



Building a 1909 Bleriot XI

Here's my latest build. Built for this year's "Cole and Rita Palen's Scale FF Meet" in upstate NY, it's a scaled up version of Henry Struck's Bleriot XI from his "Trailblazers of the Sky" series as published in the June, 1937 issue of Flying Aces magazine.

Now with a 24" wingspan instead of the original 16", I changed it a bit to better resemble the original 1909 Bleriot XI in the Old Rhinebeck Aerodrome's collection which happens to be the oldest flying airplane in the United States and second oldest flying plane in the world.

Rhinebeck is lucky to have two original Bleriotics, the other being powered by a Gnome rotary engine. At one time, they did own a third which can now be seen at the Cradle of Aviation Museum.



Rhinebeck's Bleriot XI is regularly flown every weekend during the show season. Due to its "wing-warping" design, its flights are limited to hops up and down the runway.



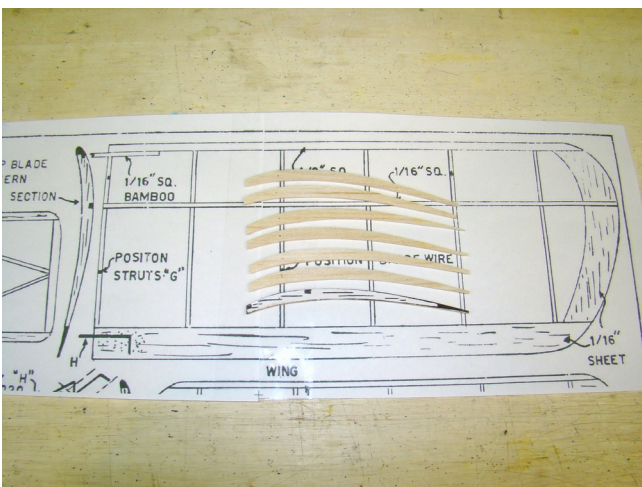
This is my second build from this plan, having built one a number of years back. It flew nicely but only on dead calm days, I'm hoping this larger one will withstand a bit more of a breeze.

My first Bleriot's front end was very weakly built and I had fixed it so many times, I had to remove balancing weight from the front end to offset the weight of the extra balsa and glue. With the front end on this second version sporting some bamboo instead of balsa, it should hold up much better.

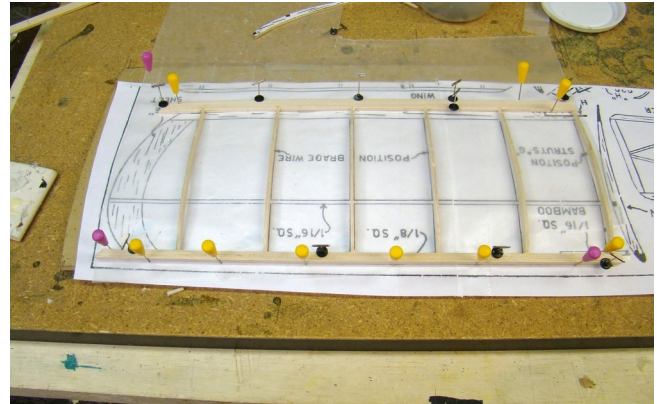


(photo by Evan Hadingham)

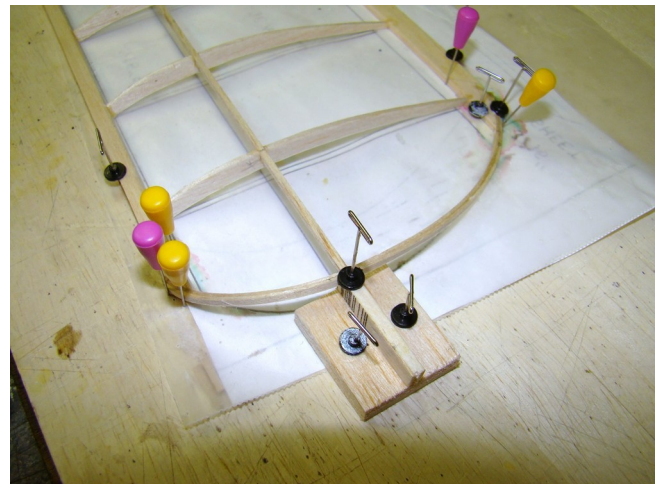
Here is my first Bleriot during a contest held up in Red Hook, NY. It took third on its first time out. My son, Mike, flew it for a number of years afterward and I hate to admit it, but he did a lot better than I ever did with this plane.



