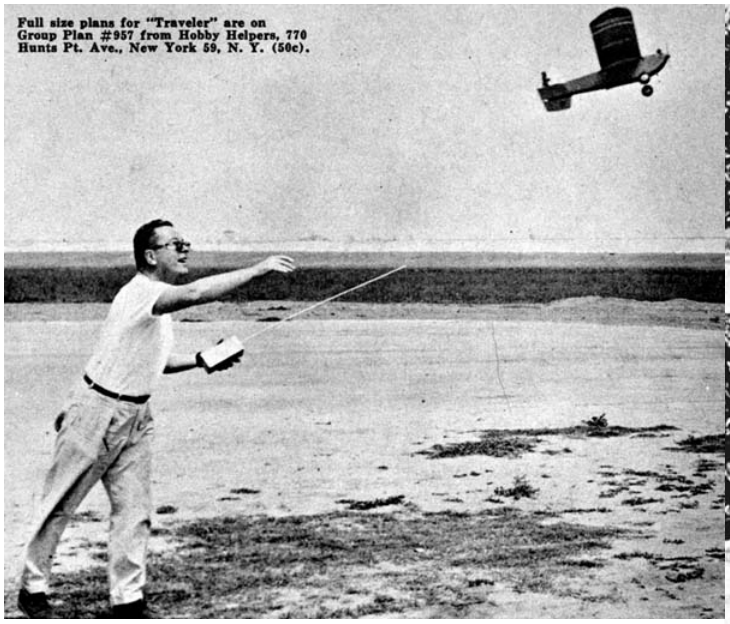
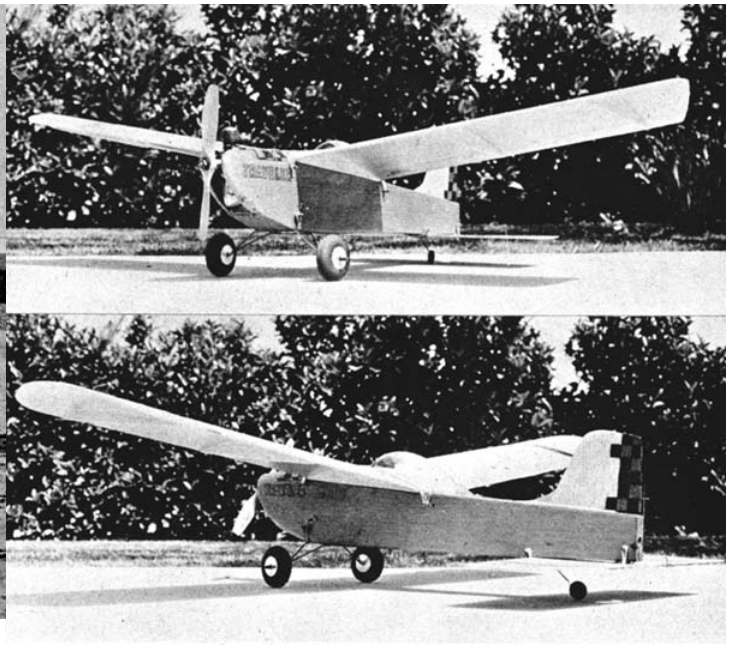
a dandy design for the travelin' man and home-lovin' R/C fans, too

Ken Willard's tiny, terrific

TRAVELER





One of the most frustrating experiences for the dyed-in-the-wool R/C enthusiast is to have to go on a weekend business trip, and while in a distant city have nothing to do on Saturday and Sunday. So, you go to a hobby shop, find out where the R/C gang flies, and head for the field. Once there, you watch the local boys as they test their new ships or wring out the old ones. And that's the frustrating part, because you'd like to do a little flying too.

Ordinarily an R/C job is too big to take along on a trip, and besides you'd never trust it to the baggage smashers. However, on today's airliners like TWA's Constellations and United's DC-6s and DC-7s, you are permitted to take into the passenger cabin any small case which will fit under your seat. Maximum size has been set at 21" x 13" x 8". That gave me an idea. Why not make a little R/C job, using a lightweight receiver like the Deltron, Babcock's Magic Carpet, or EC's new transistorized tone job—one that would fit in a small traveling case? Then, when a trip is necessary, just stick the model in the case and take it along.

