A1

FALCON

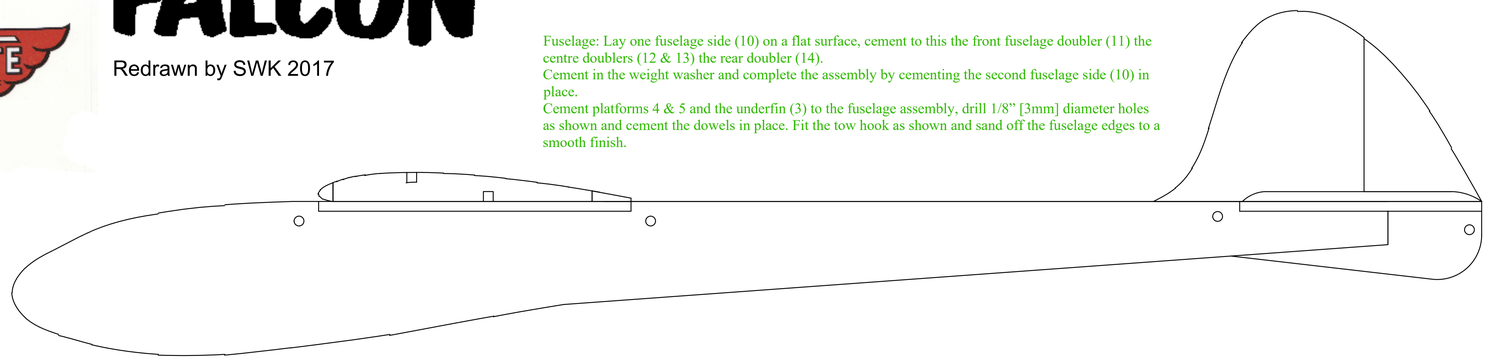
Redrawn by SWK 2017

0 20 50 100 150

Kit 133

1/32 = 0.8
1/16 = 1.6
3/32 = 2.4
1/8 = 3.2
3/16 = 4.8
1/4 = 6.4
5/16 = 7.9
3/8 = 9.5
1/2 = 12.7
3/4 = 19.0
1" = 25.4 mm

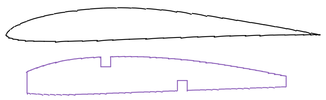
Fuselage: Lay one fuselage side (10) on a flat surface, cement to this the front fuselage doubler (11) the centre doublers (12 & 13) the rear doubler (14).
Cement in the weight washer and complete the assembly by cementing the second fuselage side (10) in place.
Cement platforms 4 & 5 and the underfin (3) to the fuselage assembly, drill 1/8" [3mm] diameter holes as shown and cement the dowels in place. Fit the tow hook as shown and sand off the fuselage edges to a smooth finish.



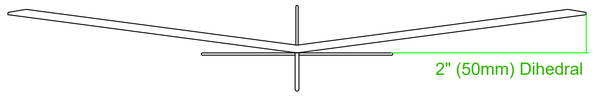
Materials

1/8" (3mm) Sheet:
Items 1, 2, 3, 4, 5, 6, 7, 8 & 9

1/16" (1.5mm) Sheet:
Items 10, 11, 12, 13, 14 and wing ribs

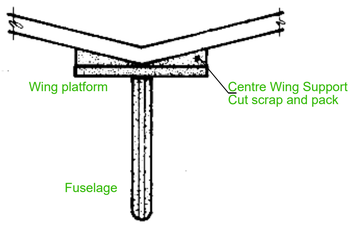


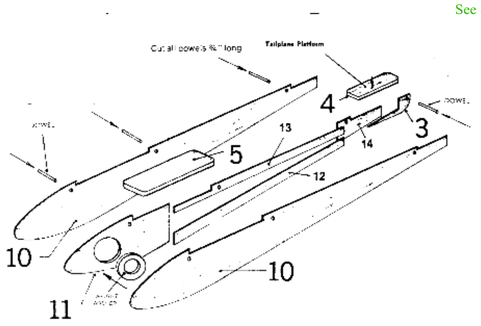
Rib sections based on Eppler E193
1/16 (1.5) Balsa sheet
(15 off if used instead of Clark Y)



