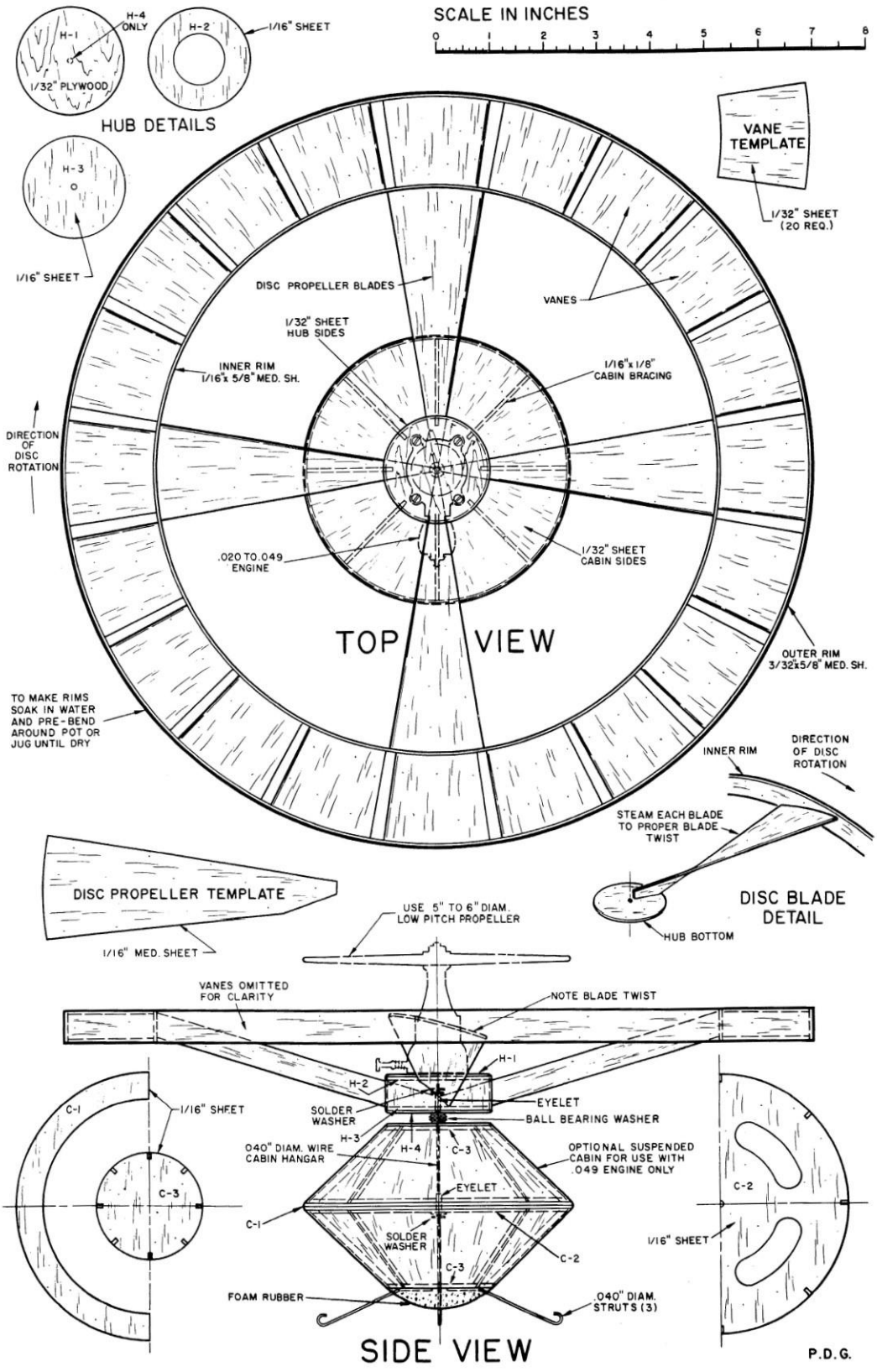

SCALE IN INCHES
0 1 2 3 4 5 6 7 8
H-1
H-4 ONLY
H-2
1/16" SHEET
1/32" PLYWOOD
HUB DETAILS
H-3
1/16" SHEET
VANE TEMPLATE
1/32" SHEET (20 REQ.)
DISC PROPELLER BLADES
VANES
1/32" SHEET HUB SIDES
INNER RIM 1/16"x 5/8" MED. SH.
1/16"x 1/8" CABIN BRACING
DIRECTION OF DISC ROTATION
.020 TO .049 ENGINE
1/32" SHEET CABIN SIDES
TOP VIEW
OUTER RIM 3/32"x5/8" MED. SH.
TO MAKE RIMS SOAK IN WATER AND PRE-BEND AROUND POT OR JUG UNTIL DRY
INNER RIM
DIRECTION OF DISC ROTATION
STEAM EACH BLADE TO PROPER BLADE TWIST
DISC PROPELLER TEMPLATE
1/16" MED. SHEET
HUB BOTTOM
DISC BLADE DETAIL
USE 5" TO 6" DIAM. LOW PITCH PROPELLER
VANES OMITTED FOR CLARITY
NOTE BLADE TWIST
H-1
H-2
EYELET
SOLDER WASHER
BALL BEARING WASHER
H-3
H-4
C-3
.040" DIAM. WIRE CABIN HANGAR
OPTIONAL SUSPENDED CABIN FOR USE WITH .049 ENGINE ONLY
EYELET
C-1
1/16" SHEET
C-3
SOLDER WASHER
C-2
C-3
C-2
1/16" SHEET
FOAM RUBBER
.040" DIAM. STRUTS (3)
SIDE VIEW
P.D.G.

Flying Saucer

Eyes will pop at this one !

By Paul DelGatto

WE DON'T KNOW where the little green men went to, but we do know this saucer from way-outta is a real going machine. If you've ever flipped a pie plate and watched it make like a boomerang you'll quickly perceive what makes this vehicle tick. The vertically mounted Cox .02 to .049 engine (with its timer tank) pulls the craft skyward like a helicopter, and the torque of the whirling prop causes the saucer to spin in the opposite direction so that its many-vaned rotor generates lift to make it really fly.

The pictures show the construction; the plans give all material dimensions. The ,'egg" hanging underneath is just a place for those wee men to ride; it adds realism, but you can leave it off without ill effect. In fact, the saucer will climb higher and faster, without it. It must be left off the .02 engined craft.

To begin construction, bend the inner and outer rotor rims around any large cooking pot of the approximate size, first soaking the wood in hot water to facilitate bending. Strap the material to the pot with masking tape until dried in their hooped shape. (Shape does not have to be exact, as the material is fastened over the plan for assembly.)

