Cloudbuster membership and subscription to the newsletter is $16.00 per year. All memberships expire on December 31. Subscription membership includes all Newsletter issues for the year.

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The Cloudbusters meet at 8pm. on the third Tuesday of the month at Drayton Ave. Presbyterian Church 2441 Pinecrest Avenue Ferndale, MI 48220 The meeting room is #309 No meetings in June, July, or August.

Be sure to visit our web page to get the 2015 & 2016 handouts. If you do not have access to the web or a printer, contact a member who does and get your copies for handout today.

Cloudbusters Model Airplane Club
976 Pearson St
Ferndale MI 48220

Cloudbusters NEWSLETTER

Cloudbusters Model Airplane Club of Michigan, Inc

Our 76th Year

July-Aug 2016

We had a great day for our Cloudbusters 7th Annual Picnic Meet. The weather was clear with light winds. The club paid for pizza, wings, ribs, drinks and desserts for all attendees. We had roughly 40-50 people show up, including several "new" people interested in our flying and guests from Indiana and Ontario. Of special note, long-time friend and Cloudbuster, Dave Livesay attended and stated that he is COMING BACK to FAC flying!

The winds and thermals were light and I think only one plane was lost (a Phantom Flash). We were able to fly 9 Events and here are the results and some photos of the winners.

Highlights for me were the following: Ben Kroes wins his first kanone (and first max) with an impeccable Debut Embryo. Good friend Pat Murray pulled in his ***100th Kanone*** in the Greve Mass Launch (almost losing his plane!), my younger son - Tristan Bredehoft (only a beginner) taking 3rd in Embryo with very respectable times, and I put in a 40-second flight on my T-37 Tweet Jet Cat.

Thanks to all the Cloudbusters that organized and managed the picnic; we all look forward to many more!

George Bredehoft
Free Flight Rubber Scale Model Airplane Plans
http://www.volareproducts.com/

RESULTS:

Dime Scale - 4 Entries
1. Pat Murray - Staggerwing -
2. Mike Welshans - Howard DGA
3. Lee Campbell - Monocoupe

NoCal - 5 entries
1. Jack Bredehoft-C. Centurion -
2. Chuck Hickson - Chambermaid
3. Winn Moore-Cessna Centurion

Peanut - 3 entries
1. George Bredehoft-Pegna P.C.1
2. Chris Boehm - P-51
3. Lee Campbell-Nesmith Cougar

Golden Age Monoplane-3 entries
1. Winn Moore - Aubert PA-20 -
2. Pat Murray - Stinson SR-7
3. Mike Welsahns - DH-94

Embryo - 8 entries
1. Ben Kroes - Debut -
2. Chuck Hickson - Freshman
3. Tristan Bredehoft - Sky Rocket

Phantom Flash - 3 entries
1. Winn Moore
2. Chuck Hickson
3. Pat Murray

Jet Cat - 5 entries
1. George Bredehoft-T-37 Tweet -
2. Winn Moore - T-37
3. Ron Joyal - DH Venom

WWII Combat-7 entries, 3 rounds
1. Pat Murray-B. Paul Defiant
2. Chris Boehm - P-51
3. Winn Moore - Tony

Comb. Races-5 entries, 3 rounds
1. Pat Murray - Mr Smoothie
2. George Bredehoft-E. Special
3. Ron Joyal - Mr Mulligan