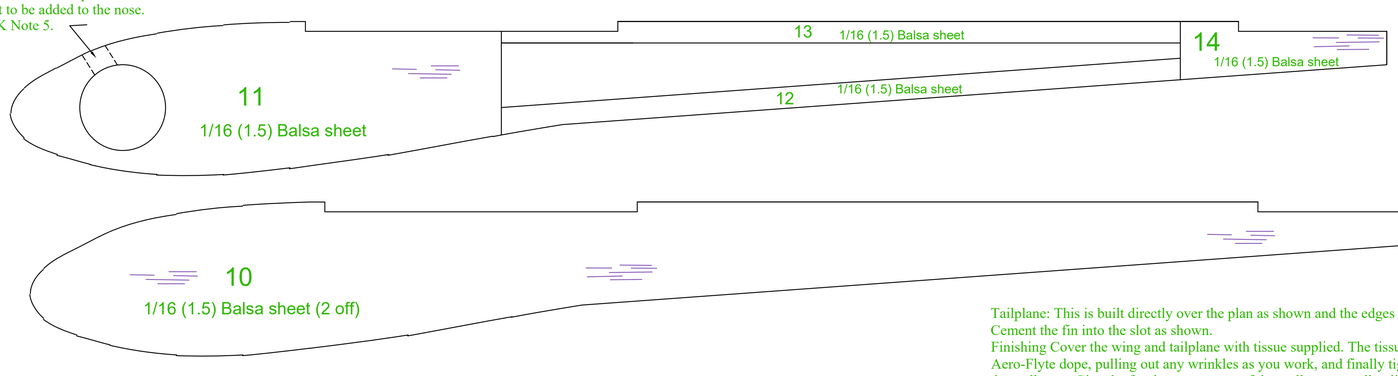
2" (50mm) Dihedral

Flying: Test glide the model, and add plasticene to the nose if required until a balance is established about 1.1/4" [32mm] back from the leading edge of the wing. Your Falcon should now be ready for flight. May we suggest out Nimbus or Cirrus as follow up models.

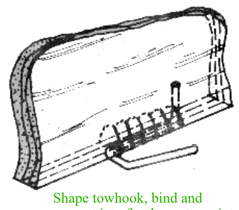




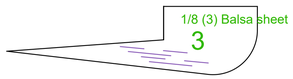
Optional: Cut out this piece to allow lead shot to be added to the nose.
See SWK Note 5.

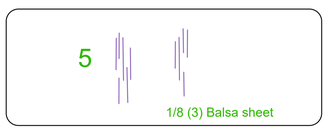


Tailplane: This is built directly over the plan as shown and the edges rounded off with sandpaper.
Cement the fin into the slot as shown.
Finishing Cover the wing and tailplane with tissue supplied. The tissue is cemented to the airframe with Aero-Flyte dope, pulling out any wrinkles as you work, and finally tightening by applying two coats of dope all over. Give the fuselage two coats of dope all over, sanding lightly between coats, and paint in selected colour with enamel.



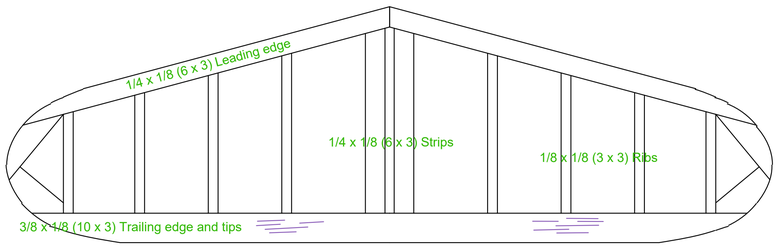
Shape towhook, bind and cement into fuselage at a point in line with the front of the wing.

