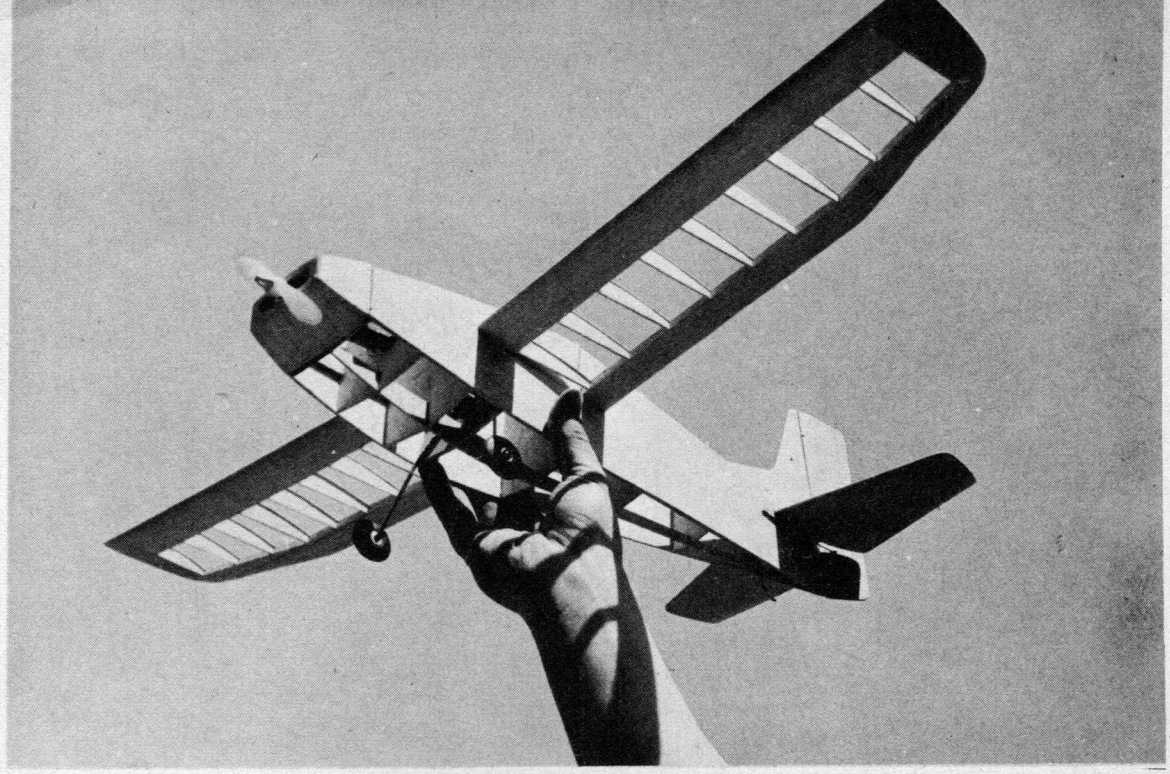
**SINGLE CHANNEL SPORT R.C. for lightweight radio gear!**



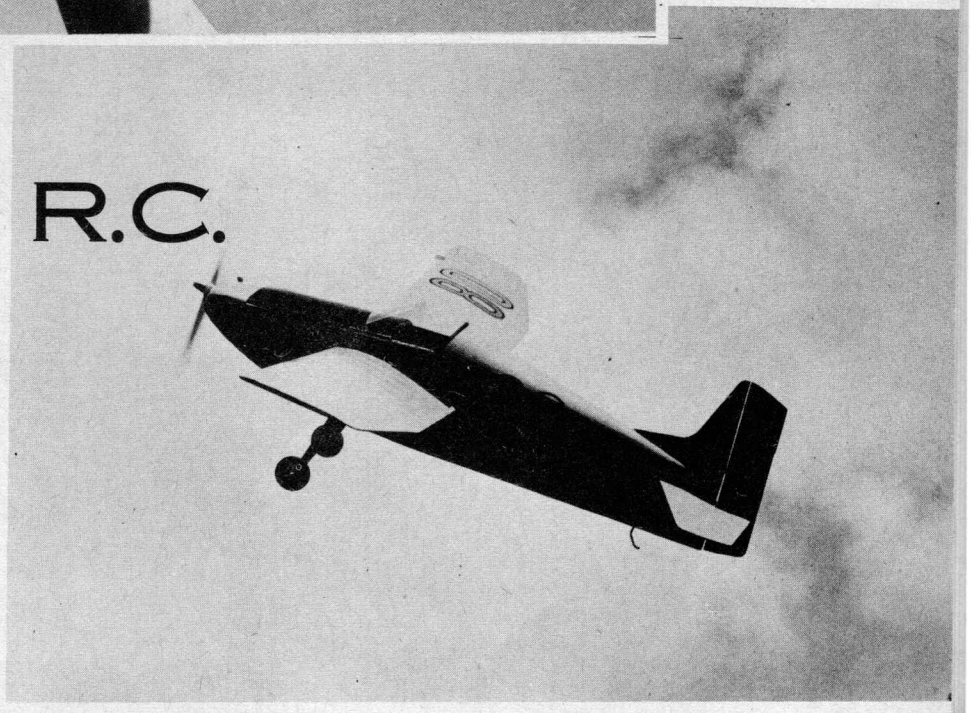
Wide, roomy "Gwing" is a fast, able sportster.

