

Baron Von Draftybottom's latest antique

# FRANTIQUÉ I

The first consideration of an airplane is to fly! A model airplane should do this in spite of all the interference caused by the loose nut holding the control sticks. / By J. Harmon

"Frantique" can hold her own when it comes to plowing the "North Forty" or flying over it. For the beginner who must go out for the first time by himself or for the sport flier who just wants something different, Frantique will help.

By following a few simple changes you can fly her as slow or as hot as you like. Version No. 1 powered with a 19 to 23 provides moderate flight speeds for the beginner or for just relaxing. Version No. 2 with a 29 or 35 will make her walk. Version No. 3 is for 40s and up.

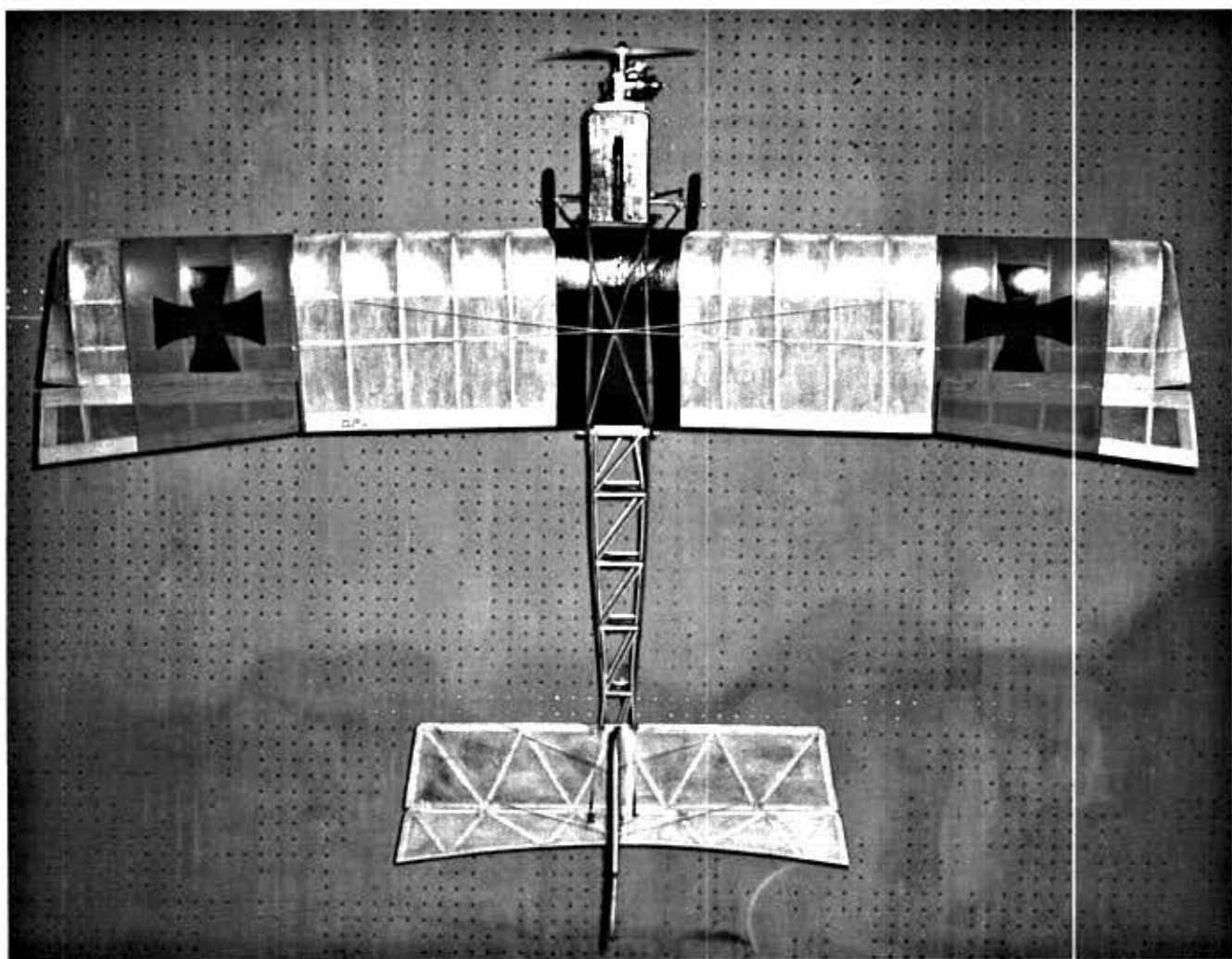
If you have the courage to follow into the new world of building with the new "stick and twig" method of construction and forget your old-fashioned plastics, styro and other stuff, get some Titebond and epoxy and let's go.

The following are special construction techniques to be applied with building the particular version you choose. Version No. 1: Build light! Fuselage—make longerons from

spruce as well as bracing from rear landing gear mount forward; the remainder medium hard balsa, all 3/16 sq. Use 1/16 hard balsa for covering sides. Wings—use spruce for main spar with 1/8 balsa web vertical grain from rib 2 to rib 4, 1/16 from rib 4 to rib 7. All ribs but 1, 2 and 11 are made from medium hard 1/16. Rear spars are medium hard balsa.

Version No. 2: Fuselage—build entire fuselage from 3/16 sq. spruce. Use 1/16 ply for sides. Wings—main spar from spruce laminated as shown. Use 1/4 balsa web from rib 1 to rib 4; from rib 4 to rib 9 use 1/8, and from 9 to 11 use 1/16. Rear spar is laminated balsa with 1/16 web added from rib 2 to rib 7.

