

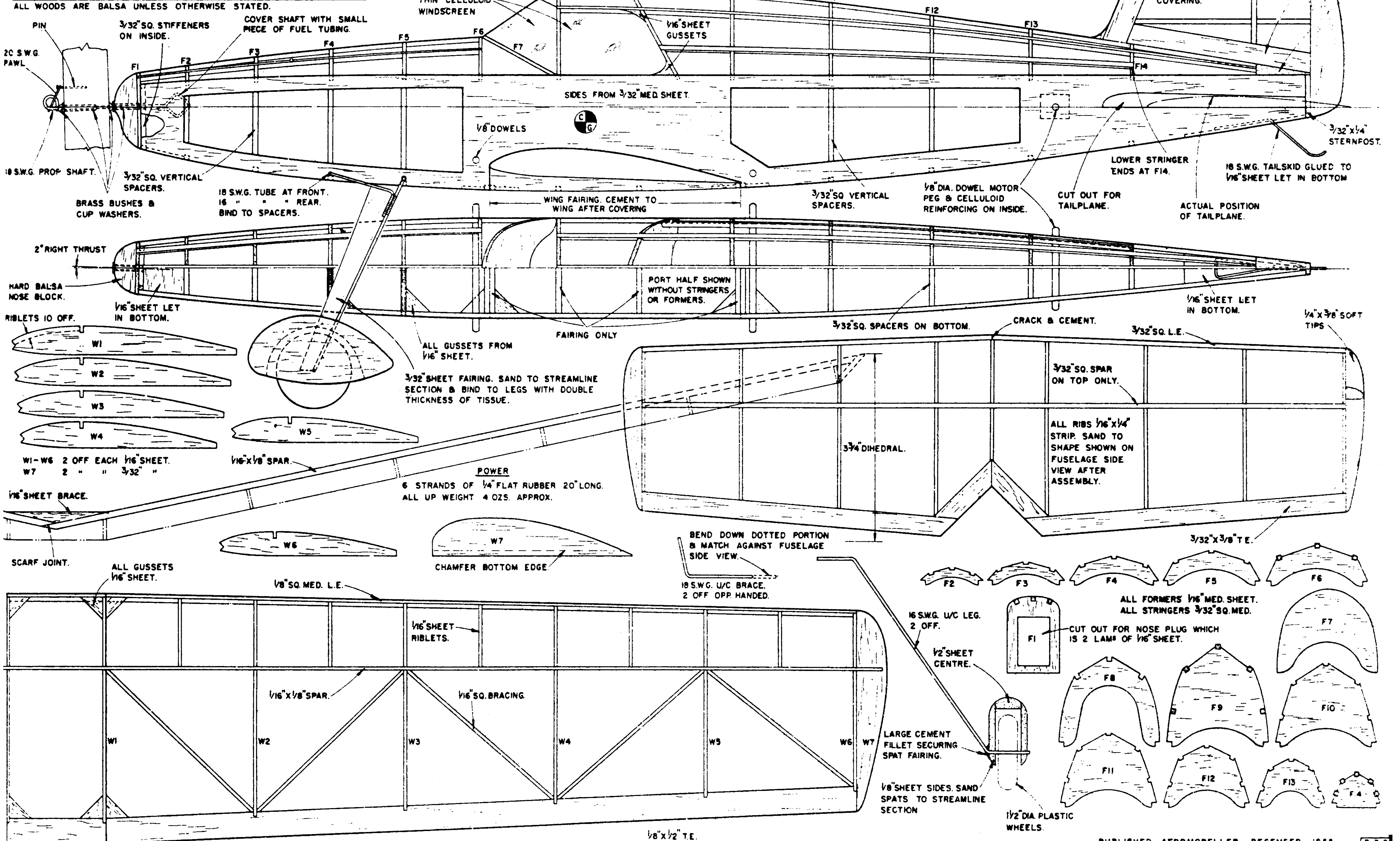
RED ADMIRAL

DESIGNED BY
R. S. Brewer.

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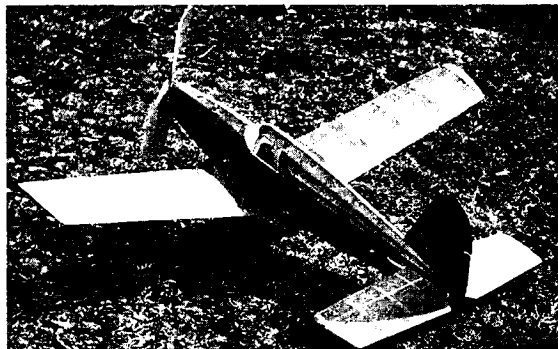
38, CLARENDON RD., WATFORD, HERTS.

