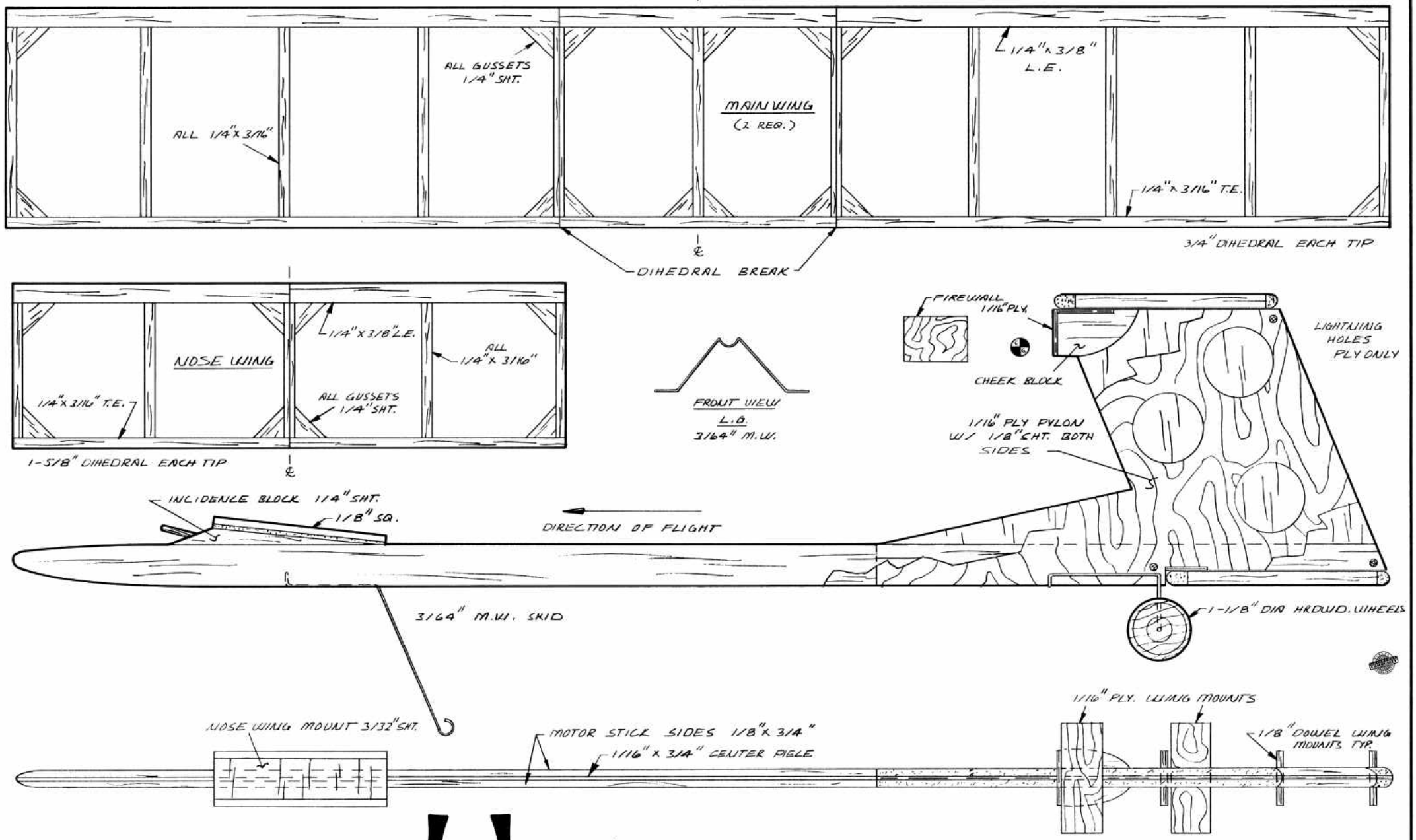



# Wings

## A BIPLANE CANARD

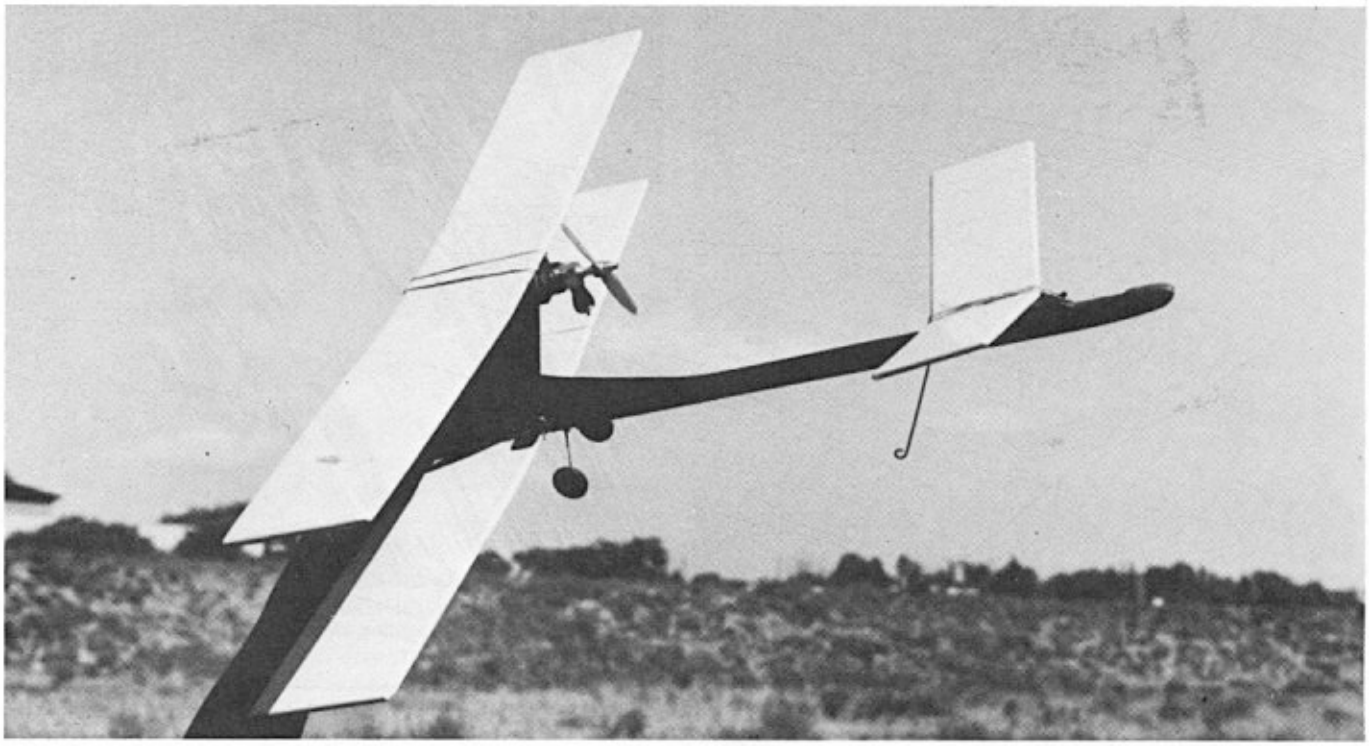

DESIGNED & DRAWN BY:
R. WRISLEY

TRACED FOR M.B. BY S.A. PATTERSON


| SPECS. | |
|---|---|
| WING SPAN | 25" |
| WING AREA | 200 sq" |
| LENGTH | 25" |
| POWER | COX PEE WEE .020 |

0 1 2 3 4 5 6 inches


**MODEL BUILDER** magazine
621 W. NINETEENTH ST.
COSTA MESA, CALIF. 92627
Plan No: 34783



If you like unusual aircraft that are easy to build and that perform well, WINGS might be just what the doctor ordered.

# ⌖ CANARD-BIPE ⌖ "WINGS"

**By RANDY WRISLEY . . . Looking for something "out of the rut"? This little biplane canard should cause no little amount of comment that will turn to praise when it is flown. Be the first on in your block . . . .