THE fuselage is basically constructed of \( \frac{1}{8} \) in. sq. longerons and spacers. The stringers are \( \frac{3}{32} \), formers \( \frac{1}{8} \) sheet, tail skid/fin, two cross-grain \( \frac{8}{8} \) balsa sheets sanded to approximately \( \frac{1}{16} \) with lightening hole in centre. \( \frac{3}{8} \) in. sheet is inserted (cut where shown for lightness) between the engine and undercarriage bulkheads. This makes a very strong nose, which is then covered with \( \frac{1}{32} \) sheet back to the cockpit. String is cemented round the cockpit edge. The soft balsa blocks, in the case of a radial mounted engine, should be hollowed out as much as possible. Centre-section struts are \( \frac{3}{16} \) dowels and are located in \( \frac{1}{8} \) balsa blocks cemented to the top and bottom longerons. The centre section hatch is fitted with a linen hinge and secured by a brass clip through which a woodscrew is driven into a hardwood insert. The solid soft balsa L.E. and T.E. are sanded to shape. The centre section ribs are faced with the thinnest plywood available and it is important to make these ribs and the inboard wing ribs together, drilling locating dowel holes as one. The "Klipon" fasteners (obtainable from Henry J. Nicholls) are located with ribbon pins to a \( \frac{1}{4} \) dowel which is then cemented to bottom longerons and spacer. The engine former is made from \( \frac{3}{8} \) plywood in the case of beam mounting (alternative drawing shown) and lightened where possible.

The undercarriage (12 s.w.g.) is bound to a plywood former, with a locating block in the centre; this should be a tight fit expanding legs against thread which is then cemented back and front. Tin keepers are soldered to the undercarriage legs and a sandwich of \( \frac{4}{8} \) balsa sheet is cemented together and sanded to a streamline section.

Tail
The tailplane has one spar only and is of \( \frac{3}{8} \) sq. balsa. The top is covered where shown with \( \frac{1}{32} \) sheet and the T.E. is \( \frac{3}{32} \), sanded to a tapered section. The fin is built quite separately and is cemented to the tailplane on completion, the \( \frac{3}{32} \) dowel passing through the \( \frac{1}{32} \) sheet on top and the \( \frac{3}{16} \) sheet at the bottom. A locating block is cemented on the bottom and this should be a rather slack fit between the top longerons to allow adjustments to be made.

Wings
\( \frac{3}{8} \) sq. L.E. and main spars; \( \frac{3}{16} \) ribs. The L.E. is covered on top only. The inboard rib to which the locating dowels are fitted, is \( \frac{1}{8} \) in. The wing strut fittings are from brass, about 0.018 in. thick, and are drilled and threaded to the plywood fitting which is glued to the main spars at the front. The wings are attached to the centre section by means of a rubber band. The struts clip into the fastener fitted to the fuselage; a rubber band then passes underneath the fuselage as a safety measure but this does not prevent the wings from knocking off in a crash.

Finish
All surfaces are covered with lightweight Modelspan, water shrunk, and given two coats of clear dope. Suggested colour scheme: Wings, tailplane and fin, natural finish. Matt black fuselage with aluminium nose.

Flying
The c.g. is correct for a 0.5 c.c. Elfin, but this may be altered, depending on what engine is fitted, by varying the weights of wheels. 2 deg. incidence. 2 deg. offset to the right (against torque) and 3 deg. downthrust. Negative incidence on tail.