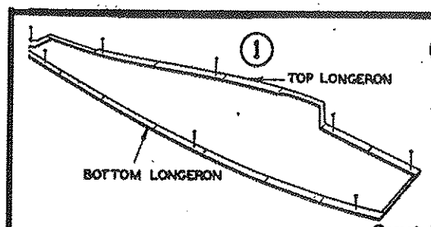
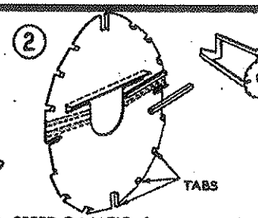
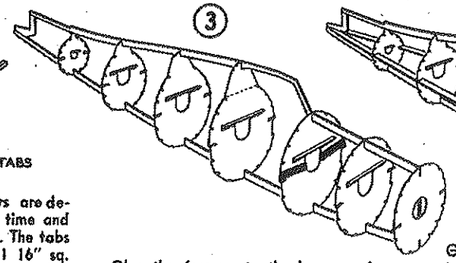


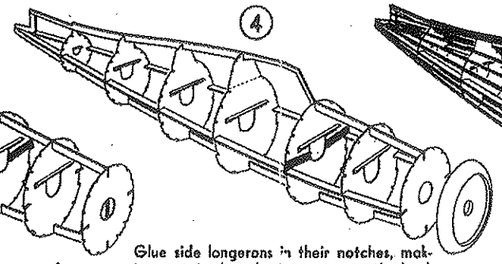
This fuselage is built with the new Comet SPEED-O-MATIC construction method. Begin by carefully cutting the top and bottom longerons from the printed wood sheet. Pin these longerons down on plan in their respective places and glue in the connecting pieces—a 1 16" sq. strip in front and a piece cut from the printed sheet at the rear. When dry, remove this unit from plan.



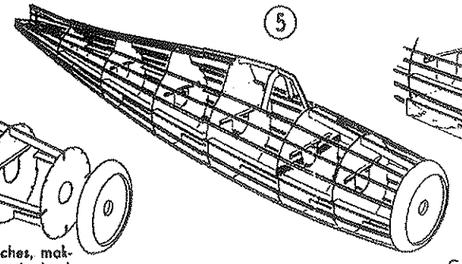
Comet SPEED-O-MATIC formers are designed to reduce the assembly time and insure accurate fuselage sections. The tabs serve as glue surfaces and the 1 16" sq. ones can be bent over with the aid of a small piece of 1 16" sq. strip. The long center tab acts as a stiffener. One of the formers has a Comet SPEED-O-MATIC wing dihedral jig made from 1 16" sq. strips glued on as shown.



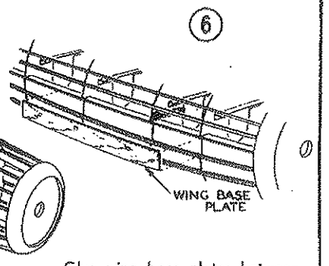
Glue the formers to the longeron frame, lining them up with the marks on longerons. Refer to plan for arrangement. Do not use excessive amounts of glue at this stage of assembly so the formers will not be warped and thrown out of line.



Glue side longerons in their notches, making certain that they are even at the back and that all formers are perpendicular to longerons. Then glue the wood noseplate or cowling to the front former and remove the 1 16" sq. connecting piece. Apply an additional coat of glue to all joints.



Stringers are glued in notches next. Do this in pairs—one on each side—to keep the fuselage from springing out of line. When stringers are all in place, glue in cockpit former if your model has one.



Glue wing base plates between the stringers and against bulkheads. Next install the cockpit cover as illustrated elsewhere on this plan.

