

FROG "TALISMAN"



28" SPAN
PROFILE STUNT MODEL
FOR 1-2 c.c. ENGINES.
CAT. No. 697KP.

ALL PARTS SHOWN THUS (W5) ARE CUT AND PRINTED ON SHEET BALS.

Fig. 1

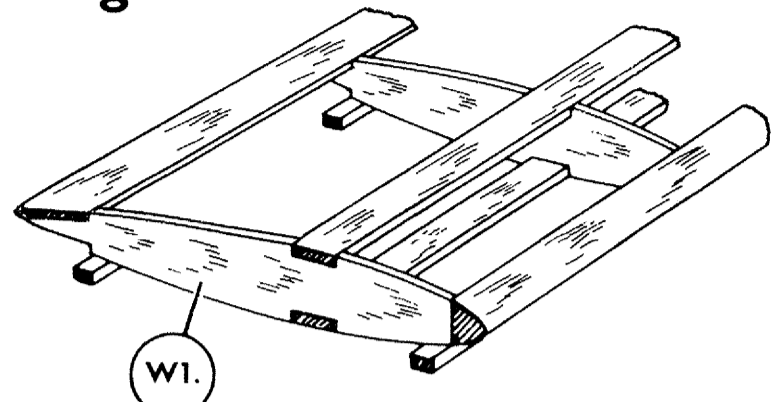


Fig. 5

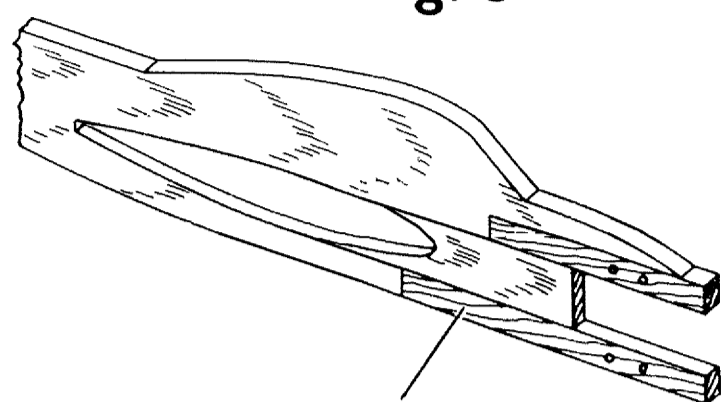
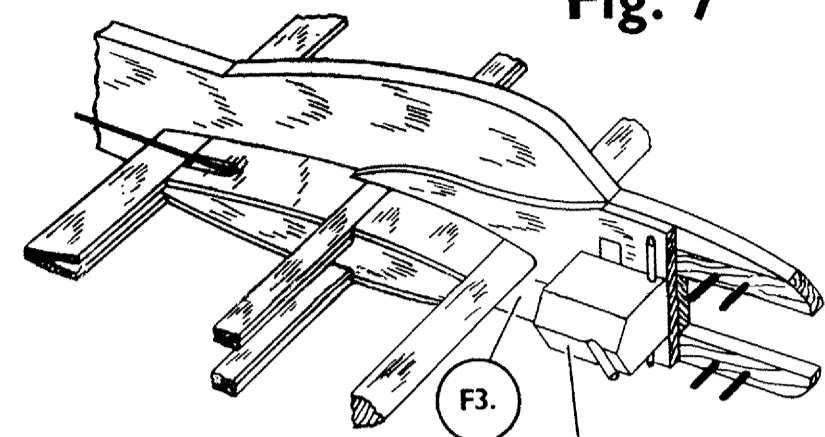


Fig. 7



WHEN USING REAR INDUCTION ENGINES MOVE THE FUEL TANK BACK TO THE WING LEADING EDGE.