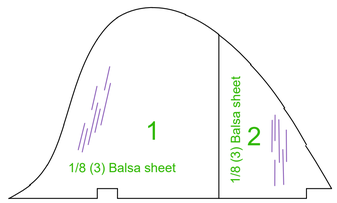


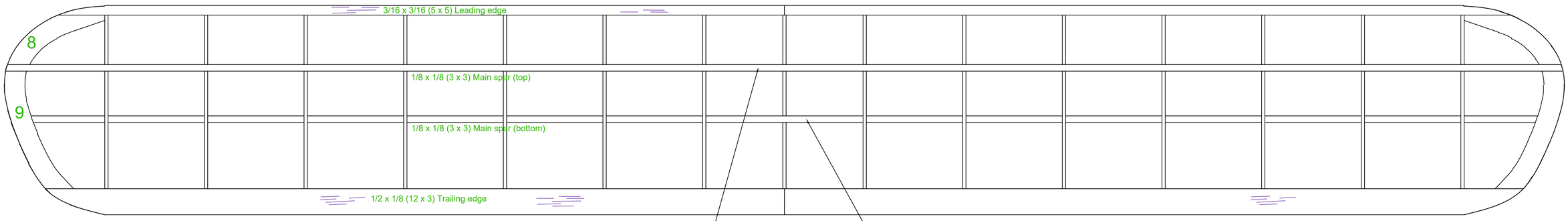


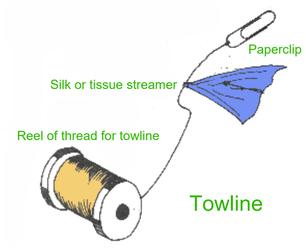
SWK Notes:

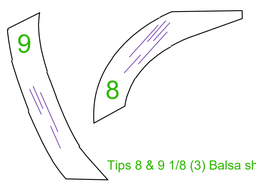
1. Measurements are in the form "inches (mm)" unless otherwise shown.
2. The aerofoil of the original kit is not known. The AeroFlyte "Nimbus", which is the same size, seemed to use a Clark Y aerofoil. As an alternative, a profile for a more modern Eppler (E193) is given as an option.
3. The "Nimbus" also used 2" (50mm) dihedral for each wing. I have assumed the same for the "Falcon".
4. Wire for the tow hook can be any stiff wire of 1.5 to 2 mm dia.
5. I have built 2 "Falcon"s. The original design using a washer built in as nose weight does not seem to be sufficient. Use lead shot instead.
6. 3mm bamboo skewers are easier to obtain than 3mm dowel.



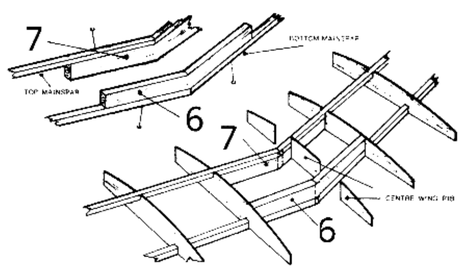








Wings: Join 1/8" (3mm) square main spars with braces 6 and 7 making sure that both main spars are at exactly the same angle, then pin the main spars over the wing plan and cement all ribs, leading edge, trailing edge and tips 8 & 9 into place. Build right hand wing in the same way on the reverse side of the plan, marking through the plan with pin pricks, fit centre rib and gussets and complete the wing by rounding off the leading edge and tapering the trailing edge and wing tips down to a point.