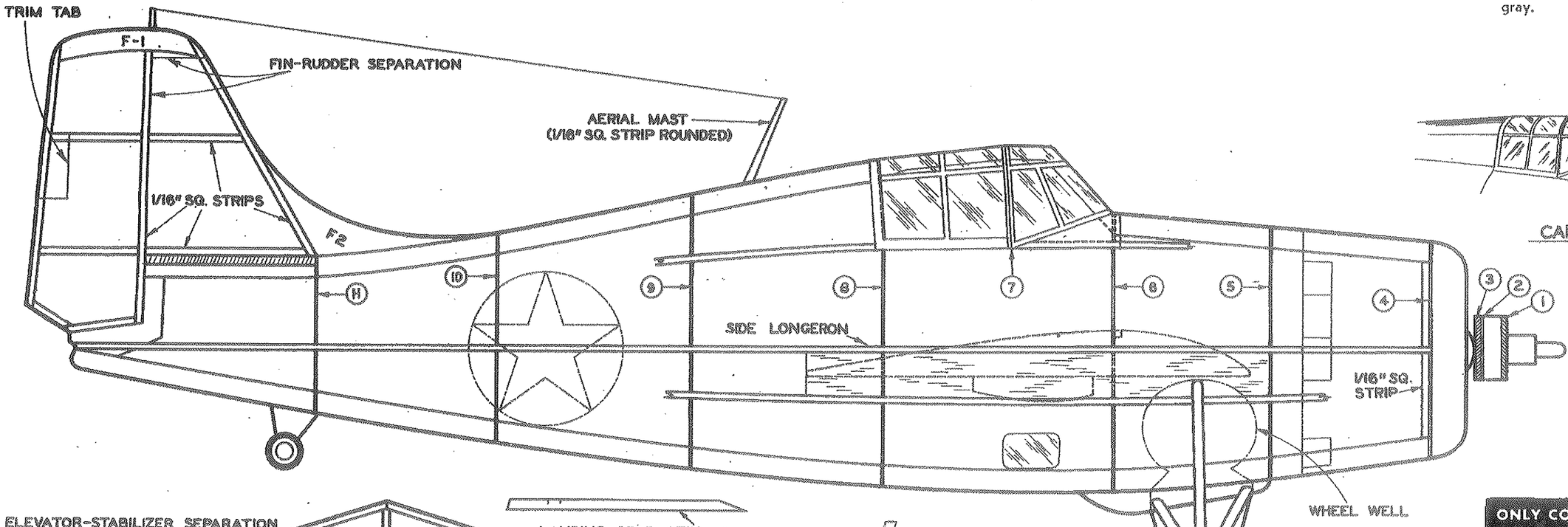
GRUMMAN "WILDCAT"

The U. S. Navy designates their standard shipboard fighter F4F-4, and the ones in service for the British are called the "Martlet."

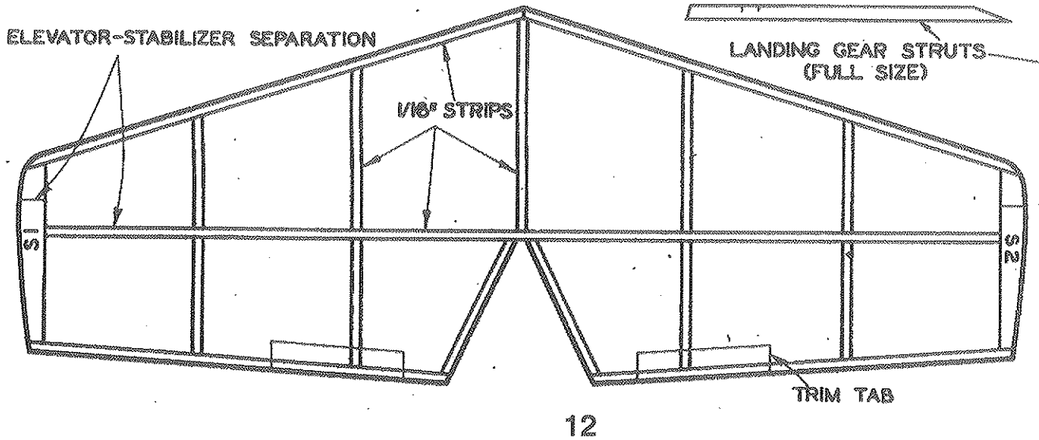
It is a single place, all metal plane, powered by an air-cooled "Wasp" engine of 900 H.P. Wings fold back for compact stowage on carriers. U. S. Navy and Marine fliers have proven it to be the best carrier fighter now in service.