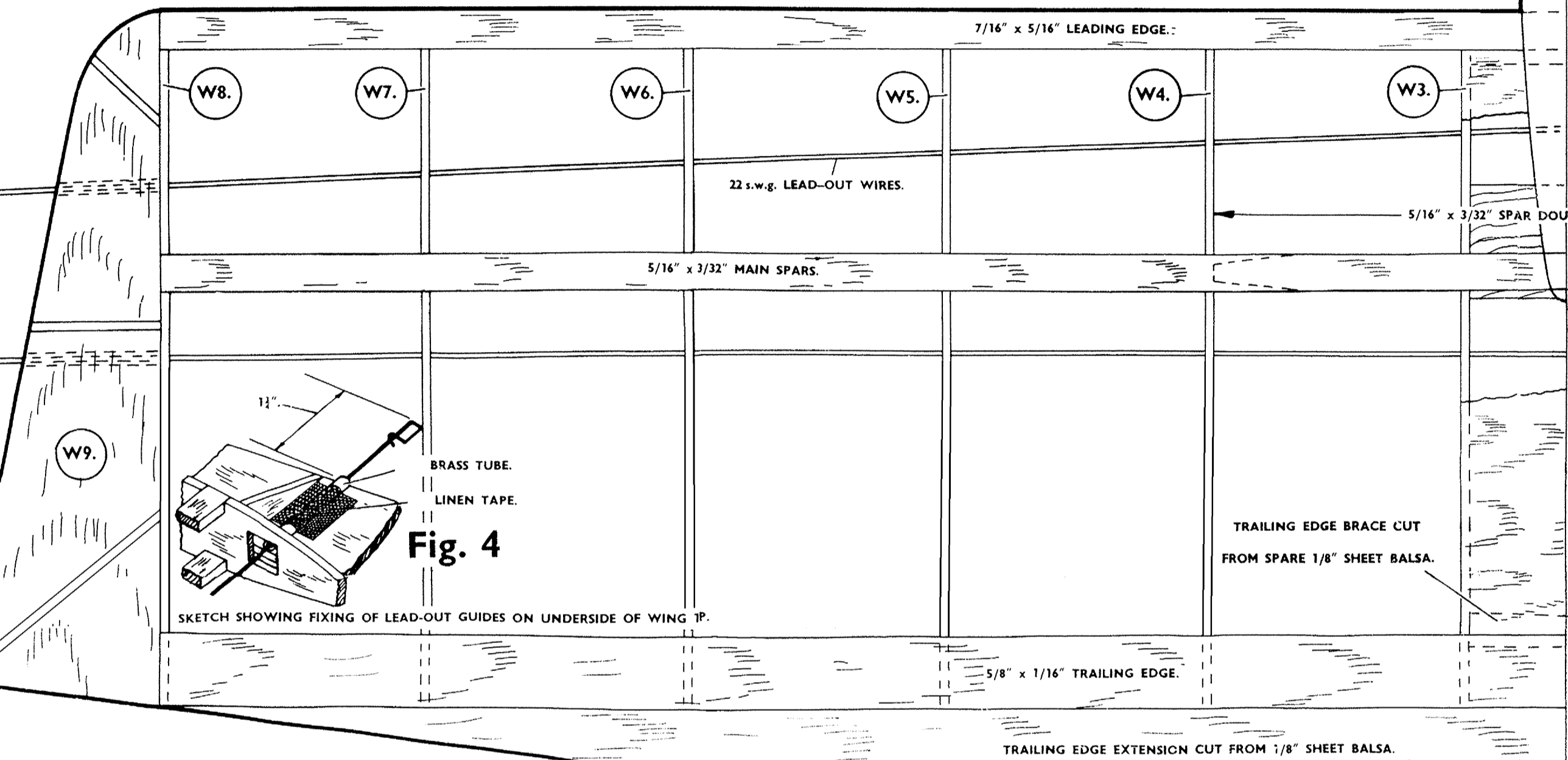
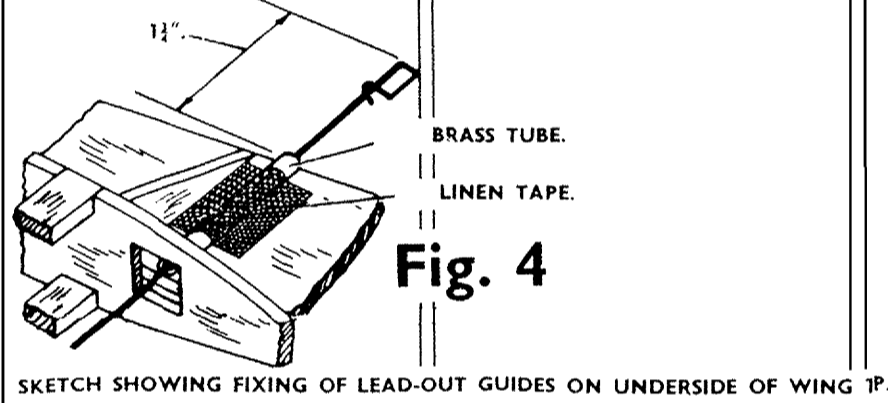


Fig. 4



BUILDING AND FLYING INSTRUCTIONS.

