PHOTOS BY FUDO TAKAGI

Peanut *HERGT Monoplane*

By WALT MOONEY . . . Over 60 years ago, Mr. Hergt and Mr. Fokker must have gotten together and cooked this one up just to see if some future nutty modeler would fall for it. They hooked the Peanutiest of them all!

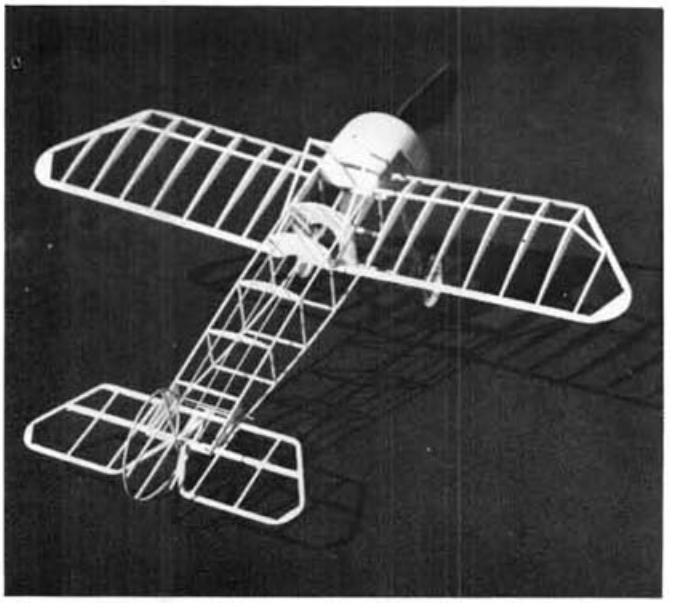
• The Hergt Monoplane is a rather obscure WW I airplane. Only one was built. With a wingspan of 6 meters and a length of 5.2 meters, it was rather small and probably wouldn't have been much good as a military airplane. It was not equipped with anything in the way of armament and its speed was only about 78 mph.

However, it does look a bit like the Fokker E1, and in fact its configuration is about what a model builder would do to the E1 to make it into the ideal WW I Peanut. It was built with a plywood skinned fuselage and plywood covered cantilever wings. Therefore there is no wire bracing to be modeled. It had pronounced washout in the wings . . . note the wing twist shown on the plans.

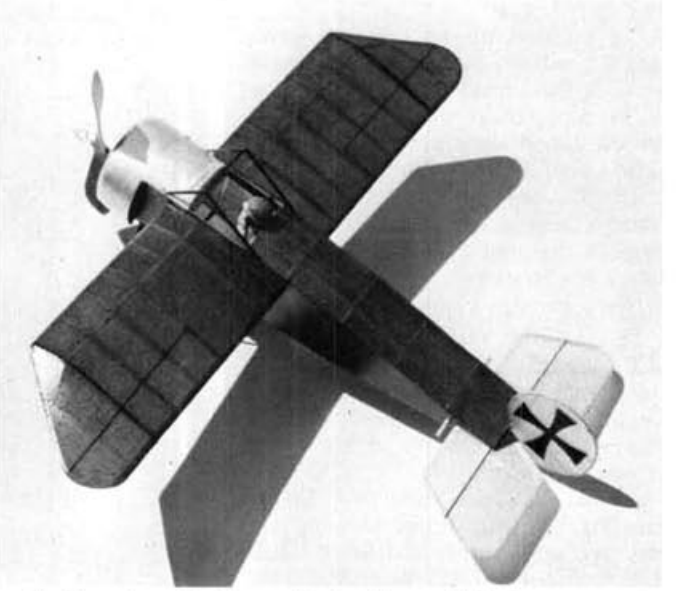
The tail looks like it was made of parts taken from an E1, and these surfaces are therefore proportionately larger when used on this small aircraft. This also would explain the fact that there was a cross on the vertical tail, but none in evidence elsewhere, on the airplane in the photo that is available in "German Aircraft of the First World War" by Peter Gray and Owen Thetford. Mr. F. D. Hergt also used wheels that were easily available and therefore look large on this small aircraft.

Since the wing and fuselage were plywood covered, internal structure is not easily determined. The model was made of standard, built-up, tissue-covered structure to keep it as light as possible. It uses some materials that are not really standard, so this article makes some comments about structural concepts, and lists sources where these materials can be purchased.

Note that the wings are attached to the fuselage sides about a quarter of the way down from the top longerons. In this location, both the leading and trailing edge of the wing can apply loads into or out of the fuselage structure. Because balsa can take so much more force axially (along its length) than it can transversely (in bending),



The popular term "straight forward" really applies to this fuselage! It is straight forward and straight backward!



The Hergt is an ideal Peanut Scale subject, with its low aspect ratio wings. Really obscure, only one was ever built.

even a minor impact can break the upright where the trailing edge is attached or where the front of the wing contacts the fuselage. To prevent this, since as model flyers we are unable to prevent impacts, we need to install some structure to carry the wing spanwise loads through the fuselage. To do this, parts "H", "I", "J" and "K" are built into the fuselage structure. Part "J" also provides some additional strength to pick up landing gear loads and additionally insures that the basic fuselage structure is square.

Note that the horizontal tail deviates from the scale outline. This is also in the interest of strength. To simulate the area of the tail that doesn't exist in the real airplane, cover the hatched area with black tissue in the shape shown.