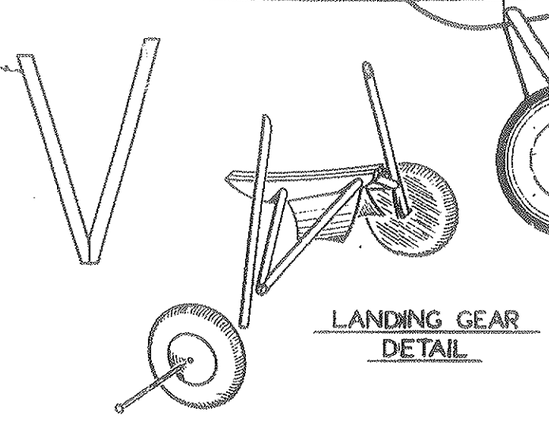
Armament is four .50 cal. machine guns in the wings. Span is 38 ft., length 28 ft. 9 3/8 in.

Some of the Wildcats are colored gray all over, and some have all top surfaces the Navy's dark gray-blue and bottom surfaces gray.



CABIN DETAIL

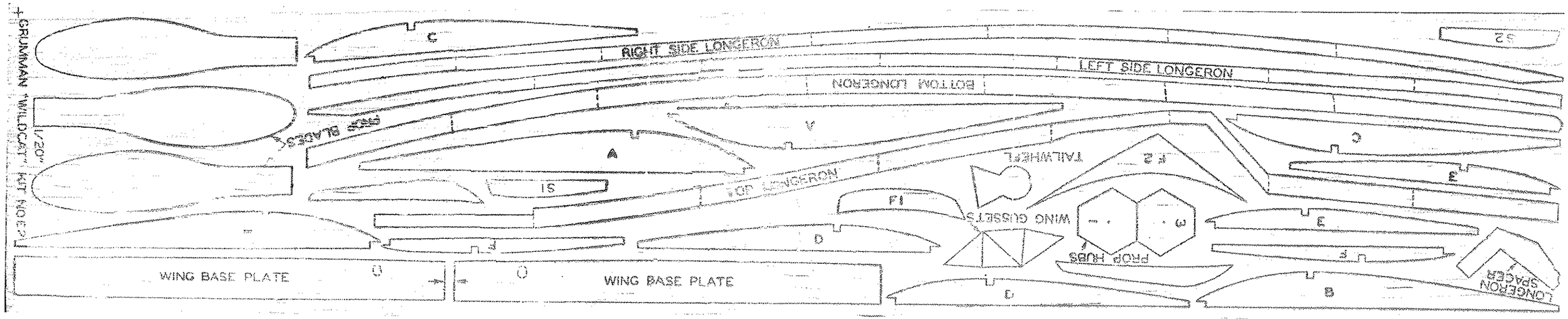




LANDING GEAR DETAIL

GRUMMAN "WILDCAT" F4F-4

WINGSPAN - 18 INCHES	LENGTH 13-3/4 INCHES
KIT NO. E 2	DRAWN BY Alexander Horbak



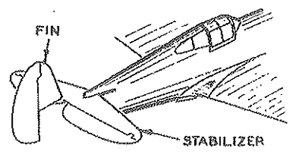
(12)

Glue stabilizer outline pieces together over plan.

(13)

Build remainder of stabilizer from 1/16" sq. strips. When glue is dry, remove from plan and round off outer edges. Build fin in same manner.

