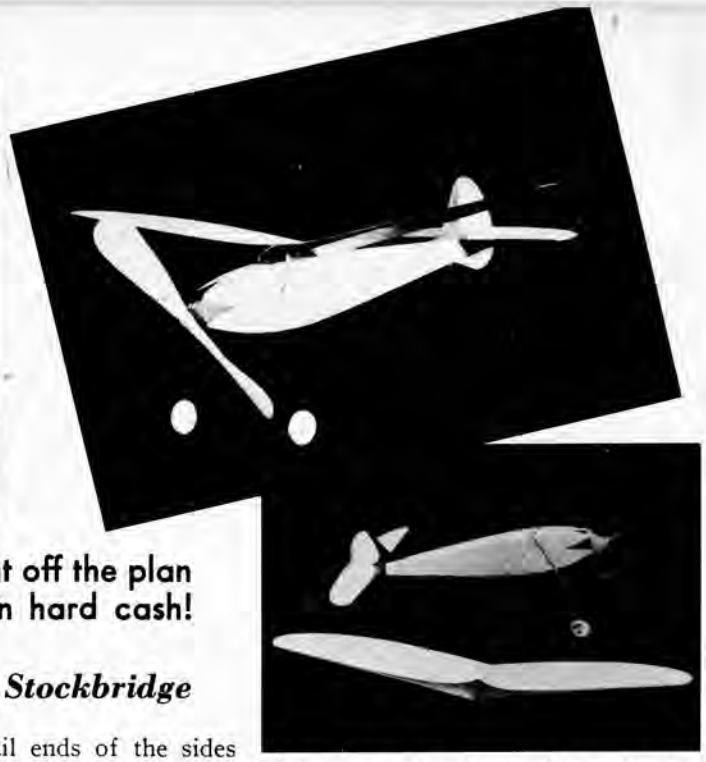
the FLYING FOOL



Build this rugged sportster right off the plan at a cost of only five cents in hard cash!

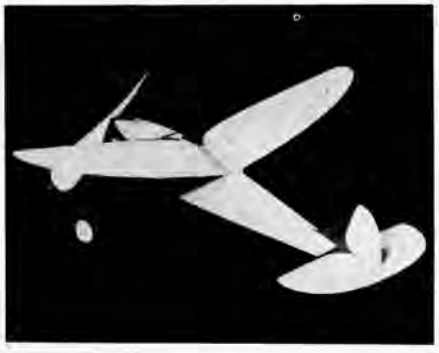
by John Stockbridge

IT IS REALLY quite a simple matter for the beginner to get a model to fly providing he starts off on the right foot. Eliminate the cheesecake, leaving the bare essentials and you have the basis for studying the elementary principles of flying model airplanes.

The "Flying Fool" is right up the old alley, featuring the most elementary construction possible and extreme versatility for adjustment, to say nothing of ruggedness. Being completely built from sheet balsa, the model can be flown under the most adverse conditions without suffering any major damage, which means it can keep on flying and flying—all for a cost of about five cents.

The plans are full-size. Therefore the model may be built directly from the magazine page with no time wasted in enlarging drawings.

The fuselage may be made by cutting out the two sides, top and bottom from 1/16" sheet balsa. Cut the internal braces from 1/16" by 1/8" strips and cement them on the inside of the side pieces. Bend the tail hook from .028 music wire and cement it to the former as shown. Assemble the two sides by cementing the top braces and tail hook former in position, and cementing the tail ends of the sides together.



Now, simply add the top and bottom pieces by gluing them along the edges and holding them in position with rubber bands while the cement dries. A small hole should be cut in the bottom of the fuselage, just in front of the tail hook former, as shown, so that the rubber may be attached to the rear hook. The nose block is cut from a small balsa block 1/2" by 5/8" by 1/4" thick. A small piece, 1/8" thick, cut to fit snugly into the front end of the body, is cemented in back of it. Drill a 1/16" hole through the nose block and insert a small eyelet to act as a bearing for the propeller shaft. This assembly should be made as accurately as possible.

Making the tail assembly is a simple matter of cutting the rudder and elevator to outline shape from 1/16" sheet balsa, sandpaper them to a streamlined shape. Then cement them to the fuselage in the indicated positions, being very careful to make sure that they line up properly.

