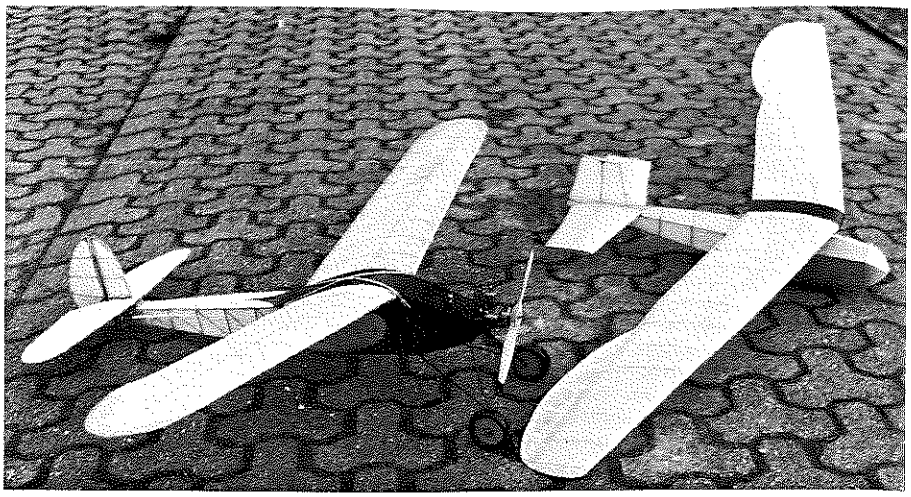
13. Russel Snyder and his orig. design, Gambler, C/L stunt model. (1948)



14. Two German old timer models: gas powered Hummel, and F/F glider, Falke-R5, by Eric Punke.

passage directly under the integral-cast exhaust stack to give the charge a preheating effect. According to figures released, this gave rpm figures of 1500 with a 12/6 prop, 6050 with an 11/6 prop, 5500 with a 10/8, and strangely enough, only 5000 with a 10/6. However, it must be remembered that propeller types were not specified. As everyone knows, there was a heckuva difference between a Super-Scru and a Flo-Torque prop. In this same line, the company advertising brochure recommended a 10 inch by 9-8 pitch prop for controline, and a 11/4 for free flight. No rpm figures available.

An interesting note regarding tank installation for the Melcraft was contained in their price catalog. It stated that the gas tank must be mounted level with the bottom of the carburetor intake tube. This meant raising the tank considerably higher than standard rotary valve intake type engines.

In 1946, oils hadn't seen much progress, hence, the old, standard SAE 70W oil was recommended in a three-to-one ratio of white gasoline to oil. (Try finding white gas nowadays!) SAE 70W oil can be found in some of the older motorcycle shops, or from some of the engine collectors such as Dick Dwyer at 1837 Flood Dr., San Jose, CA 95124.

For the technically minded, the Melcraft 29 featured a bore of .7656 in., stroke of .625 in. giving a displacement of .787 cu. in. Weight was listed as 5-1/4 ounces, although later charts quoted an eight-ounce weight. The crankcase was die cast aluminum alloy with matching points only at the cylinder, main bearings, and cover plate. The alloy steel cylinder was "hogged" out of solid bar stock, the head being integral. Because a bronze wristpin was employed, the upper end of the alloy steel connecting rod was not bushed. A Chrysler oilite bearing was provided at the crankshaft crankpin.

The Melcraft was advertised at 1/5 h.p. (same as the Brown Jr.) when turning 8000 rpm with an 11/4 propeller. Not too shabby for a Class B engine! However, no matter how good an engine performs, unless it conforms to the standard configuration of front or rear intake at crankcase level, these types enjoy only a relatively short span of popularity. And so it was with the Melcraft Blue Streak.

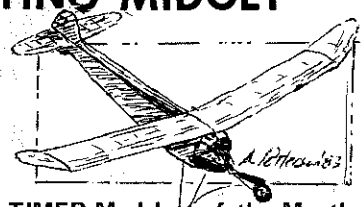
30 YEARS AGO, I WAS. . .