Construction of the "Talisman" is very simple and straightforward provided that the sequence of work detailed below is adhered to.

The wing should be constructed first. To do this first pin the plan down onto a suitable flat building board. Pin the two halves of the lower spar to the plan and then cement the spar doubler in place over the joints. Assemble the wing ribs W1 to W8 to the wing spar using packing at the leading and trailing edges as in FIG. 1. Next fit the upper trailing edge, the upper main spar doubler and spar. Now fit the leading edge strips. Add the leading and trailing edge braces and when dry remove the wing from the plan and cement the lower trailing edge in place.

The wing tips W9 together with the tip braces which are cut from spare 1/16" balsa sheet can now be fitted. When dry sand the wing leading edges to shape.

Next fit the lead-out wires to the bell-crank and assemble to the plywood mount B1 as shown in FIG. 2. Slide the lead-out wires through the holes in the wing ribs and well cement B1 to the top wing spar. The push-rod should now be bent and fitted as in FIG. 3. Lift the front end over the bell-crank in the slot provided and rotate the bell-crank until the push-rod can be pushed down through the hole. Then solder a small washer to the projecting end. (A small electric soldering iron is ideal for this job).

Fit the lead-out guides to the wing tips as shown in FIG. 4 and when dry bend the hooks on the lead-out wires. Cover the wing centre section with 1/16" sheet balsa and leave to dry.

Firmly cement the engine bearers and the 7/8" x 5/16" strip to the pre-shaped fuselage. See FIG. 5.

When this assembly is dry drill the engine bearers to suit the engine you are using. Fit the engine bolts in place complete with the wire strips as shown on the plan.

The fuel tank can also be made up at this stage, (as shown in FIG. 6) making sure that all the pipes are firmly soldered. In particular the inside end of the feed pipe should be soldered to the side of the tank to prevent it working loose with vibration.

Fix the fuselage side plate F3 to the fuselage and when dry cut out the opening for the wing. Then fit the wing and fuel tank in place cementing them well. See FIG. 7. Cut the 3/8" and 1/4" thick nose blocks to their plan and side view shapes and well cement them on either side of the nose as shown in FIG. 8.

Build up the tailplane parts T1 and T2 as on the drawing making hinges from the tape supplied. See FIG. 9. Drill a small hole in the elevator horn H1 for the push-rod; then assemble the tailplane and the fin F1 in position on the fuselage. Push the rear end of the push-rod through the hole in the elevator horn and solder a small washer onto the end of the wire.

Cut the trailing edge extensions from the 1/2" x 1/8" balsa sheet and cement them to the wing.

Make up the tip weight box as shown in FIG. 10 and firmly cement the six weights supplied in place.

Shape the nose as shown on the plan and sandpaper the sharp corners from the fuselage. Cover the nose back to the main spar with the covering supplied using a 50/50 mixture of balsa cement and clear dope as an adhesive.

The model is now ready for covering with tissue. Cover the wings with the tissue supplied, using office paste or clear dope as an adhesive. Then cover the fuselage and tail assembly using clear dope for fixing tissue to sheet balsa surfaces. Cut the tissue to the shape required then lay it over the area to be covered and fix it down with dope generously applied with a brush on top of the tissue. After covering, water-shrink the wing tissue and when dry give the whole model two coats of clear dope. The colour scheme is left to the individual. Finally give the entire model a coat of fuel-proof lacquer. The engine can now be fitted. Connect a piece of fuel-tubing from the tank feed pipe to the carburettor and fit the propeller. The recommended propellers are a Frog Nylon 7" dia. x 4" pitch, 7" dia. x 6" pitch or 8" dia. x 4" pitch, depending on the power of the engine.

