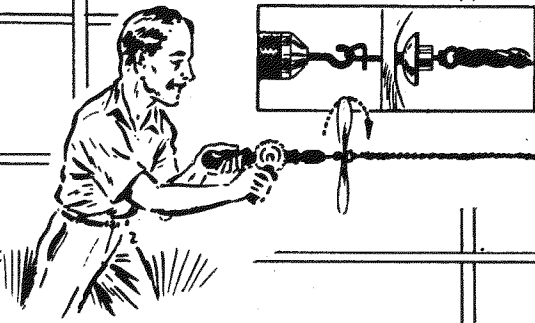


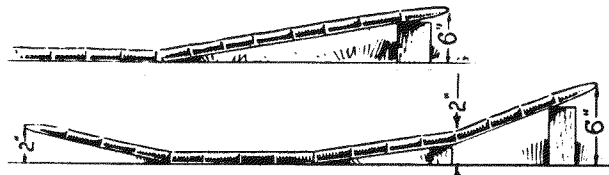
CLEVELAND'S FLEMISH DEFIANCE

Sketch shows method of putting more turns in motor. With rubber properly lubricated there could easily be 600 to 1000 winds put in the motor to get long flights. For winder use a hand drill and attach hook in chuck. Make hook from a nail and grip it very tightly in chuck. Many a model has been "wrecked" because hooks have pulled out of winder so be cautious.

3/64 x 3/32 spars are added after polyhedral has been formed.



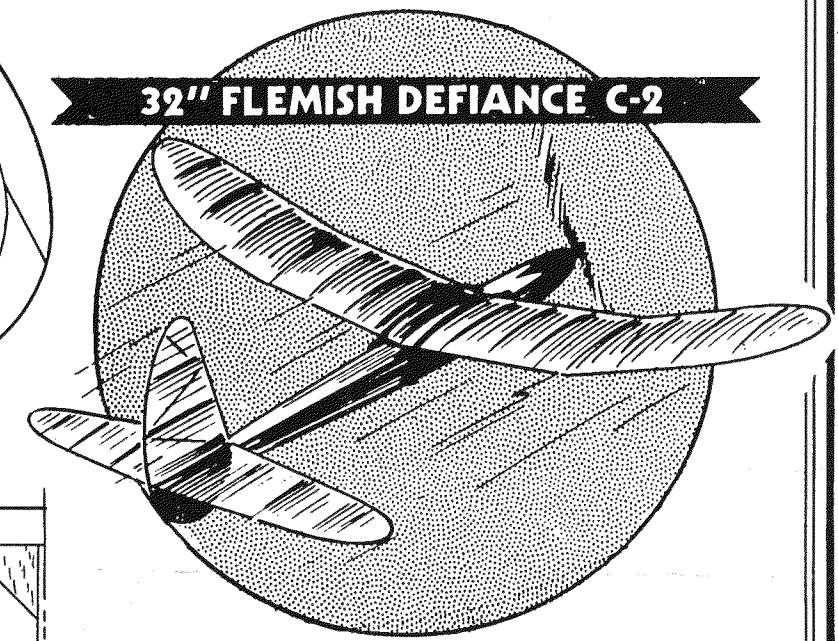
Gussets hold wings polyhedral until spars are added.



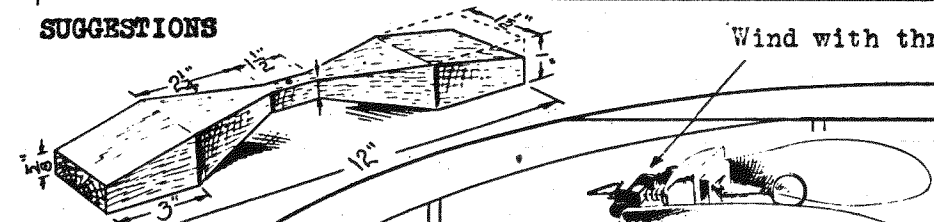
Dihedral and polyhedral shown. Builder may choose which he so desires. We may add that although polyhedral is slightly more work it is by far the most efficient yet discovered.

For contest work this model must weigh just a bit over 3 ounces as the wing area is 105 square inches

32" FLEMISH DEFIANCE C-2



SUGGESTIONS



Prop blank dimensions shown for those who wish to make a contest model. Propeller is important for those long flights. Either make it folding or free wheeling.

Details of folding prop

Rubber tensioner catch is small wood screw imbedded in back of nose block

Spring is .014 music wire

Single bladed folding prop. Counter balance is molded out of lead.

Wind with thread

Leading edge of wing is 3/32 sq.

Details of nose plug. This type of plug is recommended rather than button type if making a folding prop.

Glue nose block onto nose and drill to fit nose button.

Wing mount

Detail of rear hook attachment

Tail held lightly with glue for flight. Slit apart when changing rubber.

3/32 sq. braces for strength

Fuselage cross braces are 3/64 x 3/32 except where otherwise noted.

Wing bound with rubber bands for flight

3/64 x 3/32

3/32 sq.

1/16 sheet

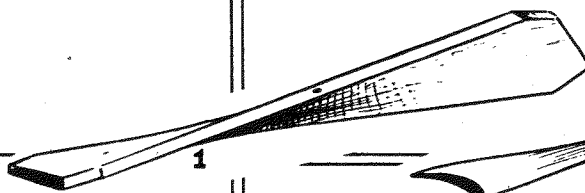
Fill in nose and tail as shown with sheet fill-in.

Fuselage longerons are 3/32 square

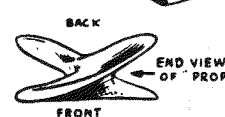
Wing mount

A few hints on how to adjust model; Glide model first getting approximate location of wing. Add weight when wing cannot be moved. Wind model putting approximately 75 to 100 turns in motor. Release into wind and note what happens. If model stalls put in downthrust until model will climb without stalling. If model climbs good without stalling and then stalls in glide, shift wing back or add weight to nose when wing can't be moved. If necessary take out some of the downthrust to make up for this change. Now try to get model to glide in circles of about 100 to 150 ft. diameter to the right. If model glides in circles of approximately these dimensions but spirals too steeply under power, add sliver of wood behind plug (or clay in emergency) counteracting the pull to the side. This is called side thrust. Some times with aid of sidethrust no downthrust is needed. Thus a model which circles under power has less chance to stall than model which climbs straight.

Adjust model to fly against torque(left) which means to fly to the right! Adjusting a model isn't hard if these tips are followed as the same procedure is followed by almost every expert. Adjusting models is a small science in itself and when mastered will afford many hours of pleasure that follows and may we hope that your mantel will be loaded with hardware (trophies).



3/32 x 3/16



3/32 x 3/32

3 steps show finishing of sawn cut prop. Free wheeling device added if desired. Make fittings of scrap tin or aluminum.

3/64 x 3/32

E 1

E 2

E 3

E 4

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Class "C" Outdoor Contest "Stick" Type Model
32" FLEMISH DEFIANCE C-2

THIS DESIGN INCORPORATES THE EXPERIENCE OF THIS CONCERN AS MODEL ENGINEERS SINCE 1918