**

• Free Flight biplanes are seldom seen anymore. Perhaps it's due to the extra work of building another wing. In my mind, however, two wings climbing gracefully in the morning sunlight, is worth the effort, this, plus a canard arrangement makes for a very unique model.

"Wings" steals its construction from the baby R.O.G.'s of days gone by. All surfaces are flat strip stock, the motor stick is a simple three-piece lamination. If you use Hot Stuff, you can build it in about 6 hours on Saturday evening, and fly it Sunday morning. Besides, it's almost indestructible. This makes "Wings" a good first gas model.

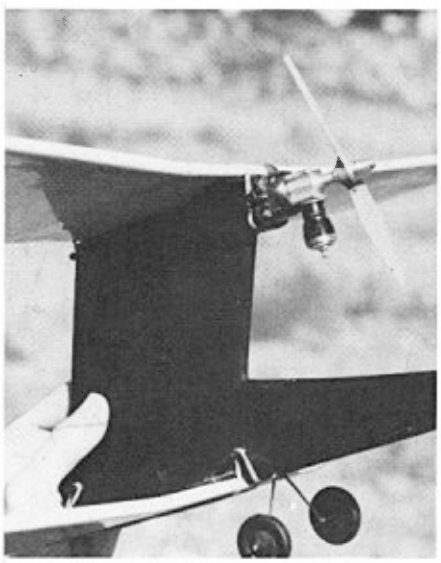
A canard for a first gas model!? Well, the Wright Brothers' first flight was in a canard, wasn't it? Let's build one.

