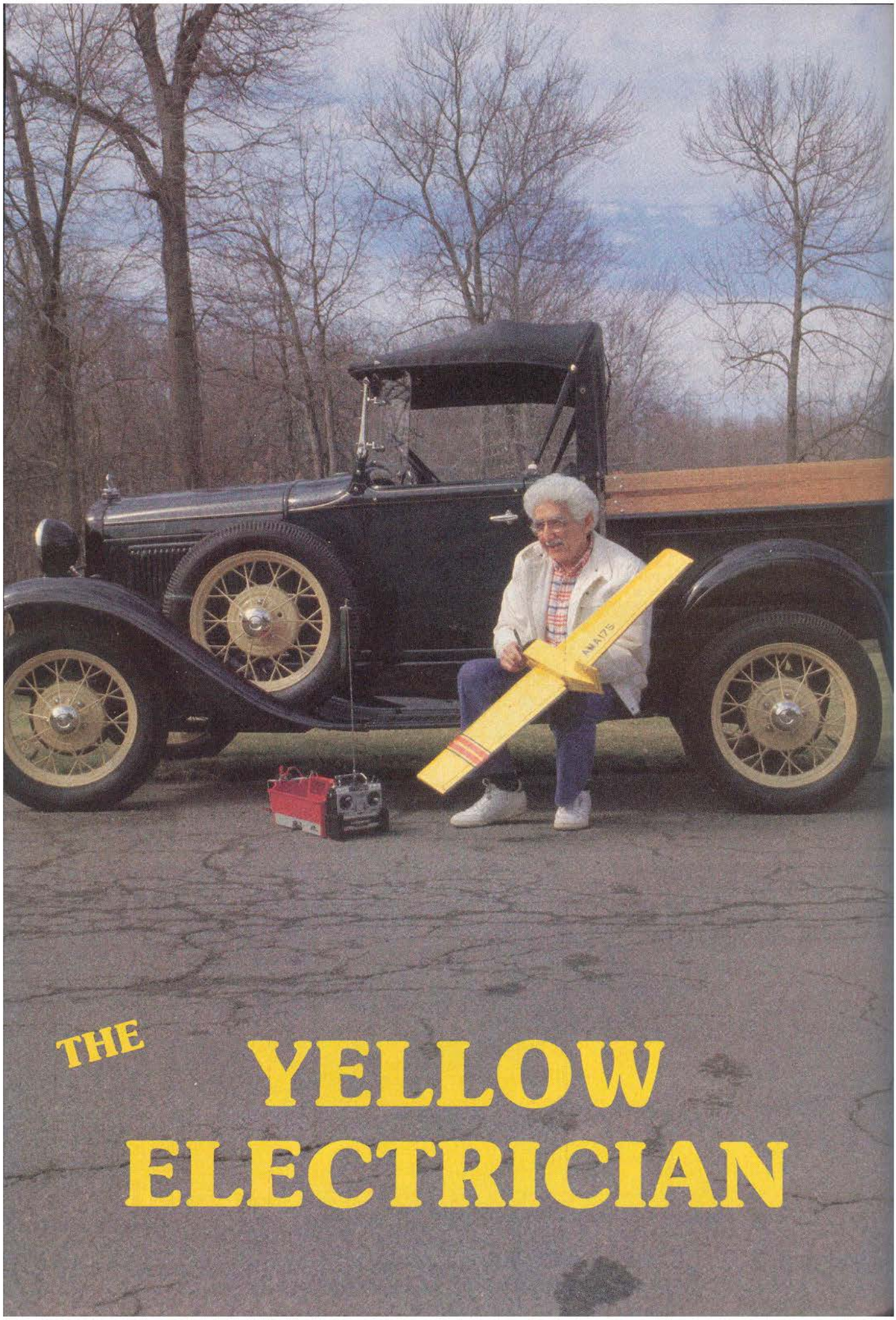
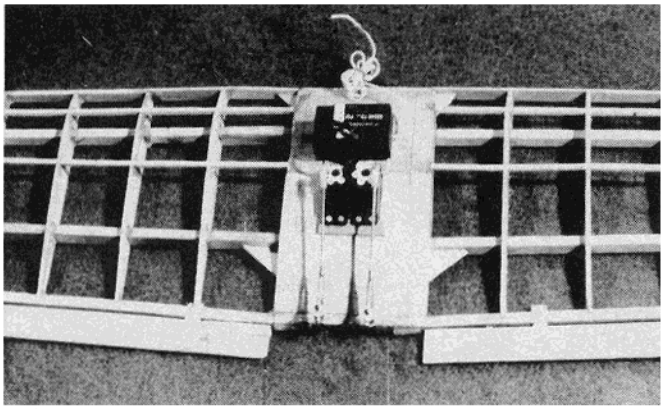