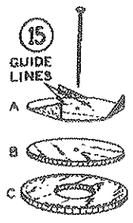
(14)



To attach tail surfaces, slide stabilizer into slot and glue firmly. Some stabilizers are slid in from the side. Comet SPEED-O-MATIC construction assures correct angle of incidence of stabilizer.

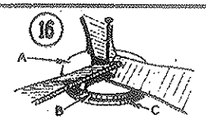
Next glue fin in place. Make certain that fin and stabilizer are aligned in relation to wing.

(15)



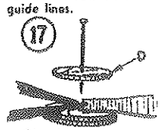
Glue pitch former (A) and base formers of spinner (B and C) or hub together, using pin for concentric alignment.

(16)



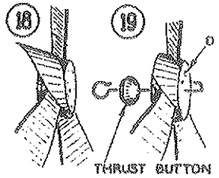
Pin to a flat surface and glue prop blades to "A", even with guide lines.

(17)



Glue front spinner or prop former (D) over blades, lining it up with a pin. .

(18) (19)

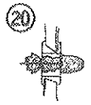


16. Cover spaces between blades with paper, trimming to fit before gluing.

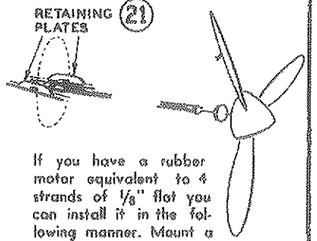
18. Slide thrust button and prop on the prop shaft and bend the end over, put glue on it, and push back into part "D".

20. If you are not going to fly your model prop can be held in place by using a pin instead of prop shaft as shown in Fig. 18.

(20)



(21)



If you have a rubber motor equivalent to 4 strands of 1/8" flat you can install it in the following manner. Mount a wood bar behind a convenient former at rear of fuselage. Also glue retaining plates at the sides to longerons and former as illustrated.

Comet SPEED-O-MATIC construction assures perfect pitch in scale-type propellers.

FIG. A

FLYING

To insure good flights, the wing and tail surfaces must be without warps. Examine them carefully and if any have developed, straighten these out over heat.

Add clay or small tacks to nose of model until it balances at a point about 1/3 back from leading edge of wing (Fig. A). Glide the model a few times. If it stalls add weight to the nose, or if it dives steeply, remove some of the weight. (Fig. B). Then try power flights.

A lot of fun can be had by whirling the model on a thread. This requires no rubber (Fig. C). Attach thread to a wing tip in line with the balance point of plane. Length of thread can vary, depending on space available.

Take-offs can be made easier by shortening the thread and paying it out when model is in the air. With a little practice you can climb or dive the plane by raising or lowering your hand. Perfect take-offs and landings are fun and educational. Spot landing and stunting contests can be held.

Experiments may also be made by tow-launching the model into the air with a length of thread.