Rib section based on Clark Y
1/16 (1.5) Balsa sheet (15 off)

KIT N

FALCON

SAILPLANE

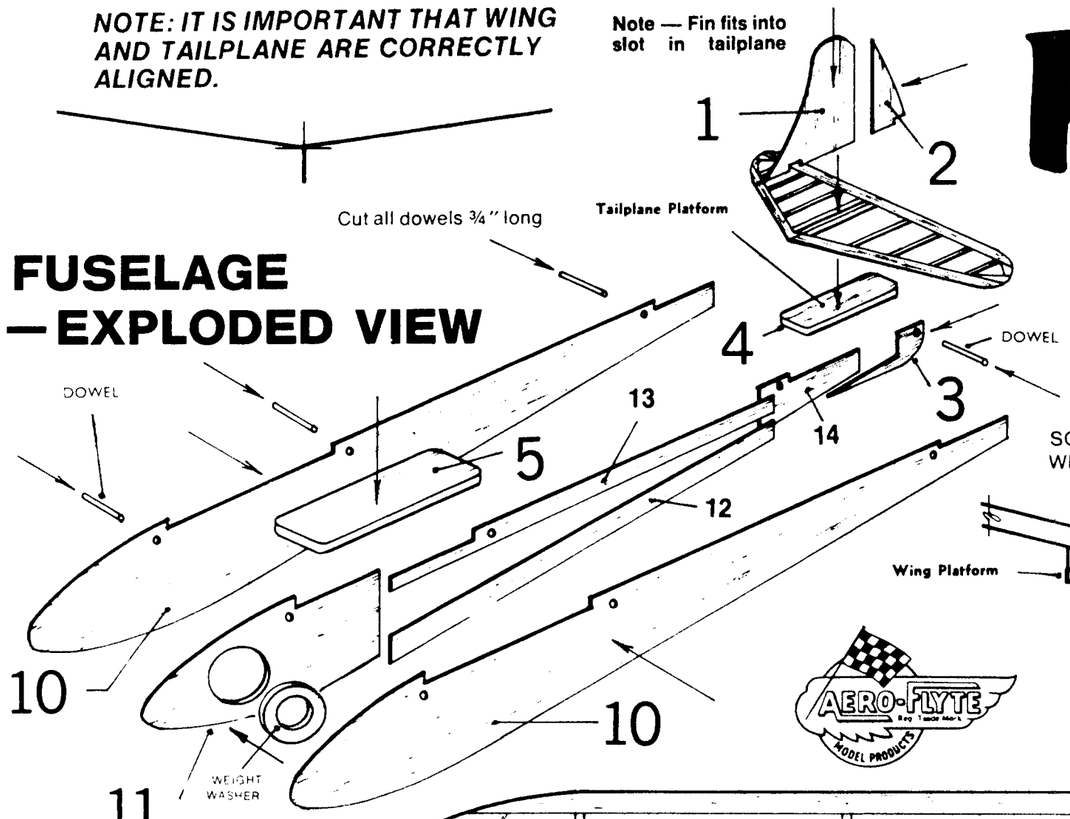
A PROVEN DESIGN
SIMPLE, RUGGED, CONSTRUCTION

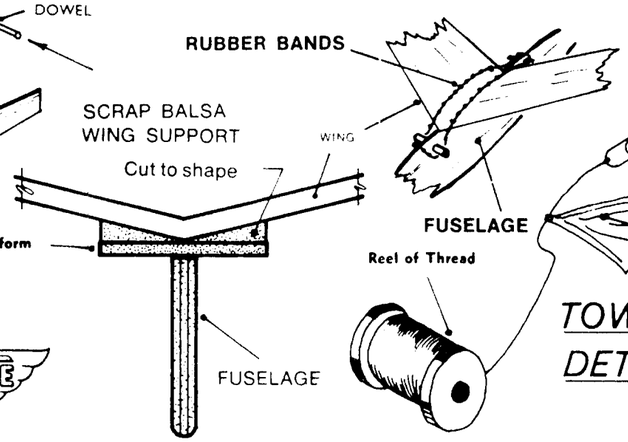
BUILD BY NUMBER CONSTRUCTION

MANUFACTURED IN AUSTRALIA BY
AERO-FLYTE PANORAMA
ADELAIDE, SOUTH AUSTRALIA.

