

A 46 1/2 SPAN A/1 SPECIFICATION GLIDER.

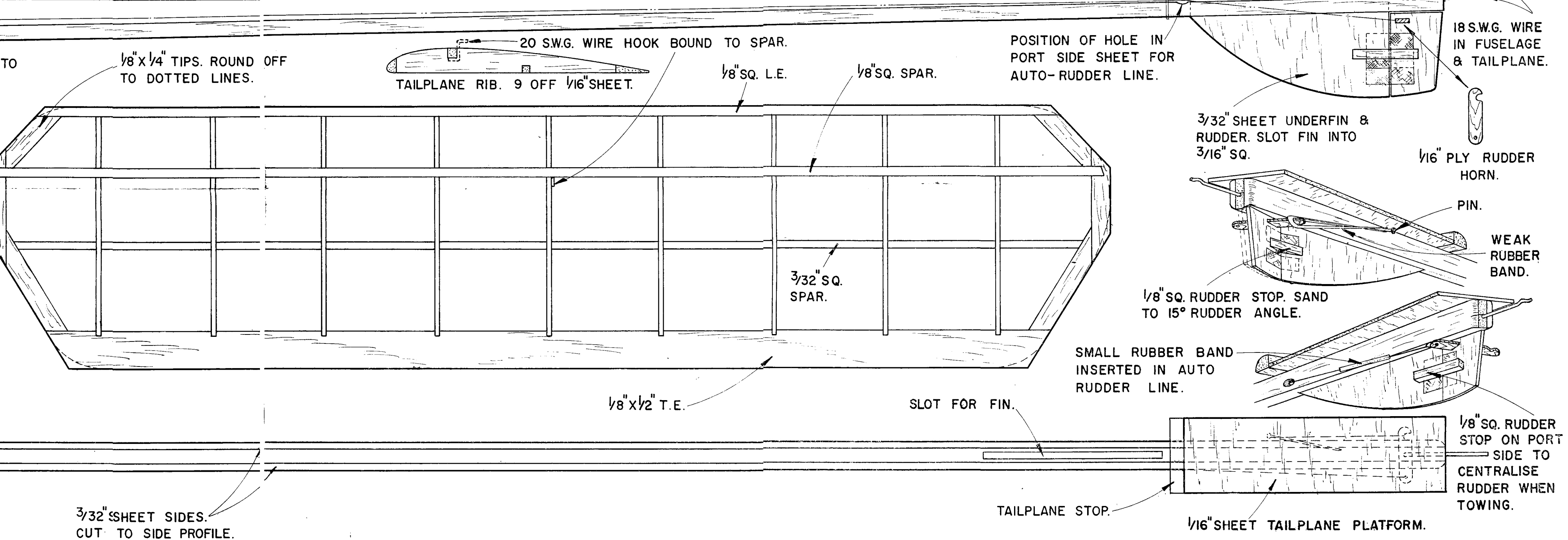
