the top surface in a like manner—except that the ribs must not be coated with paste—apart from the root and end ribs of the inner section. Fin and tailplane are covered in the usual way.
All the tissue covering must be lightly coated with water—preferably applied with a fine spray can—shrink it. During the shrinking process the wings and tailplane must be held down in such a way as to prevent warping. The two centre panels of the wing must be neatly straight and the outer panels straight or with a wash-out of up to 2 degrees at the tips.
All tissue surfaces should be given two coats of clear cellulose lacquer.
Undercarriage, airframe and nose block need three thin coats of lacquer or coloured dope, rubbed down with sandpaper in between coats.

Wings
Each half is constructed on the plan—pay no attention to the polyhedral angle during building the basic structure. This is made up of the leading and trailing edges, ribs and tips. (W1, W2, W3, W4, W5, W6). When dry, parts cut through the leading and trailing edges so that the outer sections may be bent up as indicated on the drawing. Carefully apply the airframe main parts to the plan as shown. When dry, cement spar halves in place in ribs. Add joint brace (W11), and tip braces (W12). Add corner fillets.

Assembly of two halves (Refer to Fig. 8). Cement two halves together, with blades under each to raise centre section dihedral to 1 in on each side (Fig. 10). Make slot in the centre section ribs larger, so that spar brace may be inserted against the front face of the spar. Cut away rear ends of these ribs and insert the trailing edge brace—width of 3/16 in. x 3/16 in. balsa and shaped after assembly. After centre section joints have been double coated with cement and set, remove wings from the board, add undercarriage balsa panels (W13). Sand leading edge and tips to rounded section smoothly of whom surface before covering. Finally, sand the wing with fine paper.

Wing Main Spar of 3/16 in. x 3/16 in. Obachi. Each half assembled on drawing before fitting to wing halves.
Spar joint brace for Wing Centre Section (W12) Cut from scrap balsa.