FLYING. You will need a set of steel control lines 40-50 feet long x .010" dia. single or multi-stranded. The double loops at the ends should be made by securely wrapping the wire round itself without soldering as this may cause the line to break beyond the joint. If however, the binding is not tight enough a little solder may be used to prevent unravelling. Small split key-rings can be used to connect the lines to the control-handle. Connect the UP line to the top of the handle and the DOWN line to the bottom. Paint a mark on the top of the control-handle to ensure you always get the lines the right way round. With an assistant to hold the model, start the engine and set the throttle for the best running position. Contrary to normal free-flight practice all test and training flights must be made at full throttle—lack of power makes flying considerably more difficult. Hold the control-handle with the lines taut and test the controls before starting to fly to make sure everything works freely. The handle should be vertical when the elevator is level. Your assistant should launch the model level in a down-wind direction, pointing the nose slightly outwards to keep the lines taut. Do not let the model climb too high until you have become acquainted with the feel of its controls. Turn with the model and keep your eyes on it all the time. If there is any wind blowing and there is any tendency for the lines to slacken, keep the model low and step back quickly to keep the lines in tension. It is possible to perform many stunts with this model, though a lot of practice is required to execute them consistently. Always perform aerobatics on the down-wind side of the circle to keep the lines taut. Always check your lines for "kinks" and test the controls before starting a flying session. THESE CHECKS ARE VITAL.

IMPORTANT. It is most advisable to have a third party insurance when flying power-driven model aircraft. Full details of this and of the rules pertaining to stunt flying can be obtained from the Society of Model Aeronautical Engineers 19, Park Lane, London, W.1.

Designed and manufactured in England by
INTERNATIONAL MODEL AIRCRAFT LTD.,
Morden Road, Merton, London, S.W.19.

SOLDER SHORT PIECES OF 16g. WIRE
ACROSS SLOTS.

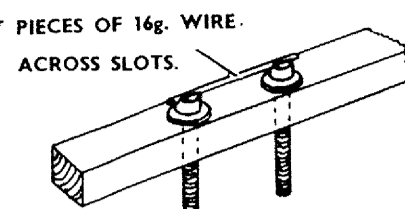
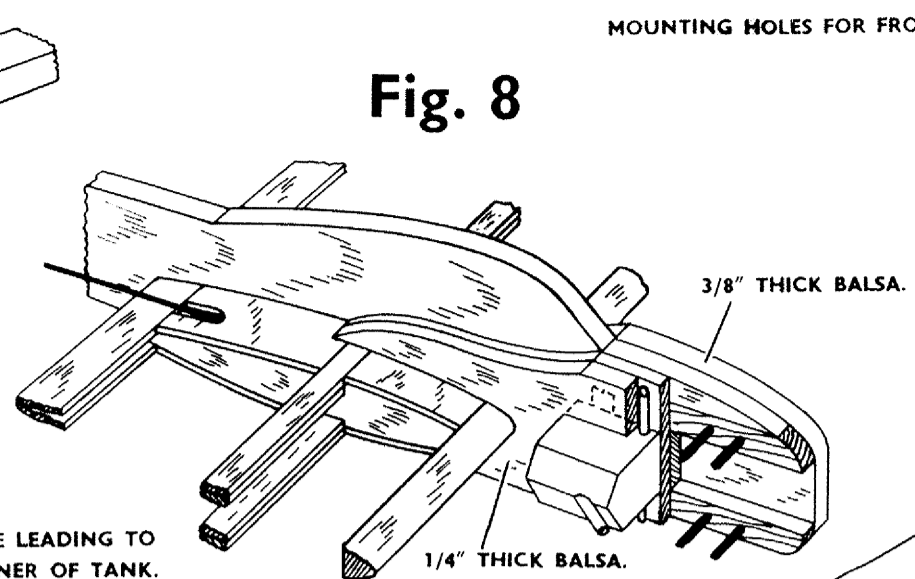


Fig. 8



MOUNTING HOLES FOR FROG 150 ENGINE.

3/8" x 5/16" BEECH ENGINE BEARERS SHOWN SHADED.

TIP BRACES CUT FROM ARE 1/16" SHEET BALS.