The grain of the wood, in almost every case, should be lengthwise of the piece. However, in the case of part "J", it goes crosswise of the part, and of the fuselage, because the largest loads on this piece are the handling loads provided, when holding and launching the model, by your thumb and forefinger.

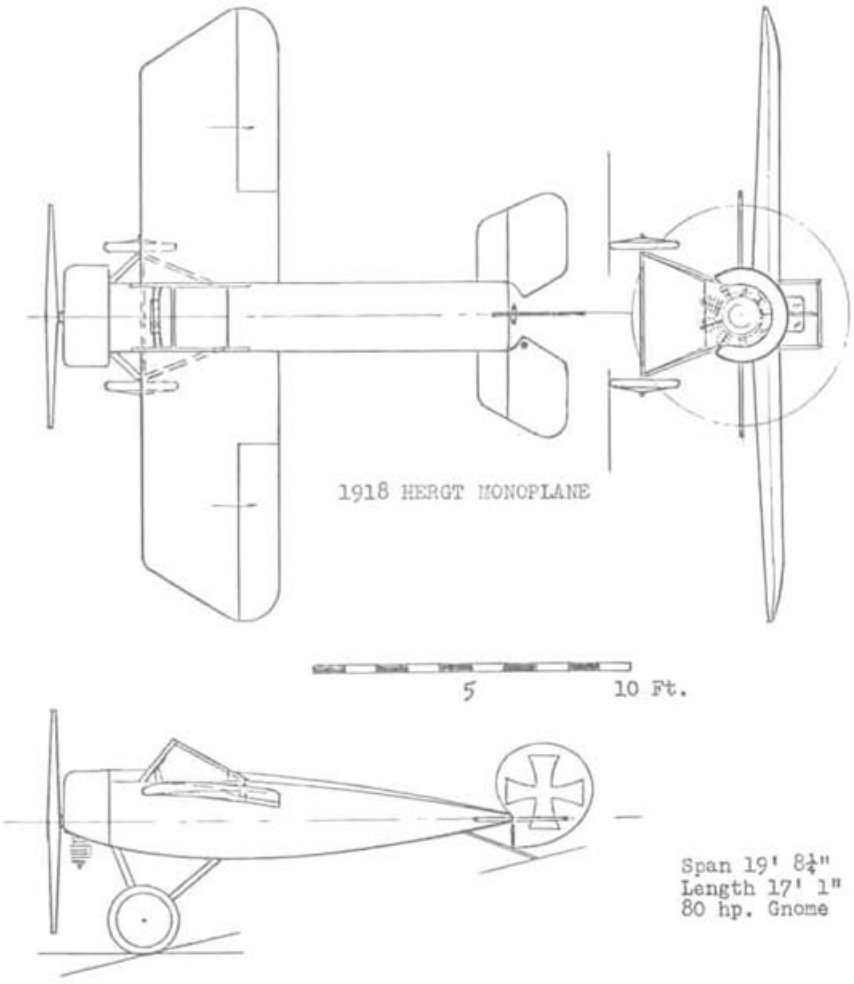
The vertical tail outline is made by laminating 3 pieces of basswood over the plan. Basswood is also used for the thin stringers and the landing gear struts. This material is available in the required sizes from Peck-Polymers, P.O. Box 2498, La Mesa, California 92041. The catalog costs 50 cents and covers lots of other items, including the plastic thrust bearings used to simulate the cylinder heads which are outside the cowl.

The propeller thrust bearing, which fits in the balsa block crankcase, in the square hole, and the cylinders, are plastic items available from Williams Bros., 181 Pawnee St., San Marcos, California 92069. The cylinders are 1/2 inch scale cylinders. Williams Bros. catalog will cost you 25 cents and also covers many other items.

The propeller used on the model was cut down from a Tern plastic propeller. This is a very nice, wide bladed, efficient propeller, and is available from Vintage Aero, 1 the Glen, Tenafly, New Jersey 07670.

The wheels that look so good on the model are made by Fulton Hungerford. To be exactly scale they should be covered with tissue to simulate the fabric cover on the real wheels, but it's a shame to hide those beautiful spokes. These wheels are available from F.H. Wheels, 1770 Lilac Circle, Titusville, Florida 32780. They are not cheap, but they are beautiful, strong, and very durable. A set will outlast several Peanuts.

And last, but not least, most of the model is made of balsa. Mike Taibi, of Superior Balsa, is cutting wood for the Peanut enthusiast. Write Superior, P.O. Box 8082, Long Beach, California 90808.



The firms I've listed carry many other items useful to model builders. There are many other firms that can supply your needs and advertise in MODEL BUILDER. Spend some time reading the ads. They can be a lot of help.

The color scheme of the model shown is as follows.

Black: Cylinders, tires, cross, struts.

Aluminum: Cowl, wheelrims, spokes, cylinder heads, crankcase, thrust button, and pilot's goggles.

Brown: Fuselage covering, wing covering.

White: Horizontal and vertical tail, tail skid covering.

Tan: Propeller (simulated wood grain), pilot's helmet.

Have fun with your Hergt Monoplane. One loop of one-eighth flat rubber will power it. ●

Another view of the Hergt confirms that the tail surfaces were probably "borrowed" from a Fokker E1. Note big Hungerford wheels.