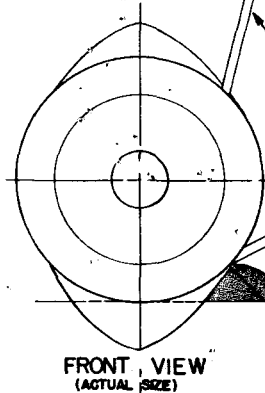
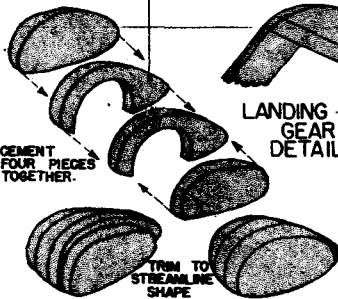


CLEAR Balsa, Balsa Oil, etc.
 THIS KIT INCLUDES IN
 THIS KIT, ADVISORY THAT
 Balsa is AVAILABLE AT ALL
 MODEL DEALERS.
 1/8" 0.125" 0.156"
 1/16" 0.0625" 0.078"

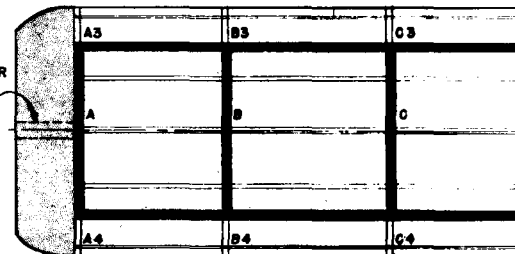
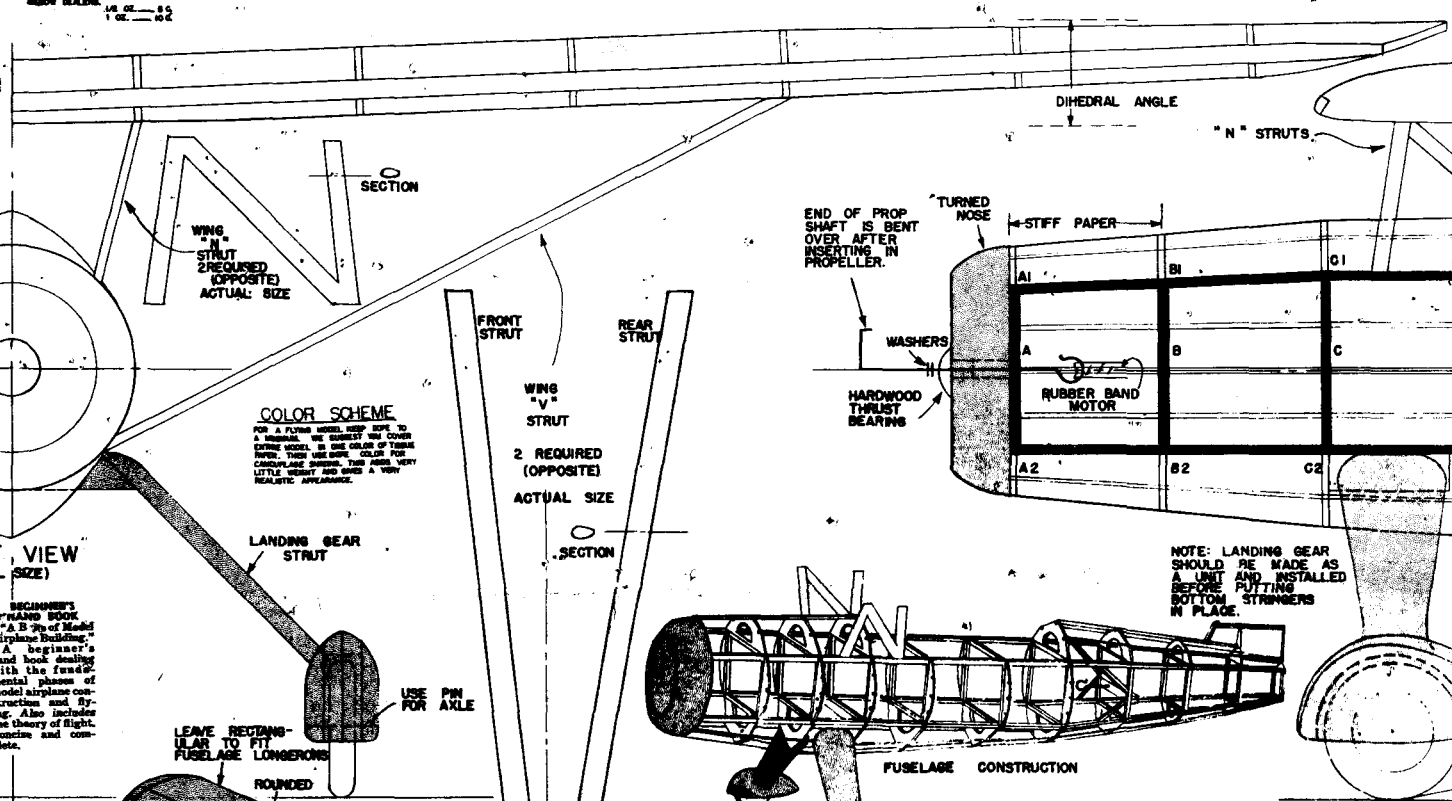
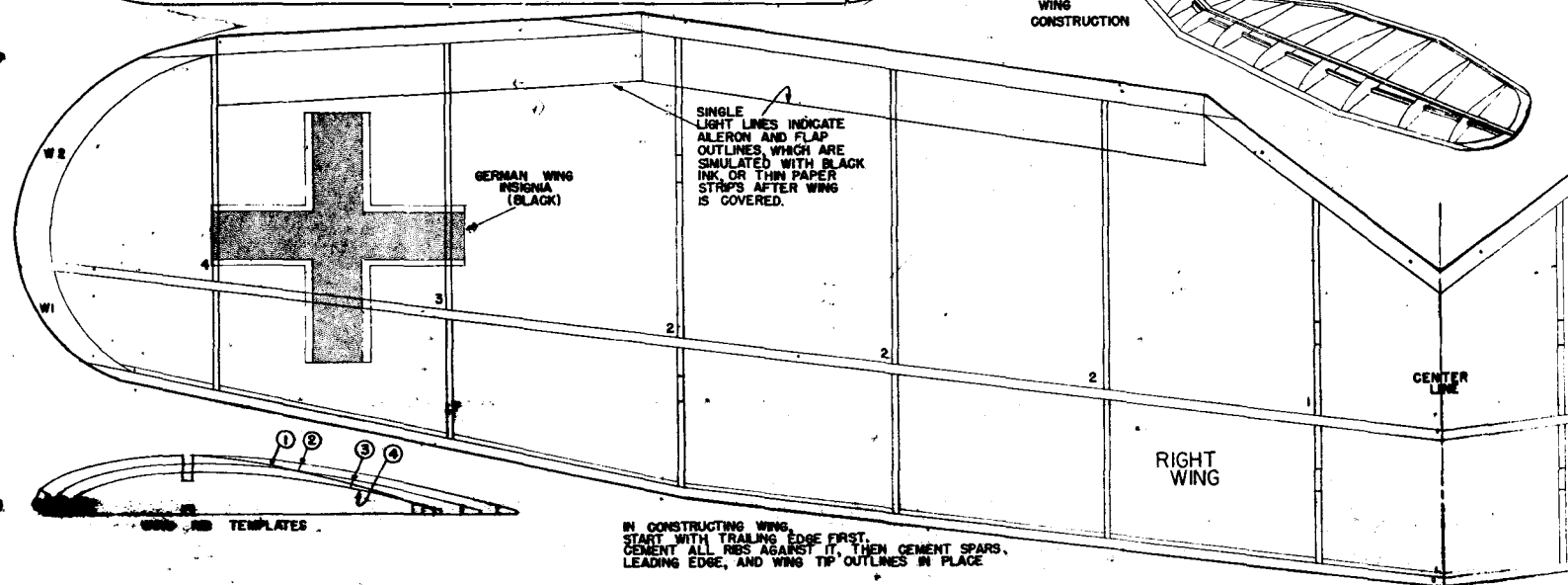
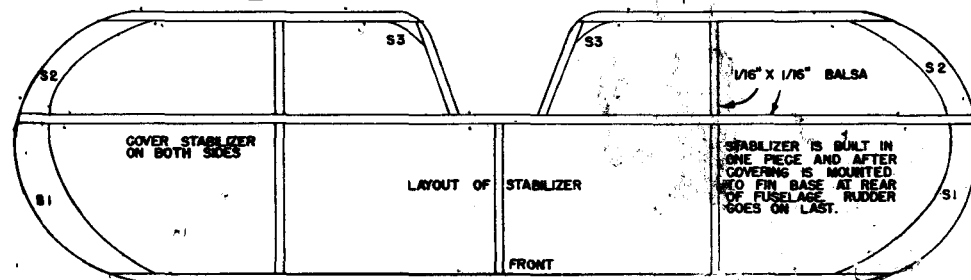
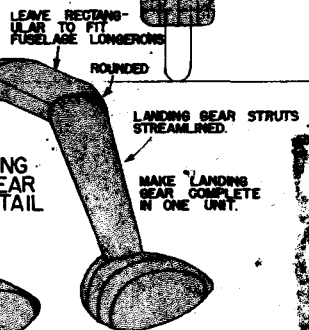
WEIGHT CATALOG
 IN PARTS
 TO PARTS



