

THE JAGUAR 1948 WINNING WAKEFIELD MODEL.

DESIGNED BY E.W. EVANS. SILVER MEDALIST ME EXHIBITION ETC.

PERFORMANCES.

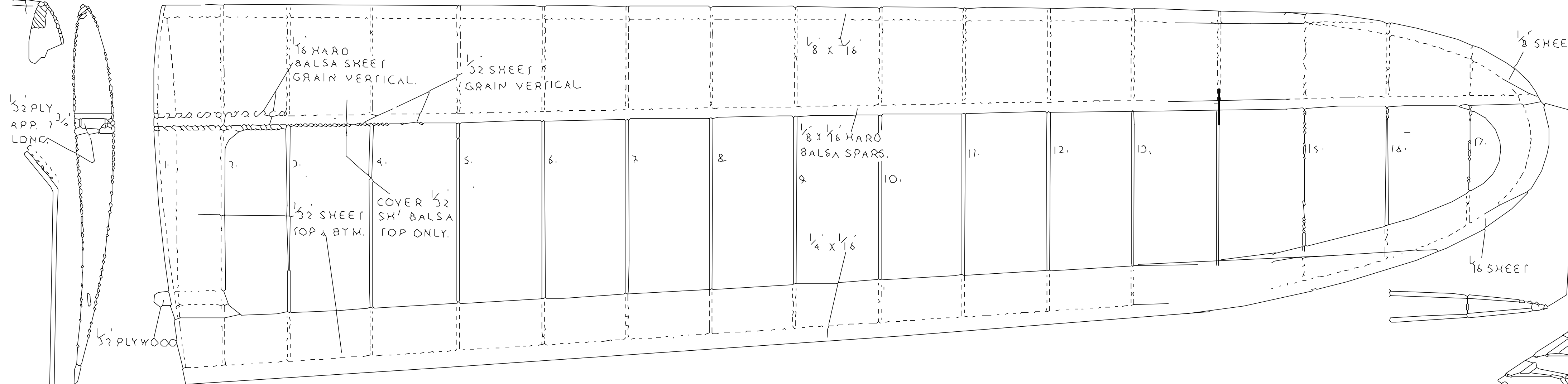
| | | |
|-----------------------------|-----------|--------------------|
| TEST FLIGHTS FLOWN IN RAIN. | 1ST PLACE | M.E. CUP No 7 |
| 400 TURNS 3 MINS 4 SECS | 1ST | N.M.E. CUP |
| 450 " 3 " 27.5 " | 1ST | N.M.A.C. WAKEFIELD |
| 900 " 3 " 35.5 " | 2ND | B.M.A.E. |

TIMED & WITNESSED BY S.M.A.E. TIMEKEEPERS.

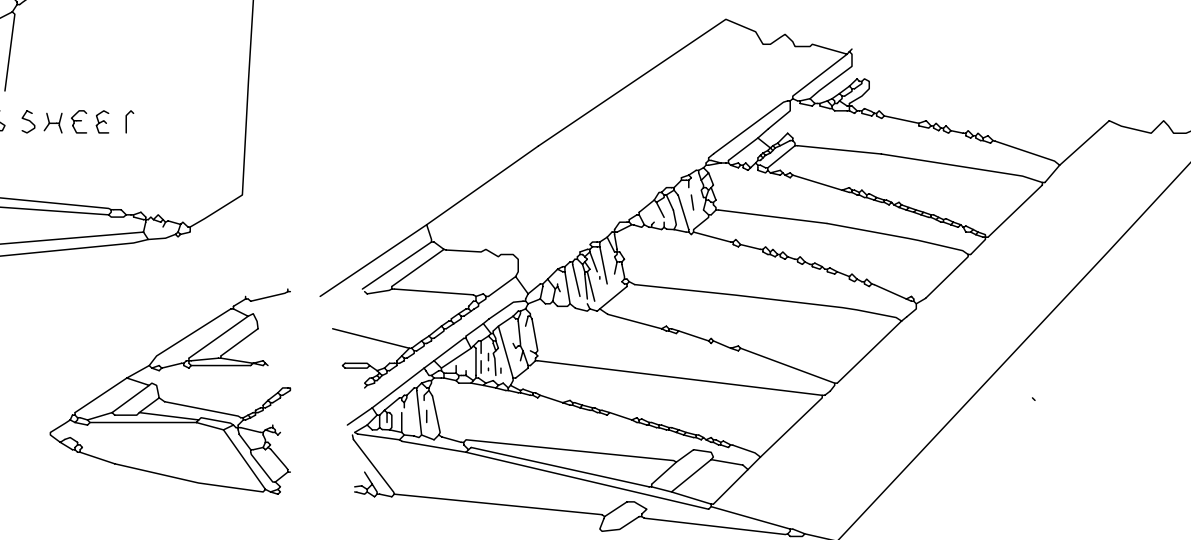
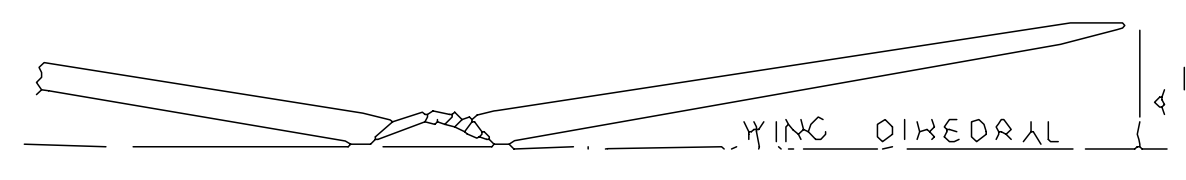
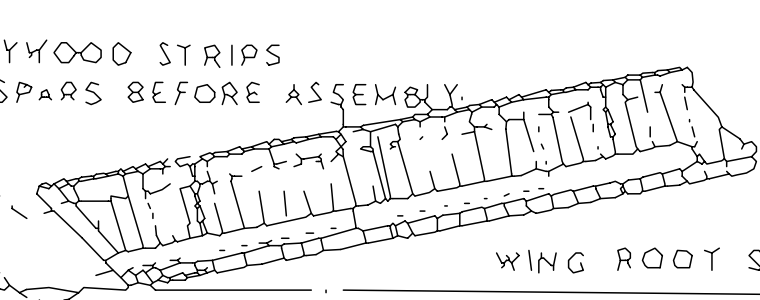
- WE WEIGHTS OF FINISHED PARTS 1/4 7 COATS OF DOPE.
- FU SELAGE (UNDERCARRIAGE 1.9 OZS.
- M11 4C & CONNECTING BRACE 1.0 "
- SF STABILISER & FIN 4 "
- P- PROPELLER & NOSE BLOCK 1.0 "
- UBBER 1 BOBBINS 14 STRANDS 1/2 x 1/32 3.8 OZS
- W WING AREA 205 SQ INCHS.