The landing gear is bent from .028 music wire to fit the drawing that is shown, and is placed around the fuselage as indicated, and well cemented in place. Wrap thread around the landing gear underneath the fuselage to keep the landing gear from spreading apart. The 3/4" hardwood wheels are then placed on the axles and held there by wrapping thread around the end of the axle and covering it with cement, or they may be held with a small drop of solder.

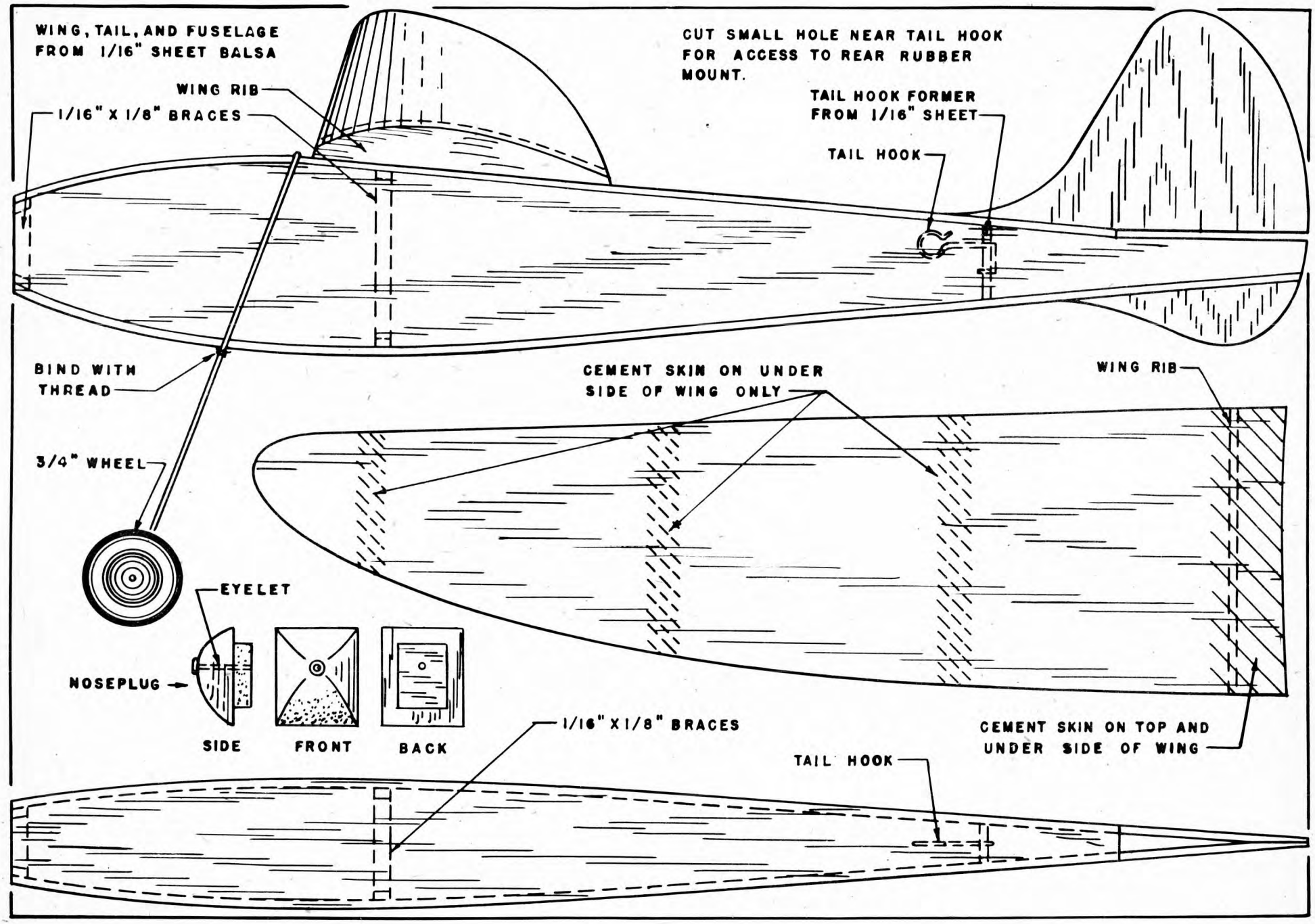
THE WING is made from 1/16" sheet. Cut it to outline shape and sand the top slightly. Cut two ribs from 1/16" sheet, using the rib template to get the shape. To make the camber is a neat little stunt. Simply wet the top side of the wood and place a little cement along the under side as indicated by the shaded areas on the drawing. While the wing is still wet, tack it to the rib with pins and allow it to dry. This will automatically form the curvature of the wing; almost like magic, isn't it?

