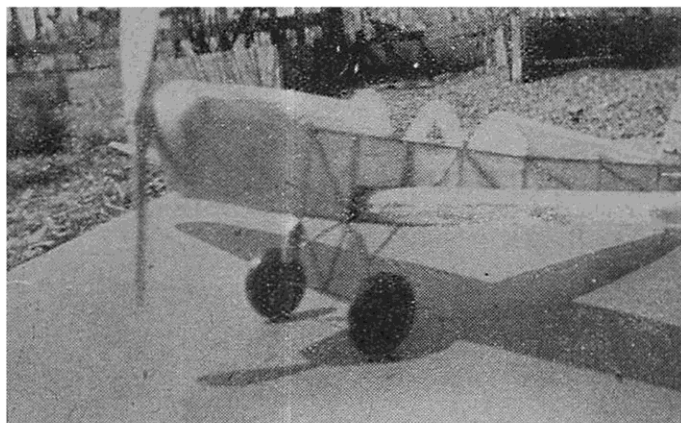
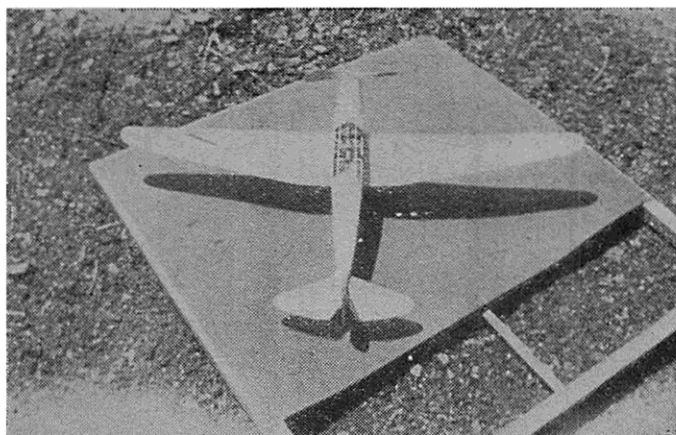


The B.F.W.-M23c Low- Wing Monoplane



By

Prof. T. N. de Bobrovsky

A Stable Flyer Scaled Down from the Original

IN keeping with my policy of trying to give you something different each month in the way of wind-tunnel tested flying models, this month I am taking you to Germany, so to speak. Our object in this case is to study carefully and build a good flying model of the low-wing monoplane which is generally conceded to be one of the best sport airplanes in the world.

This is the B.F.W.-M23c which won the international air tour of Europe for two successive years. Last year this type of plane came first and second in the tour out of fifty-seven planes entered, although the British D.H. Gypsy Moth actually finished first in elapsed time but was ruled out. You will remember that the August issue a year ago of MODEL AIRPLANE NEWS carried plans for a flying model of the Moth. I mention this to show you that the magazine is keeping you well in touch with the outstanding airplanes of the present day, in addition to acquainting you with earlier and what might be considered today freakish types.

In a way of explanation, in the name B.F.W.-M23c the first three letters represent the initials of the factory—the Bayerische Flugzeug Werke in Germany; the M is the first letter of the name of the engineer, Herr Messerschmidt; 23 is the type number of the plane, and the letter c indicates that this plane is the third variation of its type.

The B.F.W.-M23c is a two-seater, low-wing monoplane with glider-like wings. It has very good lines and is a stable flyer. The drawings of the model were made from the original drawings of the real airplane. Drawing 1 shows three views of the model, and the two photographs depict the completed and tested model which was built actually by Philip Meehan, a Dickinson High School (N. J.) student, from my drawings. It was built for MODEL AIRPLANE NEWS for the purpose of obtaining data concerning the influence of an open or closed cockpit in a flying model in flight.

This model, as in others of mine published in these

pages, again brings to your attention some unconventional parts; for instance, the rear part of the fuselage, the wing spar and landing gear.

Drawings 2 and 3 show the completed fuselage skeleton in side view, and Drawing 4 shows the same skeleton from the top. The fuselage is of the built-up type and only one bulkhead is used.

The parts marked 1 and 2 are of 1/16" square balsa and represent the longerons. Two each of these are needed. Notice carefully the top longerons (1) and how they are fitted at the section M-N, as shown in drawing 3.

All braces are made of 1/16" square balsa strips. All sections are carefully sketched for you in drawings 3 and 5. Drawing 2 contains plans for the nose block (marked 3) made of balsa and drilled for the propeller shaft. One end of the motor stick (6) is glued in the nose block and the other end in the bulkhead R-S. The positions of the rear hook and the can (7) are shown in the drawing.