Of course you could design a model with folding wings, detachable nose, etc., and make it fairly good-sized when assembled. I decided to go the other route —make it small, simple, with only the wing folding. That meant limiting fuselage length, which in turn limited wing span. However, you want to have your transmitter along too, and with the small model there's also room for the transmitter. You do have to cut the antenna in half and make a sleeve fitting, but it's nice to have your own equipment. Also, if you use a diesel engine for power you don't have to worry about batteries. Thus the "Traveler" was designed. First version had a built-up wing, but later experiments showed a sheet-balsa wing was just as good if not better, and a lot easier to build.

The amazing thing about all this is that the "Traveler" is a real job to fly. It's not critical to trim, and with the short moment arm it's a stunting fool—does tighter loops than a U-control!

"Traveler" can be built in a couple of days, and if you don't need folding-wing feature you can make spare wings about one an hour, omitting the time spent waiting for glue to dry. So let's get started, and be prepared for the biggest surprise in your R/C experience when you discover how easy it is to build and fly the "Traveler."

Fuselage: Cut out two sides and glue 1/8" square reinforcers in place. Note 1/8" square members against which firewall mounts are set to give down-thrust and right thrust. Due to each model's individual characteristics, you may have to adjust thrust line slightly, but amount shown will be pretty close.

Glue battery compartment bulkhead and escapement bulkhead in place, being careful to line up two sides so bulkheads are at right angles to sides. When dry, pinch sides together at tail and glue tail-block in place. Then glue cross braces at leading edge of stab position. Note fuselage is pulled together here slightly. This is only for appearances—I prefer the narrower look.

Mount firewall: Here again two sides are pulled together slightly for streamlined effect. Be sure firewall butts solidly against 1/8" sq. braces. Add reinforcing skin doublets both ahead and behind firewall; those forward are of 1/4" sheet, those behind 1/8".

Basic fuselage is now complete except for covering top and bottom. Before you

do that, mount all equipment—torque rods, escapement, switch, plug (if you are using a Deltron), engine and tank. Also glue dowels for wing, tail and landing gear in place.

After checking everything works all right, with no binding or rubbing, cover the top from trailing edge position of wing back to tail, and the bottom entirely. Top is open from firewall back to trailing edge of wing, since wing covers part of it, and battery compartment hatch covers remainder. Hatch is carved from 1/2" stock and tailored to fit over wing's center section.

Wing: Take two 34" pieces of 1/8" flat stock, one 3" wide, the other 4", and butt-glue them together along one edge. While they're drying, cut out eight ribs from 3/16" stock. Mark off location of ribs on wing sheet, and cut tips to shape.

When glue joining the 3" and 4" sheets together is firm and dry you're ready to start giving wing the airfoil section. First lay a bead of cement on top of two ribs, then, holding them together, place in position at center line of wing, one on either side. Bend sheet over top of ribs to fit, then clip ribs to sheet with clothespin at both leading and trailing edges. Repeat with other ribs, working out equally from center. Be sure to line up sheet so leading and trailing edges are parallel.

(Mr. Willard's comments on finishing the Traveler, plus notes on radio installation, adjusting, flying and construction of traveling case appears on Hobby Helpers Group Plan #957).

WING PLAN

(BOTTOM SHOWN)

16 - 7/8"

WING MADE WITH 3" AND 4"
WIDE SHEET OF 1/8" BALSA

WING RIBS
3/16 SHEET BALSA

1/16" HARD SHEET
BALSA

NOTE: HINGES FOR FOLDING WING
ARE SCREWED TO HARDWOOD INSERTS
BRACED WITH BALSA BLOCKS

WING RIB PATTERN

℄

SLOT FOR
WEDGE CLIP

DIHEDERAL SKETCH

1-13/16"

STAB PLAN

WING SHEET
JOINT

CLOTH TAPE HINGES

1/16" SHEET BALSA REINFORCEMENT
ON BOTTOM CENTER OF STAB

REINFORCEMENT ACTS
AS ELEVATOR STOP

WOOD
SCREWS

P. D. G.

TYPICAL CORNER
OF CASE

WOOD SCREWS

USE 1/8" PLYWOOD
THROUGHOUT

13"

22"

8"

