INSTRUCTIONS

These instructions were written to help you build as good a ship as possible. Please read them before building your model.

FUSELAGE
Glue up the firewall with the landing gear sandwiched between the two pieces of plywood. Using the holes in your motor as a guide, drill holes for mounting the engine on the firewall. Glue nuts on back of firewall to anchor motor mounting screws. Cement the fuselage sides together at the rear, then glue the firewall sandwich to the front. Add the bulkheads. Cover the bottom of the fuselage with the grain of the wood running crosswise. Glue the 3/32 wing platform to the pylon with the grain running crosswise. Check to see that the platform is square with the pylon. Add the 1/8 square runners on the platform. Glue the pylon in the fuselage resting on the bottom. Add the tail platform and the top fuselage covering with the grain running crosswise. Add the sub-rudder and cut holes to fit the flight timer to the fuselage.

WING
Rub soap on the drawing. Cut the leading edge, spars and trailing edge to proper length and angle. Pin spar and trailing edge to plan. Cement ribs in place omitting those at the dihedral joints till after the dihedral has been added. Cut the rear of the tip ribs to fit. Add the leading edge and tips. Add the dihedral after the wing is thoroughly dry. Check for warps when adding the dihedral joint reinforcements. Sand the leading edge and tips to blend into the airfoil shape.

STABILIZER
The stabilizer is made in a manner similar to t
Bend the piano wire dethermalizer saddle from
making sure it fits the fuselage in front of th
form. Cut notches in the leading edge and center ribs so as to mount the saddle flush with the bottom of the stabilizer. Bind the wire in place with thread. Cement the rear key into the stabilizer.

RUDDER
Sand the rudder smooth with rounded edges. Cut notches in the bottom so as to fit the rudder between the two center ribs of the stabilizer. Do not cement the rudder in place until after the stabilizer is covered.

COVERING
Sand the entire frame smooth.

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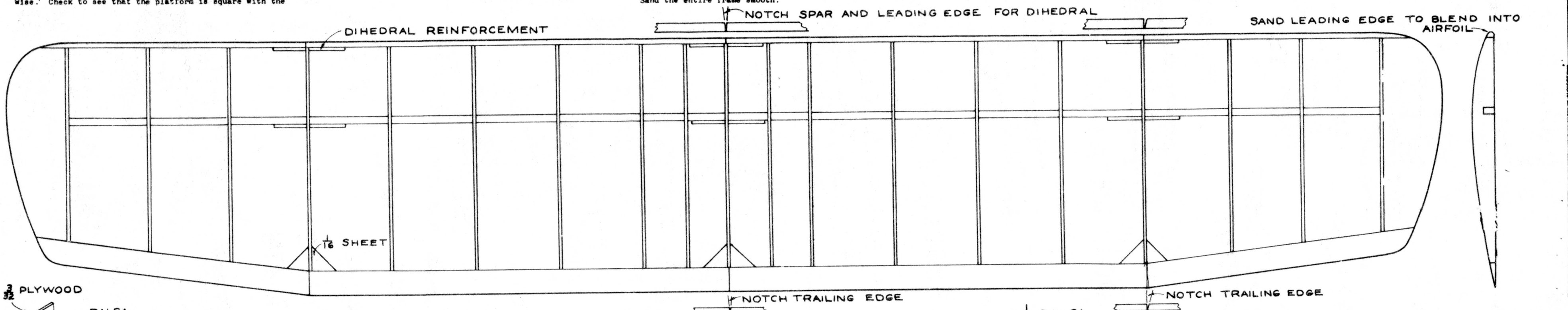
makes a good tissue cement. Cement the wing keys in place on the bottom of the wing. Cement the rudder into the slot in the stabilizer. Add the .040 wire tail hooks and the wing platform anchors which are small nails.