THE pieces marked (4) and (5) are 1/16" thick balsa sheet pieces that hold the wings. The cockpit windows (8 and 9) are made of 1/16" square bamboo.

Three pieces of 1/32" square balsa strips are used to form the fuselage nose (10). After the skeleton of the fuselage is finished make the tail skid from 1/8" thick balsa (streamlined) and glue in position as shown in drawing 3. The bottom of the fuselage now can be covered with Japanese tissue.

The landing gear is next shown in drawings 2 and 5. The pieces (11) are dummy shock absorbers, made of balsa. Pieces (12, 13, 14 and 15) are made of 1/32" square bamboo.

The propeller is 8" in diameter and made in the same manner as the propeller for the Rotor model, which was published in the April 1931 issue of MODEL AIRPLANE NEWS. The motor is made of six strands of 1/8" flat rubber. After these parts have been completed and fitted,

the sides and top of the fuselage can be covered with tissue. The cockpit is covered with cellophane.

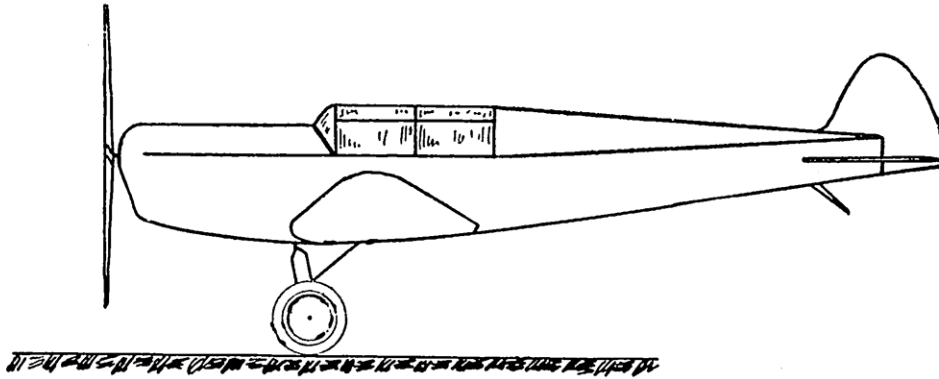
The ribs, as shown in drawing 8, are cut from 1/16" balsa sheeting.

You will need two of each rib. Also from 1/16" balsa sheeting cut out the two spars marked (16). Assembly of the wing is shown in drawings 6 and 7. The leading