CARRING CASE DETAILS

SCRAP BALSA
FAIRING

BATTERY
COMPARTMENT

ESCAPEMENT
BATTERIES

RADIO
COMPARTMENT

FUSELAGE TOP VIEW

1/8" SHEET BALSA FORMER

BING STRUT WITH THREAD
TO 1/16" PLYWOOD SHEET

1/8" DIA. DOWEL

BALSA
FILLER BLOCK

FUSELAGE TOP
1/16" SHEET BALSA

SWITCH

1/4" SHEET
BALSA COWL
SIDES

McCOY .049
DESIEL SHOWN

1/8" DIA. DOWEL

PLYWOOD WEDGE
CLIP

BATTERY HATCH COVER

CANOPY CUT TO FIT OR
CARVE FROM SOFT
BALSA

BATTERY HATCH
COVER SKETCH

SHAPE FROM 1/2"
SHEET BALSA

FIN AND RUDDER

1/16" HARD
SHEET BALSA

CLOTH
TAPE
HINGE

1/8" SQ. BALSA
BRACES

MOUNT DELTRON
PLUG HERE

3/64" DIA. TORQUE
RODS

1/16" SQ. BALSA
BRACE

FUSELAGE SIDES
1/16" SHEET BALSA

SWITCH

FULE TANK
LOCATION

BABCOCK MARK II
SUPER COMPOUND
ESCAPEMENT

1/16" SHEET BALSA
DOUBLER

1/8" SQ. BALSA
BRACES

1/8" SHEET
BALSA DOUBLER

FUSELAGE SIDE VIEW

FUSELAGE BOTTOM
1/16" SHEET BALSA

5/8" DIA.
WHEEL

1/16" PLYWOOD
TAIL PLATE

FIREWALL
1/8" PLYWOOD

LANDING GEAR STRUT
3/32" DIA. WIRE

1/16" DIA. WIRE
STRUT

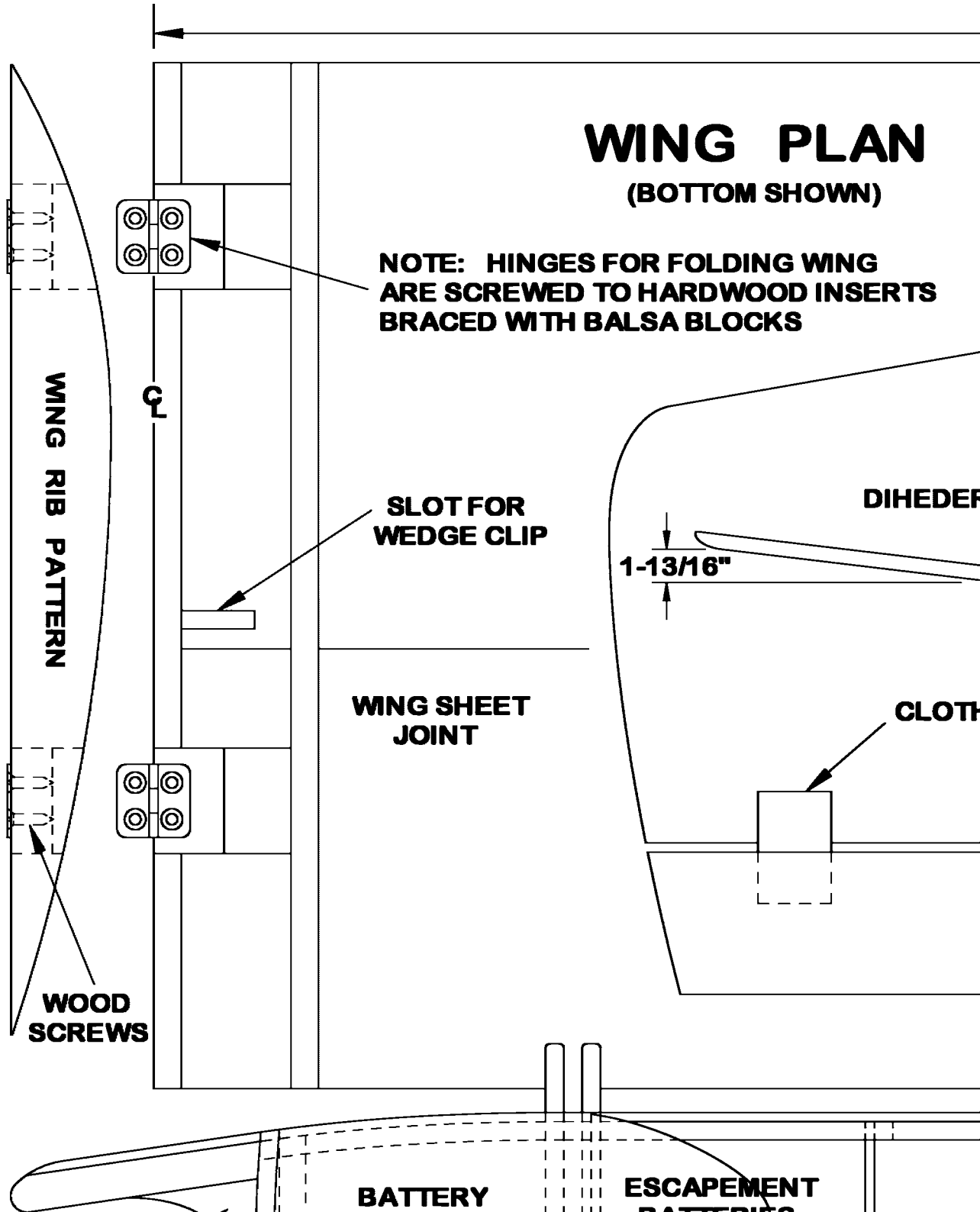
1/16" SHEET BALSA
FORMERS

2" DIA. WHEELS

SCALE IN INCHES

0 2 3 4 5 6

Traveler by Ken Willard
American Modeler Sept, 1957
Cad by Gene Rock


WING PLAN
(BOTTOM SHOWN)
NOTE: HINGES FOR FOLDING WING
ARE SCREWED TO HARDWOOD INSERTS
BRACED WITH BALSA BLOCKS
WING RIB PATTERN
CL
SLOT FOR
WEDGE CLIP
DIHEDER
1-13/16"
WING SHEET
JOINT
CLOTH
WOOD
SCREWS
BATTERY
ESCAPEMENT

16 - 7/8"