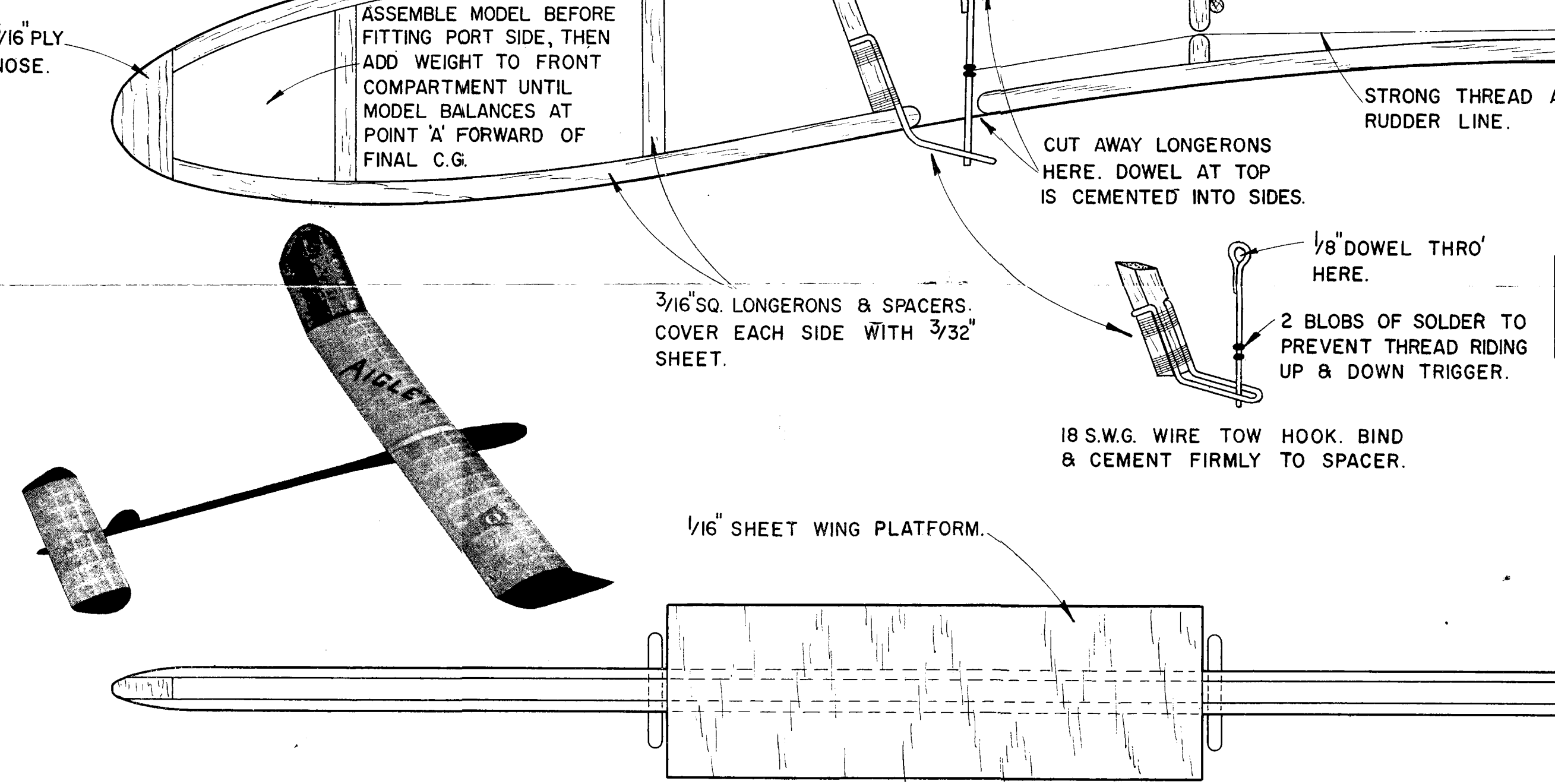
# AIGLET

