

BY PAUL PLECAN

CONTROL-LINE SCALE

FOKKER TRIPLANE

GOOD LOOKS AND FLYABILITY COMBINE TO MAKE THIS ONE OF THE MOST INTERESTING U-CONTROL EXACT SCALE JOBS



POPULAR a decade ago as a rubber-powered flying scale design, the Fokker Dr. 1 "Tripe" promises to regain its popularity as a stable scale U-Control job. Compact, strong, and generously endowed with plenty of wing area, the "Tripe" flies well without any modifications from absolute scale. A good ship for beginners because of its simple yet clean lines, the "Tripe" can be flown from fairly rough ground, as the relatively large wheels will not snag in grass. You might think (Turn to page 111)

● Details of the control horn and mounting are illustrated here. Any small engine can be used as motive power. A glow plug equipped Arden powered the Air Trails test model with great success. Takes up to .199.

FUSELAGE CONSTRUCTION DETAIL

9/16 X 2-3/8 X 10-3/4" SOFT BALSA FAIRING BLOCK, HOLLOWED OUT TO 1/8" WALL THICKNESS.

FUSELAGE TOP PIECE "G" OUTLINE SHOWN ON FULL SIZE PLAN

FUSELAGE SIDES ARE TRACED DIRECTLY FROM FULL SIZE PLAN.

FIREWALL - 1/8" PLYWOOD

COWLING IS CARVED FROM 1-1/4 X 3 X 3-1/2" SOFT BALSA.

3/8 X 2-3/4 X 4-3/4 MEDIUM BALSA

MACHINE GUNS ARE MADE FROM SOFT SCRAP BALSA

FUSELAGE BOTTOM PIECE "H" - OUTLINE IS SHOWN ON FULL SIZE PLAN.

9/16 X 2-5/8 X 7" SOFT BALSA SIDE FAIRING BLOCK. SPOT - CEMENT IN PLACE TO ALLOW ROUGH SHAPING. REMOVE, HOLLOW OUT TO 1/8" WALL, THEN CEMENT IN PLACE PERMANENTLY. SAND SMOOTH AND COVER WITH THIN GRADE OF TISSUE BEFORE APPLYING FINAL FINISH.

FOKKER TRIPLANE

WIRE GUIDE FOR CONTROL LINES

1/8 X 3/8" HARD BALSA INTERPLANE STRUTS

GENERAL ASSEMBLY DRAWING (ONE-QUARTER ACTUAL SIZE)

3/32 X 3/16" PINE CABANE STRUTS (FULL SIZE)

DUMMY STEP AND HAND-HOLDS BENT FROM .040" OR .050" DIA. IRON OR COPPER WIRE.

FULL SIZE LANDING GEAR STRUT. (REAR STRUT INDICATED BY DOTTED OUTLINE)

FULL SIZE SHOCK ABSORBING AXLE OUTLINE.

1/16" DIA. STEEL WIRE

TOP DETAILS

BOTTOM DETAILS

UNIVERSAL MODEL SUPPLIES, INC.

501 West Broadway, N.Y. 12, N.Y.

Everything in
Model Supplies

DEALERS—FREE! Write on letterhead to receive our bi-monthly NEWSLETTER. It's profit-packed!

WHOLESALE ONLY

TURBO-FLO PROPELLER

FOR MODEL SPEED BOATS

Performance
Tested
Record Holder

\$2.50

For use on Cyclones, Doolings, Hornets, McCoy's and engines of similar power. Turbo-Flo propellers are tough as spring steel.

Ready To Install
Completely finished, polished and balanced.

Assure Increased Speed
From 10 to 30 miles per hour. THREE EASTERN CIRCUIT speed records—WERE MADE BY BOATS equipped with Turbo-Flo designed Propellers.

TURBO-FLO PRODUCTS
448 No. 10th Street Philadelphia 21, Pa.



Prepare
Now for Your
Career in
Aviation
See Page
14

AERONAUTICAL TRAINING DIVISION

Brayton
FLYING SERVICE, INC.

MRL Champion
Brown
Rubber

is back again!

The same famous Champion Brown Rubber that is the favorite of all contest flyers!