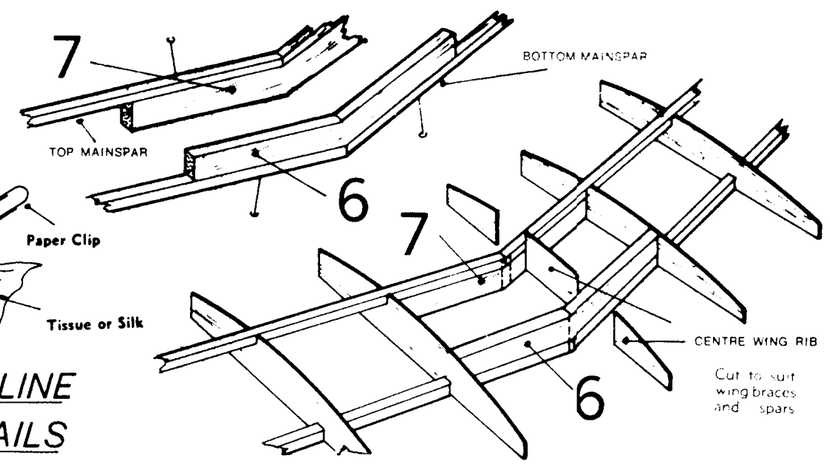
NOTE: IT IS IMPORTANT THAT WING AND TAILPLANE ARE CORRECTLY ALIGNED.

FUSELAGE — EXPLODED VIEW

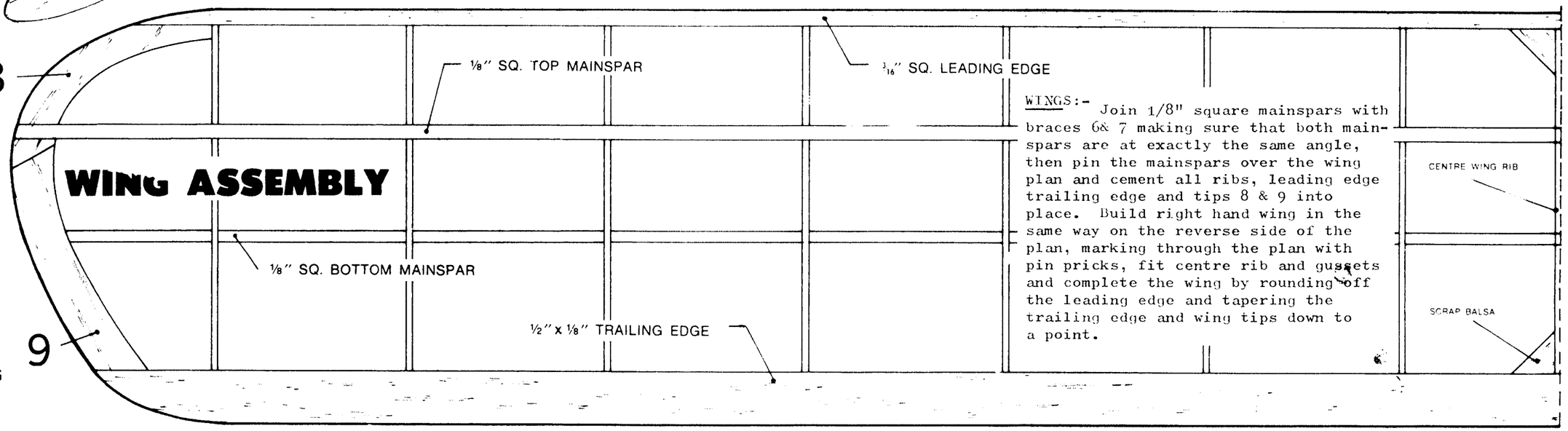




TOWLINE DETAILS

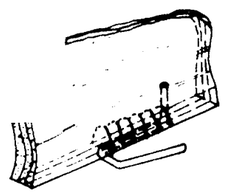


WING CONSTRUCTION DETAIL



WING ASSEMBLY

WINGS:- Join 1/8" square mainspars with braces 6& 7 making sure that both mainspars are at exactly the same angle, then pin the mainspars over the wing plan and cement all ribs, leading edge trailing edge and tips 8 & 9 into place. Build right hand wing in the same way on the reverse side of the plan, marking through the plan with pin pricks, fit centre rib and gussets and complete the wing by rounding off the leading edge and tapering the trailing edge and wing tips down to a point.