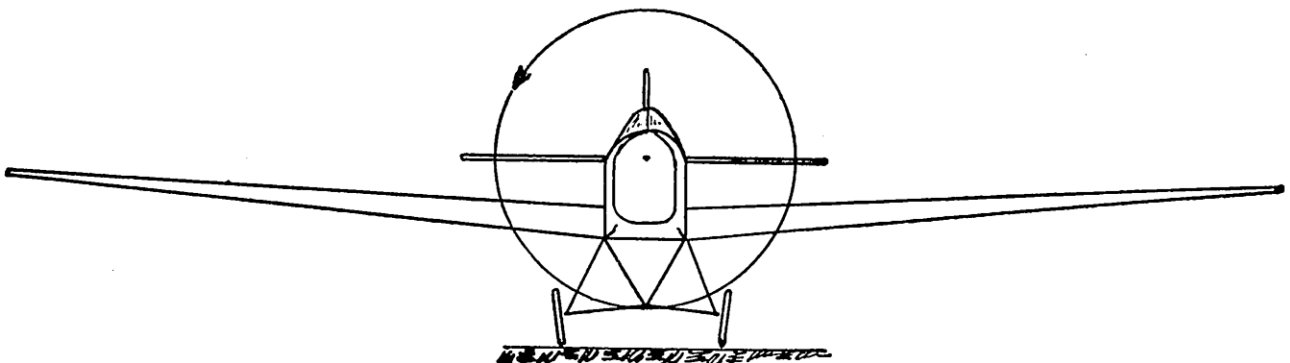
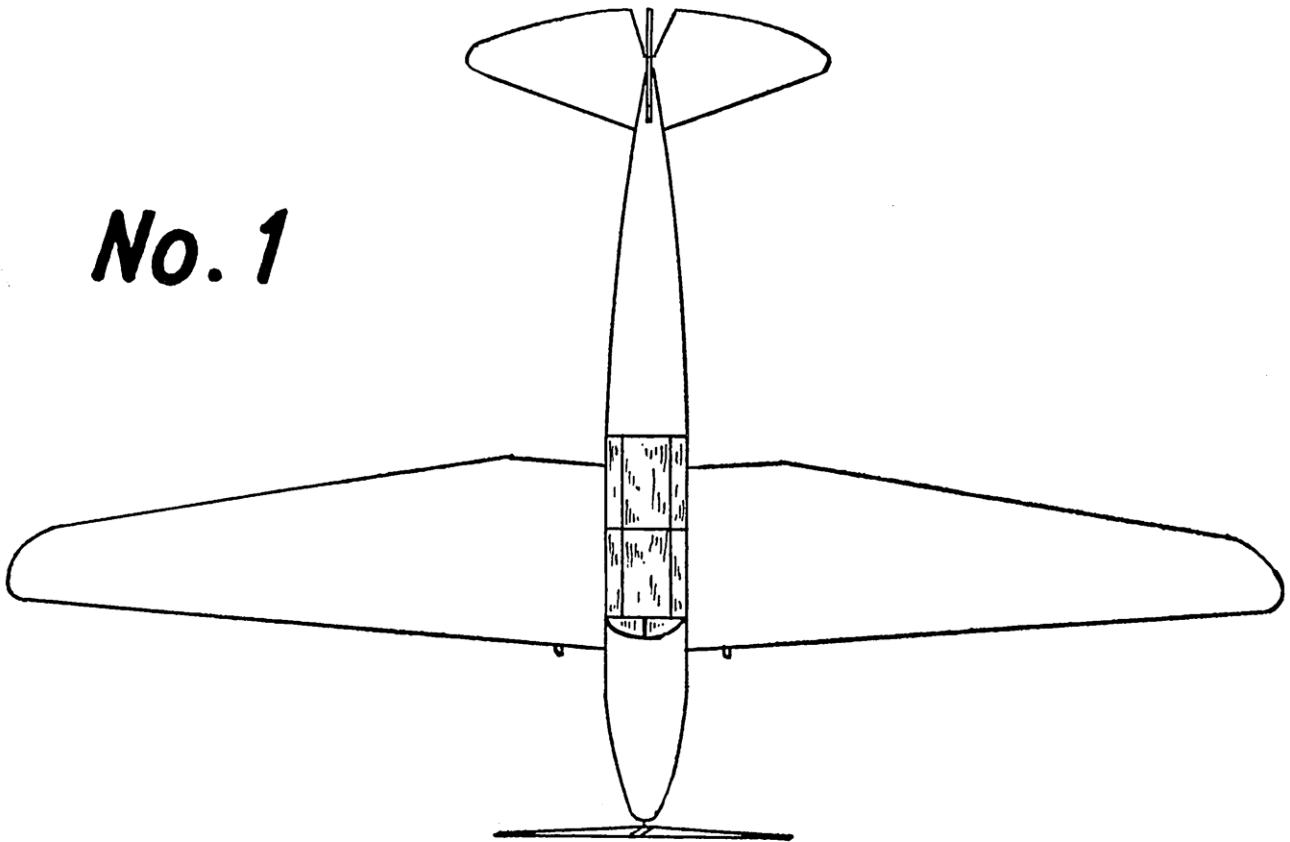
edge (17) is of 1/16" x 1/8" balsa strip and the trailing edge (18) is of 1/32" x 3/32" balsa strip. The wingtip (19) is made from 1/16" square bamboo.

The wing is covered on both sides with Japanese tissue. The finished wings now can be placed in position.

The next step is the stabilizer, shown in drawing 9, and made of 1/16" square balsa. (Continued on page 40)



No. 1



The B.F.W.-M23 C

(Continued from page 23)

The frame (21) is made of bamboo. The finished stabilizer is covered on both sides and glued to the fuselage along the line of thrust.

The rudder, shown in Figure 9, is also made of 1/16" square balsa and the frame (20) of bamboo. After covering the rudder on both sides, glue it to the end of the fuselage as shown in the drawing. The model is now finished.

If you desire to color your model, paint the sides and bottom of the fuselage brown and the propeller and fuselage, up to section C-D, silver. The top of the fuselage and fin take a coat of natural dope. The rudder is brown, the shock absorbers silver and the rest of the landing gear and the tail skid are black. The wings and elevator are yellow.