TOTAL 8.3 OZS
ACTUAL 8.25 "

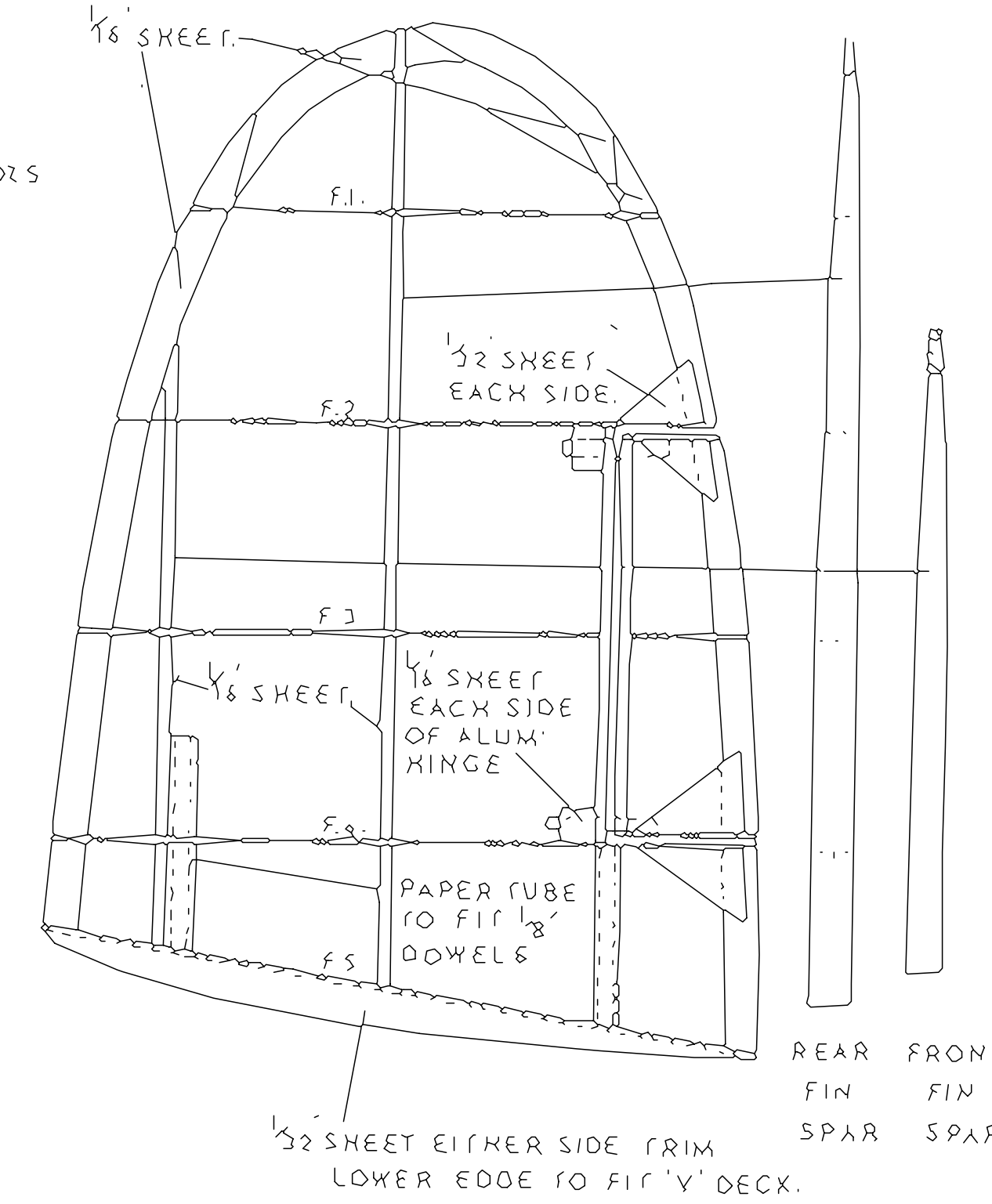
NOTE SHAPE OF L.E.