**Keith Laumer's**

# "GWING" R.C.

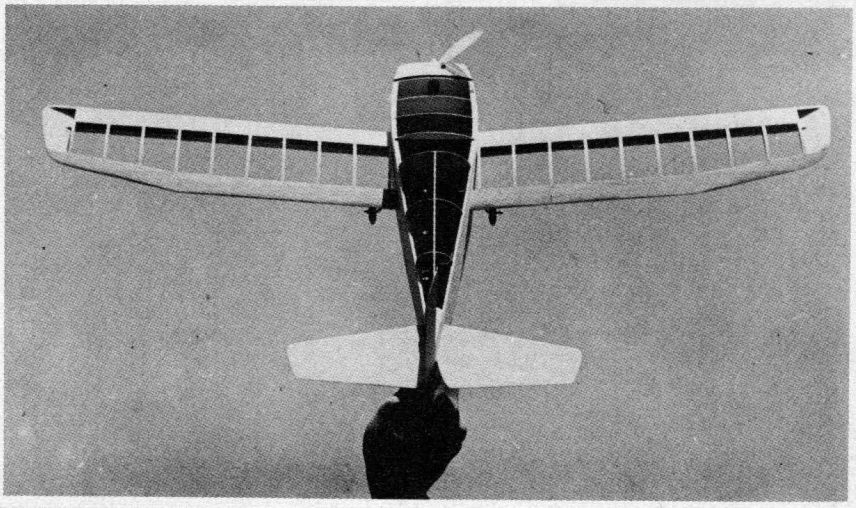
**For .09 Engines, 31½" Span, 20" overall**
**An easy ship to build . . . flies a brisk pattern-**

***Full Size "Timely" Plan Available!***



At right: Moves out fast, turns tight. Fun to fly. May be modified to controline flight too.

Standard structural methods, a simple craft to assemble. Sheet tail surfaces, fuselage sides.