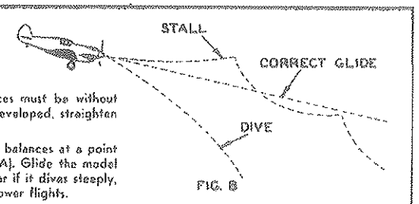


FIG. B

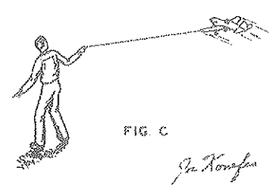
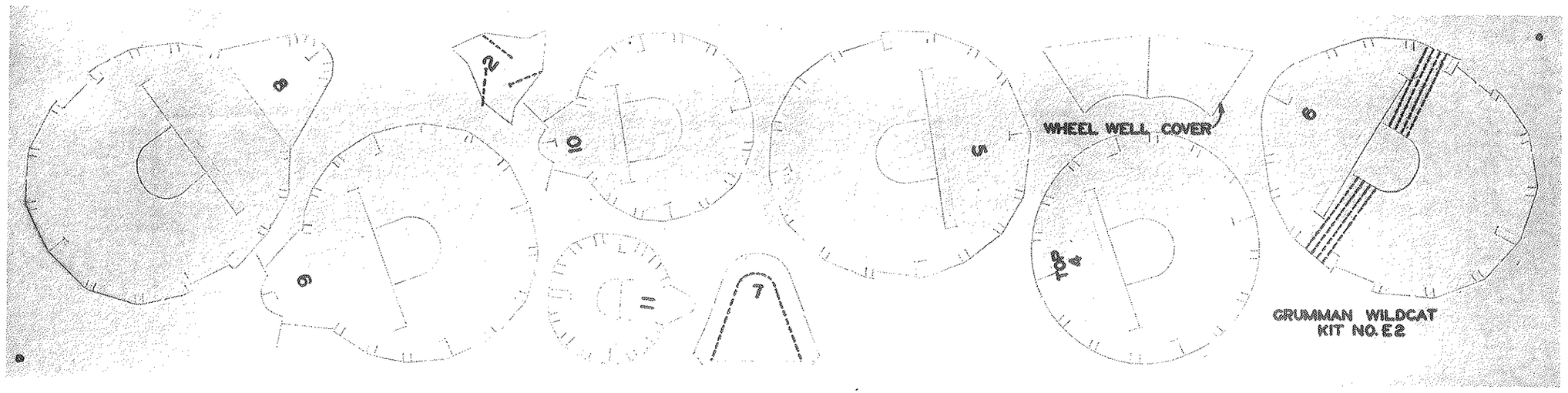
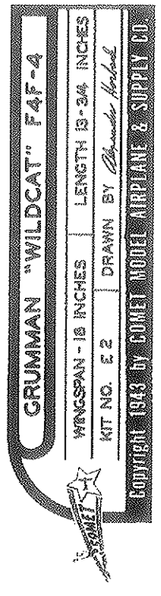