WING MADE WITH 3" AND 4"
WIDE SHEET OF 1/8" BALSA

WING RIBS
3/16 SHEET B

RAL SKETCH

STAB PLAN

1/16" SHEET BALSA REINFO
ON BOTTOM CENTER OF ST

H TAPE HINGES

REINFORCEMENT AC
AS ELEVATOR STO

1/8" SHEET BALSA FORM

S
ALSA

1/16" HARD SHEET
BALSA

ORCEMENT
TAB

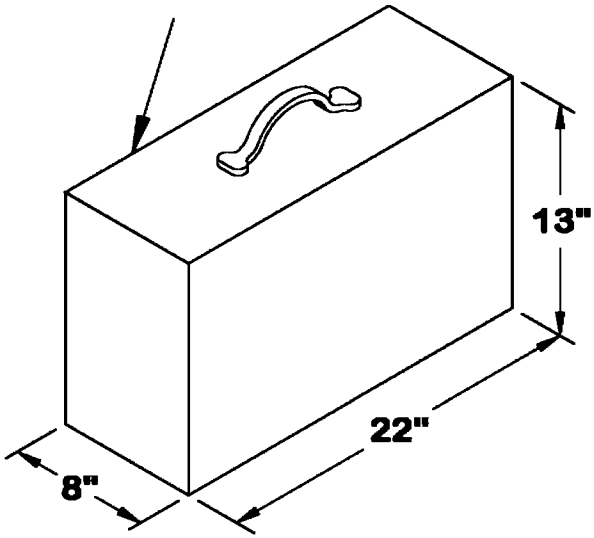
CTS
P

P. D. G.

TYPICAL CORNER
OF CASE

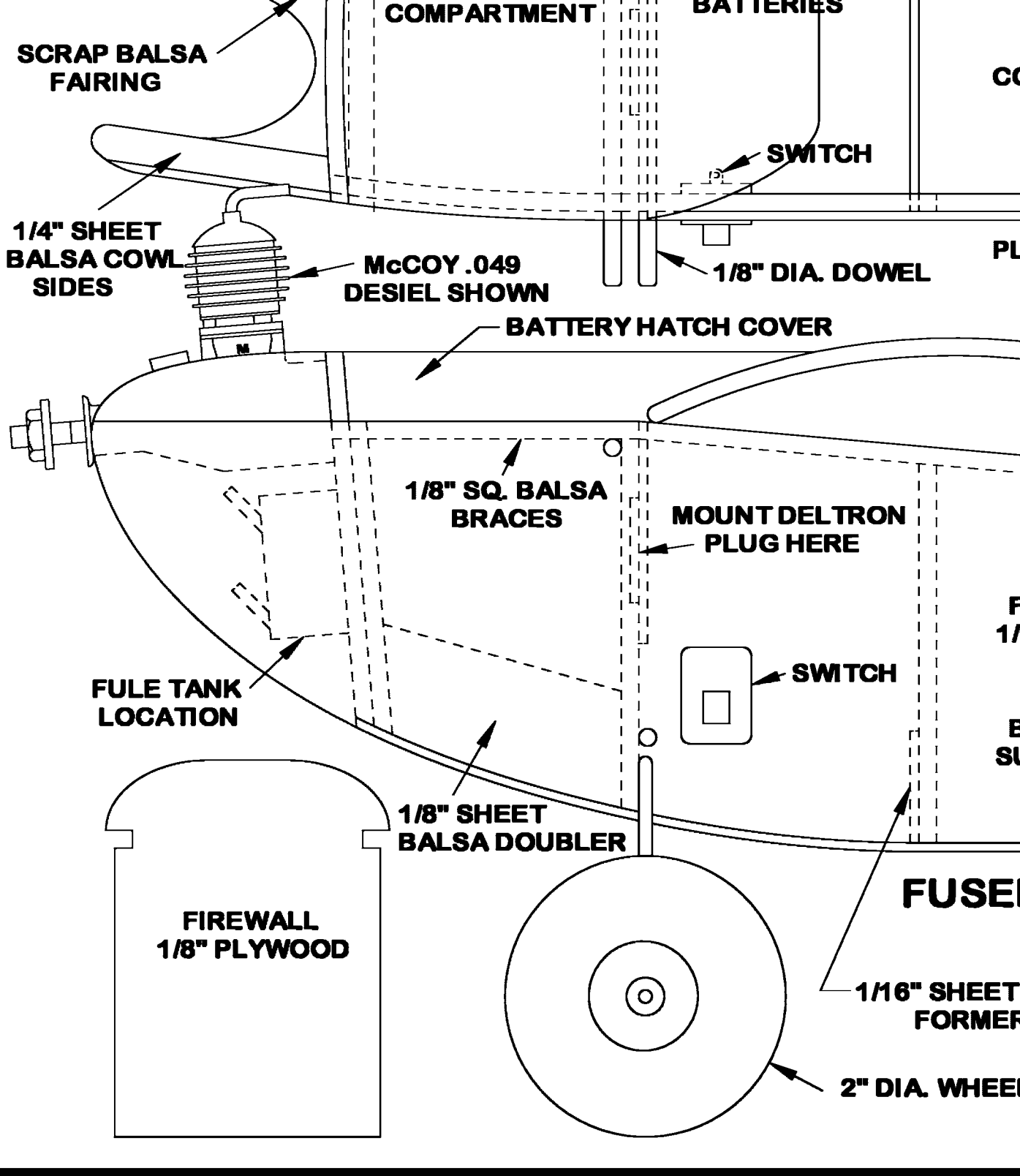
WOOD SCREWS