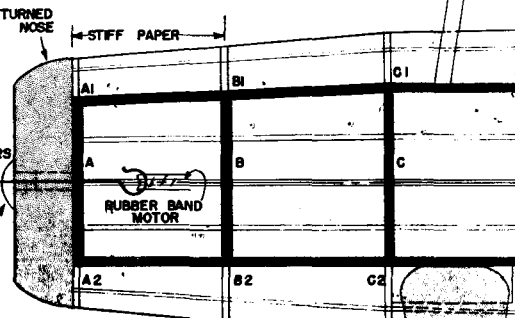
BEGINNER'S
 "A B C OF Model
 Airplane Building"
 A beginner's
 hand book dealing
 with the funda-
 mental phases of
 model airplane con-
 struction and fly-
 ing. Also includes
 the theory of flight.
 Comes and com-
 plete.



LANDING
 GEAR
 DETAIL



6. THE RIBS: On the sheet metal trace the ribs
 from the plan, or use the printed pattern to the
 rib, and cut out the ribs carefully. Sandpaper
 the edges of all the ribs carefully and make sure
 all the rib edges are perfect. Use a sandpaper
 of suitable size to sand the trailing edge, sand
 down, making it to place with plan. Then glue
 all your ribs against the trailing edge, using
 more glue to hold the ribs in position until
 your cement joints are dry. It is a simple mat-
 ter then to slip your center spars and leading
 edges into place and taping each joint with a
 drop of cement. Your tip outlines and other parts
 may now be added.



END OF PROP
 SHAFT IS BENT
 OVER AFTER
 INSERTING IN
 PROPELLER.