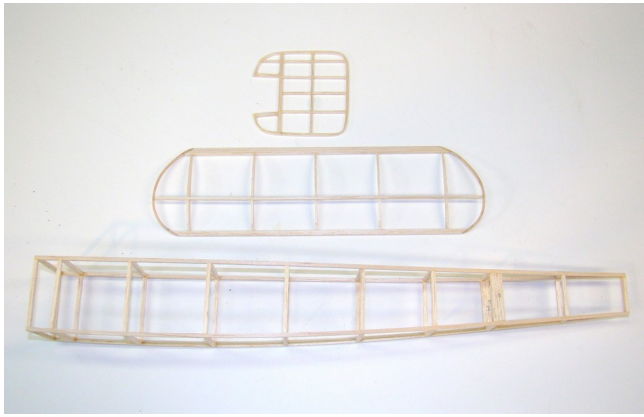
The Bleriot has very thin and highly under-cambered airfoils on the wings and stabilizer which is typical of early aircraft designs. The extreme under-camber on the stabilizer makes the plane almost stall proof, and also resistant to climb!



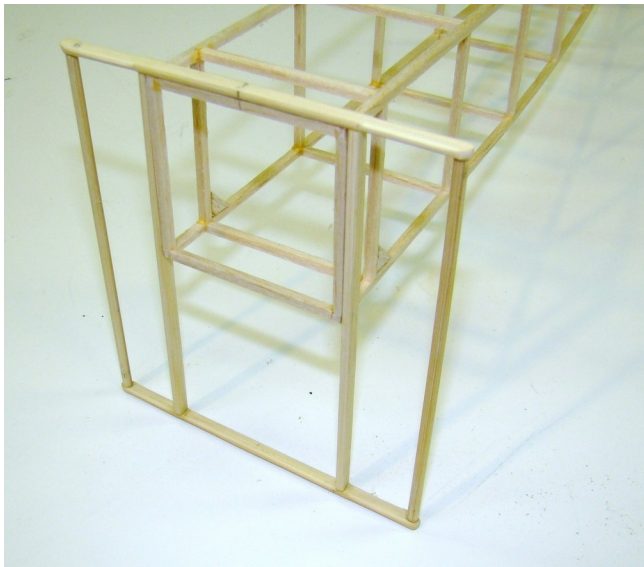
I cut down the width of the trailing edges to shave off some weight. Both wingtips and trailing edges were much wider than needed.



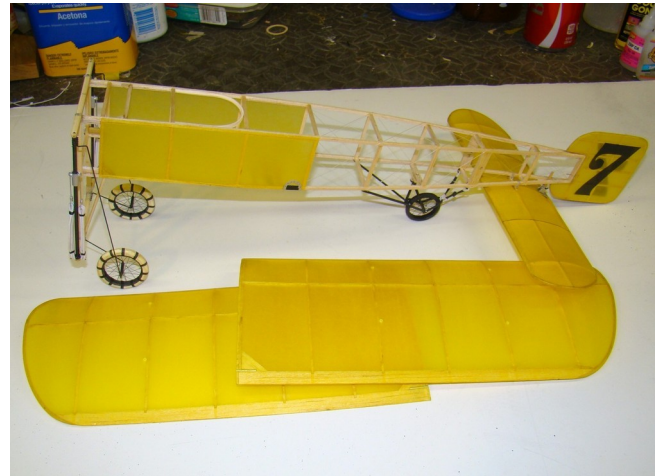
The wingtips were also drastically shaved down being formed on an airfoil shaped mold and laminated for strength. I think it makes for a much lighter, and more scale-like wingtip.



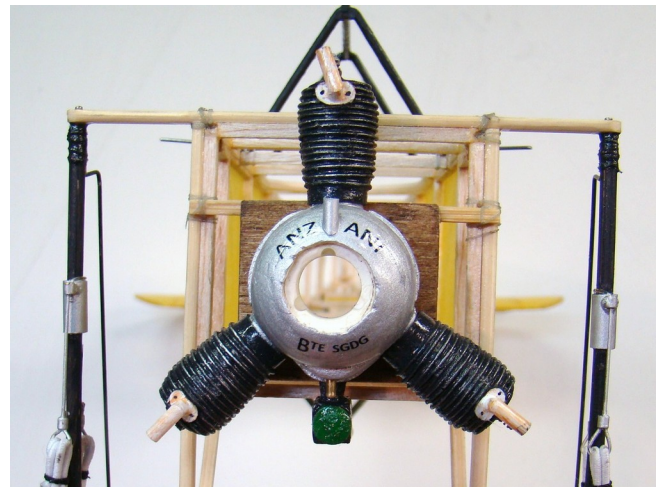
Most of the early planes were of simple construction making this an easy build. Lots of straight balsa sticks and minimal cutting makes for quick building.