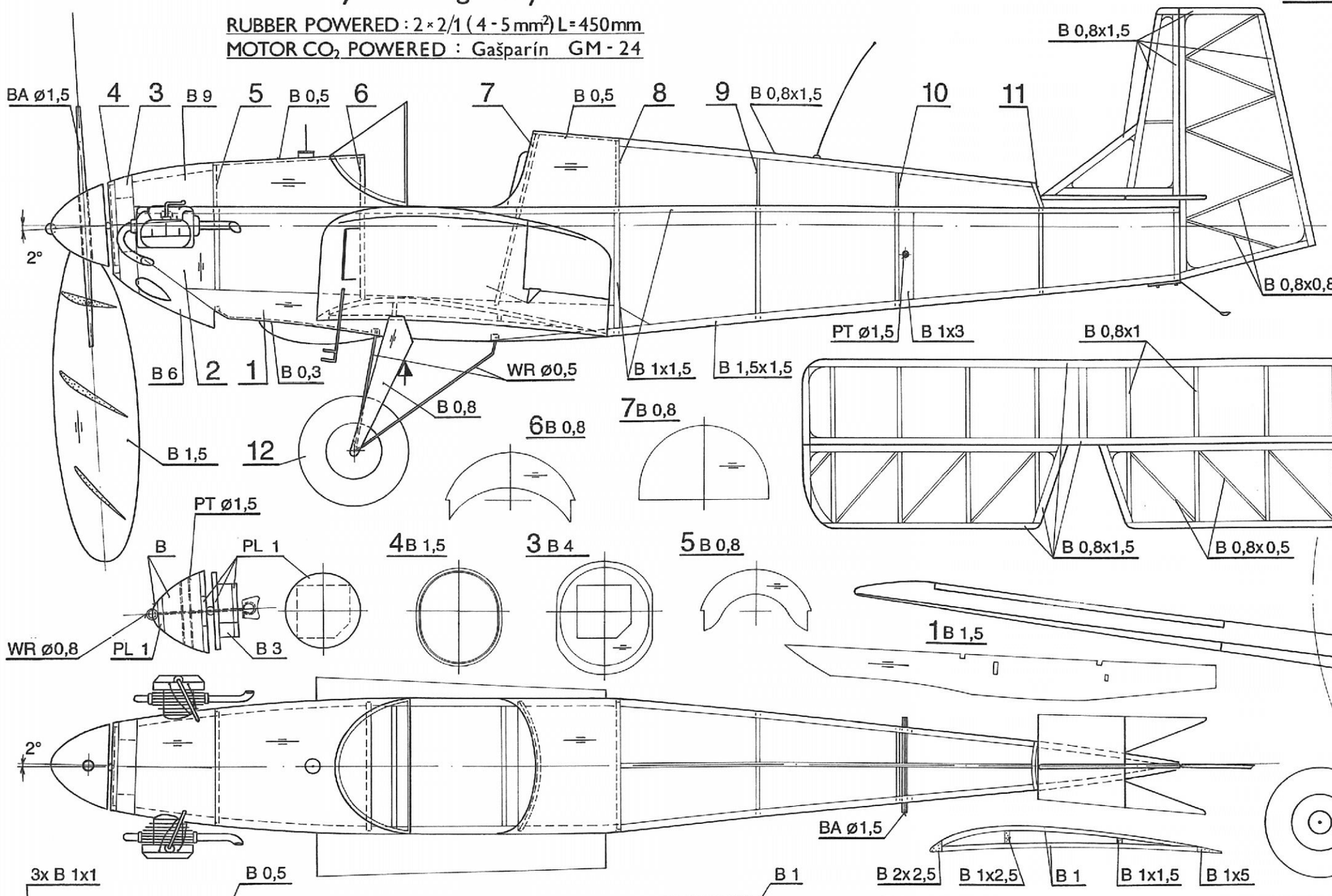
ROLLASON D.31 TURBULENT

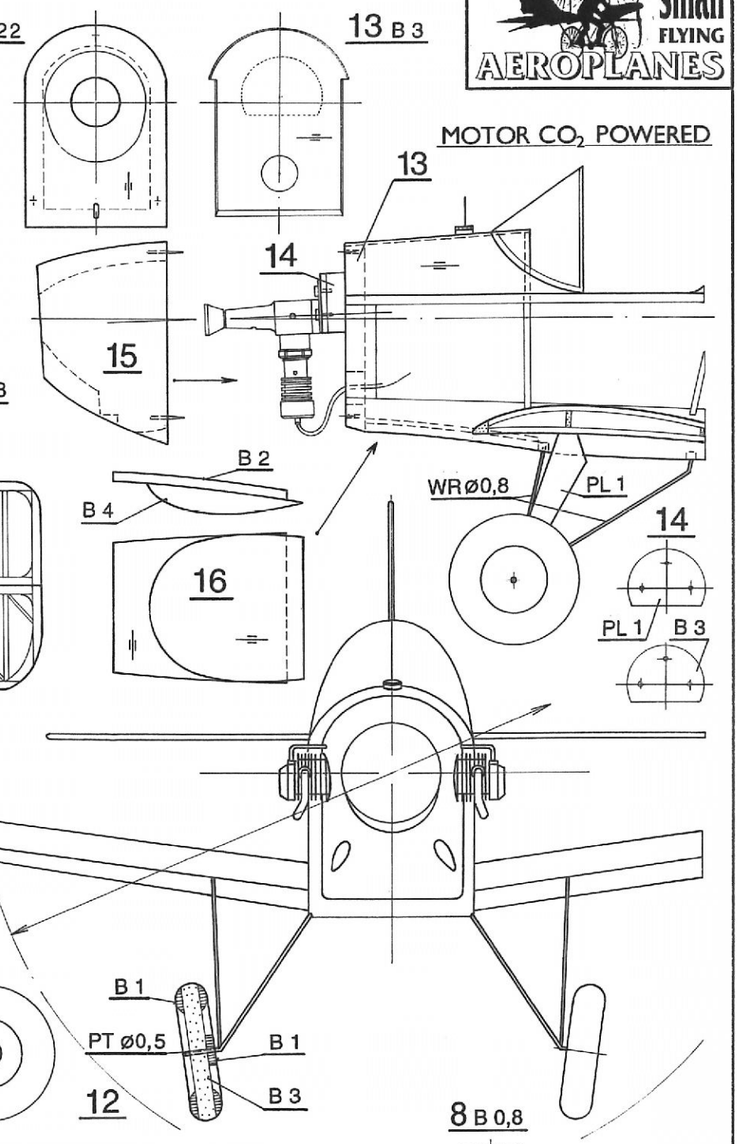
By R. Gregovský

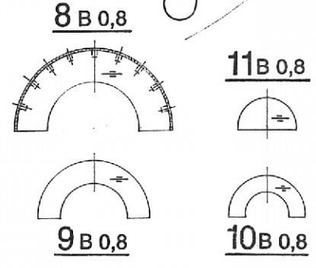
RUBBER POWERED : 2 × 2/1 (4 - 5 mm²) L = 450mm

MOTOR CO_2 POWERED : Gašparín GM - 24

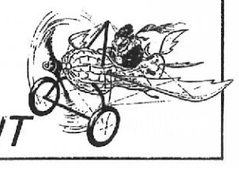
small FLYING AEROPLANES







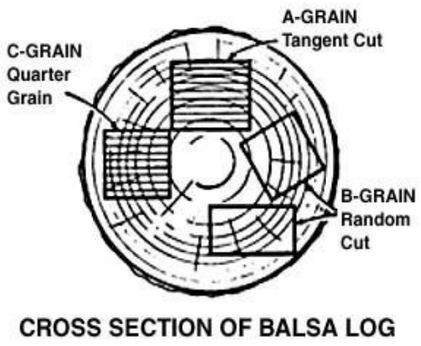
B - BALSA
BA - BAMBOO
PL - PLYWOOD
WR - WIRE
PT - PAPER TUBE



PEANUT

BALSA SELECTION REVISITED

Almost every one that has built a few balsa and tissue airplanes have seen the charts on balsa selection. The charts usually state something like this:



CROSS SECTION OF BALSA LOG

A-GRAIN sheet balsa has long fibers that show up as long grain lines. It is very flexible across the sheet and bends around curves easily. Also warps easily. Sometimes called "tangent cut".

DO: Use for sheet covering rounded fuselages and wing leading edges, planking fuselages, forming tubes, strong flexible spars, HL glider fuselages.