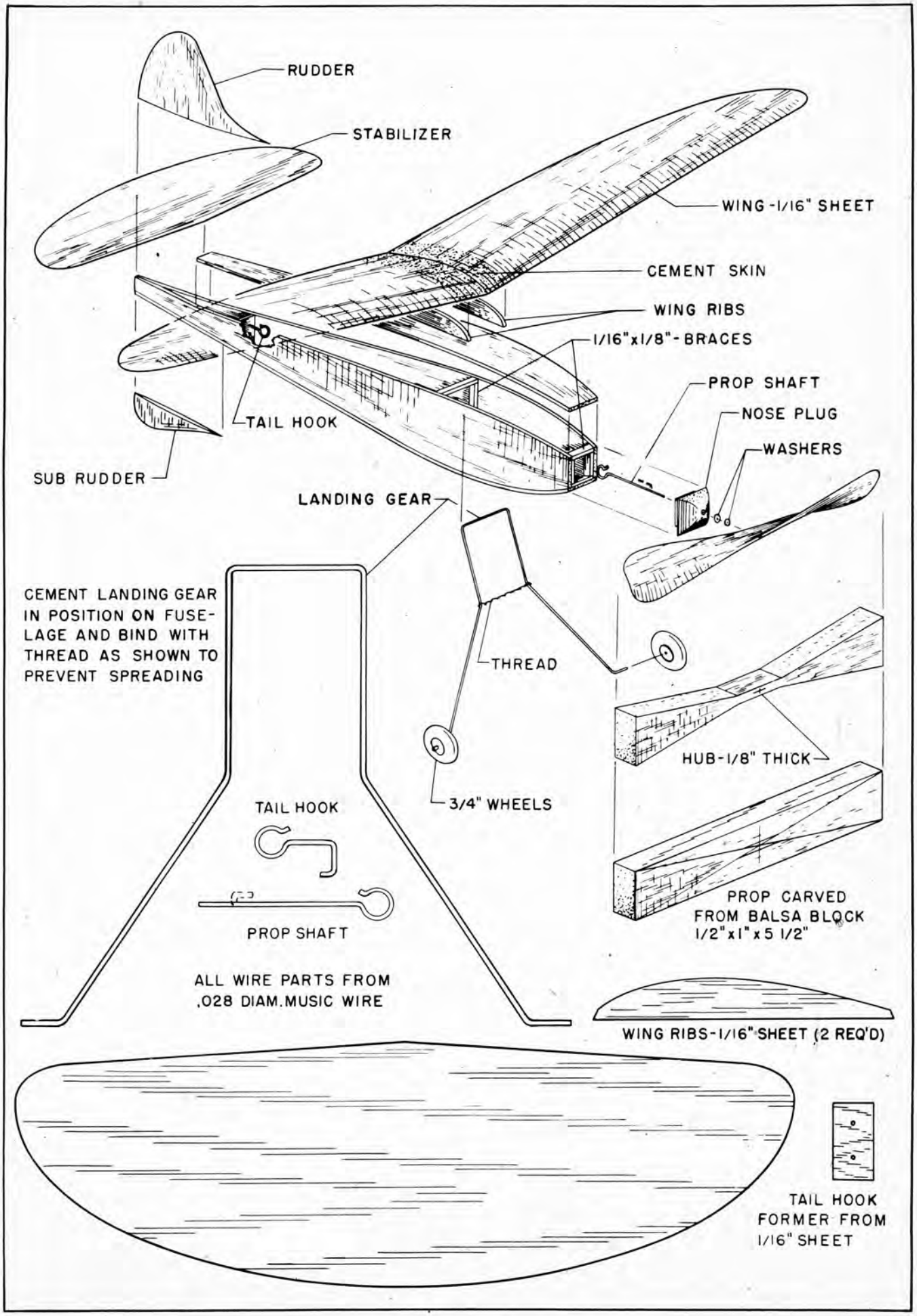
Assemble the two wings by cementing them together at the center section, making certain to have the wing tips raised to a height of 1 1/4", forming the dihedral. Attaching the wing to the fuselage is done by tying it on with rubber bands that are wrapped around the fuselage. This allows the wings to be moved forward or to the rear while flying and adjusting.