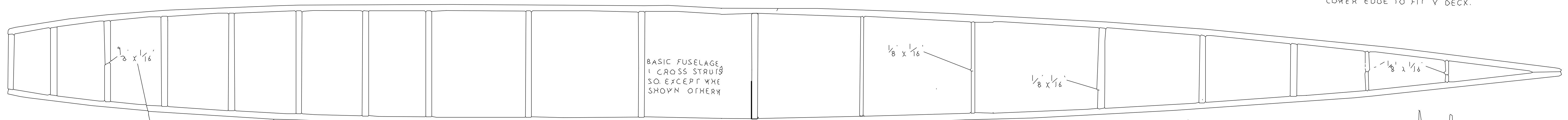
NOTE 1/2 PLYWOOD STRIPS CEMENT TO SPARS BEFORE ASSEMBLY.



SKETCH WING ROOF CONSTRUCTION

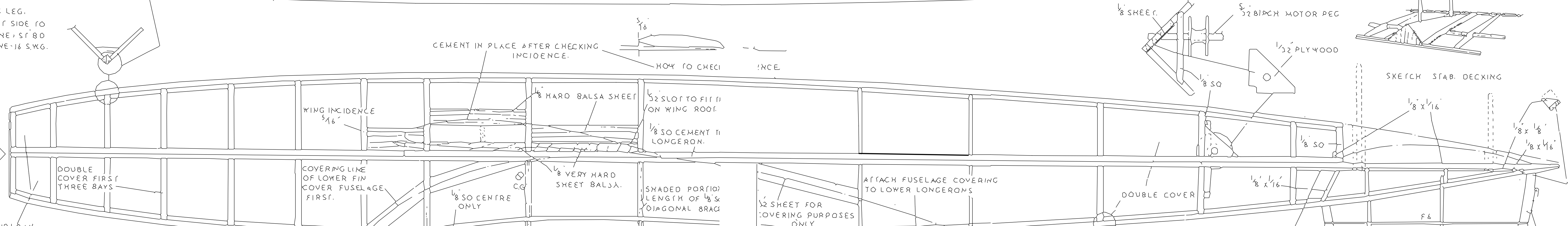


REAR FRONT FIN SPAR



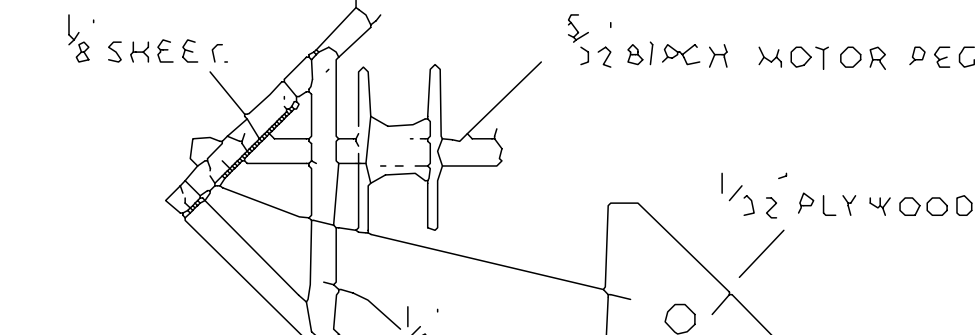
BASIC FUSELAGE 1 CROSS STRUTS SO EXCEPT WHERE SHOWN OTHERWISE

FRONT 1/2 LEG. MAKE PORT SIDE TO DOTTED LINE. ST 80 TO FULL LINE. 1/8 SWG.



CEMENT IN PLACE AFTER CHECKING INCIDENCE.