DON'T: Use for sheet balsa wings or tail surfaces, flat fuselage sides, ribs, or formers.

B-GRAIN sheet balsa has some of the qualities of both type A and type C. Grain lines are shorter than type A, and it feels stiffer across the sheet. It is a general purpose sheet and can be used for many jobs. Sometimes called "random cut".

DO: Use for flat fuselage sides, trailing edges, wing ribs, formers, planking gradual curves, wing leading edge sheeting.

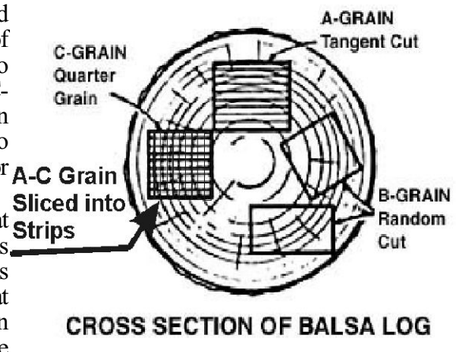
DON'T: Use where type A or type C will do a significantly better job.

C-GRAIN sheet balsa has a beautiful mottled appearance. It is very stiff across the sheet and splits easily. But when used properly, it helps to build the lightest strongest models. Most warp resistant type. Sometimes called "quarter grain".

DO: Use for sheet balsa wings and tails, flat fuselage sides, wing ribs, formers, trailing edges. Best type for HL glider wings and tails.

