the flat bottom section, to insure good take-offs. (With flippers you could use a convex-undercamber.) Spoilers proved the answer.

A single-channel receiver is used, operating a compound escapement (with a self-winding motor device), with the third position (more reliable than "quick blip") operating the spoilers by a self-neutralizing escapement. The spoilers work well on a single strand of 1/8" rubber—a loop is more than enough.

Spoilers operate by destroying lift over a vee shaped area of the wing, fanning out behind the spoiler. If trim was available, a nicely controlled, sinking descent, should be possible. In our case, the airplane dropped the nose slightly, would fly somewhat faster, but would never pick up excessive speed. It always held the same angle, did not balloon. The flight path resembled that of a real plane with wing flaps down. Control response becomes real groovy with spoilers out and you can land the airplane fast with power (in emergency), or fairly steep in the glide with spoilers out. A 1" x 4" spoiler will give level flight with empty tank on a warm day with risers. A 1" x 5" spoiler creates a definite descent. Spoilers must be adjusted to empty-weight conditions, as full-load angle of descent might be steeper than desired for a conservative flight pattern.

The landing gear is based on a suggestion by Larry Conover—used by Gurnett on Cargo Clippers. The two wheels are fixed to the axle so that wheels and axle turn together as on a train. The outside wheel in a turn on the ground compels the inside wheel to turn at the same speed. The ship runs remarkably true, and rudder response is better than in the air. Take-offs are child's play under all conditions. There are no struts. The 1/8 wire axle goes through two micarta bearing plates in the fuselage sides. The wheels are micarta disks—no tires. Despite all lack of shock absorption features, the axle has never been bent, or the ship damaged in any way due to the gear, despite stalled landings and mild crack-ups. For our purpose, the gear is perfection. Ground angle has little affect and the wheels are sized only for belly clearance. Light loadings help.

Out of his experience with 30 RC jobs, the editor felt moderately low dihedral would produce a near neutral stability so that the ship could be put in a turn, with the turns continuing without loss of altitude until drift required a control correction. In practice, this was fatal to the first airplane flown under FAI observed conditions for a record try (in order to determine the problems and procedure involved in the real thing). After getting off in 480 feet, the ship flew out to 2500 feet bef[ore] a turn could be made. At this extreme d[is]tance, with less than 30 feet of altitu[de] turns that required "taking the ship ou[t]" led to drastic flying difficulties.

Number two ship had more dihedr[al] was easier to control at distances, b[ut] severe dihedral of at least 10 degrees [is] essential for hands-off flying when the sh[ip] is far out. (Ship hit snow fence after tak[e] off in wind on record attempt). The thre[e] view shows this. With a load of fuel, th[e] first plane was easier to control than wh[en] empty. Somewhat like rubber stick job[s] the empty planes have a high CG—t[oo] high without dihedral to handle it.

(The first of three articles.)

Supermarine S-6B

(*Continued from page* 18)

tapered. Attach flippers to stabilizer wi[th] cloth hinges, using a small Veco contr[ol] horn. Cement the finished horizontal ta[il] on top of the crutch pieces which are cu[t] down to 1/4" depth to take the tail.

The 1/2" sheet head rest that fairs int[o] the fin is shaved and sanded to the re[-] quired taper and cross section. When th[e] planking has been smooth sanded, cemen[t] the head rest-fin in position and matc[h] the contour at the rear end of the fuselag[e] with two soft balsa blocks. These block[s] fit on top of the stabilizer, one on eac[h] side of the fin. The engine fairing block and windshield streamline block are shaped sanded, then matched to the fuselage and cemented in place.

Floats: The floats on the original mode[l] were made of 1/16" sheet bent and formed with the bulkheads cemented in place without connecting stringers. The plans show top and bottom stringers, and chine stringers of 1/16" x 1/8" balsa. Build each float as you would a fuselage. If you worry about alignment, cut the top and bottom stringers from sheet balsa, thus insuring the exact curve. Use the profile of the float for a pattern. Cement top and bottom stringers on the bulkheads, then the remaining stringers. Note the plywood plates to which the brackets must bolt.

Sheet cover the floats before attaching the bow and stern blocks are fitted. To plank, begin with 1/16" x 1/2" balsa