300 ft. of 1/4x1/32 on a 1 lb. spool—\$4.50 prepaid
400 ft. of 3/16x1/32 on a 1 lb. spool—4.50 prepaid
600 ft. of 1/8x1/32 on a 1 lb. spool—4.50 prepaid
800 ft. of 3/32x1/32 on a 1 lb. spool—4.50 prepaid
600 ft. of 1/16x1/32 on a 1 lb. spool—2.25 prepaid

Large bottle of MRL Rubber
Lubricant Free with each order! **FREE!**

DEALERS Write us on your letterhead for confidential trade prices. **JOBBERS**
MODEL RESEARCH LABORATORY
1331 E. 55th St., Dept. 6, Chicago 15, Ill.

The completed airplane should weigh about 6 oz. and balance at the center of the spar. Unless you've done lots of flying, decrease the distance from the pivot to the control rod hole of the bell crank.

The plans show an Arden .099 which works with great success. Modification to suit a Mite, if you have one, is quite simple. Merely install two 3/8" x 4" pine mounts, one on top and one on the bottom of the fuselage, projecting one inch in front of the firewall.

A slight change is also required in the fuel tank. Instead of running the fuel line out in the bottom center, run it out the side center, that is, parallel to the side.

The following hand-launch technique has proved most satisfactory. Making sure the controls are held in neutral, run several feet with airplane held in a level flying position. Let the plane fly out of your hand—don't throw it.

For R. O. G. or dolly take-off, hold the controls in neutral and let the ship take off by itself. Giving it too much "up" at this point will result in a loop, and as the engine will not have had time to lean out, this is bound to result in a crash.

FOKKER TRIPLANE

(Continued from page 55)

that the high top wing makes for a very high center of drag, resulting in a model hard on "dive" control. Luckily, however, the elevator is mounted at a positive angle, overcoming this stalling tendency.

The plans are drawn to a scale of 1" to 1', resulting in a relatively small model (23 1/2" wing span) excellent for any engine up to and including .199 cu. in. plants. The original model weighed 10 ounces and had a tendency to "float," resulting in slack lines. This was overcome by cementing a 1/2" x 1" drag plate or "spoiler" to the lower interplane strut on the side of the ship away from the control-lines. This caused the model to yaw towards the outside of the circle, keeping the lines taut. If built a bit heavier or powered by an engine of over .099 displacement, the "Tripe" may not need this "spoiler," since centrifugal force will be greater, thus tightening the lines and improving control.

Appearance of the "Tripe" brings whistles of admiration at the local basketball court where it is flown, as the all-red coloring with silver cowl and contrasting black maltese crosses on a white background make for a really "flashy" model. Recent examination of actual photos of Baron Richtofen's ship shows that all undersurfaces were light blue. Although this change wasn't made in the original model, since red is so hard to "cover" completely with a lighter color, you can make this change if you intend building this interesting and historic ship.

Construction is started by cutting out two fuselage sides from medium 1/8" sheet balsa. Trace the outline directly from the full size side view plan. The top and bottom pieces, G and H, respectively, are

MODEL BUILDERS AND HOBBYISTS!

Remember This Feature
When You Buy A Cement...



Model-Weld
TRADE MARK
IS THE MODERN
**WATERPROOF
CEMENT**

Because bonding by Model-Weld is unaffected by water, it is the ideal cement for model boats that actually operate in water and other projects that may become immersed in water. Model-Weld joints shed water like the proverbial duck.

Use Model-Weld for model railroads, airplanes, vehicles, boats, buildings; also for every handicraft that requires the cementing together of materials... woodcraft, leathercraft, jewelry, and shellcraft; to name a few.

Other Important MODEL-WELD FEATURES

ALL-PURPOSE—Model-Weld's ability to bond many materials makes it the ideal all-purpose cement.

QUICK DRYING—dries in 30 seconds; completely sets in 2 minutes.

SELF-SEALING—doesn't harden in tube.

CRYSTAL CLEAR—dries as transparent as when it leaves tube.

FLEXIBLE AND STRONG—contains Roy-lite, marvelous adhesive ingredient, for a perfect, flexible bond.

EASY TO USE—just squeeze on surface to be cemented.

TRY MODEL-WELD TODAY!