DIHEDRAL ANGLE

"N" STRUTS

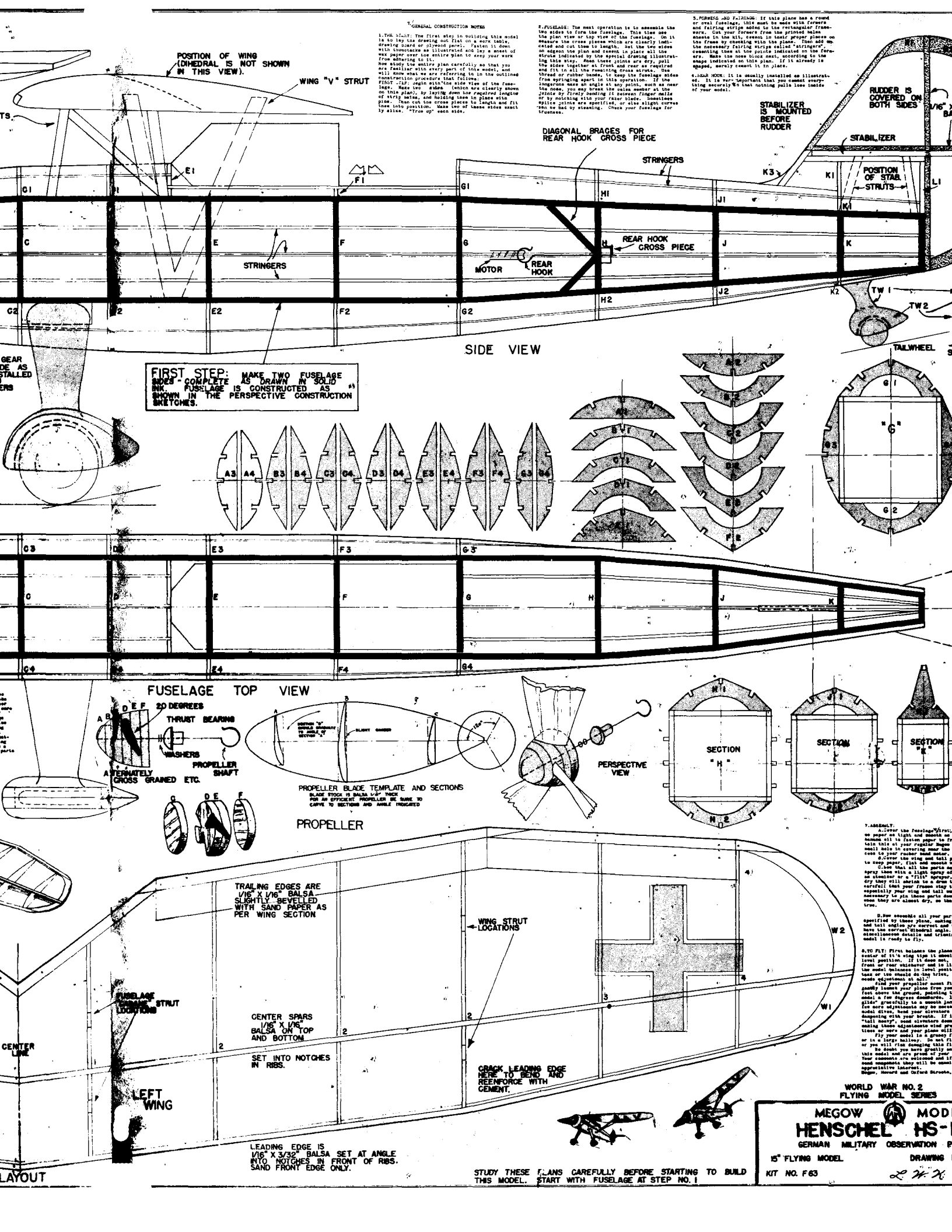
SECTION

WING
 "N" STRUT
 2 REQUIRED
 (OPPOSITE)
 ACTUAL SIZE

WING
 "V" STRUT
 2 REQUIRED
 (OPPOSITE)
 ACTUAL SIZE

COLOR SCHEME
 FOR A FLYING MODEL, KEEP CLOSE TO
 A REALISM. WE SUGGEST YOU COVER
 YOUR MODEL WITH THE COLOR OF YOUR
 CHOICE. THEN USE SOME COLOR FOR
 CONTRAST. YOUR MODEL SHOULD HAVE A VERY
 LITTLE WHITE AND MAKE A VERY
 REALISTIC APPEARANCE.