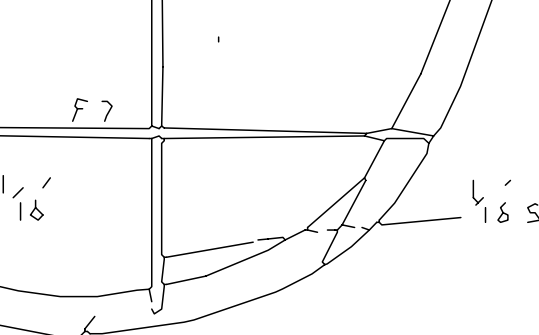
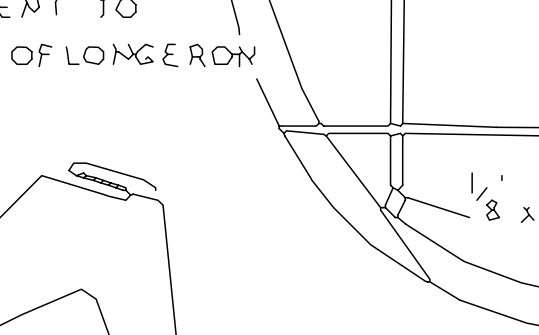
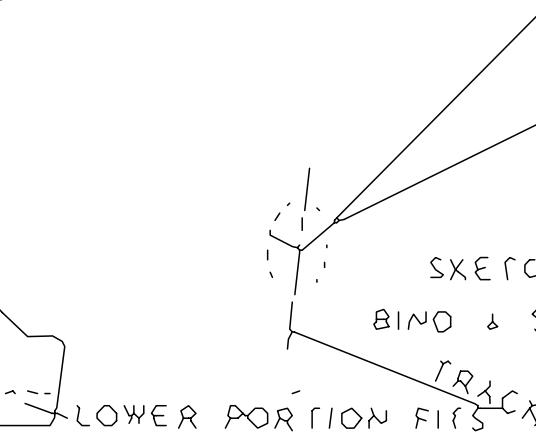
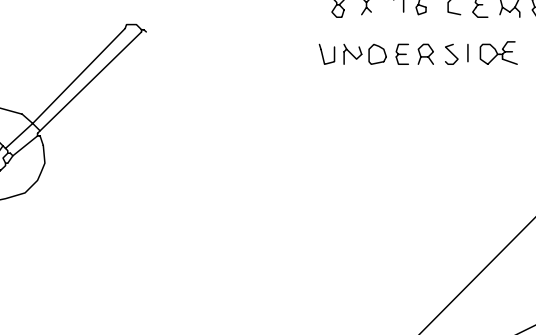
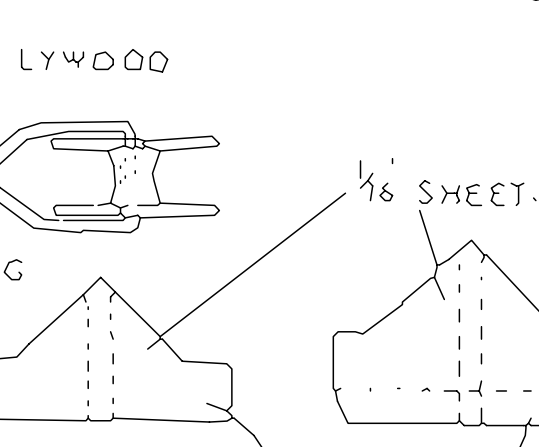
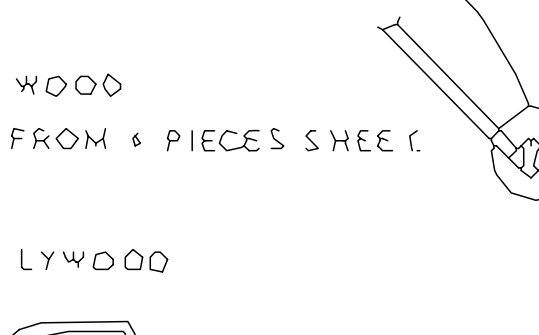
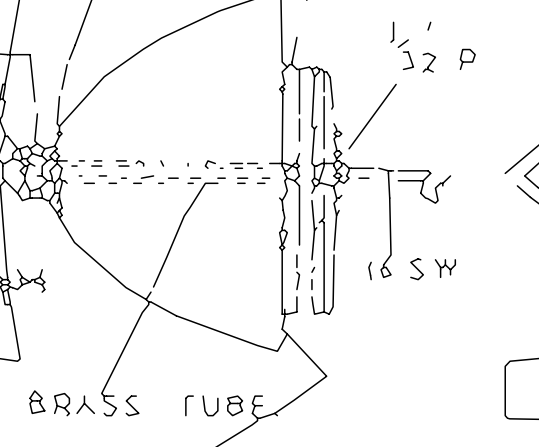
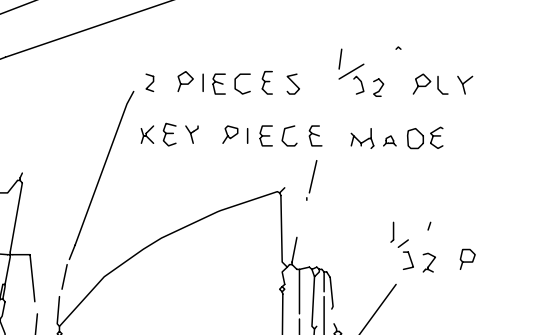
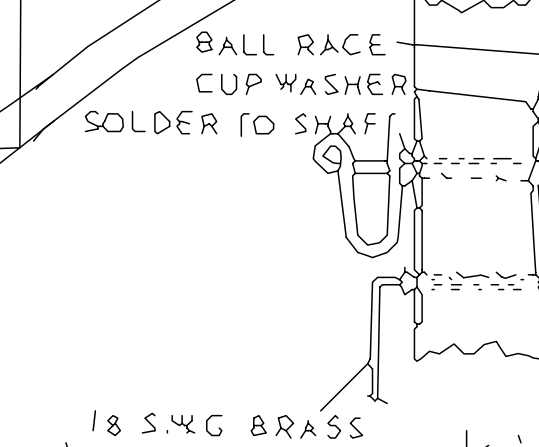