Pin the rims over a full-size enlargement of the drawings—the rims can be slightly smaller or larger, preferably larger if there must be a difference. Using the vane template, cut all the vanes and cement each at the maximum angle possible, but be sure their leading edges (top rim) face the direction of rotation.

There are four disc blades (see detail) which serve as spokes for the rotor; these are soaked and twisted with a helical pitch as seen in the detail. The contours can be approximate because the fit is made exact when assembled to the rim. (Hold with pins until the cement dries.)

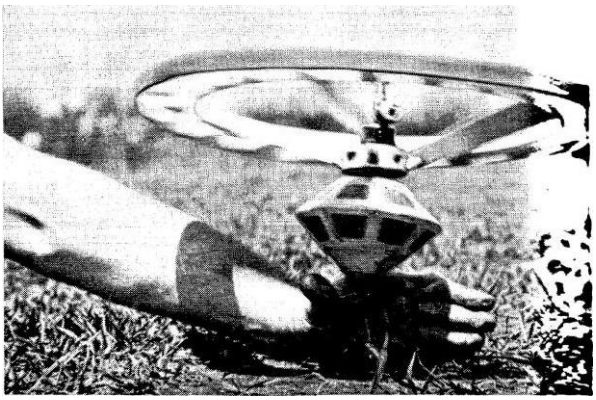
The four disc blades are glued to the lower hub piece. Trial—fit the partially made hub, with disc blades, to the rotor; then complete the hub, and finally attach hub (with disc blades) to the rim. The hub consists of four circular pieces, the material and designations (such as H-I) all given on the drawing. 1--1-4 is plywood, like H-1.

Assemble Hub This way: Cement H-2 to the top of the disc blades (similar to H-3 at bottom in disc blade detail) , then cover the hub circumference (like a drum) between the disc blades with 1/32-in. sheet balsa, grain vertical. Finally, add H-1 and H—4, noting that provision must be made through H-4 for the wire, bearing, etc., from which the cabin egg hangs.

The egg itself is built in two halves, top and bottom, then joined. Each half of the egg is cemented together, bulkheads C-1 and C-2 facing together. Note that pieces C-3 make the top and bottom of the cabin, and that C-2 has a center hole for the eyelet bushing which takes the wire hangar.

A shaped piece of foam rubber can be added to the cabin bottom, if desired, for a landing bumper and three wire struts for a tripod landing gear are shown.

Flying requires no skill other than starting the engine. A five or six-inch pitch prop must be employed. Lead picture shows how to launch the craft. •



Rims with vanes glued in place are ready to receive the disc blades. Note "'egg" half in back.