You will notice that the propeller was left for the last. This is because it requires the greatest amount of technique. Actually it is very simple to make if you go at it carefully, step by step. First lay out the blank form on the block, and cut away the excess wood. Then carve the undercamber of both blades to match. When this is done, proceed to shape the overcamber, making certain to taper the thickness of material from the widest point at the hub and the thinnest at the tips.

Balance the prop carefully, and coat it with two coats of clear dope. The prop shaft may be installed and hooked over the prop and cemented in place, or, if desired, a bushing may be placed in the hub and a "Jasco" type free-wheeler installed. When attaching to the nose plug, place two small washers between the prop and the plug to insure freedom of motion

(Continued on page 62)


WING, TAIL, AND FUSELAGE FROM 1/16" SHEET BALSA
WING RIB
1/16" X 1/8" BRACES
CUT SMALL HOLE NEAR TAIL HOOK FOR ACCESS TO REAR RUBBER MOUNT.
TAIL HOOK FORMER FROM 1/16" SHEET
TAIL HOOK
BIND WITH THREAD
3/4" WHEEL
CEMENT SKIN ON UNDER SIDE OF WING ONLY
WING RIB
EYELET
NOSEPLUG
SIDE
FRONT
BACK
1/16" X 1/8" BRACES
CEMENT SKIN ON TOP AND UNDER SIDE OF WING
TAIL HOOK


RUDDER
STABILIZER
WING-1/16" SHEET
CEMENT SKIN
WING RIBS
1/16"x1/8"-BRACES
PROP SHAFT
NOSE PLUG
WASHERS
TAIL HOOK
SUB RUDDER
LANDING GEAR
CEMENT LANDING GEAR IN POSITION ON FUSELAGE AND BIND WITH THREAD AS SHOWN TO PREVENT SPREADING
THREAD
HUB-1/8" THICK
3/4" WHEELS
TAIL HOOK
PROP SHAFT
PROP CARVED FROM BALSA BLOCK 1/2"x1"x5 1/2"
ALL WIRE PARTS FROM .028 DIAM. MUSIC WIRE
WING RIBS-1/16" SHEET (2 REQ'D)
TAIL HOOK FORMER FROM 1/16" SHEET

of the fuselage with blocks, glue the tail boom to the back of the rear plug, making sure that it is perfectly in line with the wing when viewed from the front, and in line with the center longeron when looking from the side.

THE PROPELLER—The propeller is carved in the usual manner from a quarter-grain block of 4½ lb. balsa, maintaining an even helical pitch with ⅛" undercamber at the widest chord which should be approximately two-thirds out from the center of the propeller. Insert the .014 wire through the hub and bend the end of it over the front of the propeller hub. Then glue it in place. After it has dried, put the end of the wire through the nose plug, having two washers between the propeller and the nose plug. Then bend the end of the wire in the shape of a hook for attaching the rubber motor.

FLYING FOOL

(Continued from page 25)

and a minimum of friction.

Flying the "Flying Fool" is a cinch; it flies itself. It is powered with four strands of ⅛" flat brown rubber, eight inches long. Just wind 'er up and let 'er go. If the model stalls, move the wing back a little. If it tends to dive, move it forward. The rudder and trailing edge of the stabilizer may be warped to make the model climb, circle, and glide in any direction.

LILLIPUT GASSIE

(Continued from page 8)

method of construction was chosen, which conveniently embodies a tremendous amount of strength in a minimum of weight. This is the crutch and bulkhead method. Though little need be said about the actual construction of "Lilliput" in view of the fact that the drawings are self-explanatory, there are a few hints as to the procedure to follow that would substantially reduce the building time by several hours and also avoid the chances of error.

The fuselage is built around the crutch, which is the main stress member, and is constructed directly over the top view of the plan. While the crutch is still in this position, the top half of the formers may be put in place and the stringers added. When this is thoroughly dry, it may be removed from the plan and the plywood firewall and bottom halves of the bulkheads added. Note carefully that the coil is put in place at the same time as the bulkheads because it can-