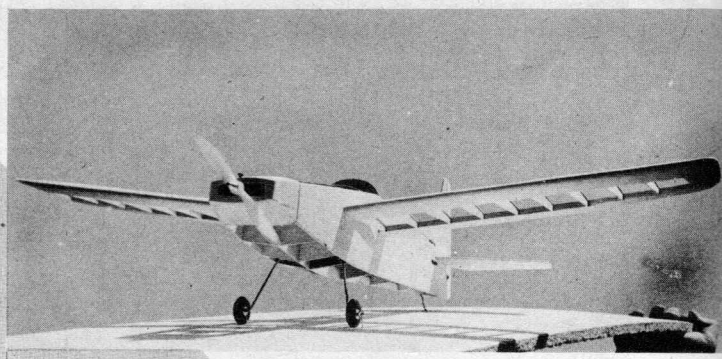


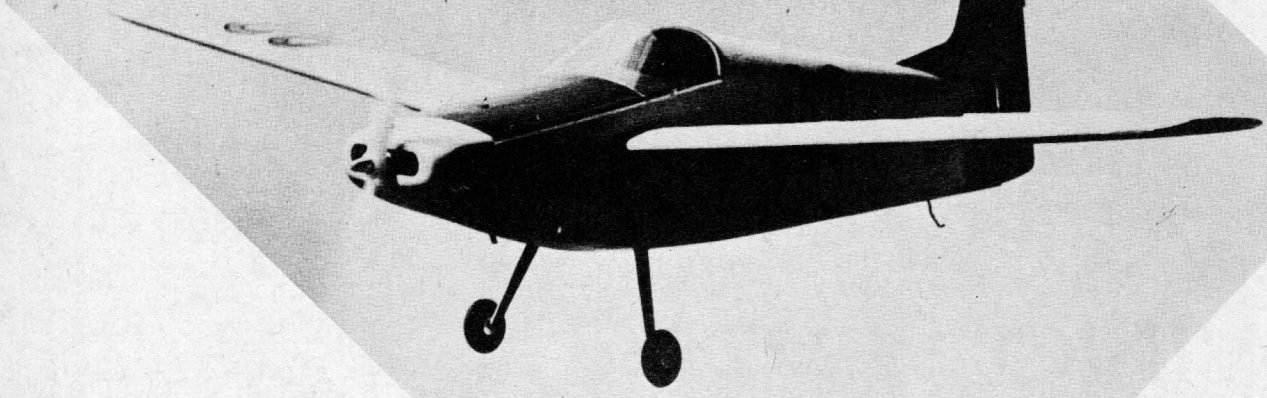
▶ The new ultra-light radio gear has made it possible to design R/C craft along entirely new lines. With "Gwing," you'll look in vain for the usual box-car fuselage, rump-sprung landing gear, clumsy tail assembly, and slab wing.

You'll find there's plenty of capacity inside the fuselage, easily accessible through the open cockpit. The engine is fully cowled but easy to get at and adequately cooled by the wide air intake. The fixed wing will hold its precise adjustment in spite of rugged landings, while the large-area, small-movement rudder gives instant response and the size of the elevator and aft C.G. make for a fast stall recovery. "Gwing" is solidly built and will perform well on rudder-only

# "GWING"

...continued...

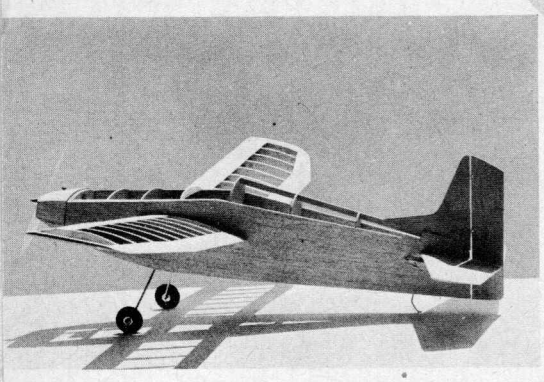




or free-flight. (C/L fans can beef up the firewall, delete the center twelve inches of the wing, mount an .09 up front and cut some very brisk and lively circles.)

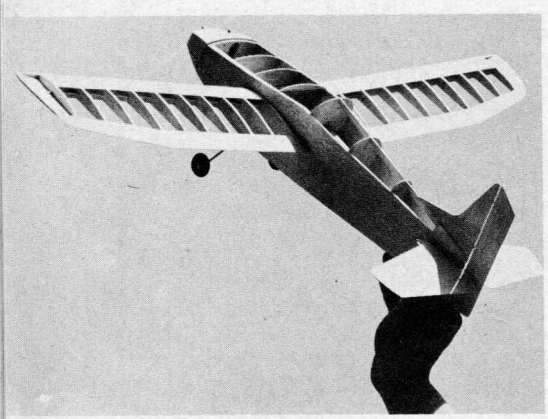
Begin construction by cutting two fuselage sides from tough medium ⅛" balsa (you'll have to splice if using 3" sheet). Sand both sides together to exact outline. Next, cut bulkheads No. 1 through No. 8, using plywood or medium 1/16" sheet balsa as noted on the plan. Be sure to run the grain horizontally for bulkhead No. 3. Bend the landing gear from 3/32" diameter piano wire, and bore holes as indicated in bulkhead No. 4. Lace the landing gear in place with No. 30 linen thread. Coat lacing with cement, forcing it through the holes. Bore firewall for your engine, and attach tin plate to back of bulkhead No. 1 and solder mounting nuts in place.