Shape towhook, bind and cement into fuselage at a point in line with the front of the wing.

BUILDING & FLYING INSTRUCTIONS

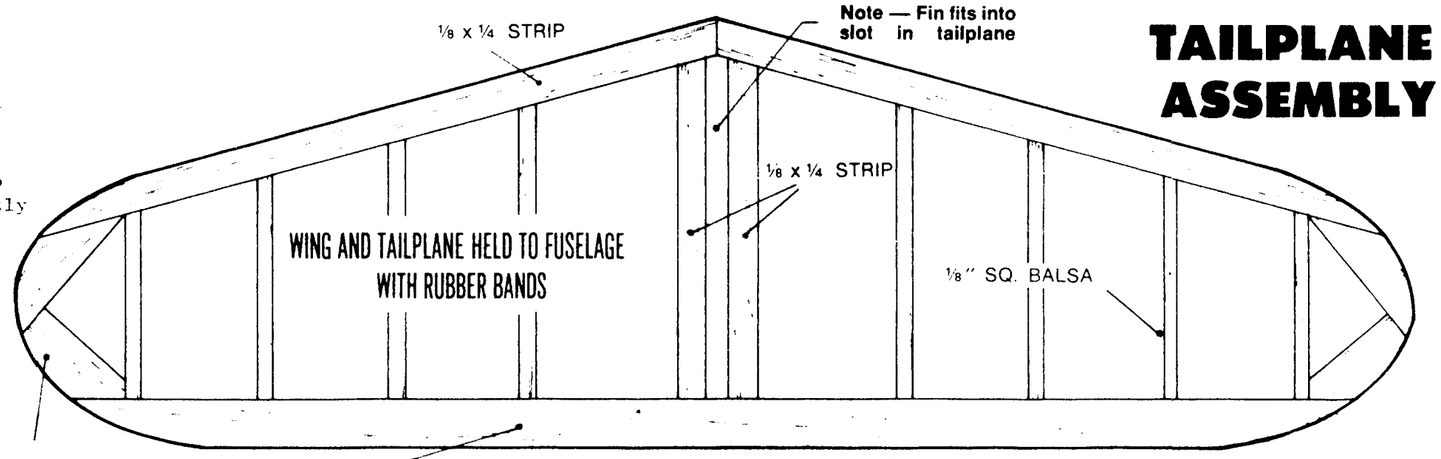
FUSELAGE:-
Lay one fuselage side (10) on a flat surface, cement to this the front fuselage doubler (11), the centre doublers (12 & 13) the rear doubler (14). Cement in the weight washer, and complete the assembly by cementing the second fuselage side (10) in place. Cement platforms 4& 5 and the underfin (3), to the fuselage assembly, drill 1/8" dia. holes as shown, and cement the dowels in place. Fit the towhook as shown, and sand off the fuselage edges to a smooth finish.

TAILPLANE:-
This is built directly over the plan as shown and the edges rounded off with sandpaper. Cement the fin into the slot as shown.

FINISHING:
Cover the wing amd tailplane with tissue supplied. The tissue is cemented to the airframe with Aero-Flyte Dope, pulling out any wrinkles as you work, and finally tightened by applying two coats of dope all over. Give the fuselage two coats of dope all over, sanding lightly between coats, and paint in the selected colour with enamel.

FLYING:
Test glide the model, and add plasticene to the nose if required until a balance is established about 1.1/4" back from the leading edge of the wing. Your Falcon should now be ready for flight. May we suggest our Nimbus or Cirrus as ideal follow up models

TAILPLANE ASSEMBLY



THIS KIT CONTAINS **GRADE AAA BALSAWOOD**