On sale at your favorite hobby shop, hardware, department, drug, or toy store. If your dealer can't supply you, send coupon below with 10¢ for generous sample tube of Model-Weld. We'll include free a descriptive folder with helpful Cementing Guide.

CRAIG PRODUCTS, INC.
744 Broad Street
Newark 2, N. J. (Dept. A)

Enclosed find 10¢. Please send generous sample tube of Model-Weld. Also include free, descriptive folder with Cementing Guide.

Name _____
Address _____
City or Town _____ State _____
My Dealer's Name Is _____
His Address Is _____

Radio Control Model?

Here's America's
Most Popular



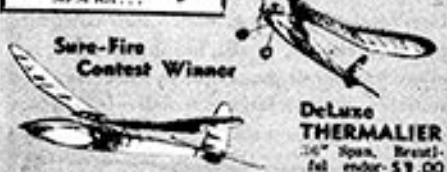
GIANT \$21½
STINSON RELIANT
No finer kit made in which to install
your radio unit. Also offers endless
free flight pleasure
\$17.50



28" REPUBLIC SEA-BEE MFM Kit **\$3.00**
43" Luscombe SILHOUETTE MFM Kit **\$1.00**

For the Really Serious Modelbuilders!

46" Douglas HAYOC A-20 MFM Kit **\$8.50**
48½" B-26 MARAUDER MFM Kit **\$9.50**
70¾" DC-3 DOUGLAS MFM Kit **\$14.50**
55" B-25 MITCHELL MFM Kit **\$9.50**



32" LANCER For CO-2 motor, MFM Kit **\$1.00**
Famous PLAYBOYS 10" Playboy Jr. Class C (Gas) Kit **\$6.00**
51" Playboy Jr. Class B (Gas) Kit **\$3.25**



DeLuxe THERMALIER 16" Span, Beautiful, full ender, MFM Kit **\$1.00**
Northrop P-61 BLACK WIDOW 49½" MFM Kit **\$14.50**
34" Y Kit **1.50**



Tether TOPPERS Topper I (CO-2) **\$1.00**
Topper II (A & B) **\$2.25**
Topper III (B & C) **\$3.00**
6-Ft. CONDOR Super Soarer, only **\$1.00**



32" Baby FLEETSTER Designed especially for CO-2, but may be MFM Kit **\$1.25**
STREAMLINER B or C. Builds either tractor or pusher. **\$4.00**



DeLuxe SHARPIE Greatly improved MFM Kit **\$2.00**
Send for FREE Jumbo Folder
See your dealer first. If he is unable to supply you, except no substitute, but order direct, enclosing 25¢ for packing and postage.
CLEVELAND MODEL & SUPPLY CO.
World's Largest Manufacturers of Quality Model Aircraft Since 1919
43142 Lorain Ave., Cleveland 2, Ohio, U.S.A.

cut out, along with formers B to F. Inverted assembly is easiest, so begin by pinning piece G to the work bench and cementing formers B, C, D, E and F to it, in that order. Short lengths of ¼" square balsa are cemented between the formers and piece G to keep the formers vertical.

The sides are added, care being exercised so that parts line up square and true. Piece H should be inserted now and cemented along the seam formed by it and the sides. A blank space is left where the bottom wing is to be inserted, but just forward of that a piece of ¼" sheet, 2½" wide and 1¾" long, is cemented in place between the sides of the fuselage (with the grain spanwise and the piece bent to fit the curve of the fuselage bottom).

The soft fairing blocks are now tack-cemented in place on the sides and top of the fuselage. After rough shaping, remove them so that they can be hollowed out. The side pieces can be cemented in place now, but leave the top fairing piece off until the center wing is in place. The tail skid is bent to shape and cemented in place thoroughly. Although it should be mounted securely, it should remain free to flex upwards when the model lands.

The ¼" square hard balsa frame A is now assembled. The firewall is cut to shape (¼" plywood, 2½" high and 2½" wide) and the engine mounted before the firewall is cemented in place. In the original model, glow plug operation of the engine was employed, so all that remained after mounting the engine was to "safety" the mounting bolt nuts by soldering a length of wire across them to keep them from loosening from engine vibration. If the regular "old style" ignition is employed, the nose section should be made removable to allow battery replacement and troubleshooting. Mount coil, battery and other ignition components between the firewall and former B to keep the C.G. in the proper place (25% of chord of center wing).

