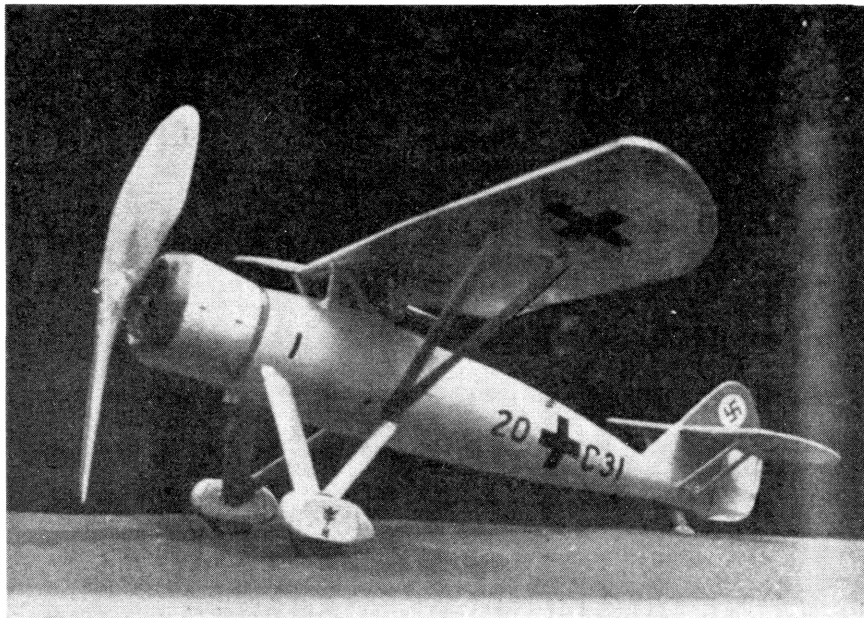


BUILD THE HENSCHEL S.R.



THE new German Air Force is composed of some of the finest 'planes in the world. Right from the four-motor bombers down to the light trainers, Teutonic thoroughness is depicted.

The Henschel Short Reconnaissance 'plane is used extensively by the *Luftwaffe*, as the German Air Force is called. It is built by the Henschel Company at their new plant, situated in a little village called Schonfeld, on the outskirts of Berlin, and is typical of the observation class, as we should term it, the high-wing arrangement offering excellent visibility.

The ship is powered by a B.M.W. "Hornet" and carries amongst its very complete equipment a two-way radio. It is a two-place job, having a gunner-observer in the back pit.

The German war-time ships have been great favourites with modellers, and if you have been keen on Fokker and Albatross ships, then here is what you have been looking for—a combination of the Black Cross and a modern 'plane, as well as a worthy addition to your collection, so let's get on with the model.

Start first on the fuselage with the jig stringers or master stringers. After joining the two plates of the fuselage together, slip a sheet of carbon paper underneath and transfer the outline of the jig stringers on to medium $\frac{1}{8}$ in. sheet, running, of course, with the grain. After cutting out the jig stringers, take the formers; the first three are from $\frac{1}{8}$ in. sheet, for strength, and the next from $\frac{3}{8}$ in. sheet. Mark the position of the $\frac{1}{8}$ in. square stringers, but leave the actual cutting until the fuselage is lined up, then mark the position of the formers from the plan on to the jig stringers, and cement in position. Next comes the $\frac{1}{2}$ in. sheet stiffening for the cabane struts and the landing gear; this will have to be put on in two sections, owing to the curvature of the fuselage; make the joint of the two sections on former "D." A better finish can be obtained if the two-place cockpit is cut out after the sheet is cemented in place. Add the celluloid