MATERIALS REQUIRED			
2 STRIPS OF	1/16" x 1/16" x 36" MED. Balsa	4" OF	1/8" x 3" Balsa
1 "	1/16" x 1/8" x 36" "	1" x 1/2" x 1/2" HARD	Balsa BLOCK
6 "	3/32" x 3/32" x 36" "	1" x 1/2" x 1/2"	"
1 "	1/8" x 1/8" x 36" "	16" OF	18 S.W.G. WIRE
1 "	3/32" x 3/8" x 36" "	" T.E.	16" 16 S.W.G. "
1 "	1/8" x 1/2" x 36" "	"	2 18 S.W.G. BRASS BUSHES
1 SHEET	1/16" x 3" x 36" "	"	2" OF 18 S.W.G. BRASS TUBING
2 "	3/32" x 3" x 36" "	"	2" " 16" "
6" OF	1/4" x 3/8" SOFT Balsa	8" "	1/8" DIA. DOWEL
4" "	1/2" x 1/2" "	"	THIN CELLULOID



RED ADMIRAL

by R. S. BREWER



Smart fuselage lines, neat wheel spats and undercarriage and a semi-scale cutaway in the elevator, help to give Red Admiral realistic lines which go well with its fine performance. Fuselage construction is particularly simple for beginners, eliminating conventional longerons — why not make it your standard club model for sport flying?

A 32" low-wing high performance sport model

MANY OF US "OLDIE" modellers will remember with not a little affection the delightful *Cruiser Pup* low wing kit model which was so popular among the sport flying fraternity in those very pleasant flying days of almost twenty years ago, when contests were a rarity and flying fields no problem.

"Rip's" little Pup was the perfect introduction for the beginner and would flit around the field in a very stable manner for 60 seconds on any flight. Mr. Brewer's Red Admiral design brings back these fond memories with its similar layout, embellished with modern trends of thought in larger fuselage proportions and using more area, more power and a larger propeller to obtain high performance and longer duration.

Construction is within the capabilities of any beginner and the flight trim procedure is as simple as one could

desire—why not tackle it as a one-design club model, or build one to while away pleasant moments on the local playing fields?

Cut out basic fuselage from light $\frac{3}{8}$ sheet, add vertical spacers and stiffeners. Mark position of all formers and bottom spacers and then join the two sides using forms F.6, F.8 and F.10 and their corresponding bottom spaces, check for squareness and allow to dry. Then pull in at front and rear and add the rest of the formers and spacers, holding both ends together with rubber bands. Add sternpost, stringers, fairings and u/c tubing. Make up tailskid, cement to $\frac{1}{8}$ sheet fill-in at stern, and cement assembly firmly in place. Make up u/c legs and braces, insert them in the tubes on the model, adjust for correct take, bind with fuse wire and solder. Bind fairing securely in place, assemble spats, allow to dry and then carve and sand to shape.

Put spats and wheel on to u/c leg and cement to strut with four successive fillers.

The tail and fin are built directly over the plan. Tail ribs are from $\frac{1}{8}$ by $\frac{1}{8}$ notched to accept spar, and sanded to section after assembly. Care should be taken to make good joints at the trailing edge breaks. The fin is cemented to the fuselage after covering.

Build two halves over the plan in the usual way, then prop each tip up $3\frac{1}{2}$ in. and join with centre section adding gussets and $\frac{1}{8}$ dihedral brace. It is easier to add the diagonal anti-warp bracing and wing tips after removal from the building-board. Note that the centre section fuselage fairing is added after covering the wing.

The propeller shown in the plan is very efficient and should be carved from hard balsa. If this is too daunting, an 11-in. commercial propeller may be used, cut down to 10 $\frac{1}{2}$ in. A simple free wheel is shown and is recommended.

Cover the whole model with lightweight model tissue. The original had red fuselage and fin, blue wings and tail, and silver spats and propeller. A good opaque effect can be obtained by painting the fuselage with a thick water colour solution after tightening the tissue with water spraying. The sort of paint that is sold in small tubes is the best to use. Give the fuselage two coats of dope, and the wings and tail one coat.

Check that Red Admiral balances just aft of the mainspar at the point shown on the plan.

The model should have a very flat glide with some right turn. Avoid packing the tail with more than $\frac{1}{8}$ at a time. The tail chord is very narrow at this point and any adjustments are very noticeable. No downthrust was needed on the original, and sufficient sidethrust is built in. The model should climb in a wide right spiral. Flights in the region of 60-70 seconds may be expected on $\frac{3}{4}$ full turns (about 400 turns) and 90-100 seconds on maximum turns (about 625). For a really hot performance, use eight strands of $\frac{1}{4}$ flat when the climb will be pretty spectacular.

Normal motor is made up of 10 feet of $\frac{1}{4}$ in. flatstrip tied into one loop and divided into three for six strands. This should be pre-tensioned by winding the loop backwards, and allowing the lot to wind itself into a "rope" when divided by three. Wrap rubber bands at each end and use bobbins if your model shop stocks them.

The model is very stable and can hold a tight turn either way without spiralling in. Do not try to trim right on the stall because stall recovery is not immediate with models of this type which have a fairly short tail movement.