SECTION



POSITION OF WING
(DIHEDRAL IS NOT SHOWN
IN THIS VIEW).

WING "V" STRUT

1. THE BODY: The first step in building this model is to lay the drawing out flat on a work table, drawing board or plywood panel. Fasten it down with tape or weights so it will not move. Then cut out the paper over the entire plan to keep your work from shifting to it.
Now study the entire plan carefully so that you are familiar with every part of this model, and will know what you are referring to in the outlined construction procedure that follows.
FIRST: Lay out the side view of the fuselage. Make two sides (which are clearly shown on this plan), by laying down the required lengths of strip balsa, and holding them in place with pins. Then cut the cross piece to length and fit them into position. Make two of these sides exact by alike. "True up" each side.

2. FUSELAGE: The next operation is to assemble the two sides to form the fuselage. This time use the plan view or top view of the fuselage. On it measure the cross pieces which are clearly indicated and cut them to length. Set the two sides on edge on the plan and cement in place all the stringers indicated by the special drawing illustrating this step. When these joints are dry, pull the sides together at front and rear as required and fit in all the remaining cross struts. Use thread or rubber bands, to keep the fuselage sides from springing apart in this operation. If the joints are made at angle at any point, such as near the nose, you may break the value member at the joints by firmly wedging it between finger nails or by notching with your razor blade. Sometimes glue joints are specified, or else slight curves may be had by steaming. Check your fuselage for "looseness".

DIAGONAL BRACES FOR
REAR HOOK CROSS PIECE

STRINGERS

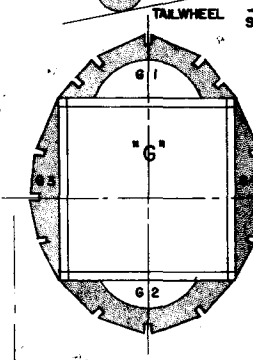
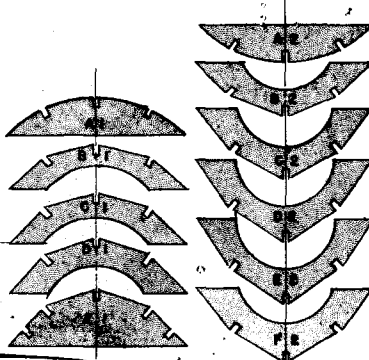
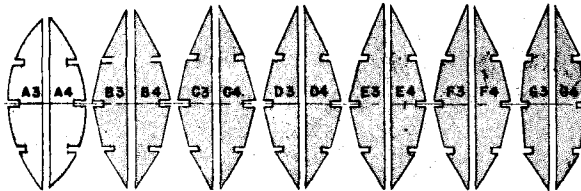
REAR HOOK
CROSS PIECE

MOTOR

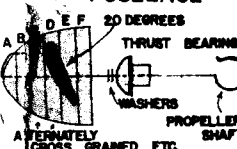
REAR HOOK

SIDE VIEW

FIRST STEP: MAKE TWO FUSELAGE
SIDES - COMPLETE AS DRAWN IN SOLID
INK. FUSELAGE IS CONSTRUCTED AS
SHOWN IN THE PERSPECTIVE CONSTRUCTION
SKETCHES.

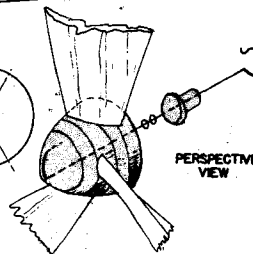


FUSELAGE TOP VIEW

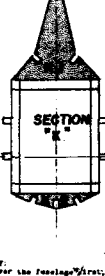
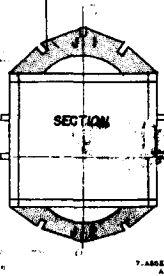
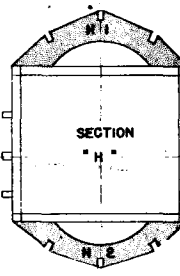


PROPELLER BLADE TEMPLATE AND SECTIONS

PROPELLER



PERSPECTIVE VIEW



TRAILING EDGES ARE
1/16" X 1/16" BALSA
SLIGHTLY BEVELLED
WITH SAND PAPER AS
PER WING SECTION

WING STRUT
LOCATIONS

CENTER SPARS
1/16" X 1/16"
BALSA ON TOP
AND BOTTOM

SET INTO NOTCHES
IN RIBS.