Once the engine is in place, the cowling can be carved. The openings required for the cylinder and needle valve should be made a little oversize to allow free circulation of cooling air around the engine, since the original seemed to run a little "hot." Don't forget to provide a hole for tank-filling—you'll look a bit silly if you have to drill holes at the flying field just to fill the tank.

The wings are a beginner's dream. No taper, dihedral or warps (we hope). Simply cut out the required number of ribs (55), notch the leading and trailing edges, and you are ready for assembly. The husky leading and trailing edges were incorporated so that spars could be dispensed with, and the resulting structure is very strong. Although only the left half of each wing is shown, it will be easy to trace the full size outlines and reverse them to obtain the right wing panels.

The center and bottom wing plans are superimposed due to their general similarity—the heavy lines indicate the center wing and the dotted lines show the changes required for the bottom wing. The cut-away center section of the center wing is made easily by using ¼" sheet cut to outline shape and sanded to an airfoil

cross-section after assembly. Note the reinforcing pieces of ¼" balsa sheet where the interplane struts pass through the wings. The wing tips are shaped from soft balsa and the ailerons cut from ¼" medium balsa.

"Decapitated" straight pins or short lengths of .020" wire are imbedded in the trailing edges of the wing and the leading edges of the ailerons to mount them. The ailerons can be mounted a bit negative in incidence, but under no conditions should they be carelessly mounted. If mounted at different angles or at a positive angle, your "Tripe" will be very hard to control and definitely unstable.

The bottom wing is cemented to the fuselage, keeping an eye on line-up and incidence as you proceed. The same goes for the center wing. Once they are in place, the top fuselage fairing can be cut away to accommodate the center wing and then cemented in place. The interplane struts are now pinned in place and the top wing slipped onto them. The cabane struts are fitted, followed by carefully checking the entire three wings for incidence and parallel line-up. When you are sure that everything is according to Hoyle, cement all strut-to-wing joints. Wing covering can be of rubber-model grade silkspan, since it will not shrink as much as the heavier grade, with less chance of warping.

In bending the landing gear struts to shape over the full size patterns included in the three-view drawing, note the somewhat peculiar axle shape. The U-bend near the wheels lends a great deal of flexibility to the landing gear, which is really needed on those "rock" landings when the model is inadvertently stalled for a landing while still quite high. (Don't blush, Elmer, we all do it some time or another.)

The axle is cemented into a groove cut in the bottom of the balsa thingumijigger that goes between the wheels. (All right, professor, you name it!) The upper struts are cemented to the fuselage now. After cutting away a bit of the thingumijigger near the axle, bind both front and rear struts to the axle with fine copper wire, and solder well. That doesn't mean a clump of lead, son, just a little, but applied when everything is hot and the solder has a chance to flow into every crevice between the wires. The joint can be covered with a scrap of balsa now and trimmed even, so that the thingumijigger still looks neat. Although the photos show the scale type wheels on the original model (made of balsa, as World War I style wheels can't be obtained in hobby shops) regular rubber tired 2½" sponge wheels were used for flying.

The tail surfaces are cut from medium ¼" balsa sheet and sanded to an approximate streamlined cross-section. (Just round off the leading edges and taper the trailing edges to a thin edge.) The elevator-to-stabilizer hinge is made in the usual silk or nylon manner. It will be much easier to paint the rudder and apply the maltese cross before assembly. The entire model can be doped and colored as mentioned earlier. The guns are optional, but add much to the appearance of the model.



PARACHUTES!
Real little white nylon parachutes, complete with shroud lines and metal spring to snap them open! Not too big . . . not too little—just 2½" in diameter, almost 8" in circumference. These miniature pilot "chutes" used to be part of the big parachutes our fliers used in the war. Now they're a wonderful toy—and you can get 3 for only \$1.00! Order by mail today—enclose \$1.00 bill, check or money order; or order C.O.D. Immediate delivery. Satisfaction guaranteed!

