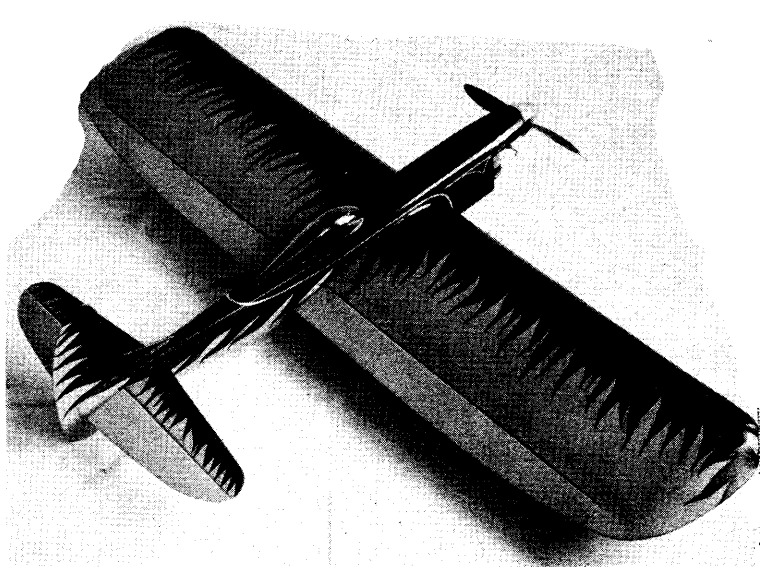




With the larger wing and inverted engine, slowed-down Fenó proved ideal for the special flying conditions the designer had to contend with.



Keep your profiles and flying wings, thinks the author, who racked up remarkable record of 18 first places without loss. Even won 180 lap race.

feno

By TED GOYET

Remarkable maneuverability, plus an ability to stay out on the lines regardless of the wind conditions, makes this stunt ship worth building.

► The Fenó was basically designed for combat and did very well as such. It won the 1952 Combat and Special Events Championship. The ship won 18 first places without a loss in combat, 180 lap races and balloon bursting. This was with Western Associated Modelers in California.

The Fenó has remarkable ability to stay tight on the end of the lines under almost any conditions. It has flown combat in winds from 25 to 30 mph without showing signs of coming in or going slack on the lines.

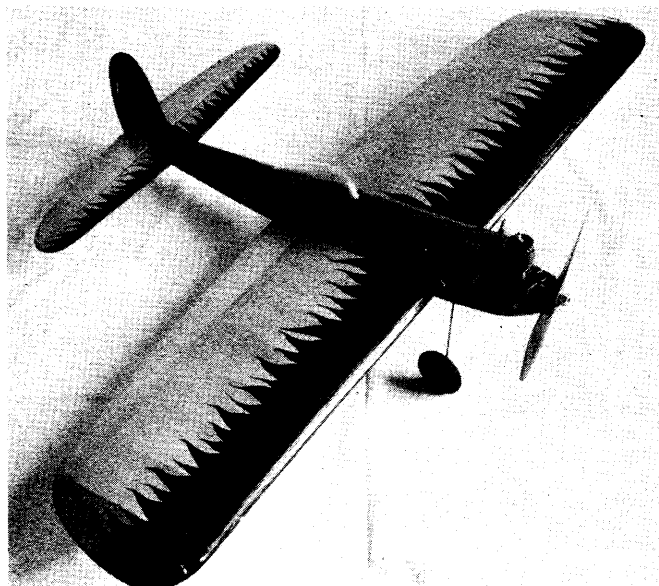
After I had recovered from a polio attack to the point of

resuming flying, I tried to take up the old Fenó from a wheel chair, but since it was too fast for both myself and the fellow who guided my chair, I pushed it around in a circle. (Just try it some time!) Obviously, the old Fenó was unsuitable for such activity and I designed several other ships with large wing areas, thinking this would slow them down to allow me to handle them. But this didn't work out very well either, as the large wing area has floating tendency on dead stick, or wants to go slack on a bad engine run. Not being able to back up in a wheel chair created another disadvantage.