DESIGNED BY  
**Martin Bridge**  
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**3/6**  
THE AEROMODELLER PLANS SERVICE.  
38, CLARENDON RD., WATFORD, HERTS.

NOTE: ALL WOODS ARE BALSA UNLESS OTHERWISE STATED.

DATA	
WING AREA (PROJECTED)	212 SQ. INS.
TAIL "	49.5 " "
O/A LENGTH	32 3/16 INS.
WEIGHT (MIN)	5.08 OZS.

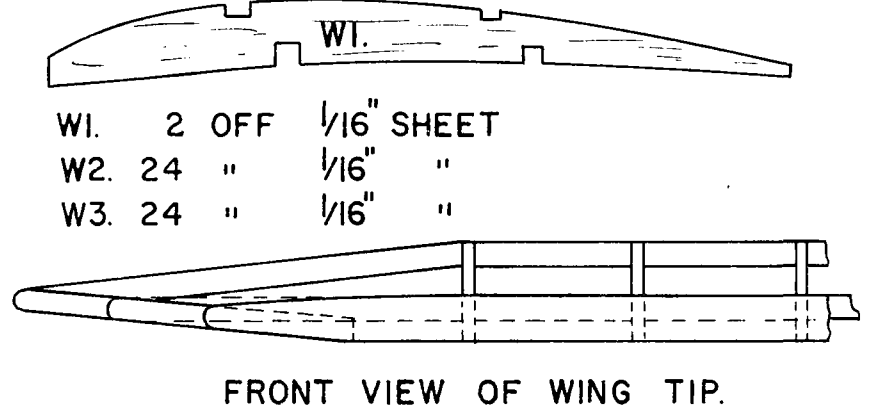
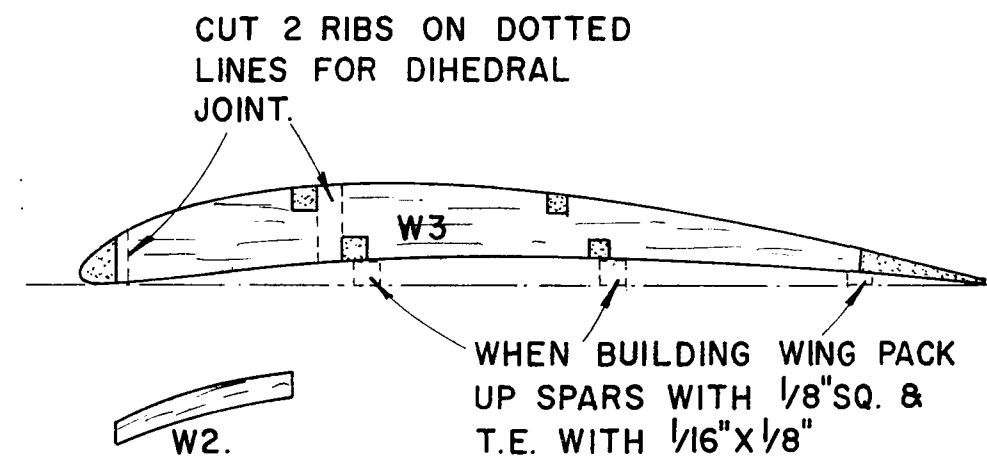
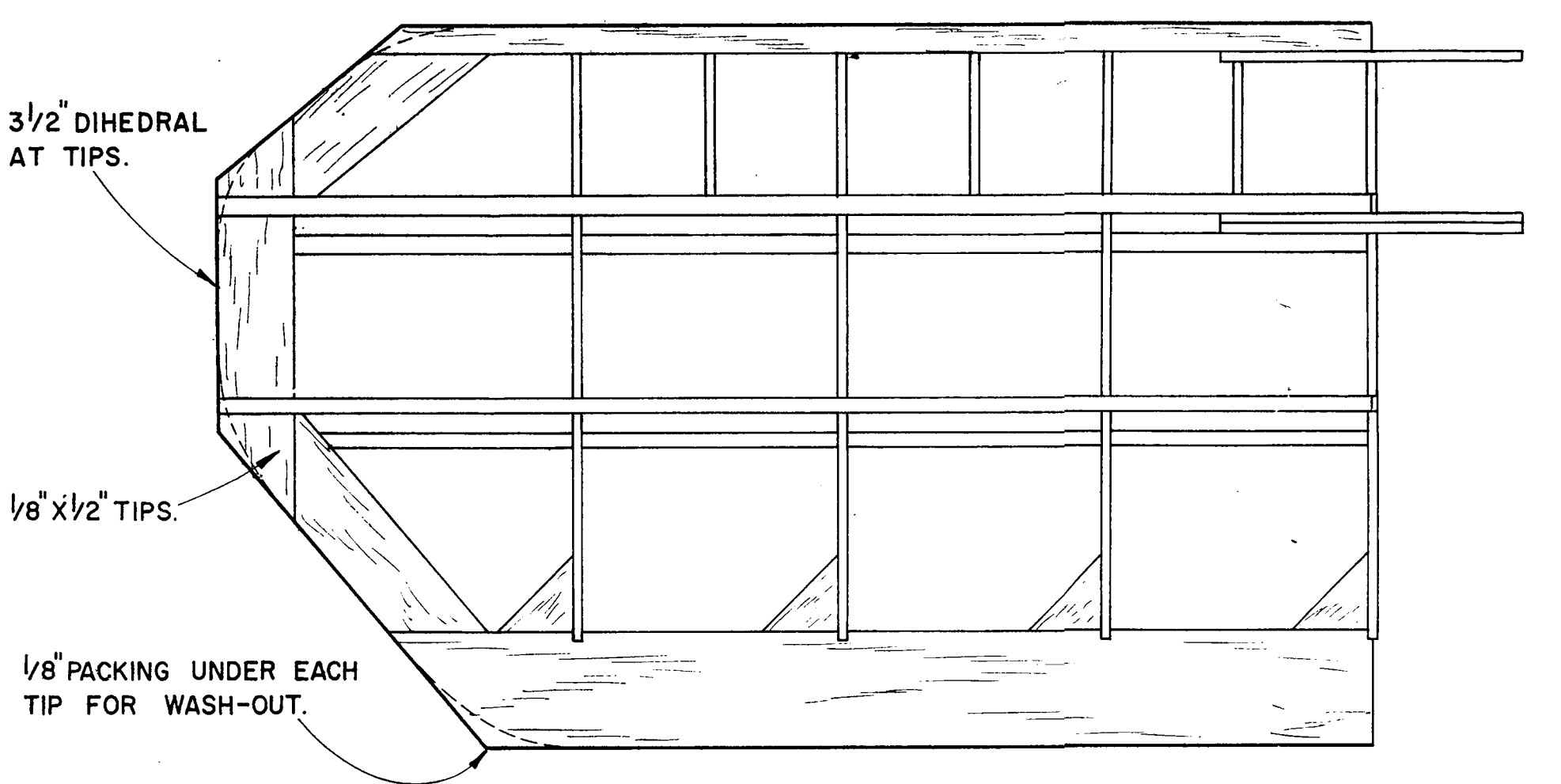
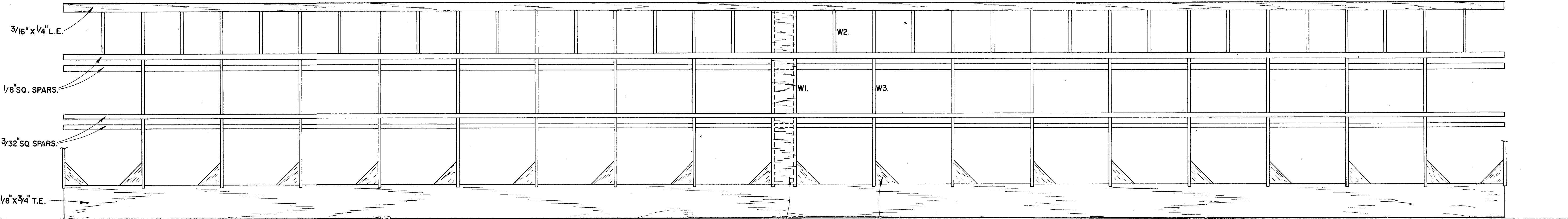
- Sheet Balsa**
- One ... 3/32 x 3 x 36 in. (Fuselage sides and Fins.)
  - One ... 1/16 x 3 x 36 in. (Ribs, Platforms and Braces.)
- Strip Balsa**
- Two ... 3/16 x 3/16 x 36 in. (Longerons and Spacers.)
  - Two ... 3/16 x 1/4 x 36 in. (Wing leading edge.)
  - Two ... 1/8 x 3/4 x 36 in. (Wing trailing edge.)
  - Four ... 3/32 x 3/32 x 36 in. (Rear Spars.)
  - Four ... 1/8 x 1/8 x 36 in. (Main Spars.)
  - One ... 1/8 x 1/2 x 36 in. (Tail trailing edge and Tips.)
- Miscellaneous**
- One ... 3 in. length of 1/8 in. dowel. (Wing retainers.)
  - One ... 36 in. length of 18 s.w.g. Piano Wire. (Hooks, etc.)
  - Scrap piece of 3/16 in. Plywood. (Nosepiece.)
  - 1/16 in. Plywood (Horn.)
  - Thread for Auto-Rudder line.
  - Tape for hinges.
  - Two ... Medium size tubes of Balsa Cement.
  - Two ... Sheets Lightweight Tissue.
  - Sanding Sealer. Clear Dope. Colour Dope. Ballast Weight.