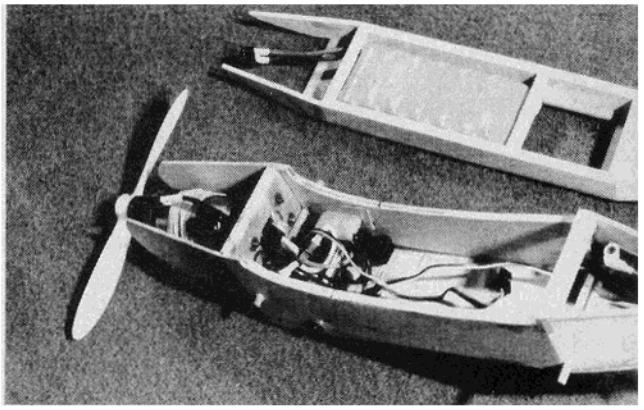
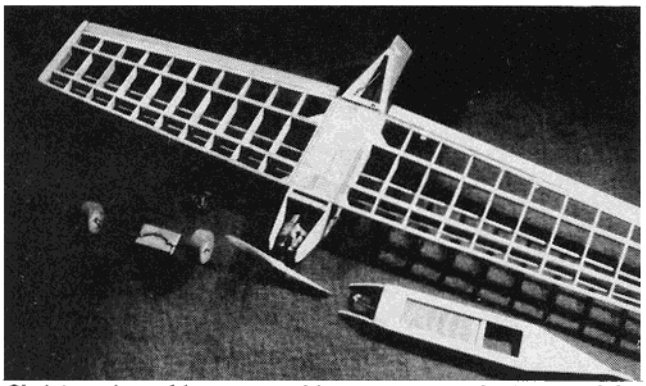