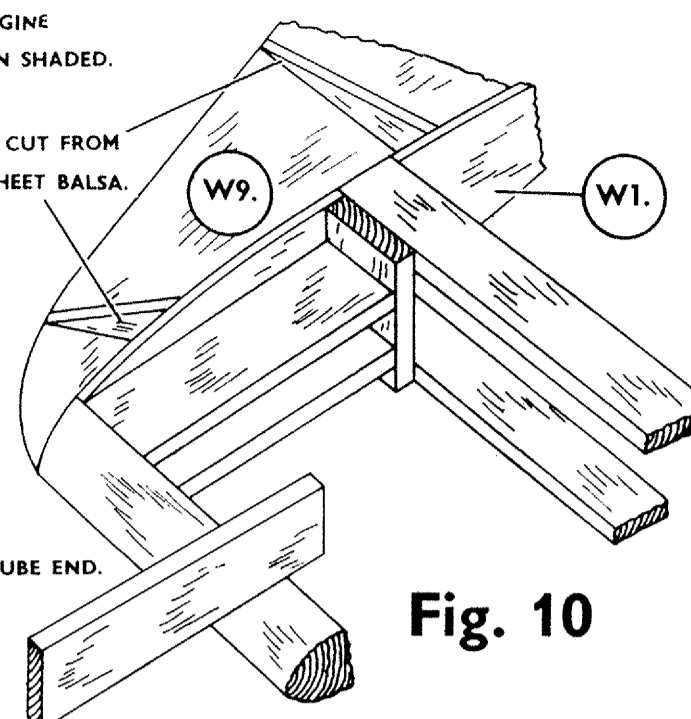


Fig. 10

SKETCH SHOWING WEIGHT BOX MADE FROM 1/8" SHEET BALS.

LEADING EDGE BRACE CUT FROM SPARE 1/8" SHEET BALS.

FROG NYLON BELL-CRANK (SUPPLIED).

CUT HOLE TO CLEAR PUSH-ROD IN TOP.

3/16" SHEET BALS CENTRE SECTION COVERING.

TYPICAL WING RIB.

BOX FOR SIX LEAD WEIGHTS SUPPLIED.

FUSELAGE SECTION AT A-A.

BRASS TUBE.

LINEN TAPE.

TRAILING EDGE BRACE CUT FROM SPARE 1/8" SHEET BALS.

TRAILING EDGE EXTENSION CUT FROM 1/8" SHEET BALS.

16g. PUSH ROD.

SOLDER CUP WASHER TO PUSH-ROD.

METHOD OF LOCATING PUSH-ROD INTO BELL-CRANK.

CUT FROM SPARE BALS.

1/2" WIDE LINEN TAPE HINGE.

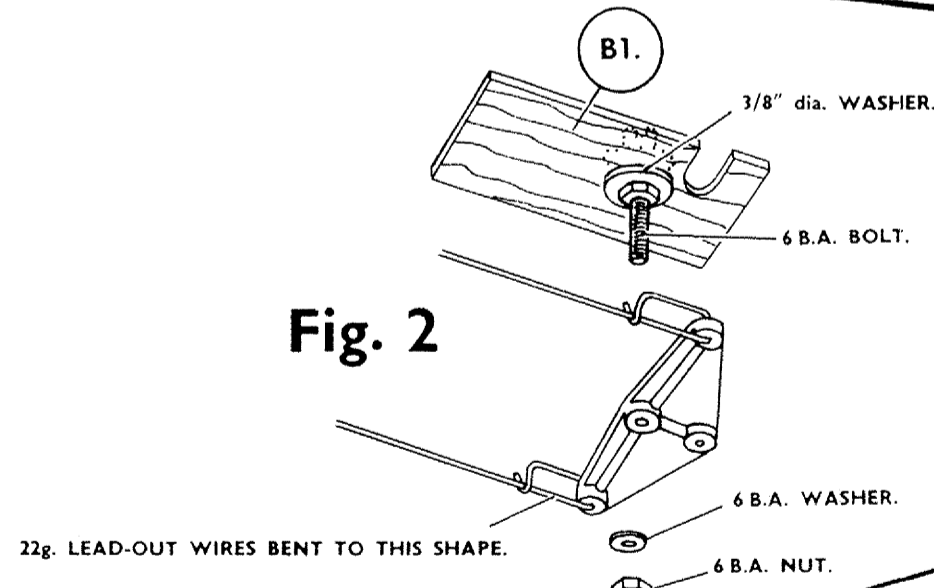
SOLDER CUP WASHER TO PUSH-ROD.

