Fledgeling

A SEMI-SCALE 33½ in.
SPAN F.F. MODEL WITH
ORIGINAL LINES
by
Cyril Shaw
of Zombies club . . . . aged
30 . . . . a skilled Celulose
Sprayer . . . now living in
Canada . . . . also a Car,
Chess, Jazz, Cat and Beer fan

Fledgeling takes all motors
from 3 to 87 c.c. The
photos reveal its modern
lines: why not try one
yourself?

The Fledgeling was designed to look realistic with
good flight performance, and yet be original in layout.
Cabin, high wing layout, inverted motor and standard
undercart were considered too conventional, so I
substituted a shoulder wing position, open cockpit,
sidewinder motor, and trike undercart to get out of the
rut and be original—if such a word is accepted in model
design, where it appears that nothing is original.

The reliable little Allbon Dart diesel was a logical
choice of power plant to provide just the right degree of
urgency for the kind of flight performance required, which
was—a smooth, sure take-off and a reasonably steep
climb in keeping with the appearance of the semi-scale
light-plane type of model.

Fitted with a Stant 7 x 4 in. cut down to 6½ x 4 in.
the Fledgeling fulfilled expectations. The steep climb,
in large circles, was well mannered and the glide was slow,
very flat and the eventual landing was a roller.

A word here about the trike undercart. For landing
on rough ground and prop-saving it is hard to beat.
When testing I saw two-wheel models making beautiful
landing approaches, only to tip as soon as they touched
down, or alternatively rolling a few feet and reversing
direction. A trike undercart, if accurately tracked,
will give a long straight landing roll every time.

Built carefully, your Fledgeling should weigh between 8
and 9 ozs. The original weighed 9 oz. complete with fancy
colour scheme of Portland grey with maroon trimming.
You will notice large wood sizes are used throughout.
Strength is an important factor in sport flying, so if you
can get away with fine performance and be as solid as a
brick house, you have gained a model that is good for
dozens of trouble free flying hours.

CONSTRUCTION

Fuselage. Construction is simple, with no tricky
curves. The basic fuselage is of box section and built
from firm 3/32 sq. balsa. The forward part of the fuselage
is ¾ sheet with squares cut out for lightness.
The two sides are built flat on the plan, and joined
together by formers 2 and 3. The front and rear under-
cart wires are then bolted in position. Engine bearers
are then cut to length and glued in place with the engine
temporarily mounted to ensure a good fit. Formers are
added to the rear structure and all 3/32 sq. stringers
cemented in place. The underside of the fuselage
between formers 2 and 4 is filled in with 1/32 in. sheet
and the tops of formers 1 and 2 planked with 1/16 in.
sheet (soft).
The apple cheek cowling is best made by carving a
soft block of balsa to outline shape, split down the middle,
hollow and fit round your particular motor and fuel tank
arrangement.

Wings. These are straightforward in construction and
are very simple to build. Cover the centre section with
1/32 sheet top and bottom and add the soft balsa fairing
block to merge with the fuselage outline.

Tailplane and fin are equally simple. Note that the
fin has a trimming tab hinged on iron wire and slots
into the tailplane.

Covering. The entire model was covered in heavy-
weight Silkspan and given two coats of clear dope plus
two sprayed coats of Portland grey. Sellotape was used
as masking for the maroon trimming lines.

Flying. The model should balance at the point shown
on the drawing if fitted with the Allbon Dart. Test
glide over tall grass, and when you are completely
satisfied that the glide is very flat and straight, set the
trim tab for a slight right turn. The motor should have
1 degree of right thrust to counteract torque. Put the
prop, on back to front to cut down efficiency for test
flying and let the job go on 10 secs, motor run. After
that it is up to you and common sense—and the best
of luck!!
FLEDGELING

DESIGNED BY
C. A. SHAW.

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THE AEROMODELLER PLANS SERVICE
THE AERODROME, STAPENOW, Nr. LEIGHTON BUZZARD

ALL WOODS ARE Balsa EXCEPT WHERE STATED

WING SPAN-33 1/2"  
AREA-165 SQ. IN.
TAIL SPAN-14"  
AREA-80 SQ. IN.

DATA:
WING SPAN-33 1/2"  
FUSELAGE LENGTH-31 1/2"
AREA-165 SQ. IN.
ALL UP WEIGHT-9.025
POWER-D-15 CC.

MODEL SHOULD BALANCE HERE
SOLID Balsa

3/32 STRINGS
3/32 SHEET

1/16 SHEET SIDES 1/16 GUSSET
1/16 DOWEL
CARTRIDGE PAPER OR 1/32 SHEET FAIRING.

WING-RIB
DOTTED LINE REPRESENTS 5/32 RIBS
TAILPLANE RIB 1/16 OFF
F.3
F.1
F.2
F.4

CUT OUT

UNDERCARRIAGE
16 SQG.

ALUM STRAPS
6 OR 8 GA.
NUTS & BOLTS

IN SQG. AXLE
LENGTH TO SUIT WHEEL

1/4 PLANKING

1/4 Balsa
1/16 PLY

1/16 PLANE AT TIP
3/16 Dihedral

1/32 SHEET

3/32 X 3/32
1/16 SHEET

RIBS

GUSSETS

3/32 DOWEL
3/32 SHEET

1/16 SHEET

3/32 SHEET

1/8 PLANE, AT TIP

1/32 SHEET

3/32 SHEET

PIN FITS BETWEEN HERE

1/16 X 1/16

THIS IS A 1/3 SCALE REPRODUCTION OF THE FULL SIZE PLANS WHICH ARE AVAILABLE PRICE 3/- POST FREE FROM THE AEROMODELLER PLANS SERVICE