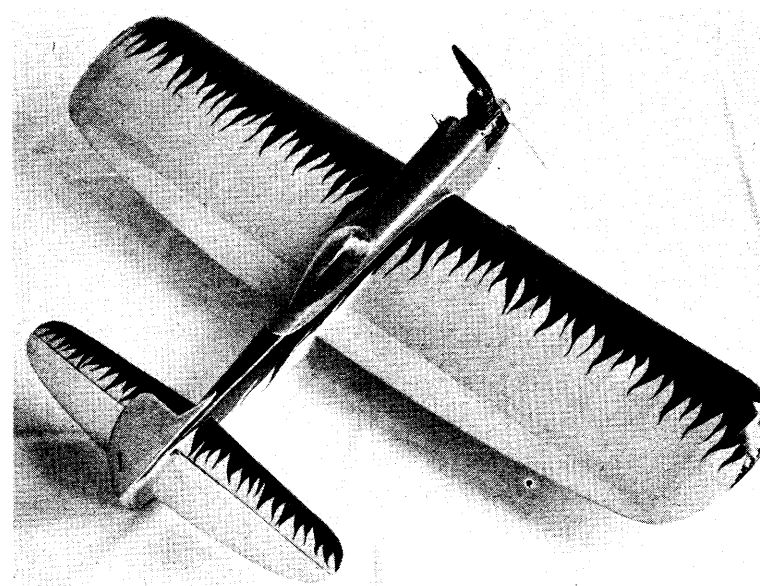
Then it occurred to me to build a Fenó with a longer wing to slow it down, and a longer nose moment arm to smooth out the maneuvers. I also inverted the engine so I could cowl it (although this never got done). This turned out to be a good idea, as the ship turned out to be very stable in the wind and not too fast for my chair-man and me.

At the very first contest to which I took Fenó SF, it won first place in AB expert, and since then has taken two seconds.

The construction is as simple as that of most kit designs of this general type. Because of the size of the model, only one wing panel has been drawn, so after you get your full size plan from MAN, trace to obtain the right hand panel. On the plans the basic design is featured (referred to as SF for Stunt Fenó) with details of the (Continued on page 52)



Shot of shorter wing version, shorter nose and upright engine. To suit everyone, plans show outlines low-winged, clipped-wing version.



Compare this picture with one directly above. Wing flaps operate on the plane at top but in ship just above, flap structure is rigid.



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which anchors the rubber in the rear of the fuselage. (Remember that a mechanical winder will turn the rubber five or more times each turn of the handle. Always count the turns.) Fuselage sides in front of the hard-wood peg holding the rubber were reinforced by cementing a strip of sheet wood in front of the hold on either side. More heavily built pre-fabs will need more rubber. An unlightened job requires up to two loops (four strands) of 1/8 in. flat rubber. An average job will take two loops (four strands) of 3/32 in. flat. If your plane lands with many turns still unwound in the rubber, add another light loop. Try varying sizes.

8. Flight Adjustments: Bowers' plane weighed .2 (two-tenths) oz. ready to fly. Normal weight is 1 to 2 oz. when no weight-saving improvements are made. He adjusted it to fly with the torque in a circle of 40 to 50 ft. in diameter. It climbed slowly to 50 ft. altitude, cruised there for most of the flight, rubber turns still unwound. To make wind-up easier, Bowers used a prop shaft that turned free of the prop until set in place against a fixed hook on the hub for the flight.

If you'd like to stage a novel air meet in your own club room, try "Flying The Ocean" with your souped-up pre-fabs. Place two strips of masking tape across the floor, parallel and 6 ft. apart. The ocean is between them. The object is to fly the heaviest load of quarters or half-dollars across the ocean. Models must take off and fly until they have safely cleared the opposite "shore." Winner is the flier whose plane transports the biggest load. One quarter and one half-dollar together are about maximum. **END**

Feno

(Continued from page 14)

CF (Combat Feno) being noted where applicable.

The only differences between the SF and CF versions are the nose moment arm, wing area and flaps (with the CF having the short wing and fixed flaps). Note that the fixed flaps on the CF model are cemented in one piece to the TE. The wing on the CF can be made with full length 36 in. stock, but the SF has to be spliced, this being done by splicing the spars, TE, LE at one tip and splicing the sheeted LE in the center. See the plan for the different thicknesses of the stabs for the two versions.

When selecting your balsa, choose medium hard for the LE, TE, spars, fuselage sides and bottom planking. All other parts (including ribs) should be medium soft grade. The tanks on the original models are modified Froom 21-B cross-feed type, which are vented through the nose bottom as indicated on the plans. The vents should run to the top of the tank and be cut at a slight angle. With the engine in operation, one vent should be sealed off.

Finally, here are a few hints on the construction of the Feno CF, if you plan to fly it in combat. Glue gauze along the full length of the fuselage sides, then wrap the motor mounts with two layers of gauze. Before installing or covering the wing, glue gauze to the LE (along the full length of the wing) the planked center section and the TE (including the stationary flap).

After the fuselage has been completed, wrap the nose section with gauze. Also, on the stab, cut two slots span-wise (about 6 in. long) and inset two lengths of 3/32 in. dia. wire. So if your ship gets hit in the stab during combat, it may break up a bit, but the inset wire should enable you to complete the flight. Here's to lots of good flying with whichever Feno you decide to build—the SF or the CF version.