Photo No. 9, as so kindly supplied by Gordon Codding of 3724 John L. Ave., Kingman, AZ 86401, is a nice shot of Elbert "Joe" Weathers' new model in 1946 called the Pacificoaster. This photo was taken at a contest in Los Angeles at the Western and Rosecrans GMAASC model airport. Here is the impression the model made on Gordon Codding:

"The model had the usual Weathers beautiful paint job and multi-coat gloss finish. The plane appeared to be heavy (and as turned out, *it was!*) for a free flight duration contest. The Orwick 64 engine sounded very, very healthy . . . as a matter of fact, downright frightening!

Continued on page 93

FLYING MIDGET



OLD TIMER Model of the Month
Designed by: Thracy Petrides
Drawn by: Al Patterson
Text by: Bill Northrop

• Well, they did it again! The subject this month was published in the August 1937 issue of *M.A.N.*, and credited to Thracy Petrides and Malcolm Abzug. We don't know which one was the perpetrator. The drawing was by Abzug, but the lines of the model, particularly the wing, look like Petrides' work.

What did they perpetrate? It's the old "change the name of the model" trick! Title of the article is *The Flying Midget Gas Model*, and the writer of the article refers to the model in the text . . . well, most of the text, as the Flying Midget (three times in the second introductory paragraph, once under *Wing* construction, and once under *Tail Assembly*. But then, under *Prop and Miscellaneous*, all of a sudden the text says, "The prop for the *Cloud-Kisser* is carved from . . . etc." And four sentences later, in the same paragraph, it's back to Flying Midget. Finally, the last one-sentence paragraph says, "We think this new idea of making gas jobs a reasonable size is the greatest (or should we say smallest) thing that has hit gas-jobbing thus far, and after your first Cloud-Kisser, so will you!"

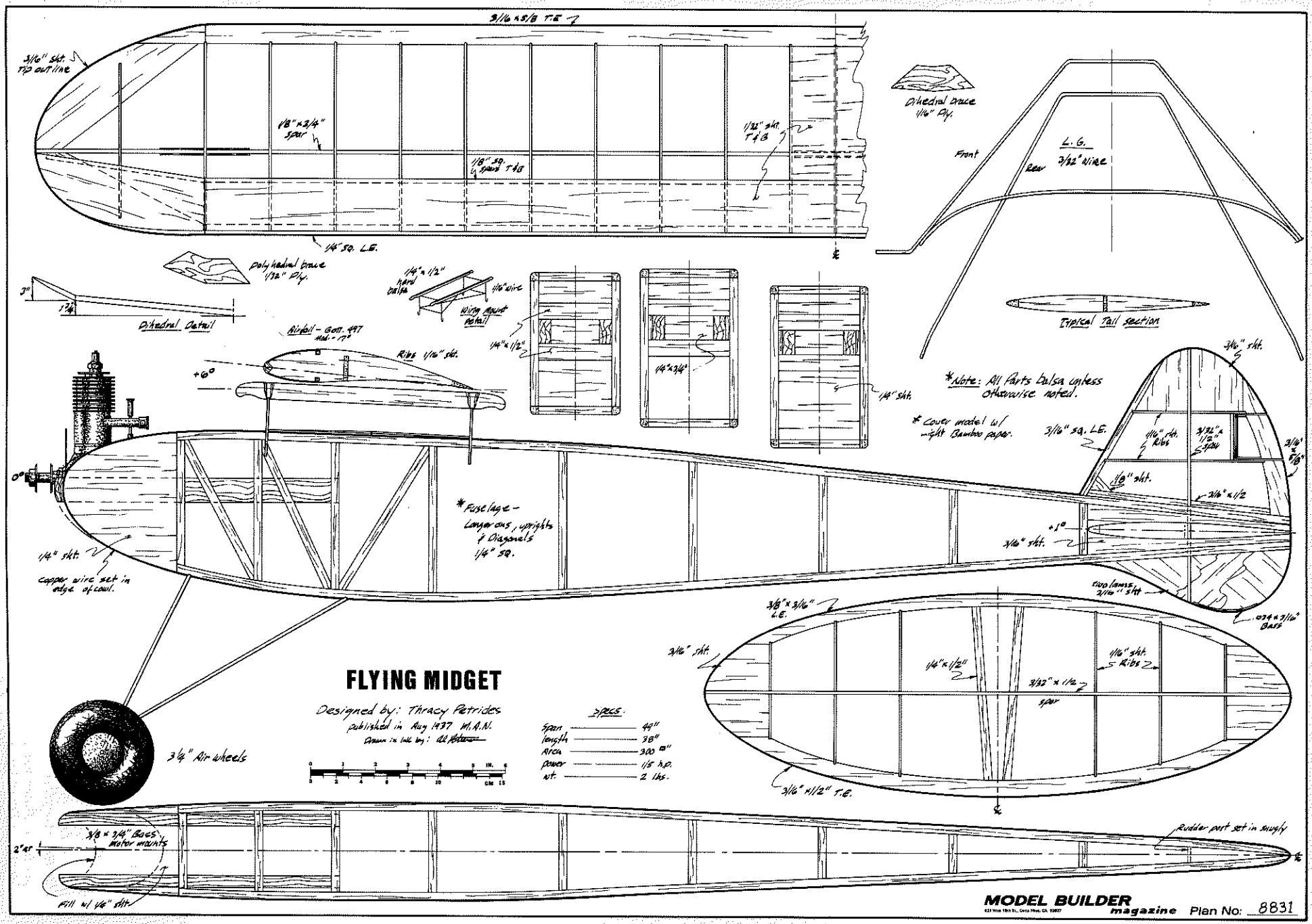
I give up!

