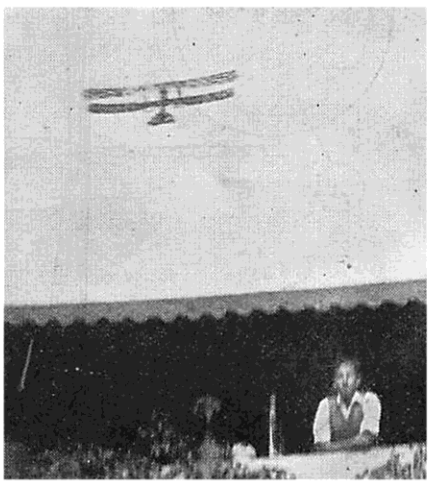
Build the Friedrichshafen G II, War-Time Bomber

Complete Instructions and Plans of the Famous German Bomber That Often Bombed London

By Robert V. Smith

THE flying model to be built this month is the Friedrichshafen G II, a German war-time ship used for long distance bombing flights. This model is what may be called the little brother of the plane which appeared on the cover of the October 1931 issue of Universal Model Airplane News, the Friedrichshafen G III.

This model is not hard to build, but care should be taken to see that each wing has the same amount of sweepback and each propeller has the same amount of pitch. Because of the fact that the following plans are drawn to exact scale, some of the minor dimensions have been left out, although these can be had by using a ruler.



The author gives 'er a trial flight

Fuselage

The sides of the fuselage should be made first. All wood used for this part of the model is 1/16" square balsa. The longerons are each 11 9/16" long and should be pinned to a full-size layout of the side, while the uprights are ambroided between them. The two sides should be joined first at 7" then at 1", to 2", 3", 4", 5" and 6" in that order. The forward gunners pit is formed by thin bamboo strips about 2 1/2" long. The strips should be ambroided to one side and allowed to dry and then bent around and ambroided to the other side.

Center Sections: Upper Wing

First cut out six ribs 1 3/4" long and glue them to the wing leading edge which is cut from 1/16" balsa. The leading edge is 1/16"x5/32"x6 1/2". The trailing edge is next. This should be 1/16"x3/32"x6 1/2" and is slightly tapered so as to follow the rib curve. The support should now be set and glued. It is 1/16" square and 6 1/2" long.

The same directions should be used for the lower section which runs through the fuselage between crosspieces 2 and 3.

Motors

The radiators should each be cut from a block of soft balsa 1/2" x 3/4" x 1 5/16". These finished pieces should be hollowed out and with a slot cut through large enough to permit the motor stick and rubber motor to pass. The cylinders, (6 to a motor), are 5/16" high and should be mounted on a strip of balsa.

Motor Sticks

Both sticks are made of 1/8" x 3/16" x 9" white pine. A regular propeller bearing is glued to the end of each motor stick. The rear hooks of No. 12 wire are then fastened on.

Propellers

The propellers are each cut from a block of hard balsa 1" x 3/8" x 4 1/4". Much care should be taken to see that each propeller has the same amount of pitch as it increases the stability of the model. The propellers should also be very carefully balanced. This is done by sanding down the heavier side until balance is obtained.

Landing Gear

The landing gear should be attached to the center section and should be glued in place after the center section is papered. The four wheels are 1 1/4" in diameter and are *glued directly to the axles*. After the socket (c) is glued onto the axle support (d), one wheel should be glued to the axle, slipped through the socket and then the other wheel put on. The axle and axle support should both be made of bamboo because of the stress upon them.

Tail Surfaces: Fin

The fin outline (b) should be first bent either by steam or open flame and then the supports made and glued onto the outline.

Elevators

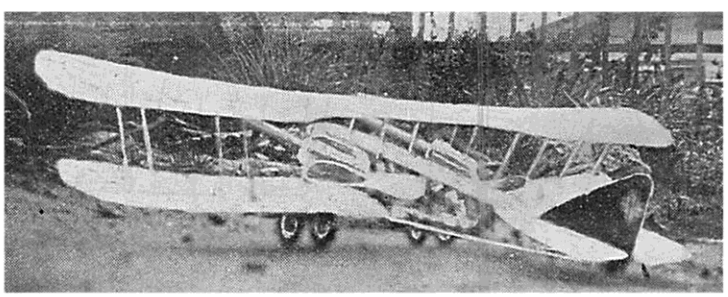
The elevators should both be made at the same time in one piece and then cut in half when ready to be put on.

Wings: Top Wing

First cut out ten ribs 2 3/4" long and 3/16" high cutting out grooves for the leading edge, the two supports and the trailing edge. There should also be two ribs the same size as the center section ribs. When gluing ribs to the leading edges, do not forget to set them on an angle, especially rib No. 1, as there is both sweepback and dihedral. The wing-tips are bamboo and should be bent before placing them on the wings.

Lower Wing

The lower wing is the same length and height as the upper wing but it is 2 5/8" wide. This wing also has the same amount of sweepback and dihedral as the upper



The completed model which will give you a real thrill in flight

wing. The wing struts are placed between ribs No. V and VI and III and X, and are ambroided to the supports.

Covering and Decorating

COVER the model slowly and with care, as a good covering not only increases the looks but also helps the model's flying quality. Although both sides of the wings and fin are covered, only the top surface of the elevators need be covered. All four sides of the fuselage should be finished. After the model is covered, all but the tail surfaces should be steamed and allowed to dry without being touched. This will give the paper sufficient tightness. The tail surfaces should not be steamed because of the danger of warping.

A simple and yet attractive camouflage is shown on Page 15 of the plans. This design should be put on the top and side surfaces only. It consists of thin solutions of black, blue and green paints. It may be put on with an ordinary water color brush. It is best to completely finish the whole plane in one color first.

The fin should be black with either the black straight across or iron cross apparent with a white outline.

Conclusion

THIS model should be flown with two or more strands of 1/8" flat rubber for each motor.

Although it may seem a bit hard to build, it is well worth your while as it is not only attractive in its flying qualities but also in its appearance.

(Editor's Note:—It is always uppermost in our minds to give our readers plans of airplanes that they desire most of all. Therefore, we will greatly appreciate a word or two from you stating the name of the plane that you would like us to publish and whether you prefer that they should be presented as *solid scale models, detail scale models* or *flying scale models.* By sending us your opinion in this matter, you can co-operate with us in making UNIVERSAL MODEL AIRPLANE NEWS a medium of greater service to our many friends.)