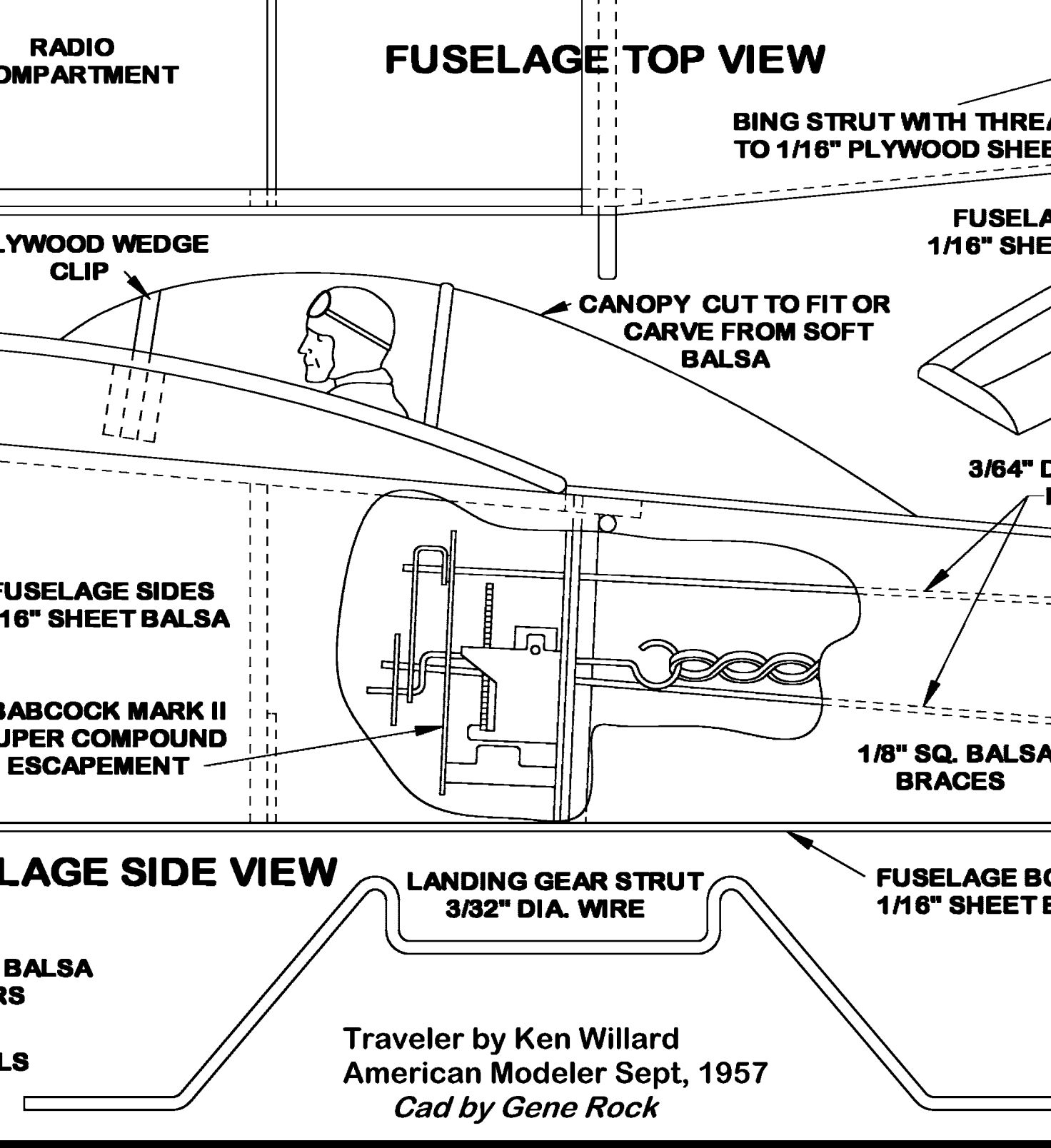
USE 1/8" PLYWOOD
THROUGHOUT

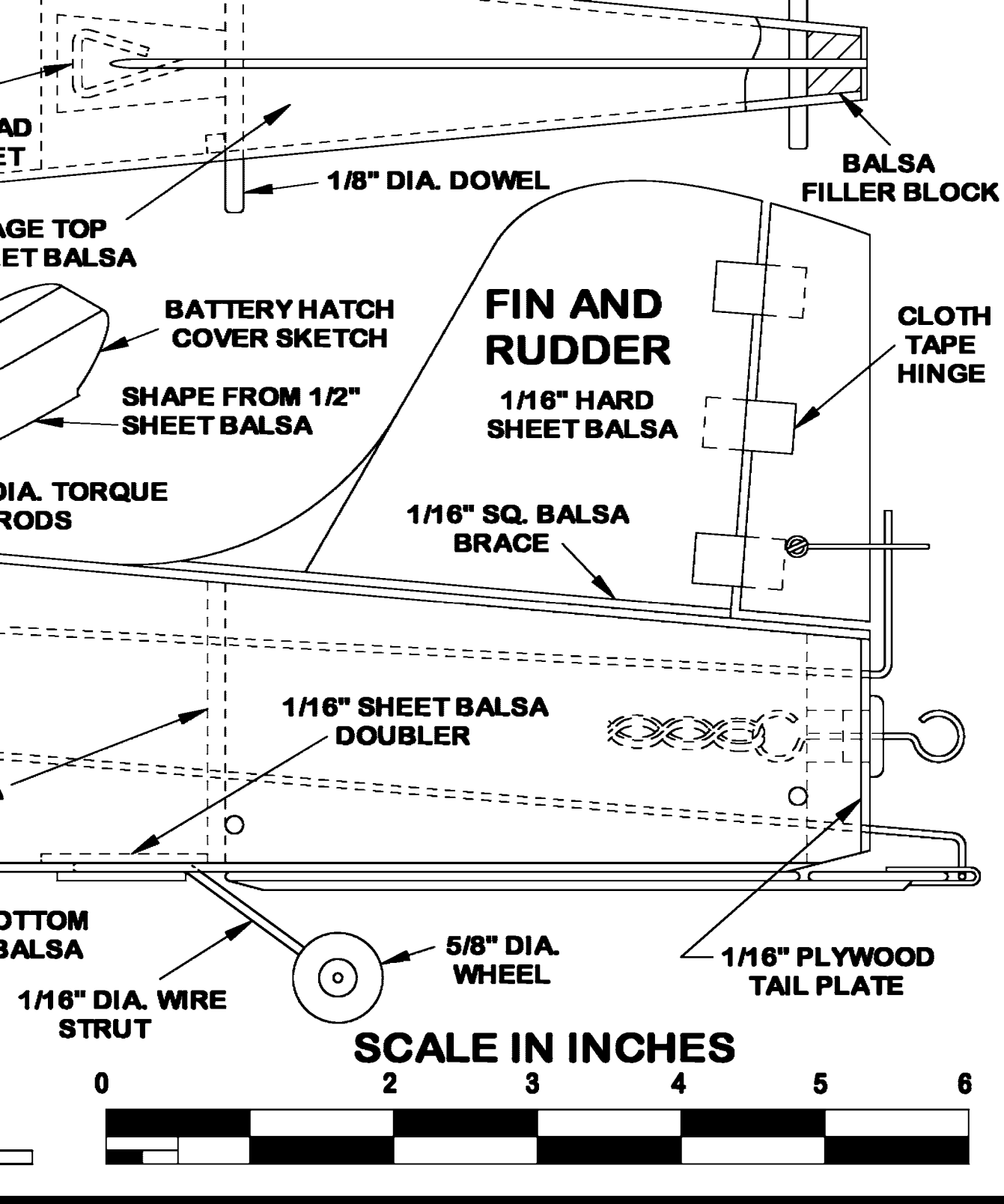


CARRING CASE DETAILS

IER


COMPARTMENT
BATTERIES
SCRAP BALSA
FAIRING
SWITCH
1/4" SHEET
BALSA COWL
SIDES
McCOY .049
DESIEL SHOWN
1/8" DIA. DOWEL
BATTERY HATCH COVER
1/8" SQ. BALSA
BRACES
MOUNT DELTRON
PLUG HERE
SWITCH
FULE TANK
LOCATION
1/8" SHEET
BALSA DOUBLER
FIREWALL
1/8" PLYWOOD