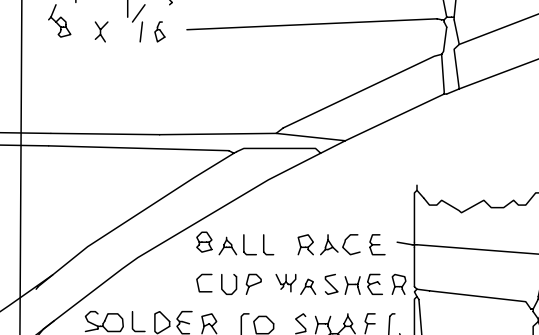
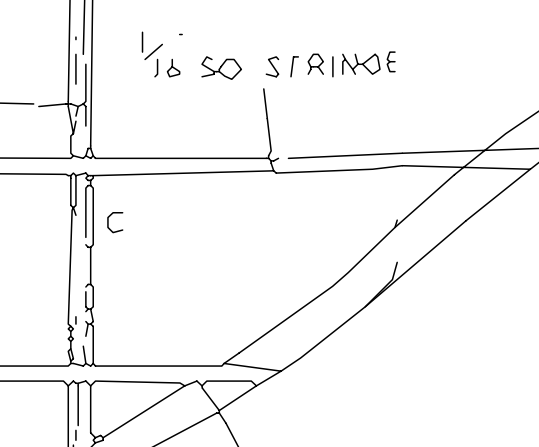
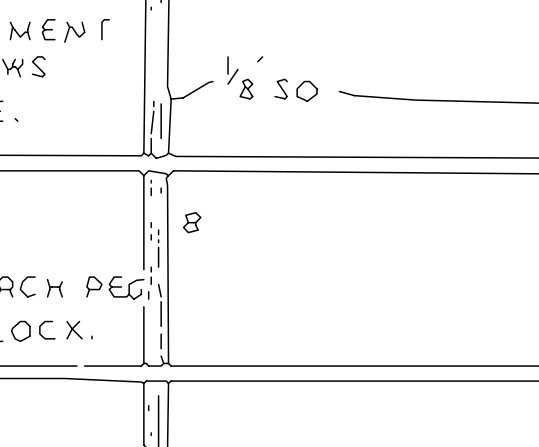
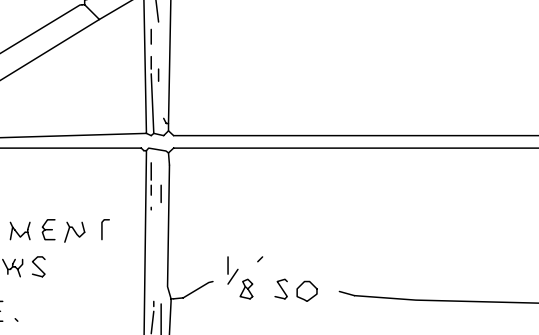
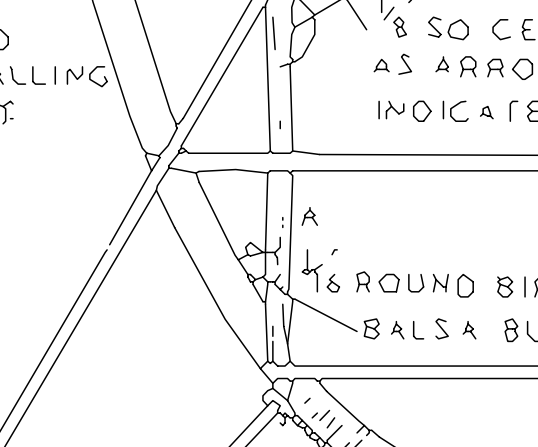
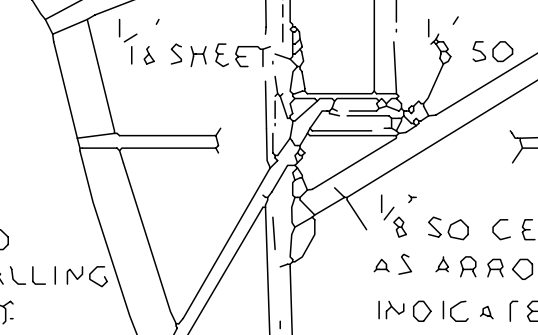
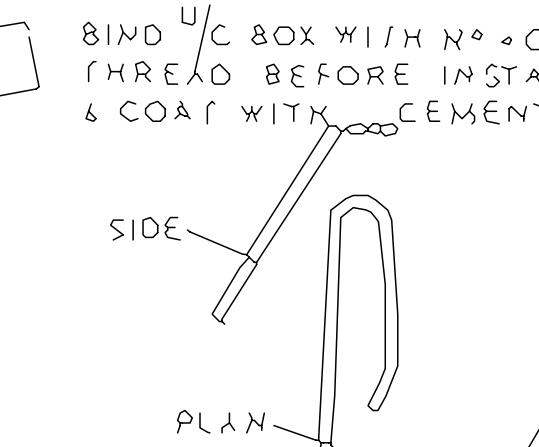
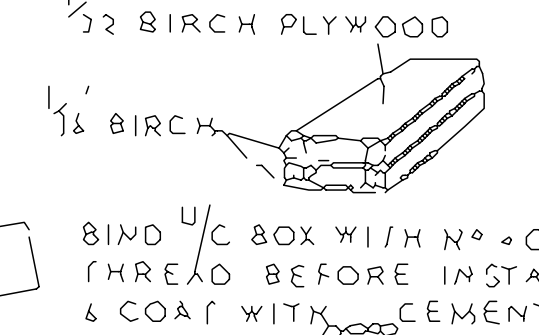
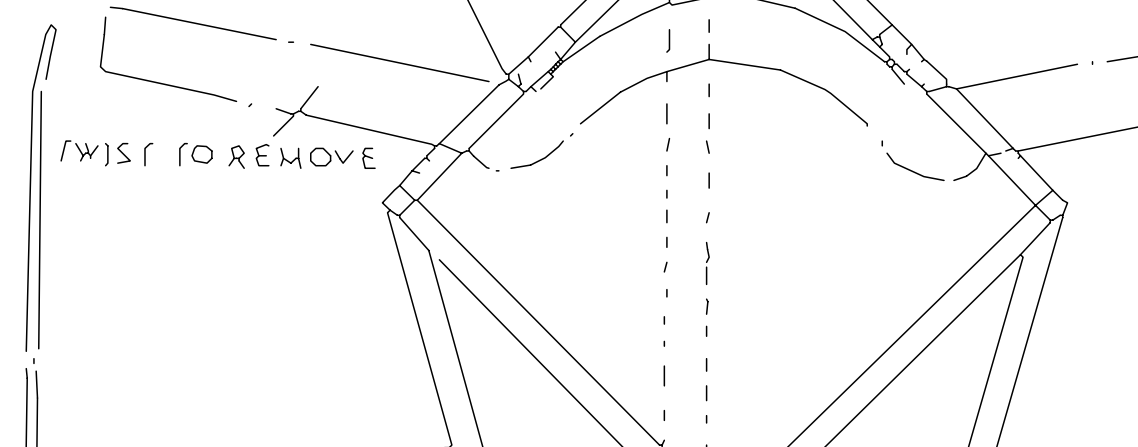
HOW TO CHECK INCIDENCE.