FIG. C

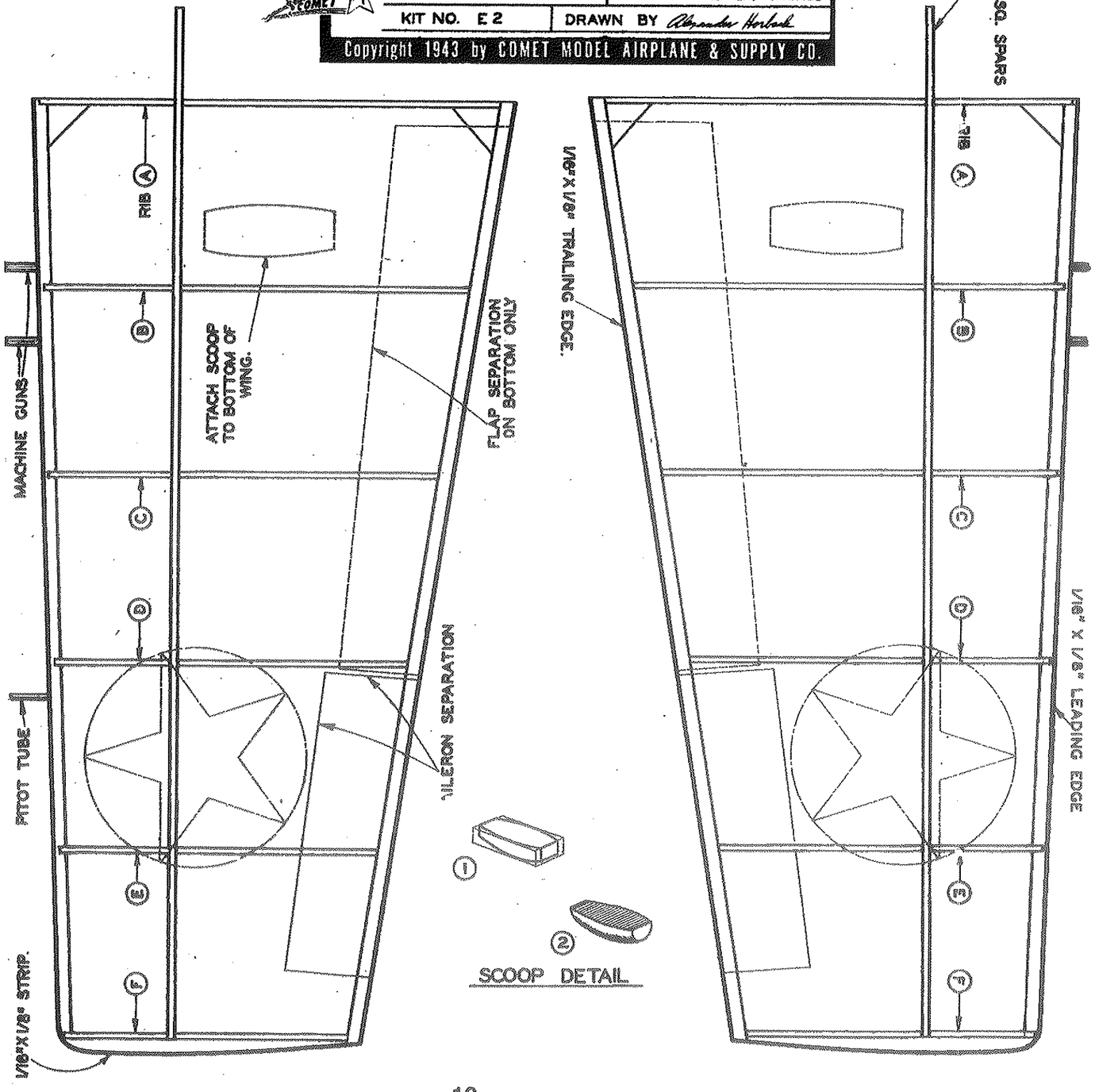


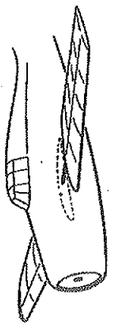


GRUMMAN "WILDCAT" F4F-4

COMET

WINGSPAN - 18 INCHES	LENGTH 13-3/4 INCHES
KIT NO. E 2	DRAWN BY Alexander Horbach





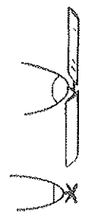
NOTES ON COVERING

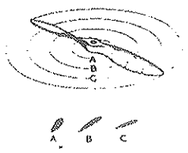
Stick tissue to framework using banana liquid or tissue cement. Fibers of tissue should run the length of part being covered. Use narrow strips for covering rounded fuselages and cover between stringers. After all parts of model have been covered, glue them together and spray lightly with water. This shrinks the tissue smooth. A few coats of banana liquid or clear dope may be applied to keep tissue taut.

The wings are mounted to the fuselage by sliding spar into the SPEED-O-MATIC dihedral jig on each side of the fuselage, and gluing the end ribs to the wing base plates.

"PLANE FACTS"