NOTE: NO DIHEDRAL ON CENTRE PANEL.

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**Read these INSTRUCTIONS carefully before building your Aiglet**

**THIS MODEL** is a high-performance glider designed to meet the A/1 specification. That is to say, it has less than 279 square inches of projected wing and tail area, should weigh more than 5.08 ounces and is released from a 50-metre towline. It is perfect for club contests or sport flying. It has a simple spar arrangement to make it easy to build for the novice flyer and it is of handy proportions for carrying to the local flying field. Therefore it is worthy of careful construction—so we begin by rubbing a candle over the plan wherever construction lines appear. This prevents the excess cement from sticking the components to the plan.

Begin with the WINGS, on this side of the plan. First, shape the trailing edge to section as seen in the view of W3, and notch the forward edge to take the ribs. Allow an extra 1 inch at each end of the centre panel. Now pin the leading and trailing edges in position over the plan, followed by the two lower spars and taking note of the packing required as in view of W3. In the case of the two tip panels, the dihedral keepers should first be attached to the leading edge and then over spars, while the trailing edge tip should be nailed 1 inch at the point indicated.

Cut all the ribs from 1/16 inch sheet—yes, all 50 of them! and fit as exact fits. On the upper spars, we can now add the 1/16" x 1/8" tip outlines, then the upper spars on all panels. W2, ribless and the triangular gussets are cemented in place, flush with the top wing surface, and when dry, the three panels can be unpinned and lifted from the building board.

Each tip has a rise of 3/4 inches from the dihedral angle joint to its extremity and this is provided (according to the accuracy of your construction) by the dihedral keeper angles. When each tip is cemented to the spars on the lower panels, it will be found necessary to trim off the excess spar and trailing edge length to get a good joint. Do this very carefully, and when certain of a good fit by trial and error cutting, apply a liberal coating of cement to the keeper joints and pin them while the tip panel is supported at the correct angle and set aside to dry. The only change of incidence allowed is the 1 inch built-in wash-out, and if the leading and trailing edge line up, your wing should be perfectly true. Fit the centre bay shoring, shape the leading edge and sandpaper all over preparatory for covering.

The sequence for making the TAILPLANE is exactly the same as for the wing except that it is simplified by virtue of the flat-bottomed section which does not call for any special packing. Sandpaper the FUSELAGE. Construction is simplified by the use of the 1/16 inch sheet balsa, for all you have to do is to cut two outside profiles from 1/16 inch sheet (except for the platform positions) and on the inside face of one—preferably the Starboard—mark the three vertical spacer positions in the nose section. Then cement the straight longeron on to the side profile, top edge flush with the upper line from wing i.e. to tail, and the other lower length above the nose weight bay, then the three verticals and ply nose before fitting the lower curved longeron. When all are set firm, cut away the auto-rudder line passageway and the trigger pivot area in upper longeron. The additional 1/2 in. filler above the longeron can be made up

with 1/8 in. sq. or sheet; but which ever way it is executed, be sure to retain the exact wing angle as on the plan.

Now bend and bind the tow hook to the oblique spacer, form the trigger assembly and fit to fuselage. The FIN is six simple pieces to fit in, sanded smooth and with rounded edges, slotted and cemented in the longerons. Fit the largest rudder with its ply horn and average the two rudder stops as in the separate sketch. With the rudder set neutral, fit the auto-rudder line so that it is tight with the trigger at its most forward position. It represents the towing setting, and with the trigger moved aft, the rudder should be free to swing at least 15 degrees. Add the two platforms and assemble the whole model, adding lead weights to the nose bay until the model balances fore and aft when supported by the finger tips under point 'A'. We can now complete the fuselage by adding the bottom section which does not call for any special packing.

Cover the entire model with lightweight tissue and after water-shrinking, give the fuselage three coats of clear dope and two coats of thin dope on the flying surfaces. Colour decoration may be added to suit the original has a black fuselage, with red tips to white wing and tailplanes.

Aiglet should be trimmed to fly in tight radius right hand circles for best performance, and after preliminary test flights, can be towed to full height on a 154-foot towline for regular flights exceeding 90 seconds—i.e. which is just the right kind of challenge for club field flying—but beware of thermals, and always load that tip-to-tail dethermaliser with a burning fuse before each launch!