THE
YELLOW
ELECTRICIAN



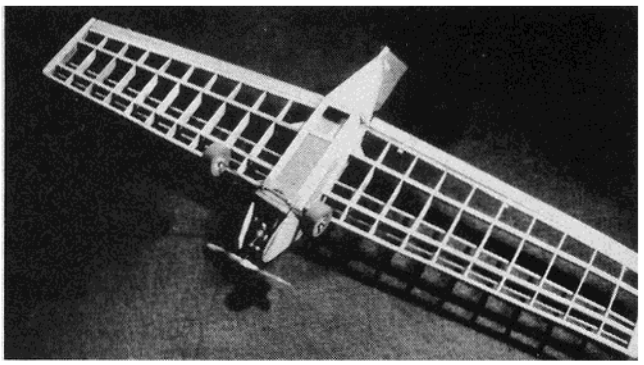
Conventional built-up balsa construction. Servos and receiver are attached to wing. Elevon servos employ transmitter mixer for control.



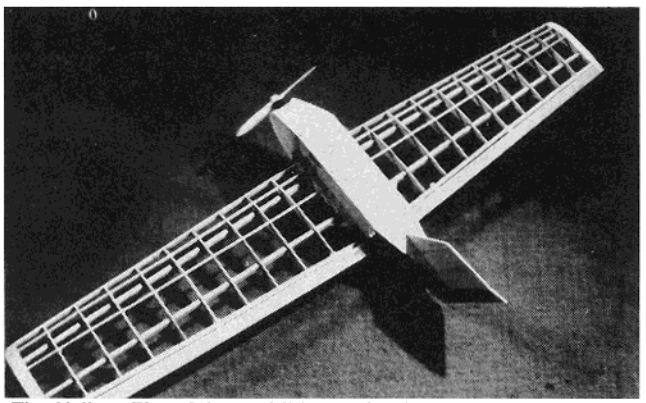
Internal view of fuselage showing rudder servo, motor, motor battery, fuse plug, and radio switch. Speed controller is under wires. Convenient "split" fuselage.



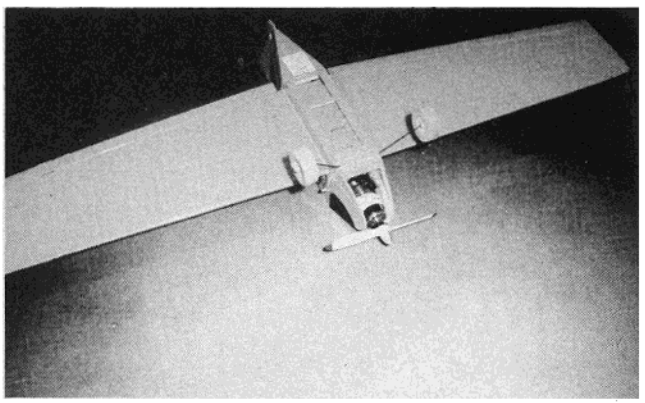
Skeleton view of bare separable components, battery module, fuselage, landing gear, and wing (setting in wing cavity).



Fuselage bottom/battery module in place. Opening in aft portion of module is for cooling air. Note that wings, lower fuselage, battery module, and landing gear are all held in place with rubber bands for "impact" flexibility!



The Yellow Electrician exhibits a simple sturdy structure that builds quickly.



Bottom view of completely covered and assembled model. Easy access to motor and batteries.

CONSTRUCTION

Wing:

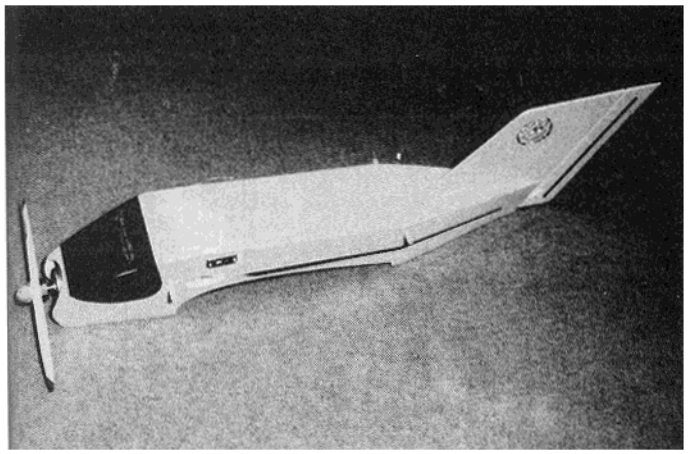
The wing is open frame construction with a notched 5/16'' x 1/2'' balsa leading edge and 1/4'' square balsa trailing edge. Main spars are 1/4'' x 1/2'' balsa, tapered to 5/16'' at each tip. After cutting the 23 rib sections, as indicated by the templates, from 3/32'' balsa, lay out the notched trailing and leading edges on the plan view with the tapered spars, and insert the ribs in place as shown. Glue all ribs in their proper location, with the exception of the two No. 1 ribs at the break point of the dihedral. After the glue joints set, razor cut a notch at the break points of the dihedral shown on the plans and establish the 1/2'' tip dihedral at the tip of each wing. Glue the break points at the dihedral angles and install and glue the remaining two No. 1 ribs in place.