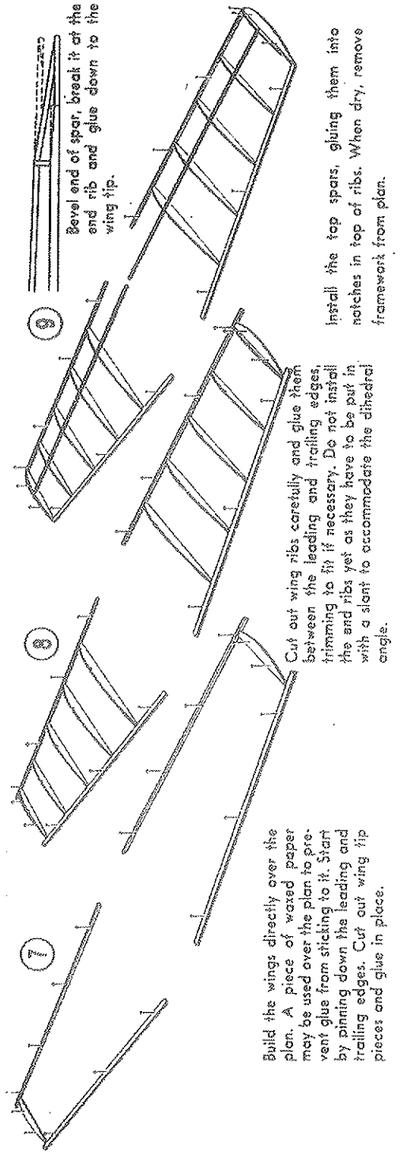
2. THRUST

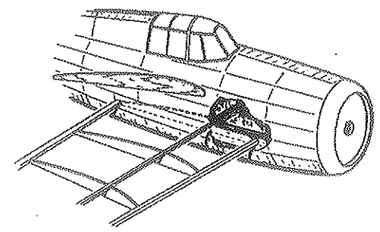




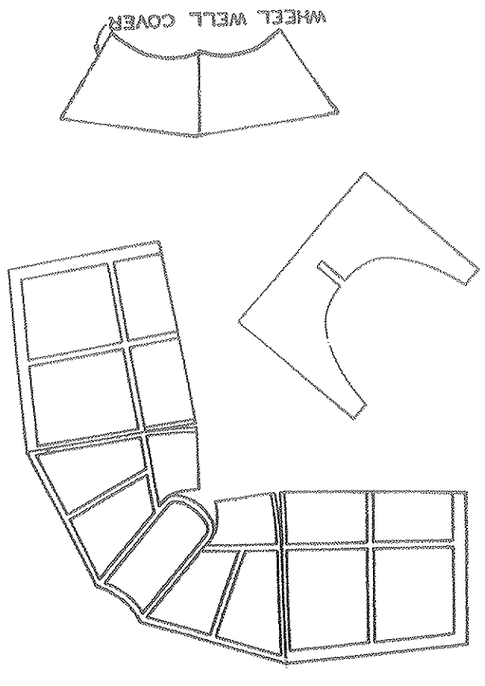
Thrust is a motive force that gives forward motion to the airplane. A propeller, which is usually used to produce this motion, is virtually two wings joined at a positive angle to the direction of rotation. These wings produce lift as they rotate, thus pulling the plane forward.

When the prop turns, the tips move faster than the sections near the hub. This is why the sections near the hub (A) have a steep angle, gradually changing to a flatter angle (C) toward the tips.





The end rib is installed by first sliding the spars into the dihedral jig until the leading and trailing edges touch the wing base plates. Then glue the end ribs to the spar and leading and trailing edges, keeping the rib flat against the fuselage.

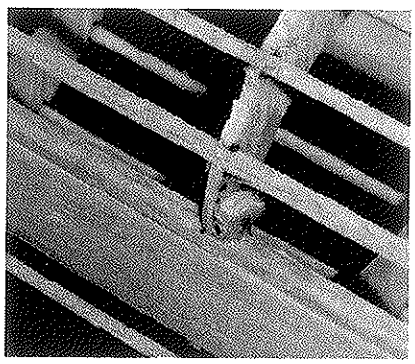


COMET E-2 WILDCAT CONSTRUCTION

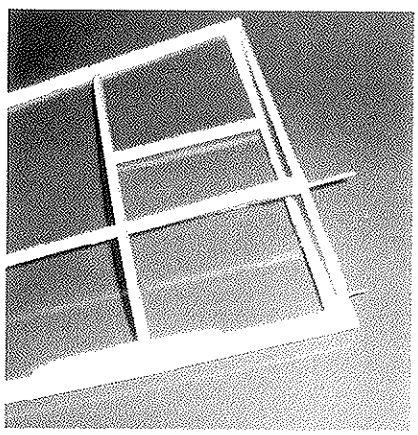
Stew Meyers

I built the wings pretty much per the plans except that I used a 1/8sq LE and reinforced the root rib with a strip of 1/16th x 1/8th balsa on the bottom of the root end to prevent the root rib from bowing when covered. This also makes adding the root rib after the wing has been fit up to the fuselage much easier.