(*Continued on Page* 37)

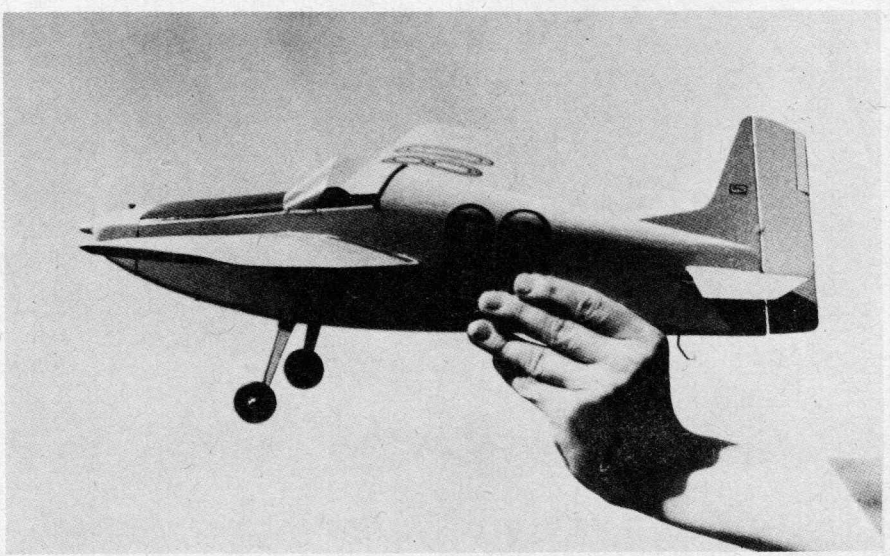


Materials are basic, usually on-hand already.

At right: Vest-pocket flyer, for small fields.



Clean, lightweight, well stressed, functional.



# CHANNEL CHATTER

(*Continued from Page* 34)

that the W-W was a "wild 'un". We agree to this. However, Don's dander plus some of the discrediting stories we've received from beginners who've built and are successfully flying the W-W fan — began brainwashing him to convince all in attendance that this is a winning combination. We can only wish you lottsa luck.

We've watched a beginner or two make a monkey of us by precision flying the "Whilrwind" (for the first time) on Galloping Ghost and make landings smoother than most multi attempts, the Go-Ac will enhance the whole picture with its addition of full trim throttle without needing any extra POD circuits or additional servos and batteries. Good luck, Don. We'll expect some pictures and comments.

● We thoroughly enjoy letters like Don's. The thing we like most about it is that it's from an experimenter who enjoys that type of model which falls in the Class II category, whether he plans to use cascaded escapements, Kicking Duck units, pulse omission detectors (POD's), Du-Ac or Go-Ac types or what-have-you. Let's hear from other experimenters.

(*Continued on Page* 41)

# GWING R/C

(*Continued from Page* 30)

Now assemble bulkheads No. 1 through No. 5, using only the four ⅛" x ¼" balsa strips. Attach the strips to bulkhead No. 3 first, then add No. 2 and No. 4, followed by No. 1 and No. 5. A couple of rubber bands will hold the ends in place until the cement sets. Next cement the fuselage sides in position, and attach both at once, starting at the front. Hold front ends in with a strong rubber band, (or a C clamp) and then bring rear ends together. (Note bevel at rear of fuselage sides). Add bulkheads No. 6, 7 and 8 and keel piece No. 10.

Add ¼" sheet balsa cowl blocks, install fuel tank, and remaining balsa fuselage members. Lightly cement a dummy scrap of 1/16" balsa in position of rudder and add soft balsa blocks on either side. Cover bottom of fuselage with 1/16" sheet balsa, in two pieces. (Make patterns first.) Use 3/32" x ¼" strips for the top. Now shape entire fuselage to final contour, using a sanding block, and apply a coat of clear fuel-proof dope. Sand lightly; cover fuselage with lightweight Silkspan if desired for added strength and a smooth finish.

Cut elevator from light, dry ⅛" balsa, and shape to a streamlined airfoil. Be careful not to sand too thin, as surfaces are likely to warp. Cut rudder from 1/16" balsa, and assemble fin and rudder with grain running as shown on the plan. Round off outer edges of the rudder assembly. Clear dope and sand both rudder and elevator, and tissue-cover if desired. Remove the dummy rudder and fairing blocks, then insert elevator in slot of rear fuselage. Install rudder and fairing blocks, and align all structure carefully.