HUGH CLAY PAULK
49 Fairmount Street 813 N. Kansas Ave.
Dep't. 102—Boston 8, Mass. Dep't. 102—Topeka, Kan.

Decide Now to Prepare for Your Aviation Career See Page 14

AERONAUTICAL TRAINING DIVISION
Brayton
FLYING SERVICE, INC.
Schenck, N. York Airport

Dealers Notice!

Get on Our Mailing Lists for All Copies of Our

- (1) FLASH BULLETINS
- (2) NEWS LETTERS
- (3) PRICE CHANGES
- (4) BREEZY-BITS-BUSY-BUYERS
- (5) FORTHCOMING CATALOGS

Write today on Business Letterhead

Harry J. Garrett & Co.
WHOLESALE HOBBY SUPPLIES
1404 Ross Avenue
DALLAS 1 TEXAS

The K & B "GLO-TORP" IS READY AT YOUR DEALERS!!

Ask to see this remarkable new K & B Engine. The "Glo-Torp" operates on the new glow plug principle. Has no ignition system, coil or condenser. Your dealer will tell you all about it...Be FIRST with the LATEST...ORDER YOUR "GLO-TORP" TODAY!!! AT YOUR DEALERS FOR ONLY \$14.95...

K & B MANUFACTURING CO.
6901 EASTERN AVENUE
BELL GARDENS, CALIFORNIA

The diagonal brace wires between the cabane struts and also between the landing gear struts can be cemented in place now. These were thin slivers of bamboo on the original model, although .020" or .030" diameter music wire will do. Bamboo is preferred, as the ends can be nicked a little with a razor to provide firm anchorage for the cement.

A "Heco" bell crank was employed in the original model, mounted at the point indicated on the plans. The bell crank should be bolted to a piece of plywood about 1" wide and 2" long (¾" or ¾" thick) which, in turn, is cemented flush with the bottom of the center wing. Since the scale elevator area was used, a long control horn was employed to cut down the up and down travel. A movement of more than ¼" either side of neutral will result in a tricky model that will be overly sensitive to the slightest movement of the control-lines. The controls should move smoothly with hardly any effort being required to move them, so that maneuvering in flight will be smooth and easy.

The model should balance at 25% of the chord of the center wing. This will vary slightly if wing incidence is a bit "off" or if slight warps are present. Never try to fly this or any other model with wing warps that would bank the model towards the center of the flying circle. It is doubly true of this model, since it is so lightly loaded and loose on the control-lines. Consequently, when powered by an .099 engine, always fly at full revs, even when testing. The higher speed attained will help keep the lines taut. When using engines over .099 displacement, they can be throttled down somewhat, but always keep in mind the light wing-loading (only 6 ounces per square foot!).

PLYMOUTH MEET

(Continued from page 72)

Colosseum and to outdoor control-line, control-line stunt, and scale model flying. A location which will allow for accommodation of several thousand spectators for these events is being secured.

Climax of the five exciting days will come on Monday when contestants and their families, friends, and guests will be taken through the Plymouth Motor Corporation plant at Lynch Road and Mt. Elliott Avenue, Detroit. Here they will see the twin half-mile-long assembly lines of the world's largest and longest automobile assembly operation.

Culminating the day will be the gala "Banquet of Champions" in the Grand Ballroom of the Hotel Statler where winners will be announced and the award of 126 trophies and a total of \$7175 in prize monies will be made.

While official headquarters of the meet will be at Detroit, model builders are asked not to write to headquarters but to go directly to their local Plymouth dealer. All Plymouth dealers will have complete information on the contest, instruction books and entry blanks on or about April 20.

NEW!

POWERFUL

POWERMIST HI-THRUST GLOW-FUEL

'NITRATED'

Where extra thrust is needed. GLOW PLUG or ELECTRIC ignition.

\$1.25 per quart

POWERMIST SPITFIRE BLUE BLAZER

Contains Preservative detergents. Will not deteriorate with age, curdling, souring, or gumming.

— NO GASOLINE —

Free lit. at your Dealers:—
Fuel Facts and Troubles, Humidity and Temperature Guide, Advantages and Disadvantages of all types of fuel, Methods of Testing.

FRANCISCO LABORATORIES
3787 Griffith View Drive, Los Angeles 26, Calif.