Remove the assembly from the plan and widen the main spar notches on both sides of the center ribs to accept the 1/32'' plywood dihedral braces as shown on the plan. Glue and trim the bottom to be flush with the spars. Install the remaining 1/8'' x 1/4'' wing spars and form 3/4'' x 3/4'' balsa wing tips as shown on the plans. Plank the center section bottom and top between No. 1 ribs as detailed, trim leading and trailing edge to airfoil form. Sand the complete assembly for clean intersections of the spars, ribs, tips, etc.

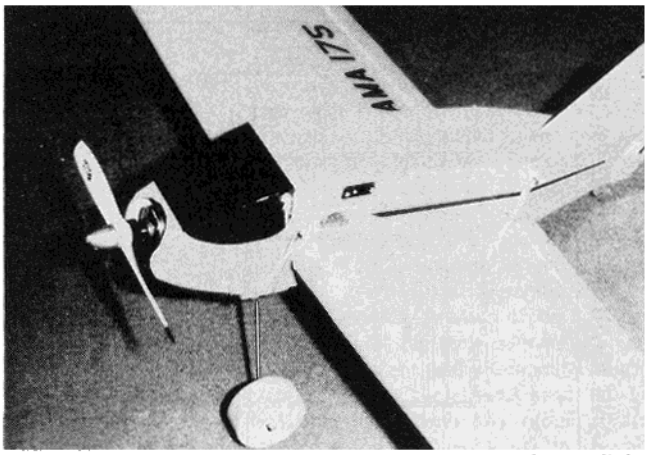
Construct elevons from 3/4'' x 3/16'' tapered trailing edge stock and glue the additional 1/16'' x 5/16'' balsa strips to the trailing edge, flat to bottom as shown on plans. Notch elevons and trailing edge to accept Sig Easy type hinges, notch trailing edges to accept strip aileron control set and elevon as shown. Re-sand the assembly, cut out the wing planking to accept the two servos in place as shown, and assemble the threaded pushrod to the control set with socket type ball link connectors at the servo arms as shown.

Fuselage:

Cut the No. F1 former from 1/8'' balsa and former No. F2 from 3/16'' balsa sheet in width and length as shown on plans. Cut the fuselage sides from 3/32'' balsa as



Completed fuselage minus module, wing, and landing gear — looks lonesome.



Close-up view of switch location and fuse/motor safety switch. Note lightweight Dave Brown wheels.

outlined, and chamfer the 3/16" x 3/8" balsa filler piece as shown for the rear of the fuselage; place the fuselage sides on the top view. Clamp and glue No. 1 and No. 2 formers in place; clamp and glue 3/16" x 3/8" filler at the rear of the fuselage. Double plank the sides of the fuselage between formers F1 and F2 as shown with 3/32" balsa sheets. From 1/8" sheet plywood, cut two F1 formers. These are nested before and after the balsa former No. F1 as shown. Lay out Sonic Tronics motor mount and drill four holes through two sized 1/8" sheet plywood formers to accept 4 x 40 screws and blind nuts as shown.

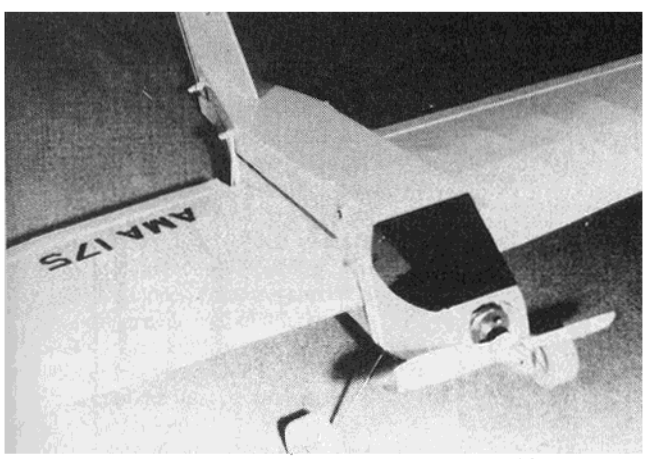
Place in the fuselage and line drill the holes through the balsa wood to match the holes in the two plywood formers. Cyano glue the four blind nuts into the rear 1/8" plywood former. Sandwich glue these formers into the fuselage and assemble the Sonic Tronics motor mount with 4 x 40 Allen head socket screws as shown. Sand the top of the fuselage for even jointing. Plank 3/32" sheet balsa across the top, trim and sand evenly to the fuselage sides. From 1/8" sheet, cut rudder outline, notch for Sig Easy type hinges, and sand to final contour. Notch the fuselage top at the rear to accept the rudder and to the bottom side of the top sheeting. Glue two 1/8" x 1/4" balsa strips to accept both sides of the rudder insertion for strength. The rudder horn is assembled as shown on the plan.