Rather than carrying the spar into the wing dihedral jig on former 6, I glued a length of 1/16th aluminum tube where the bottom 1/16th square balsa dihedral is shown. I glued 1/16th square balsa strips on either side of the aluminum tube. I glued another length of 1/16th aluminum tubing to the bottom of the spar. A short length of 1/32 soft steel wire is inserted into the tube as a joiner. There is a little fiddling in fitting the wing up to the fuselage and adding the root rib per the scrap drawing on the wing instruction sheet. I also added a staple and tissue tube pin to the LE to pin the correct 3 degrees incidence. Two strips of 1/16th balsa go from the root rib to the next rib to provide a support for the oil cooler. The LE is reinforced for wing guns.



Alum. Tube dihedral jig



Wing root details

The tail feathers were built per the plan except for a 1/16th x1/8th strip on the center line of the stab to strengthen the attach area. The fin/rudder has staple wire pins for attachment. These go through the stab into the attach plate on the fuselage. This arrangement allows you to pin up the bones and admire them and makes alignment after covering repeatable. (That is if you ever get around to covering those beautiful bones.)

Formers 5,6, and 8 have carbon stip reinforcement similar to former 5 on the Zero. Former 7 was laminated again similar to the Zero and the upper longeron eliminated in the canopy area. The paper canopy fits very well but will be replaced by clear plastic.

ZERO CONSTRUCTION PHOTOS PAGE 24

1. WILDCAT bones shot. This is as far as I have gone with the E-2 kit.
2. ZERO bones shot of E-3 before covering. Note the canopy bulkheads have been replaced by hoops of laminated 1/16th sq. basswood. And the upper longeron (keel) has been removed between former 5 and former 9. The foreshortening of a large f-stop is obvious.
3. Longerons and bulkheads notched and ready for final assembly. Note the reenforcing cross strips on most formers and rounded corners fo the cut outs. Former 5 has a hoop of .007 carbon fiber in the elliptical cut out. Former 4 is whole.
4. Fuselage assembly with stock kit bulkheads in canopy area. I did not like the looks of this when I used a transparent canopy and went to hoops. Sorry about the out of focus photo.
5. Fuselage assembly showing joggle in lower keel to in crease the wing incidence to 3 degrees. Note stringer positions unnotched yet.
6. Former 7 laminated hoop to replace the solid former.

PHOTO PAGES PAGE 23

1. Bill Bell with his profile of a Martin B57 he worked on at Middle River years ago.
2. Bill Saunders sent several photos from last summer's fun at Kudzu. Here we see David Franks with Fiat.
3. Dave Rees with his ' Times Flies' at Kudzu.
4. Ask Don to draw this one up for electric; Porco Rosso's Macchi by a modeler in Japan and compressed air powered.
5. Down memories lane -- a WACO CTO overhauled for a stunt pilot at Parks about 1946 --beautiful white with green trim finish.
6. Our intrepid water flyer, Dan, ready to launch at Dave's lake for the seaplane Kudzu flying last summer.
7. No not real but a great shot of John Hunton's electric R/C 'Orion' by our editor Stew last summer.

The cowl and nose block were done almost identically to the Zero.

Next time we'll present the ETO combat pair, the E5 Thunderbolt and E7 Focke Wolfe 190. Then end the series with the E9 P51 Mustang and the 3204 version.