Version No. 3: Fuselage—increase all wood dimensions to 1/4. Use spruce for longerons and forward bracing back to rear landing gear mounting, the remainder using hard balsa. Sides are covered inside and out with 1/16 ply. Use an extra





*Would you believe this model was inspired by an AAM Tenderfoot model contest of many years ago? With lots of wing and plenty of drag, Frantique is a delightful flying plane—slow and gentle. The nearly symmetrical wing does allow stunting around the field on a Sunday afternoon.*

F-2, and add an extra layer of 1/16 ply to bottom of fuselage, also increasing bottom balsa to 3/16. Landing gear—increase to 5/32 wire as well as increasing the length one inch to clear for larger props. Wings—triple laminate of spruce on main spar as shown. Use 1/4 vertical web from rib 1 to rib 6; from rib 6 to rib 9 use 1/8, and from 9 to 11 use 1/16. Laminate rear spar from balsa as shown and web with 1/8 from rib 1 to rib 7, and with 1/16 from 7 to 11. Increase dihedral gussets to 3/32 ply. Tail surfaces—change leading edge of stab by adding an extra spruce spar and adding one to the elevator on front, position these behind the existing balsa ones. Repeat this on the vertical fin, front and rear, also to front of rudder.

Using these special references you may begin construction. If you don't, you're in trouble.

Epoxy firewall pieces as required, clamp and let cure. Begin fuselage by pinning down longerons. At this time either splice or rip your own, the only splice having to be made on the bottom. The best place to put it is an inch or so behind the rear landing gear mount.

Next install the saddles for the wing and stab, then cut and glue in the verticals; finish by trimming and securing the diagonal members (make all joints fit as well as possible). After thoroughly dry, build the other side. To get an identical side build one on top of the other. Install the rear gussets on the inside of the framework, as well as the inside sheeting for the No. 3 version. Assemble the forward section of the fuselage as a box, just be sure all alignment is true; epoxy firewall F-3 and F-4 in place and let set. Next pull sides together and cut and install cross members in position. When this has set, fit the diagonals in the vertical frames and on the top and bottom.

Finish by sheeting the sides and bottom. If you don't like dowels you can get fancy with the nylon bolts. Make up the tall skid from hardwood, and insert a wire for hard runways on the lower front and bottom. Assemble with epoxy. Beam type mounts from Midwest were used on the original and are highly recommended as they are very versatile and trouble-free. The mounts from Tatone or Chopp or similar mounts may also be used. Do not install any radio equipment or mountings at this time. If you want a little something extra, you can get fancy with the nose and hatch sections. I threw in a few lines to give some idea as to what could be done with a little extra effort.

If you are still ambitious, put some false ribs in the wings between the leading edge and the main spar. If not, proceed by the plans. First laminate the spars if required, letting them dry while you notch out the ribs accordingly.

The wing panels may be built on a flat surface as the lower rear of the airfoil is flat. Begin by laying the spars and trailing edge in place. Set ribs 3 to 11, set leading edge, align carefully and glue. Measure for the vertical webbing as required, cut and glue it in place. Add top spars, trailing edge and aileron crank mounts, the angle at which this mounts will have to be decided by what length horns to be used. Simply lay out the length of your horn on the plans and plot the pushrod line 1/8 lower than the sheeting over the rear

spar. The reason for this is everyone will use a different amount of throw causing too much variation.

After building both panels decide what dihedral angle you want to use. If you are like me it will have to have three inches on each wing. If not, use as little as you like. Then cut the dihedral gussets long enough to extend an 1/8 or so past ribs 2 and join wing panels. After these have set, install rib pieces 1 and 2, after determining servo location and mounting sheet center section. Now lay front and rear lower sheeting for the ailerons, set ribs in position back 1/8 from front edge, trim angle on bottom of aileron spar and glue. Add horn ply mount, bevel front and taper rear of tip piece and glue. Add top sheet after beveling top spar; when dry remove and bevel spar to tips, and tip sheeting. Next set ailerons in wing at neutral position. Line up and install wingtips, gussets and sheeting. Use 1/16 to cap entire wing at ribs, spars and edges of the tips. Install servo and control linkage. If you feel like it web TE for No. 3.

The tail surfaces should require no explanation. Just remember to add the extra prices for the hot version—this would not hurt if the rest of you like sustained dives with hot pullouts. Be sure to get a good joint on the rudder mounting. The ply horn mounts should be inserted.

The landing gear shown is tough and does a good job of keeping the ground away. Constructing it is a little tough too, so practice on some old coathangers to get the proper shape. A good pair of visegrips is about the best for this plus some muscle. Slip on a length of tubing for the front then solder the axle retainers, slip on some more neoprene, one piece on each side this time, and then join gear at back with a length of 1/8 ID brass tube and solder. Make axle using wire and two lengths of this same tubing and eyelets as shown, leaving 1/4" of tubing on the ends open so you can drill for wheel retainers.

Cover tail surfaces and install after doping rear of fuselage. Hang engine on the nose and figure balance point with equipment installed, make up servo mountings and other such odds and ends. Proceed to finish covering with your favorite white fabric and clear dope all but the rear fuselage.

The original version flying with an OS Max 19 mounted to the right, with a Heathkit GD 19 weighed in at about 72 ounces—it flies almost like a powered glider. No right thrust was found to be necessary. None is shown in the plans purposely as this can only be determined by the combinations used and is easily obtained by various methods on the mounts suggested as needed. There is a small amount of downthrust built in for the airfoil shown.

#### Flying

Go to the nearest flying field, fuel up, turn equipment on, turn engine on, turn plane loose and turn yourself on. The "Frantique I" likes to fly as much as you do.

If you get the time take a picture or two and send one to the old Baron along with a few choice kind words. Send to B.V.D. at 711 S. Dewey, Sherman, Texas 75090, may all your crackups be less than straight in.