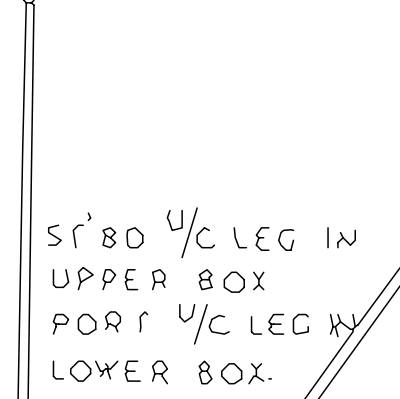
SKETCH STAB. DECKING

1/32 PLYWOOD CAP FILL IN NO. 1 BAY WITH 1/16 SHEET.

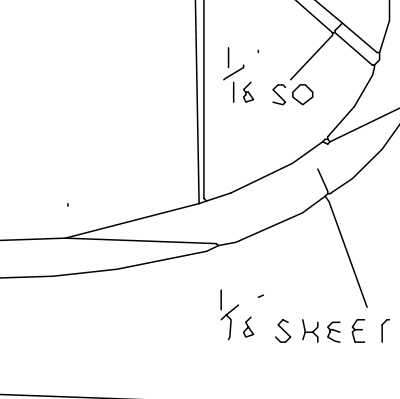
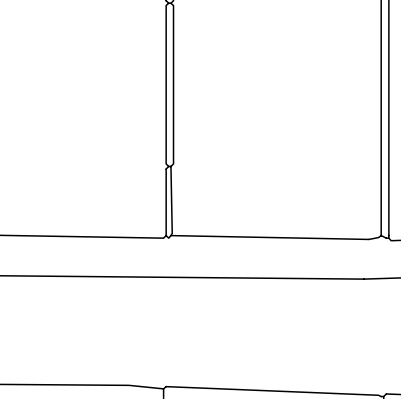
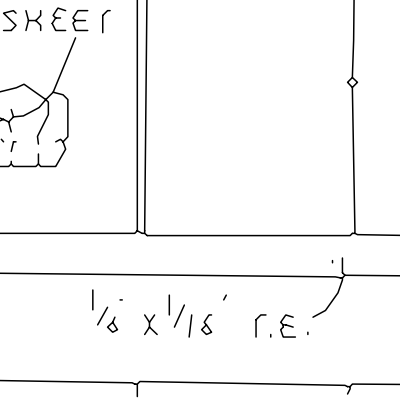
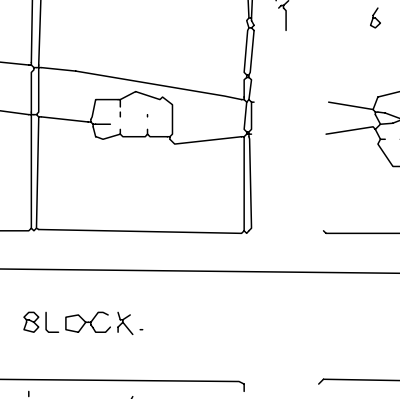
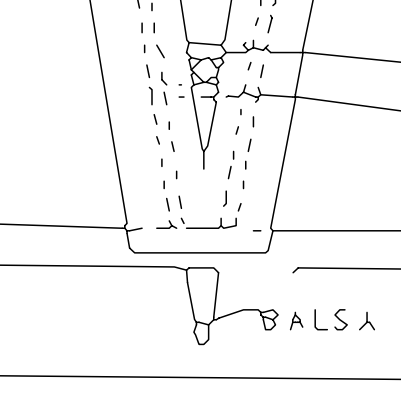
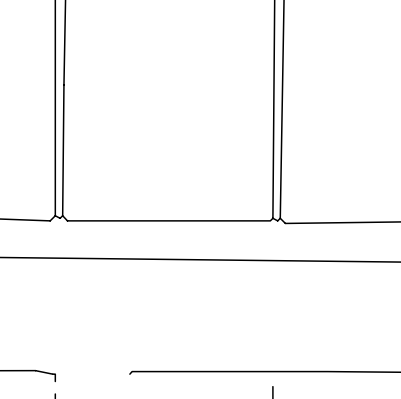
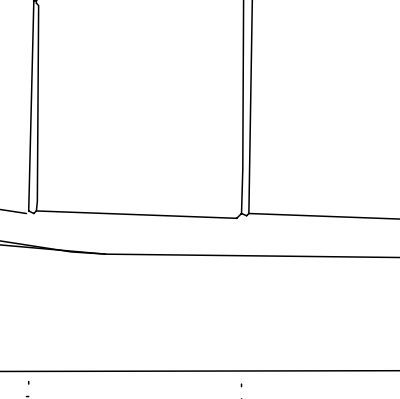