LIST OF

Four $\frac{1}{8}$ in. \times $\frac{1}{8}$ in. \times 12 in. strip balsa.
Four $\frac{1}{8}$ in. \times $\frac{1}{2}$ in. \times 12 in. ditto.
Three $\frac{1}{8}$ in. \times $\frac{1}{4}$ in. \times 12 in. ditto.
Two $\frac{1}{8}$ in. \times $\frac{1}{8}$ in. \times 12 in. ditto.
Two $\frac{1}{8}$ in. \times $\frac{3}{8}$ in. \times 12 in. ditto.
One $\frac{1}{8}$ in. \times $\frac{1}{4}$ in. \times 12 in. ditto (hard).
One $\frac{3}{4}$ in. \times $\frac{3}{8}$ in. \times 12 in. ditto (hard).
Two sheets silver tissue.
Three $\frac{3}{8}$ in. \times 2 in. \times 12 in. sheet balsa.
One $\frac{1}{8}$ in. \times 2 in. \times 12 in. ditto.

wind-shield and the little oil cooler, the construction of which may be seen in the plans. A stub of $\frac{1}{8}$ in. dia. reed and a scrap of $\frac{1}{8}$ in. sheet constitute the dummy tail-wheel.

The usual rear hook is replaced by a bamboo dowel set in a piece of hard $\frac{1}{8}$ in. sheet on either side of the fuselage. The rubber may be passed round this dowel or an "S" hook may be used, which was done on the model

shown. The dowel is not cemented in but should be a push fit in the sheet.

Cowl.

The cowl is cut from $\frac{3}{8}$ in. sheet of medium grade formed round two discs, one of $\frac{1}{8}$ in. sheet and the other of $\frac{1}{8}$ in. sheet, with the front built up of two discs of laminated $\frac{1}{8}$ in. sheet.

The nose-plug is backed with a piece of cork $\frac{1}{4}$ in. \times $\frac{1}{8}$ in., which fits tightly into the slot shown in former "A." The cylinders can be cut from $\frac{1}{8}$ in. sheet and cemented round former "A"; mark the fins on with black ink or strips of black cotton. Bush the nose-plug with aluminium tube. When dry, the cowl can be cemented on to the front of the fuselage, using plenty of cement.

Empennage.

Build up one half of the elevator on the plan, and while this is drying work on the fin. The fin ribs are cut from $\frac{3}{8}$ in. sheet and slotted at the rear to take the $\frac{1}{2}$ in. sheet edging. The $\frac{1}{8}$ in. square strip half-way up the fin is the seating for the tail-plane, and should be cemented in strongly; after you have finished the fin, remove the one half of the elevator and build another exactly the same. Cover the two halves with a separate piece of tissue for top and bottom and pin down to your bench to prevent warping. Spray with water and dope lightly; when dry, cement the two halves to the fin and attach the $\frac{1}{8}$ in. sheet struts "Z," after carefully lining up the elevator horizontally.

Wing.

The two wing panels are shown in the plan; cover with wax paper and pin down your leading edges; the tapering can be done when the wing is complete. Cut the ribs from $\frac{3}{8}$ in. sheet, except the root ribs, which are cut from $\frac{1}{8}$ in. sheet. Frank Zaic's spar system is