1/16" SHEET
FORMER
2" DIA. WHEE


RADIO
OMPARTMENT
FUSELAGE TOP VIEW
BING STRUT WITH THREA
TO 1/16" PLYWOOD SHEE
FUSELA
1/16" SHE
LYWOOD WEDGE
CLIP
CANOPY CUT TO FIT OR
CARVE FROM SOFT
BALSA
3/64" D
FUSELAGE SIDES
16" SHEET BALSA
BABCOCK MARK II
UPER COMPOUND
ESCAPEMENT
1/8" SQ. BALSA
BRACES
LAGE SIDE VIEW
LANDING GEAR STRUT
3/32" DIA. WIRE
FUSELAGE BO
1/16" SHEET B
BALSA
RS
LS
Traveler by Ken Willard
American Modeler Sept, 1957
Cad by Gene Rock


AD
ET
1/8" DIA. DOWEL
BALSA
FILLER BLOCK
AGE TOP
ET BALSA
BATTERY HATCH
COVER SKETCH
SHAPE FROM 1/2"
SHEET BALSA
DIA. TORQUE
RODS
FIN AND
RUDDER
1/16" HARD
SHEET BALSA
CLOTH
TAPE
HINGE
1/16" SQ. BALSA
BRACE
1/16" SHEET BALSA
DOUBLER
OTTOM
BALSA
1/16" DIA. WIRE
STRUT
5/8" DIA.
WHEEL
1/16" PLYWOOD
TAIL PLATE
SCALE IN INCHES
0
2
3
4
5
6