Cut out six rib A's, eight rib B's (identical to A except for notch), two each of C, D, and E. Assemble leading edge over plan, making the bevelled joint as shown. Next, build up the spar of hard 1/16" balsa directly over the plan. Note that spar is the same depth as rib A, and is notched half its depth on the upper side at each rib station. Cut two plywood spar reinforcement pieces, one for the leading edge and one for the spar. These are the same depth at leading edge and spar respectively. (See plan view of wing.) Build trailing edge flat. Sand tip portions to correct bevel. Cut a notch in upper surface of trailing edge on centerline and crack to correct dihedral angle, then cement the joint. Attach spar reinforcement to spar. Add all ribs to left panel of spar, then insert spar through fuselage and position carefully. Now add reinforcing strip to rear

of leading edge and insert through the fuselage. Cement ends of installed ribs to leading edge. Now insert the trailing edge in fuselage and cement rear ends of ribs in notches. Next add the ribs to the right wing panel.

(An alternative method of wing construction is to build it in two halves over the plan, leaving out the spar reinforcements. Insert the two halves into the fuselage and join with reinforcing pieces in place.) Cement a 1" piece of crinoline over the joint in the trailing edge.

Wing tips are added next, followed by the 1/32" sheet planking, top and bottom of the wing, forward of spar. Add 1/32" capstrips to the top only. Sand entire wing to its final contour. Coat structure with 50/50 cement-dope mixture.

Cover your wing with lightweight Silkspan. Position the tissue carefully, and pull out all wrinkles, then wet tissue with water and when dry, apply clear dope.

Add fairing strips to landing gear and cover with silk. Cut needle valve access hole in cowling, then trim cowl away from fuselage and fuel-proof firewall and interior of cowling.

Spray entire model with one coat of color-dope and sand lightly with fine sandpaper to remove any rough spots. Apply a second coat of dope, and a third if necessary to achieve a high gloss. Now mask off all of model except upper surface of fuselage, forward of cockpit. Paint this section a dull black. Cut windshield from 1/64" celluloid, using pattern shown on plan, and install. Attach one side at a time, using cement sparingly. Now add a white decal strip from the rear of cockpit to firewall, between black panel and color dope. Paint white dots on instrument panel. Cut wing walks from black sandpaper and attach to wing with resin glue. Apply decal numerals as desired. An optional spinner may be turned from aluminum or hardwood.

"Gwing" is a fast-moving model and requires a hefty toss in glide testing. Conduct tests over tall grass and adjust C.G. with modeling clay as necessary. After a few flights under low power, pour on the coal and watch "Gwing" go. Calmer air is best. ●



# WHAT'S COOKING?

(*Continued from Page 6*)

ning Piper "Tri-Pacer" are shown in the photo. He used hot-fuelproof Aero Gloss "Swift White," and "Cub Orange," with applications of rubbing compound between coats.

● **MIN-X RADIO INC.,** (Detroit, Mich.) reports that the first place 1962 Nationals R/C Rudder event went to a Min-X equipped entry — for the second year in a row! Winner was Russell Preston of the "R/C Club of Detroit", who flew his "Polytron" 56" span model, using a Min-X T-2 Powermaster transmitter and a Min-X 6-volt receiver. Also using the same type Min-X equipment, Bernard Williams placed 3rd in Rudder Only event (he was winner last year).

● **SIG MFG. CO. INC.,** (Montezuma, Iowa) reports that the sales of its greatly enlarged balsa wood line have soared in 1962. Confirmation of this is given by the fact that something like 80% of all National's Winners used "Sig Balsa" this year. The final list is still being compiled at the time of this writing, but here are a few details of which contestants used their balsa at the '62 Nat's. Grand, Open, Senior and Junior National Champions; three out of four AYSC Nat's Winners all Indoor and Outdoor Hand Launch Glider Winners; all ½A and A Speed Winners; all Stunt Winners; Jr. & Sr. Combat Winners; Sr. & Open Proto Speed Winners; Jr., Sr., Open AMA and FAI T/Race Winners; all F/F "A, B, C" Gas Winners; all R.O.W. Gas Win-

(*Continued on Page 48*)