CUT SLOT IN ELEVATOR FOR CONTROL HORN.

1/8" sq. BALS FILLET.

SKETCH SHOWING FIXING OF TAPE HINGES.

Fig. 2



22g. LEAD-OUT WIRES BENT TO THIS SHAPE.

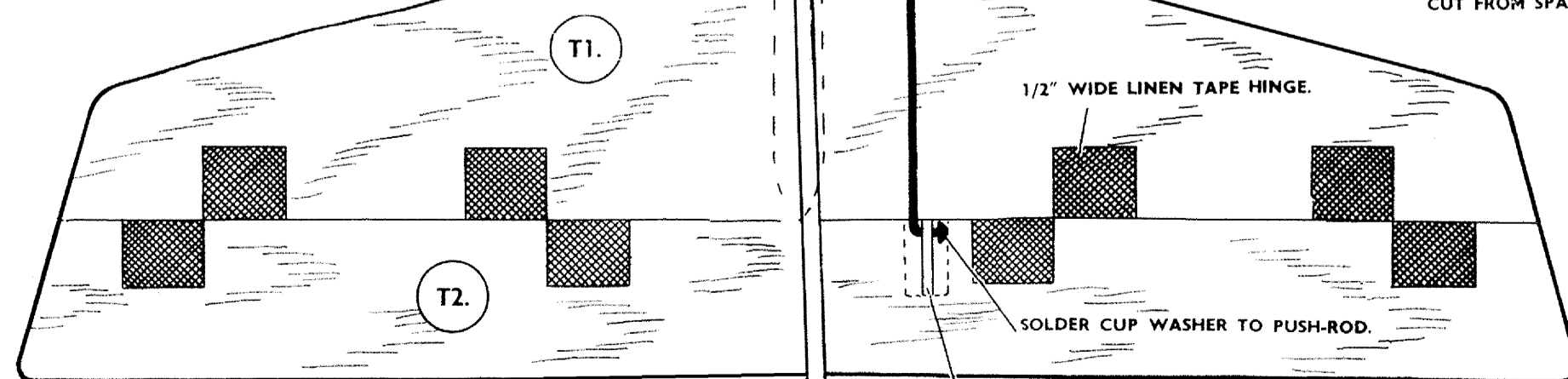
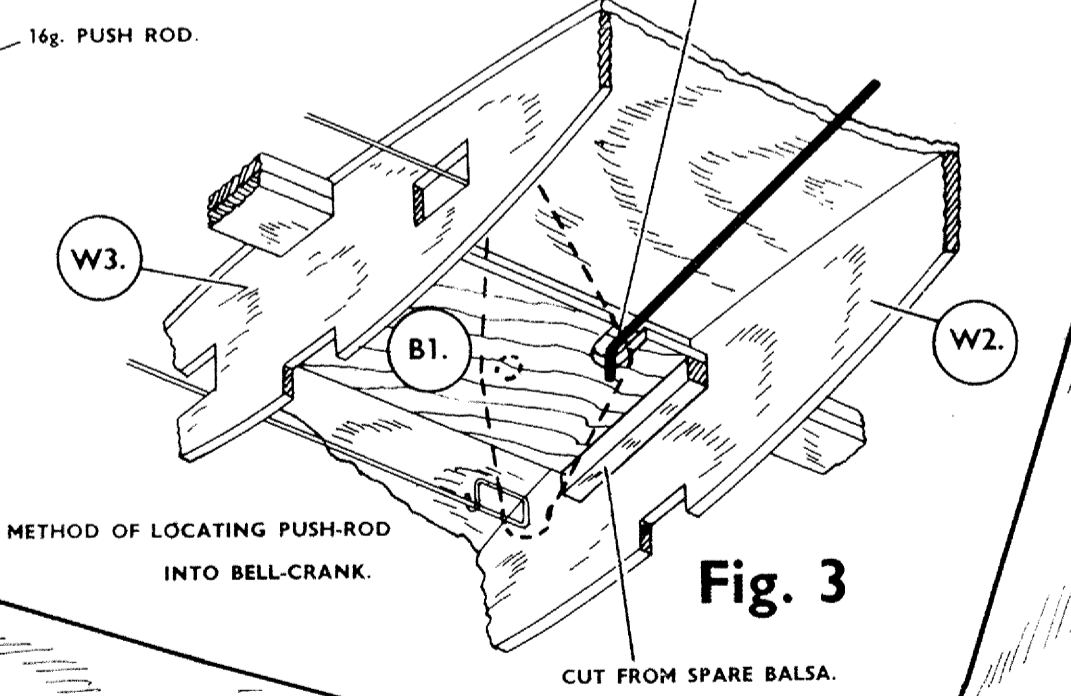