## MOTOR STICK

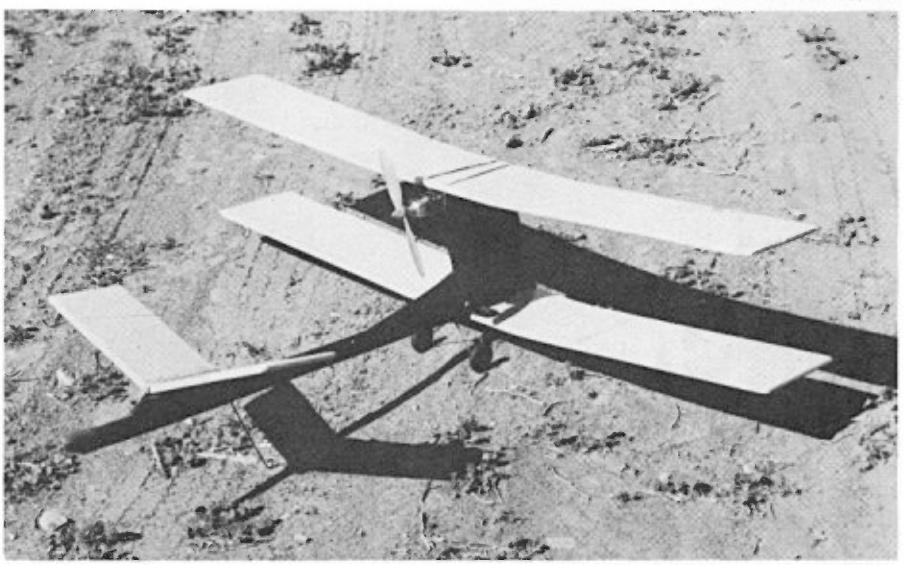
Cut the pylon core out of 1/16 plywood. Make lightning holes as shown. Cut pylon sides from 1/8 x 4 inch soft sheet balsa. Position one pylon side on the plan.

Pin a firm piece of 1/8 x 3/4 balsa in place, cementing it to the pylon side. Cement plywood core in place. Follow with the 1/16 x 3/4 center lamination. To complete the structure, cement the final pylon

*Continued on page 80*



How is this for simplicity?



Build this and be prepared for fun comments from your flying buddies . . . until they see it fly!

WINGS . . . . . *Continued from page 63*

side in place, followed again by piece of 1/8 x 3/4 firm balsa. Leave the works pinned in place overnight to allow the cement to set.

MAIN WINGS

Since you don't have an airfoil to confuse you, build both wings together, like fuselage sides. Construction is mainly 3/16 x 1/4 with 3/8 x 1/4 leading edges. The best tool to use for cutting is a razor saw. It helps in making square cuts. After allowing drying time, remove wings from plan, separate, and add 1/2 inch dihedral to each tip. Don't forget the center-section gussets; they add the strength your sloppy joint doesn't!

NOSE-WING

Just a repeat of the wings, but smaller. Add 3-1/4 inches of dihedral to one tip, making sure both leading and trailing edges are the same height. This is important for ease of adjustment.

ASSEMBLY

Pull the motor stick off the plan. Cut the nose-wing mount from 1/4 inch sheet and cement in place. Finish by adding the saddle of 1/8 sheet and the 1/8 square rails. Cut the firewall and wing saddles from 1/6 plywood. Use 5-minute epoxy and attach these to motor stick. Cheek blocks are cut from scrap 1/4 inch balsa, one per side, and epoxied in place. Bend landing gear and skid out of 3/64 wire and epoxy in place. Finally, attach the 1/8 dowels.

COVERING

Hold it! Before covering, sand it smooth. Round all exposed edges on the wings and nose-wing. Sand motor stick semi-round, but leave the top and bottom of the pylon flat. Now, cover lifting surfaces with tissue, newspaper, bedsheets, or Monokote. I used tissue, however, most anything will do. It's best to paint the motor stick with dope, however, unless you like cutting tiny pieces of Monokote and ironing all night.

FLYING

First, take your engine apart, invert the cylinder, and stick the needle valve on the side. Put the pick-up tube in the bottom of the tank and reassemble. Attach engine to motor stick with woodscrews. Strap on wings and nose-wing. Balance the airplane. It should balance level when supported by the glow plug. Add clay to either end to achieve this. Hand-glide before trying power flights. "Wings" won't float, but a mush or dive should be corrected.

First power flights should have about a 15 sec. motor run. "Wings" flies best to the left in power and glide. If at the end of the motor run, "Wings" stops flying and spins into the ground, lower the nose-wing incidence. If it won't hold a tight enough left turn under power, wash out the lower left wing about a 1/4 inch. Glide turn is controlled by tilting the nose-wing toward the desired direction of flight . . . a little goes a long way.

Good luck and good flying. •