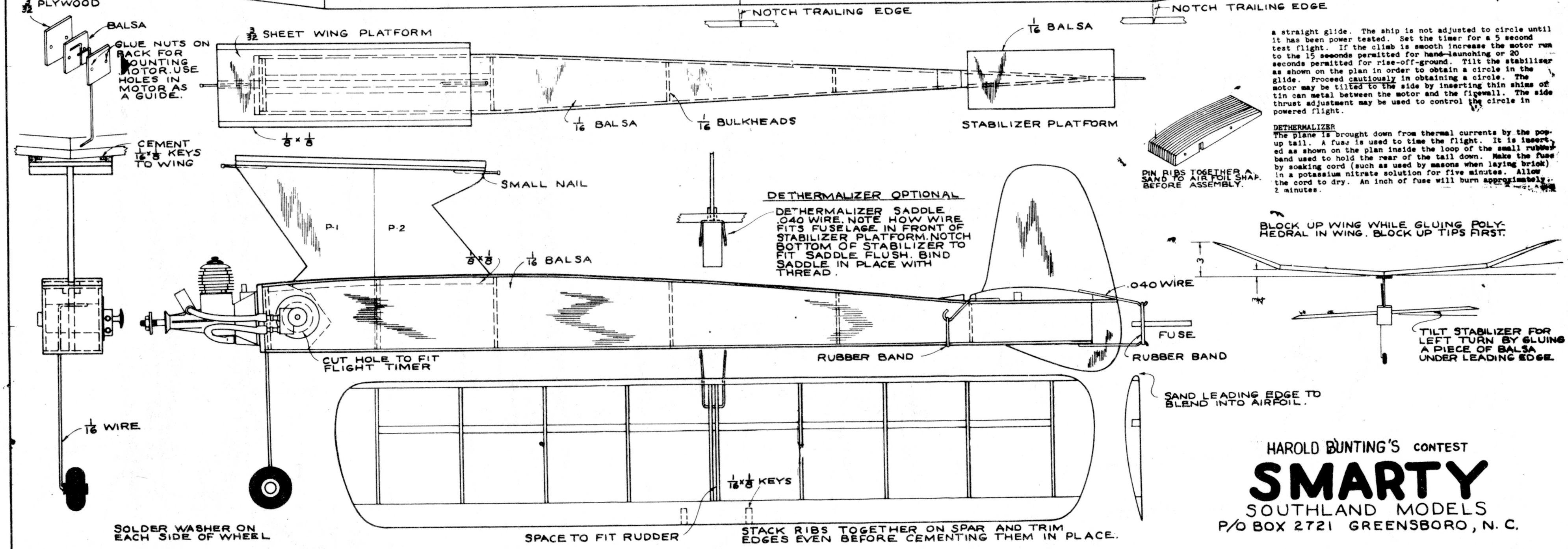
FINISHING
Use a mixture of talcum powder and dope on the fuselage and rudder. Apply two coats sanding after each coat. Add two drops of castor oil per ounce of dope to prevent warping the surfaces. Give the fuselage, wing and tail two coats of dope. The fuselage and rudder may be color doped after clear doping. Use a coat of hot fuel proof dope as

Be sure and break your engine in on a block for an hour prior to installing it in the plane. Familiarize yourself with the proper needle setting during the breakin period. Connect the flight timer in place and use clear plastic tubing to hook up the timer and motor.

FLYING
Check the surfaces for alignment. Glide test the model with the propeller removed, adding weight to the nose or tail as needed. Do not change the wing or tail angle. Tilt the stabilizer as shown on the plan in order to obtain a straight glide. The ship is not adjusted to circle until it has been power tested. Set the timer for a 5 second test flight. If the climb is smooth increase the motor run to the 15 seconds permitted for hand-launching or 20 seconds permitted for rise-off-ground. Tilt the stabilizer as shown on the plan in order to obtain a circle in the glide. Proceed cautiously in obtaining a circle. The motor may be tilted to the side by inserting thin shims of tin can metal between the motor and the firewall. The side thrust adjustment may be used to control the circle in powered flight.

DETHERMALIZER
The plane is brought down from thermal currents by the pop-up tail. A fuse is used to time the flight. It is inserted as shown on the plan inside the loop of the small rubber band used to hold the rear of the tail down. Make the fuse by soaking cord (such as used by masons when laying brick) in a potassium nitrate solution for five minutes. Allow the cord to dry. An inch of fuse will burn approximately 2 minutes.





HAROLD BUNTING'S CONTEST

SMARTY

SOUTHLAND MODELS
P/O BOX 2721 GREENSBORO, N. C.