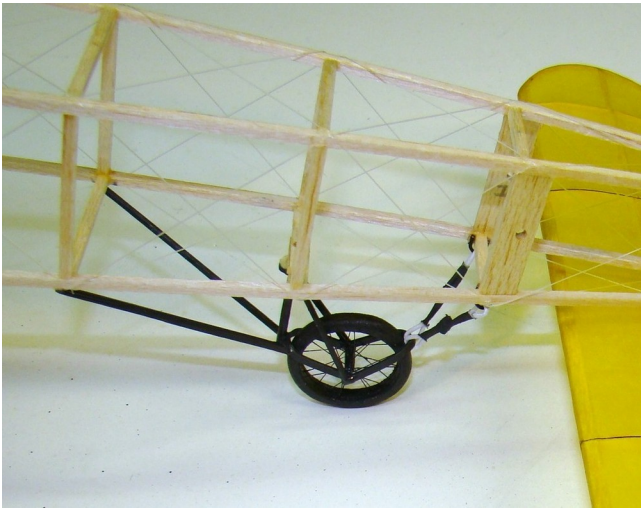
Instead of the balsa that was specified in the original plan, I opted for substituting bamboo milled down from skewers for the front end. After being tack glued they were wrapped with thread and a thin coat of CA applied.



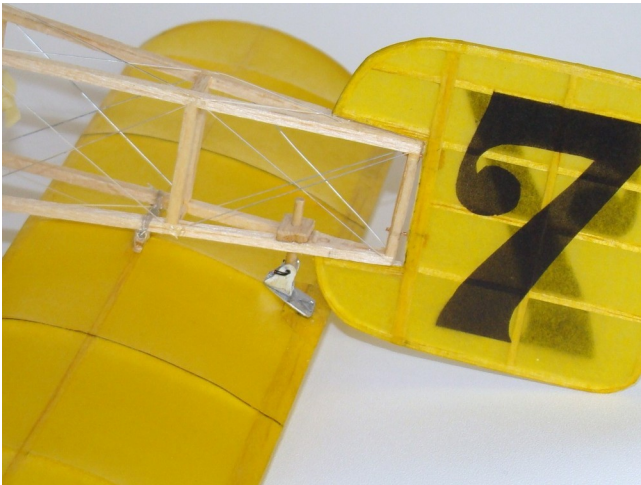
Here are the sub-assemblies covered, and ready for final assembly. Esaki Japanese tissue was used with two coats of thinned nitrate dope laced with castor oil to control shrinkage and prevent warping.



The Anzani three cylinder engine's crankcase is balsa with the cylinders being urethane resin. Carpet thread wrapped around balsa didn't appeal to me, so I made a mold to fabricate the cylinders. They are hollow as to hide any balancing weight needed.



I made up this tailwheel assembly to better mimic the Old Rhinebeck Bleriot instead of a tailskid.



The original plan used small balsa blocks glued between the fuselage and the stabilizer to set the decalage. This made it impossible to change at the flying field. I came up with this adjustable rear mount to ease trimming. Based on period photos, it works just like the real plane! A small drop of Ambroid glue holds the setting, and a drop of acetone will soften the glue for adjustments.



Most of the early planes used bicycle or motorcycle rims and tires. They were often taped together to prevent the tires from coming off during rough landings.



I usually use plastic props on my builds, but this one deserved a hand carved prop. If it doesn't work out, I have a variety of plastic props that should suffice.

Look for it in the skies over the club flying field this Spring!

Looking to get into Free Flight? Just grab me at a club meeting or send me an email at Stevie58@aol.com. I'll be more than happy to get you started in rubber powered aeromodeling!

If you'd like to see more pictures of this build and in higher resolution they are in our Photo Galleries here:

- [Photos - Building a 1909 Bleriot XI](#)

Our web site has more free-flight articles and information on our [free-flight page](#).