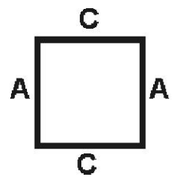
DON'T: Use for curved planking, rounded fuselages, round tubes, HL glider fuselage, or wing spars.

The revisited part is here. Take a look at the A-grain above and rotate it around the center of the log to where the C-grain is, then slice it into 1/16", 3/32" or 1/8" strips.

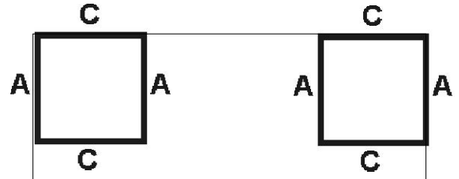


CROSS SECTION OF BALSA LOG

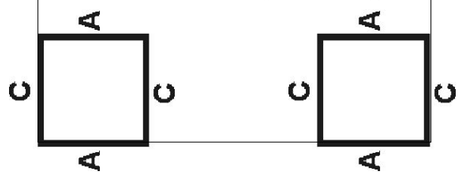
Notice that the C-grain has become strips of wood that are A-grain on two opposite sides and C-Grain on the other two sides. In other words, you would have some sticks that look like this from the end:



If you were to now use four of those sticks for your longerons and lay them out like this:



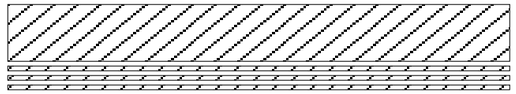
You would just about assure yourself of having the dreaded banana shape curve into your fuselage.



Think about a that all important stabilizer built with the leading edge A-Grain up and trailing edge C-Grain up, and picture that potato chip right from the start.

I have never liked presenting a problem without offering a solution. In this case I have three solutions:

1. Be very careful when cutting and laying out your wood. I am not neat enough to keep them straight and I can not tell the difference after messing them up.
2. Do not cut your wood into perfect squares. Using the Jim Jones balsa stripper, I cut my wood to say maybe .0625"x.07", then I can ***feel*** which sides are A or C grain.
3. Paint or mark your sheet before stripping. If you use a light marker to draw cross lines on the sheet, then any piece cut from the stripped wood will show you the sides.



The final revisited part. I do not quite get the statements such as do not use C-grain for spars. If your spar is only 1/16" square, note the problem from above. I think a better test for your wood is to break some of it. Take a small strip and break it both ways. If either way results in a clean break, completely into two pieces, do not use that wood for things like trailing edges, longerons, spars, or leading edges. If the breaks result in a sharply bent piece of wood, broken, but still connected together, then this is a suitably "grained" piece of wood. You may even be able to feel which way the wood is strongest, then use that to the best advantage.

I hope I have not rubbed anybody's grain the wrong way, and also that maybe this helps someone to build a straighter better airplane. Chris A. Boehm

Another web page that you might find interesting.
www.sfa-models.com
The ROLLASON D.31 TURBULENT was found here!

Dear friends and fellow modellers,

Welcome to our Website focused on Free Flight aero modelling. We are dedicated to providing modellers old and new with building plans and supporting materials to enable you to construct small traditional `build it yourself` model aircraft. Our interests include Free Flight models powered mostly by rubber or occasionally CO2 engines. The models, built according to our plans can be adapted to RC and upgraded to electric power.

We are three friends, Radek, Petr and Jirka from the Czech Republic who have been pursuing our interest and enjoyment in designing, building and flying Free Flight models since we were youngsters and now would like to share our passion with all aviation modellers worldwide.

We are very experienced in this field, having started some 20 years ago during the 1990`s when Radek Gregovsky, with the help of Jirka Vystejn, began publishing a magazine called "Small Flying Airplanes". This great magazine was enjoyed for a long period by many modellers worldwide but sadly publication was brought to a halt in September 2008 when devastating floods destroyed everything and our complete archives were lost.

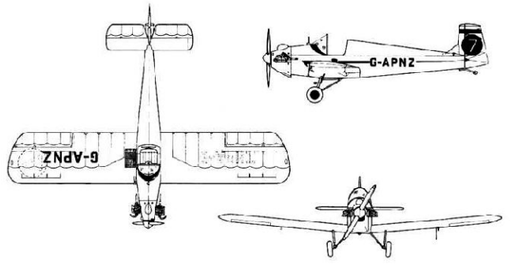
This heavy blow killed our enthusiasm for 8 years as we struggled to come to terms with our loss.