Design by STAN. D. MARCH

MATERIALS

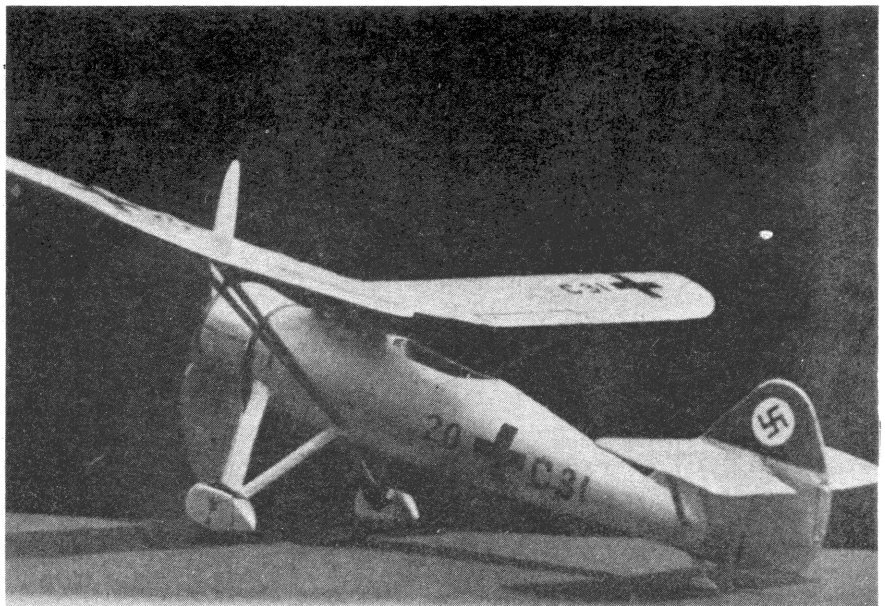
One $\frac{1}{8}$ in. \times 2 in. \times 12 in. sheet balsa.
One $6\frac{1}{2}$ in. \times $\frac{3}{4}$ in. \times $1\frac{1}{4}$ in. block balsa (hard).
1 in. aluminium tube, '025 gauge.
12 in. '025 wire.
One cork.
One pair balsa or celluloid wheels, 1 in. dia.
1 oz. cement.
1 oz. banana oil.
8 ft. brown rubber, $\frac{1}{8}$ in.—30.
Two brass washers.
Small vial of red dope.
Strip celluloid.
Scrap of $\frac{1}{8}$ in. reed and bamboo.

employed, the spar being $\frac{1}{8}$ in. square medium grade. When piercing the holes for the spar in the ribs, note the difference in position of these holes for each rib. Thread the ribs on to the spar, after marking the position from the plan. Cut the trailing edge from $\frac{1}{16}$ in. sheet, also the cross strips, $\frac{1}{4}$ in. wide, for the cabane and main struts. While the wing panels are drying you can get on with the

Undercarriage.

This is very strong and light and will carry your 'plane through a lot of hard landings.

Start off with the two "V" struts, which are made from hard grade balsa. The built-up parts are open at the top and should be strongly cemented to the "V"



struts. The bridge pieces are cut from $\frac{1}{8}$ in. sheet and grooved to take the wire bridge. This should be pushed through the sheet stiffening on the bottom of the fuselage and then the bridge piece cemented on, thus sandwiching the wire. Use plenty of cement in this operation, in case the fit on the bottom of the fuselage is not too good. Cement the "V" strut strongly to the wire. Use celluloid or laminated balsa wheels.

Propeller and Free-wheel.

The propeller is carved from a hard balsa block $6\frac{1}{2}$ in. \times $1\frac{1}{4}$ in. \times $\frac{3}{4}$ in., and blanked out as shown in the plan. Round off the corners and edges and carve carefully. Sand the propeller down and give a deep under-camber on the back. Take your time on the propeller, as the whole flying performance relies on this.

The free-wheel is of a well-known type, and although not essential, greatly improves the performance of the model, helping the glide considerably as well as ridding it of unrealistic "dead" motor approaches.

Colouring and Covering.

Cover the model with silver tissue, as this will save colouring weight. On the fuselage use a strip in between each pair of stringers, and on the wings use a separate piece for top and bottom of each wing, pinning them down to prevent warping. Paint a red ring round the motor cowling front. The black crosses may be cut from the plans, or, if you don't want to spoil your book, trace them on to thin paper with Indian ink; the numerals may also be made like this. The fin is painted with a red band and a black Swastika on a white circle cemented on.

Flying.

Owing to the high wing, the ship is very stable in flight and will probably need a little down-thrust. This can be accomplished by shaving a little off the bottom cylinder on the nose-plug until level flight is obtained. As usual, test the model if possible over tall grass. The model shown balanced without extra weights, but a little modelling clay may be needed in the cowl. Happy landings!