Fig. 3



CUT TINPLATE TO THESE DIMENSIONS, BEND ALONG DOTTED LINES. CUT ENDS OF TANK ROUGHLY TO SHAPE, SOLDER IN POSITION THEN TRIM TO SHAPE.

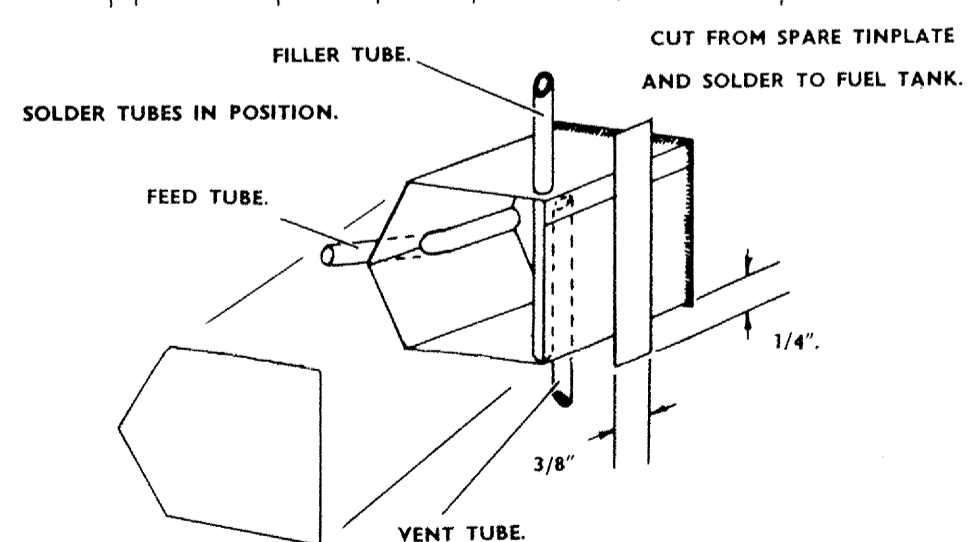
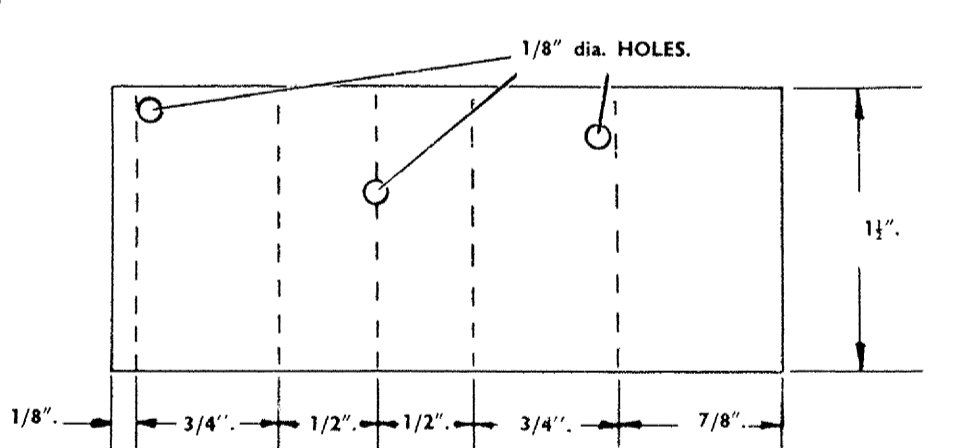


Fig. 6

Fig. 9

Designed by: E. T. W.
Drawn by: