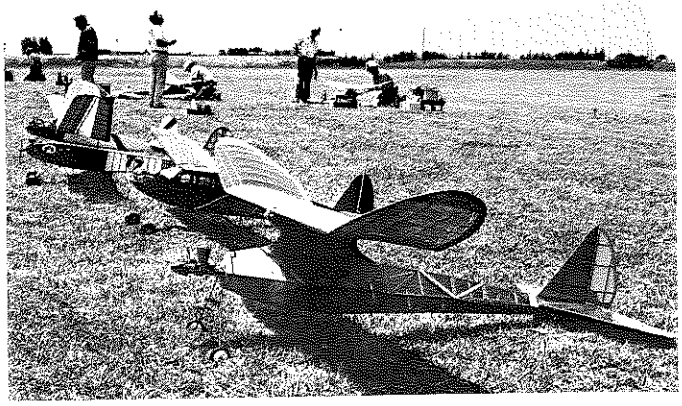
14. Ex-Californian, now Wyoming resident, Chuck Provance, poses with his California Chief A-2, P.A.W. 1.4 diesel powered. (Johnson)



15. The Beauty Event lineup of Antique models at the SAM Annual (that's Salinas Area Modelers). Dowling photo.

of the good things about aeromodelling, which besides the flying, makes for a splendid competition, good companionship, and satisfaction in a hobby we all are proud to participate in."

ENGINE OF THE MONTH

This month we are indebted to Jim Crocket, who runs Crocket Replicas, P.O. Box 12600, Fresno, CA 93778, who has so kindly provided this columnist with a little seen German engine.

The "Kratmo", a 10 cc production engine, was to Germany what the Brown Jr. was to America. In experiences similar to Bill Brown, the designer, Walter Kratzsch of Gosnitz, Kr. Altenburg, (near Leipzig) made up several designs before he hit it big. The Brown Jr. engine influence can be seen in his design.

In starting out, Kratzsch was a diesel engineer who founded a small factory in 1936, initially employing two men. The first engines, of course, were meant to replace the Baby Cyclone and Brown Jr., the only engines available at that time.

With the National Socialist Party (Nazi) embarking on a tremendous aviation training program, it was only natural that models in ascending complexity would be developed for the Hitler Air Youth Program. All drawings this columnist has of the early German designs called for some type of Kratmo engine.

With a successful local product available, the German government immediately requested a tremendous batch of engines, and was even willing to sponsor Kratzsch to set up a larger manufacturing facility. The net result was a modern factory in 1939 employing 120 people. According to figures available, over 15,000 engines of the Kratmo 10 type were produced.

In addition to producing the finished engines, Kratzsch also made engine kits of the Kratmo 10 for school instructional use, and for those modelers wishing to machine their own engines. These engines, although built to the instructions, show some variances, hence, the slightly different models of Kratmo engines to be found.

Walter Kratzsch, himself, was quite a versatile engineer, as he not only designed the Kratmo engines, but served as technician, manager, and even tested his own engines in models! To keep the business rolling, he also designed machine tools for the manufacture of steel cylinders, alloy pistons, and other internal combustion engine parts.

At this time, we would be remiss if we failed to acknowledge the write-up on Walter Kratzsch by Gerhard Everwyn, appearing in the MECA Bulletin #78, wherein Gerhard sketchily traces the development of the Kratzsch engines. As we run into additional information, we will be sure to feature other German engines as produced by Kratzsch.

The Kratmo 10 was the big production engine of the Kratzsch plant, being most heavily produced in the 1937-39 era. The 10 cc Kratmo engines were distinguished by a bulbous spinner, a large circular mounting flange, enclosed timer with a neat locking arm, and a sheet metal brass tank. Of course, improvements followed, consisting of a more pointed spinner, three mounting lugs to reduce the weight of the large mounting flange, and a plexiglass tank. The heads, incidentally, came in two styles, flat fins (as

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OLD TIMER Model of the Month

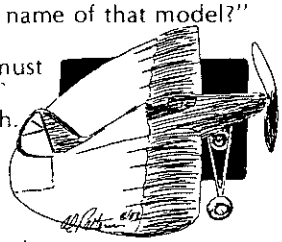
ARUP

Designed by: Gordon Englehart
Drawn by: Al Patterson
Text by: Bill Northrop

• "What's the name of that model?"

"Arup. . ."

"Wow! That must have been a good sandwich. Anyway, what's the name of the model?"



There's no other way to pronounce the name. And when you do it, you feel like saying, "Excuse me," and apologizing for not covering your mouth. Of course, if you were to say, real fast, "It's the Arup Flying Wing, designed by Dr. Snyder, South Bend, Indiana," you might get by with no more than, "Good grief, whatta name!"

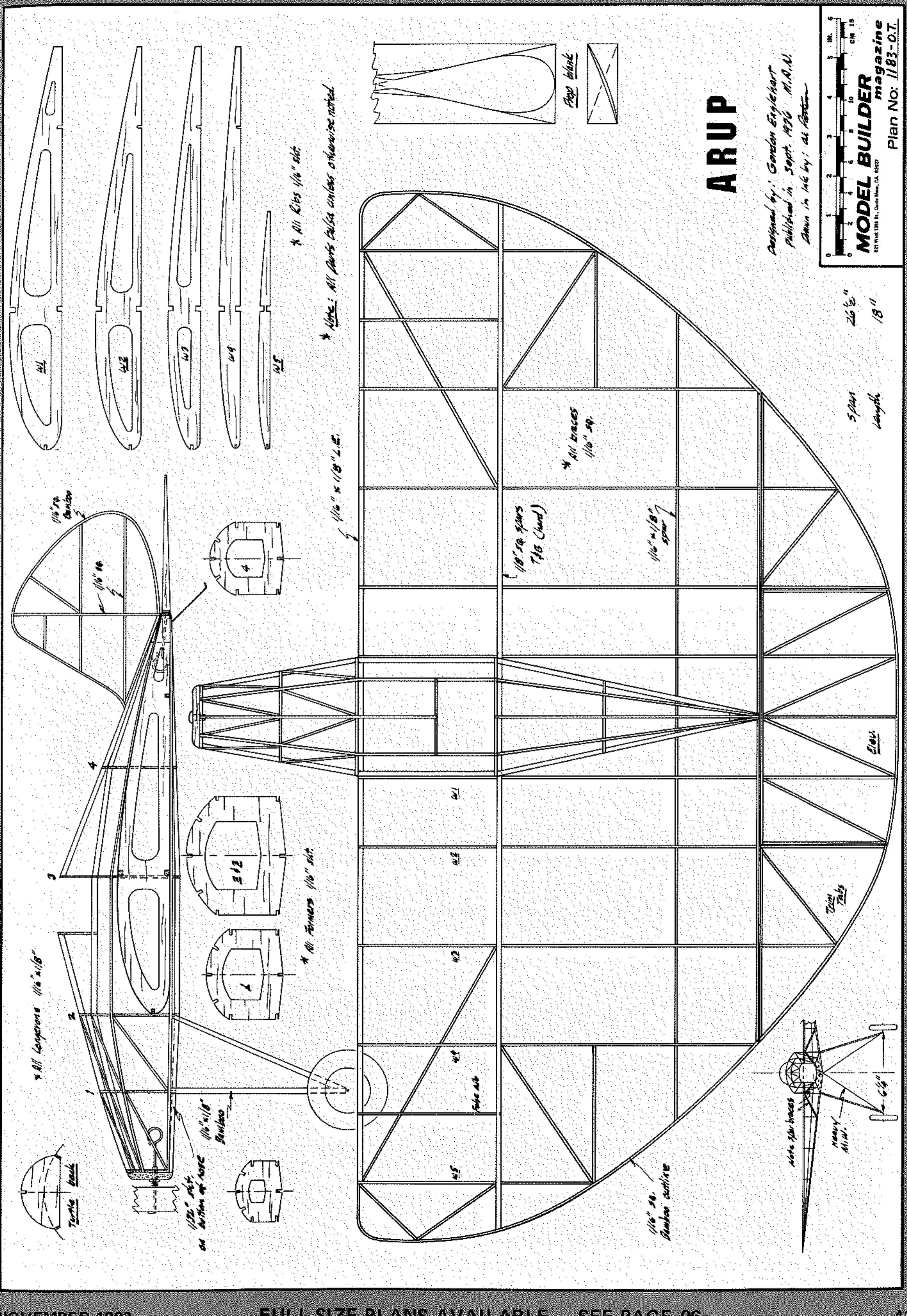
The August, 1936 issue of *Popular Aviation* featured photos and a description of not this model, but the "new edition" of the Arup, with a five-cylinder, 70-horsepower Le Blond engine and trike gear, plus what appears to be an additional stab and elevator mounted about two-thirds of the way up the fin. The original aircraft, which we can only guess must have been created in late 1935 or early 1936, was powered by a Continental A-40, 40-horsepower, two-cylinder opposed engine, and was the basis for the model presented herein.

The 22-inch span rubber model of the Arup ('scuse me) was designed by Gordon Englehart, and published in the August 1936 issue of *M.A.N.* Although my memory is vague, I must have built one, as the somewhat crude pencil lines from tracing the full-size ribs can still be seen in my copy of the mag.

The wing has to be built first, as the fuselage is built onto it. And right away we have a problem. The drawing shows a flat top spar in the front view, with the bottom spar dihedraling (new word?) up to it. However, the text says to crack the top spar at both No. 1 ribs and raise it 3/8-inch at each tip. The photos of the model don't help in solving the problem. If it's any help, the photos of the "next edition" in *P.A.* indicate a fairly thick airfoil with the leading edge at zero dihedral all the way out, and the tips tapering up or down to meet the edge. I'd be tempted to follow the plan. In any event, use a building board and shims. The instructions sort of imply that the wing was assembled acapella, which is risky.

Balance point was not discussed in the flying instructions. "If the model stalls, add weight to the nose or turn the flippers down (the latter being preferred to get it trimmed, it should be fun to fly once it gets straightened out.

Hmmmm . . . let's see . . . throttle, rudder, elevator, "trimmer flaps", three times up to 66-inch span . . . make an interesting experiment for R/C!



ARUP
MODEL BUILDER magazine
Plan No: 1183-O.T.
Designed by: Gordon Englehart
Published in Sept. 1936 M.A.N.
Span 26½"
Length 18"
Prop blank
* All Ribs 1/16" slit
* Note: All parts balsa unless otherwise noted
* All braces 1/16" sq.
1/8" sq. spars T/B (hard)
1/16" x 1/8" spar
1/16" x 1/8" L.E.
* All Formers 1/16" slit.
* All Longerons 1/16" x 1/8"
1/16" x 1/8" Bamboo
1/16" sq. Bamboo
1/16" sq. Bamboo outline
Turtle back
Trim Tabs
Elev.
W1
W2
W3
W4
W5