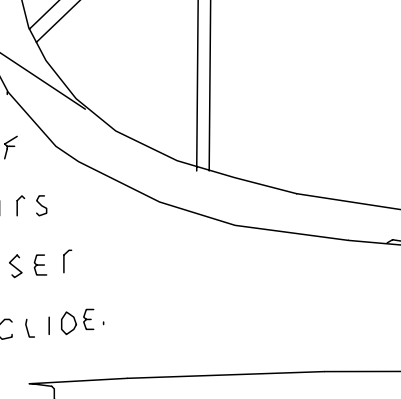
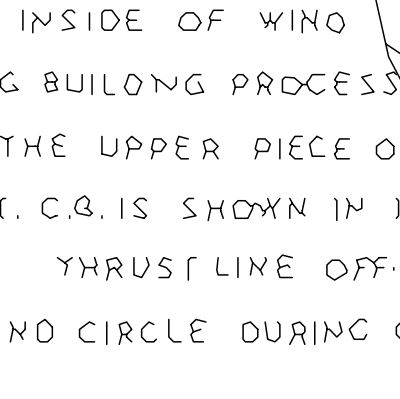
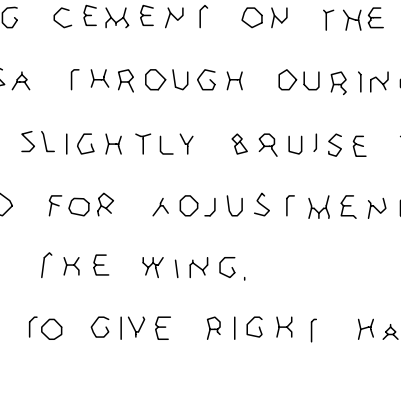
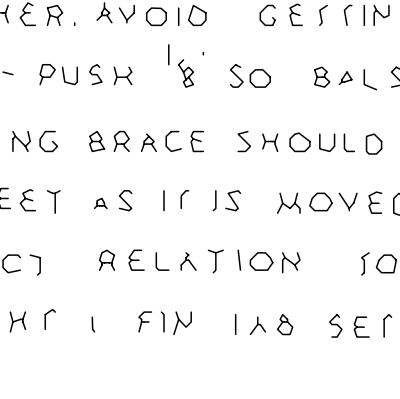
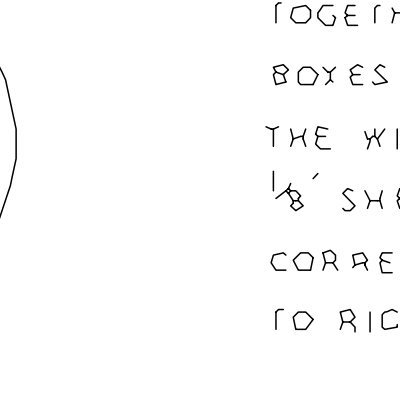
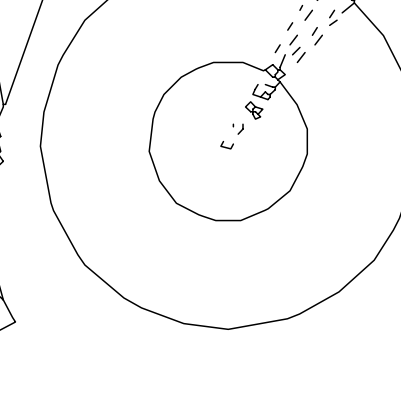
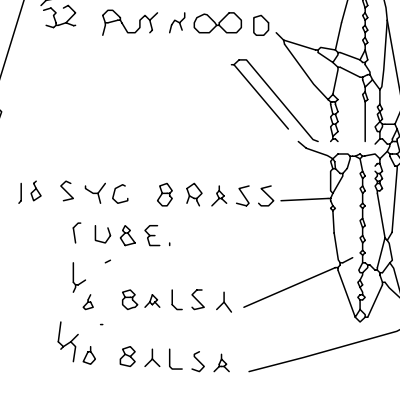
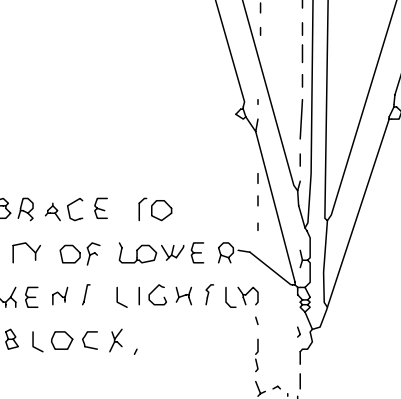
CEMENT SLIGHTLY LOWER THAN SHOWN TO OBTAIN TIGHT FIT ON WING BRACE. NOTE ANGLE.



PATTERN 1/4 REAR LEG 1/8 SWG.

