

One thing about the 'Tub', it's no trouble replacing the rubber motor! Author uses styrofoam parts to keep weight down.

RAMSEY FLYING 'BATHTUB'

By DON DRURY ... Here's a bonus Peanut for all them hungry elephants out there! As flying fields and balsa get more scarce and/or costly, the little 13 inchers continue to grow ... in volume, if not size.

• W.H. Ramsey designed this unusual home built in 1931 and, although it flew very well, the records show that only one was ever constructed. The plane's unusual features included the bathtub type of cabin, seating two side by side, and the Aeronca 30 horse power, two cylinder engine. Complete history, three-view drawings, and details, were published in the June July 1963 issue of Air Progress.

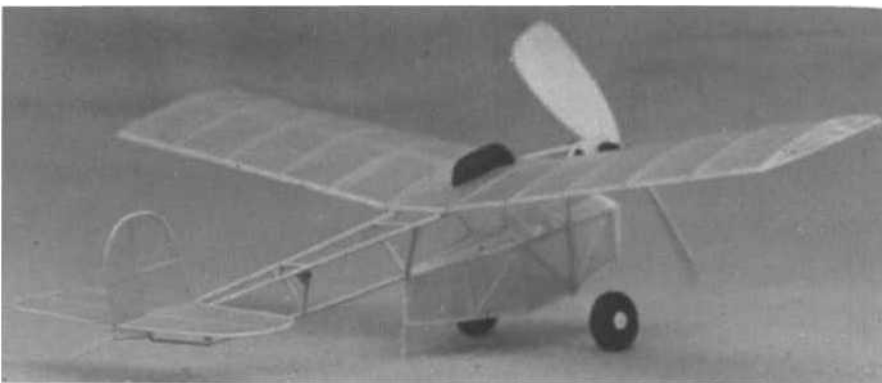
This little gem is an ideal rubber scale model due to the high thrust line, related wing and tail size, and general moments. Also the combination of open framework and tub gives added eye-appeal and takes the model out of the norm. The amount of scale detail is up to the individual modeler and the level of competition in your area. Two models were built, one indoor light-weight with condenser paper covering,

and one heavier outdoor version with colored tissue and paint trim. Both models were photographed, but the plans are for the light weight version.

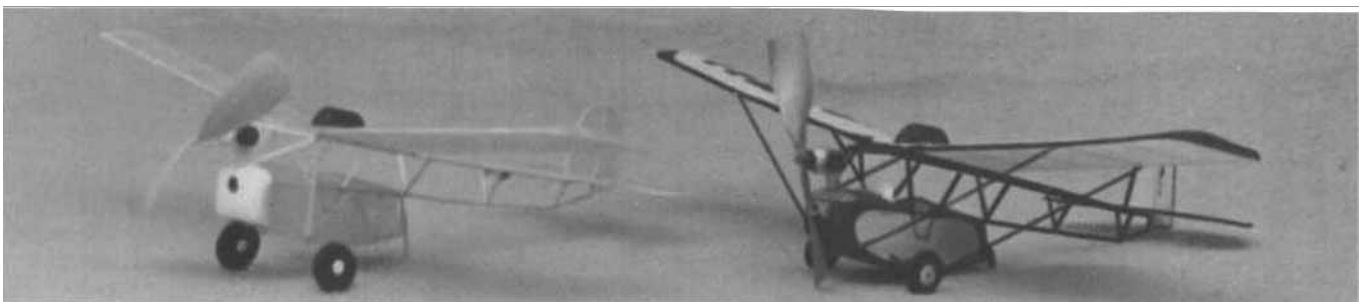
Construction is conventional and quite simple. The bathtub is 1/20 sq., or 1/16 X 1/32 sliced from light weight 1/32 sheet. Formers are 1/32 sheet and deck stringers are 1/32 sq. Nose of the tub is light weight styrofoam. Landing gear is 1/64 wire and wheels are, again, light weight styrofoam.

The engine is a tube of 1/32 sheet balsa soaked and wrapped around a pencil. The engine pylon is a sandwich of three 1/16 sheets, and the center piece is cut into the foam nose of the tub. Add 1/16 engine nose plate and thrust button and install tail skid and styrofoam cylinder heads. Cover with condenser paper and tub is completed.

The propeller is made from 1/32 sheet sanded to 1/64 and mounted on hub section at 40 degrees to the propeller shaft. Add a few small teflon washers, install on the thrust button, and bend a rear hook for the rubber. The open fuselage work is made from fairly



The condenser paper covered indoor model almost disappears into the background. High thrust line allows generous size propeller.



Most of the difference in the two models is in the wood sizes used in construction.

hard 1/16 sq. stringers, sanded round. Make the top crutch over the plans . . . starting from the front of the wing. Add the side uprights and lower longeron section to make the triangular part of the fuselage. Note the incidence in the stabilizer. Glue the lower longeron to the back of the bathtub and add the two uprights from the top crutch at the front of wing position to the bathtub. Then add the other two uprights and the stringers from the front of the crutch to the engine. Add rear rubber hook. This construction is a little different than the usual, but it has adequate strength and the fuselage doesn't distort under a fully wound motor.

Stabilizer and rudder are made of two laminates of 1/32 sq., with 1/32 sq. cross members. The method I prefer here is to make templates of cardboard or 1/16 sheet for the rudder and the two halves of the stabilizer, about one inch longer than necessary. Rub edge with candle wax, soak the oversized stringers for about an hour, bend the 1st laminate around the form, taping it in place at the base only. Now a light coat of Elmers glue thinned 50% with water. Add second laminate and tape over the first tape. Let dry, cut off above the tape, and your rudder and stabilizer outlines are complete. Add 1/32 sq. cross members and sand finished tail to round shape.

Wing is light weight 1/16 sq. leading edge and trailing edge, with 1/8 x 1/32 center stringer, 1/32 sliced ribs and 1/32 X 1/16 tip pieces. Cut away center section of main spar, crack leading edge and trailing edge and glue in 1/2 inch dihedral in each tip. Add 1/8 x 1/32 center piece to main spar ... 1/4 inch longer on each side than the center section to lock in the dihedral. Sand leading and trailing edge to airfoil shape.

Cover wing and tail with condenser paper and glue in place on the fuselage. Check center of gravity and add clay to nose or tail, if necessary. No weight was required in the original model.

You may notice in the photos that the wing supports have not been installed on the indoor model. I use a bit of wing warp to keep the inside wing up for circle, with opposite rudder. Balance of adjustments are with side and/or down thrust. When fully adjusted, add the wing supports.

A word about the outdoor version. The tub is 1/32 sheet sanded to 1/64. The nose block is balsa. Engine is 1/16 tube. Fuselage is 1/20 sq. spruce sanded round. The tail assembly is the same as the indoor version, but beefed up a bit. Wings use full depth ribs and top spar of 1/16 sq. Cover with colored tissue and add paint trim. This one needed some weight in the tail so I have now gone to a balsa prop, similar to the indoor version, instead of the plastic prop.

Both fly very well, and the indoor version gets well over a minute in our 20 foot high ceiling gym. Build one, and watch the other modelers drool over it.