A micro servo is mounted with double sided foam tape and connected with a Goldberg type clevis and pushrod. The module section of the fuselage is built from 1/4" balsa sides and formers, planked at the bottom with 3/32" plywood from the front of former No. F1 to former No. F2, which serves as the battery compartment. From former No. F2 to the rear, 3/32" balsa sheet is used for the sides and the bottom. The landing gear base is constructed from 1/8" hard balsa and plywood as shown on the landing gear detail. 3/32" diameter piano wire is bent as shown and held with three J type bolts. Two inch foam Dave Brown wheels are used and held in place with 3/32" I.D. lock type collars. Drill 3/16" diameter holes for the leading and trailing edge dowels, at location shown on the plans. Cut out openings in the fuselage sides to accept the fuse base, charging plug and motor control switch.

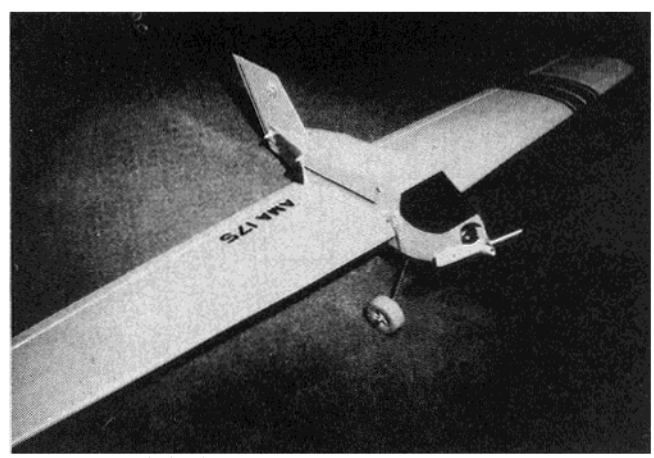
Final Finishing And Sanding:

With the accessory items removed, sand all balsa surfaces to a flat, smooth finish. Cover with yellow MonoKote or any other heat shrink plastic covering desired. Install the accessory switch and plugs, insert and cyano glue the .045" diameter piano wire tail skid, mount the motor in place, and solder the electrical wiring as shown. For wiring, I recommend Jomar type 16 gauge stranded wire and 4-prong Deans type connectors, using 2 prongs for the positive and 2 prongs for the negative connection. After completing the wiring, mount the receiver with Velcro tape on top of the wing section as shown. Complete the radio plug-in wiring, assemble model with No. 62 elastic bands and charge the battery pack. Adjust and thoroughly check out the controls making sure that the mixer is set properly for the elevon control direction with proper rudder movement. Do not overlook the 5/32" up trim required in the elevons at the neutral position. This is an absolute necessity to preclude the nose from burying into the ground during flight. This is a fundamental trim requirement for all flying wing type models. The rudder may also be mixed with the elevons if desired. Control surface throw is 5/16" up and down for the elevons (from neutral position) and rudder throw is 3/8" left and right. Now, peak charge the batteries and fly it. I hope you will find the Yellow Electrician as enjoyable as I have.

Good luck and happy landings! □



Charging Jack is located on opposite side of switch's.



Ready to go flying!