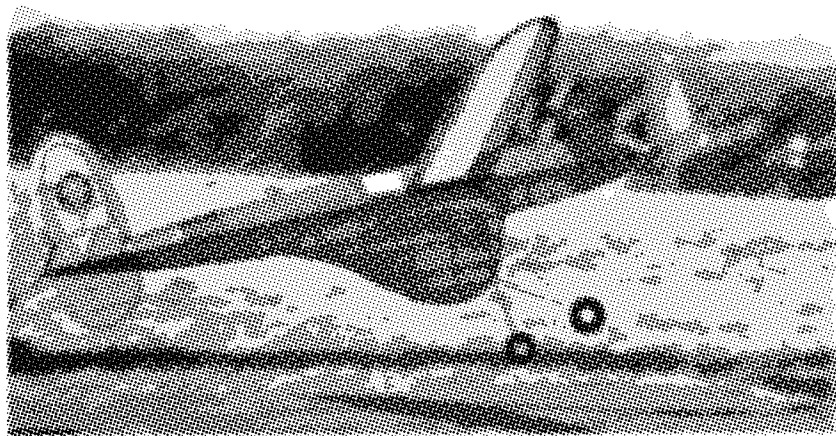


TEMPORARY 1/8 x 1/4 BRACE TO OBTAIN VERTICALITY OF LOWER FIN OUTLINE. CEMENT LIGHTLY LONGERONS 1/16 BLOCK.



POWER 14 STRANDS 1/8 x 1/32 x 48 LONG OR 18 STRANDS OF 1/4 x 1/50 x 48 LONG. MAXIMUM TURNS 950 STABILISER 1 REAR 1/4 LEG FIXED WITH RUBBER BANDS. APPLY TWO COATS OF CEMENT TO ALL HIGHLY STRESSED PARTS, BEFORE BRINGING PIECES TOGETHER. AVOID GETTING CEMENT ON THE INSIDE OF WING BOXES. PUSH 1/8 SO BALSA THROUGH DURING BUILDING PROCESS. THE WING BRACE SHOULD SLIGHTLY BRUISE THE UPPER PIECE OF 1/8 SHEET AS IT IS MOVED FOR ADJUSTMENT. C.G. IS SHOWN IN ITS CORRECT RELATION TO THE WING. THRUST LINE OFF-SET TO RIGHT 1 FIN 1/8 SET TO GIVE RIGHT HAND CURVE DURING CLIMB.

1/8 x 1/16 HARD BALSA



Jaguar. 1948 Wakefield Winner designed by E. W. Evans.

DESCRPTION.—E. W. Evans' Jaguar Wakefield has been "news" almost since its inception and first appearance on the contest field. First mention in *Aeromodeller* in September, 1947, was guarded: "... an unusual Wakefield model designed by Mr. Evans. Many replicas such as this, flown by members of the Northampton Club, have met with considerable success." But by November of that year it was well enough known to have jokes passed on its bellied under fin, as: "... particular merit was E. W. Evans' three flight aggregate of 483.2 secs. gained with that familiar Wakefield described by many as being in a 'certain condition'." In 1948 its successes have continued to mount, both in the hands of the designer, and his fellow-clubmen, until it reached the height of rubber model achievement by winning the Wakefield Trophy for this country flown by Northampton clubman Roy Chesterton.

In designing the model Evans kept no less than thirteen main points in view, of which the principal were:—

High power to weight ratio (50/50 aimed at); ease of construction and repair; freedom from gadgets; largest practical diameter airscrew without detriment to glide; undercarriage to be positioned nearer the c.g. to allow for more rapid take-off; largest wingspan without increasing aspect ratio to a ridiculous proportion; drag to be kept to a minimum; positive adjustment of all surfaces; portability; normal duration of 4/4½ minutes.

Unusual feature that undoubtedly contributes much to its really outstanding performance is the forward underfin belly, that locates lateral area well forward and partly encloses the undercarriage. It is built supplementary to main fuselage structure, so that weight or strength of this is not adversely affected.

Of the thirteen features in the design specification every one

was met in the final Jaguar which flew virtually from the drawing board. Features as flown may be briefly summarised as:

- (1) Streamlining carried out in a practical way without additional weight.
- (2) High power to weight ratio, without sacrificing strength.
- (3) Total weight kept to required minimum.
- (4) Freedom from structural failures.

PERFORMANCE.—Principal successes include 1947 Midland Rally with wet weather aggregate of 483.2 secs and second with 457 secs.; M.E. No. 2 Cup, 1947, 429 secs.; 2nd Eaton Bray International Week, 445 secs.; Gutteridge 2nd, 627 secs. In 1948 successes include: Weston Cup, 342.1 secs.; Gutteridge 1st and 2nd with 624 and 619 secs.; Final Wakefield Trials, 465.25 secs.; 1st Eaton Bray Third International Week, 237 secs.; Wakefield Trophy 1948 (see detailed results, page 53).

DIMENSIONS.—Span 44½ ins. Root chord 5¾ ins. tapering to 3 ins. at tip. Wingsection RAF32. Dihedral 4¼ ins. under each tip. Fuselage overall length 37 ins. Tailplane 19 ins. span, tapering 1/e, straight t/e. Fined Clark Y. All up weight 8¼ ozs. Airscrew 18½ ins. diameter two blade normal freewheeling type. Power 14 strands ¼ × 1/24, 48 ins. long, or 18 strands ¼ × 1/30 48 ins. long. Maximum turns 950.

Heading shows a Jaguar in action: quick reliable take-off is a feature of the design. Below is seen designer E. W. Evans lighting a Jaguar dethermaliser fuse—a *sine qua non* in most sorts of weather if the model is required again.