CRACK LEADING EDGE
HERE TO BEND AND
REINFORCE WITH
CEMENT.

LEFT WING

LEADING EDGE IS
1/16" X 3/32" BALSA SET AT ANGLE
INTO NOTCHES IN FRONT OF RIBS.
SAND FRONT EDGE ONLY.

STUDY THESE PLANS CAREFULLY BEFORE STARTING TO BUILD
THIS MODEL. START WITH FUSELAGE AT STEP NO. 1

WORLD WAR NO. 2
FLYING MODEL SERIES

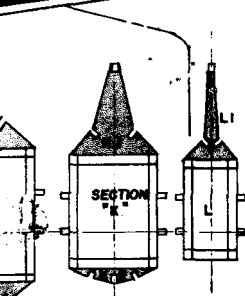
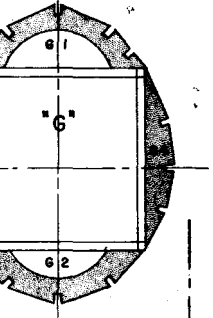
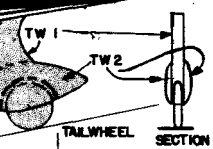
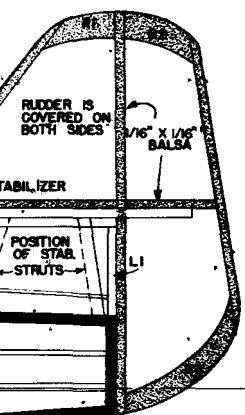
MEGOW MOD
HENSCHEL HS-1
GERMAN MILITARY OBSERVATION P

15" FLYING MODEL

KIT NO. F63

DRAWING

2 2 2



7. ASSEMBLY.

a. Cover the fuselage "struts" keeping the tissue paper as tight and smooth as possible. Use same glue as for tissue paper to fasten the struts. Leave a small hole in covering near the rear strut for access to your rubber band motor.

b. Cover the wing and tail parts using care to keep paper flat and smooth without wrinkles. Clean them with a light spray of clean water. Use an elevator or a "fill" paper. As the covering dries they will adhere to a true line. Be very careful that your frame stay true and do not warp, especially your wing and tail surfaces. It may be necessary to pin these parts down to a flat surface when they are almost dry, so that they will dry true.

c. Now assemble all your parts together, as specified by these plans, making sure your wing and tail surfaces are correct and that the wings have the correct dihedral angle. Add all other miscellaneous details and trimmings, and your model is ready to fly.

8. TO FLY: First balance the plane. If held at the center of its wing tips it should balance in a level position. If it does not, add weight to front or rear whichever and is lighter, until the model balances in level position. A balance tape or two should do the trick, if your model needs adjustment at all.

Find your propeller mount (fly time) and gently launch your plane from your hand about four feet above the ground, pointing the nose of your model a few degrees downward. It should "power glide" gracefully to a smooth landing. However a few more adjustments may be necessary; if your model dives, bend your elevator up slightly, after dumping with your breath. If it settles down "tail heavy", bend elevator down slightly. After making these adjustments your propeller about 100 times or more and your plane will fly.

Fly your model in a grassy field if outdoors, or in a large hallway. Do not fly in a small room or you will risk damaging this fine model.

Be sure you have greatly enjoyed building this model and are proud of your accomplishment. Your comments are welcome and if you desire to send comments they will be submitted with our usual appreciative interest.

Walter Dorn and David H. Brown, Philadelphia, Pa.