Anyway, the 49-inch span model was truly a midget for its time, as it was designed to be powered by a Brown Jr. In modern times, it is not unusual for a 300 sq. in. area model to handle the power of a .19 to .35, which is about the power range of a Brown Jr. But for 1937, when Brown-powered models averaged six to seven-foot span and two to three times the wing area of the Flying Midget, it was quite a departure from the norm. It must have had a very hasty climb and glide! The long tail moment was a great help in handling the power.

Unfortunately with today's rule limiting displacement to .10 per 225 sq. in., the max size is a nothing .13. By adding 37-1/2 squares, you can use a .15. Otherwise, you'll have to settle for a .10. Seems to be a fallacy in the rules here.

Nothing tricky about the construction. It was suggested that the stab be built and covered prior to being inserted in the fuselage. Top of the fin/rudder is built next, then the spar is inserted through the fuselage from the top, glued in place, and then the sub-fin parts added.

Balance point is not shown or mentioned in the text, but considering the symmetrical stab, it would probably be safe to try the first test-glides with the model balanced at 50 percent of the chord . . . that's with the leading edge of the wing even with the second fuselage station.


3/16 x 5/8 T.E.
3/16" sht. T/P outline
1/8" x 3/4" spar
1/8" sq. L.E. spars T/B
1/32" sht. T/B
1/4" sq. L.E.
Dihedral brace 1/16" Ply.
L.G.
3/32" wire
Front
Rear
Typical tail section
poly hedral brace 1/32" Ply.
3"
1 3/4"
Dihedral Detail
1/4" x 1/2" hard balsa
1/16" wire
Wiring mount detail
1/4" x 1/2"
1/4" x 3/4"
1/4" sht.
Airfoil - Gott. 497 mod. - 17°
Ribs 1/16" sht.
+6°
0°
*Note: All parts balsa unless otherwise noted.
* Cover model w/ light Bamboo paper.
3/16" sq. L.E.
1/16" sht. Ribs
3/32" x 1/2" Spar
3/16" sht.
1/8" sht.
3/16" x 1/2
3/16" x 5/8"
+1°
3/16" sht.
* Fuselage - Longerons, uprights & Diagonals 1/16" sq.
1/4" sht. copper wire set in edge of cowl.
two layers 3/16" sht.
3/8" x 3/16" L.E.
1/4" x 3/16" Base
3/16" sht.
1/4" x 1/2"
3/32" x 1/2" spar
1/16" sht. S Ribs
3/16" x 1/2" T.E.
FLYING MIDGET
Designed by: Thracy Petrides
published in Aug 1937 M.A.N.
Drawn in ink by: Al Peterson
SPECS.
Span — 49"
Length — 38"
Area — 300 sq"
power — 1/5 h.p.
wt. — 2 lbs.
3 1/4" Air wheels
3/8 x 3/4" Bass motor mounts
2"
Fill w/ 1/16" sht.
Rudder post set in snugly
MODEL BUILDER magazine Plan No: 8831