However the lack of plans and supporting materials for this wonderful branch of our hobby convinced us to "Get up and Get Going" again and the decision was made to reconnect with our passion and commence supplying what Free Flight modellers everywhere were needing.

We hope that the revived "Small Flying Airplanes" will stimulate renewed interest, from customers and friends "old and new" from around the world, in Free Flight building and flying. We believe you can have confidence in our experience and will be inspired by our passion and interest in what we do best!

We look forward to hearing from you about all aspects of your hobby and sincerely hope you will enjoy this website.

On behalf of the Editorial Team – Radek Gregovsky, Petr Konopasek and Jirka Vystejn.



Been There!

Done That!

Thought About Doing This!

PEANUT – the Loneliest Event
Posted on 31 July 2016 by Bredehoft

I have built a lot of Peanut scale planes. I have no idea how many, but Walt Mooney's Peanut plans in Model Builder magazine is what gave me my start and inspiration in Free Flight. That size remains my favorite size. According to my records, over the years I have won 62 events with Peanut-sized airplanes – including several times in Mass Launches where I am flying against larger models. To me, they are easy to build and trim, while many people believe the rumors and misinformation that they are difficult models to fly. I guess maybe "rumors and misinformation" is a bit strong, as I find larger models more difficult – to each his own.

However, it seems fewer and fewer people are building Peanut models. Often in smaller contests there just aren't enough Peanut models present to warrant flying the event – you need three people obtaining official flights of 20 seconds or more to have a "contest".

It seems the only place where a large number of Peanuts are present is the larger FAC contests: the Nats, the Non-Nats, and the Outdoor Champs. Even at the vaunted AMA Free Flight Nationals, is it hard to get three people to fly Peanut.

This year marks the 5th straight year I have won the Peanut event at the AMA Nats – and at least twice, there were less than three contestants. This year, I thought the streak might end. Gene Smith from Oklahoma was there with his famous Grumman Tiger Cat twin-engined Peanut. It is a great flyer and with its bonus points, it could easily beat my Peanuts. His entry would be the third contestant, along with me and Jerry Murphy from Colorado.

Gene put up a test flight "on two-year-old rubber" of about 40 seconds. He was happy with the trim and immediately set about replacing the motors with new rubber. Unfortunately, he could not get an official with the new rubber. for some reason, the plane became unstable – sometimes it appeared that one prop was locking, but who knows.

I am posting a photo of the Champion plaque with both of my Peanut entries: The Fairey Barracuda posted a 77-second flight and the 22-year-old Pegna P.C.1 (it's been repaired and recovered since first built) posted a 79 second flight. I am very pleased

with both of them, but know that with a little attention to detail in trimming, they both have longer flight times but would be at risk of thermaling away from me. By the way, the Barracuda placed second in WWII, in a rather close final flight – Pat Murray's Avenger stayed up about 10 seconds longer than my plane (this is where the better trimming would come in handy!)

I urge people to build and fly Peanuts – they are fun and you can pack several into a small box. Someone meet me in Muncie next July and give me a challenge!

George, the peanut plans for this issue are because of you! Chris

Turning your own Balsa Wheels
From: Tom Sanders
This may be more than you want to know about balsa wheels.

Ripped from www.gryffinaero.com/models/ffpages/tips/tips.html

In creating balsa wheels, you must set the parameters for their use. Are these for a lightweight indoor model or for a larger, outdoor flyer? The process is similar just that the bigger, outdoor wheels require some added attention. Let me disclaim that none of these ideas are unique. Some of these ideas can be mixed and matched to your requirements. Accumulating various tools such as a Dremel or Dremel sander will certainly help....

Recommended Tools

Dremel or electric hand drill	drill bits (1/16 in. and less)	
pin vise	a/c ply - 1/64, 1/32 and 1/16 in. thicknesses	
balsa, 1/32 in. sheet & thicker	glue tubes (alum. or plastic)	
various X-Acto knife tips	sanding tools	emery boards
water based enamels	fine brushes	

Indoor Lightweights:

The simplest wheel to make starts by choosing some 1/32" sheet stock. Depending on diameter cut out some squares, a little oversized, and glue together. Be sure to CROSSGRAIN the squares when you stick them together. Your flavor of glue doesn't matter unless you want to be weight conscious. Acetate is the lightest, CA is next and aliphatic is a distant 3rd.

First, decide what you want for your axle bushing. You may choose 1/16 aluminium tube or, my favorite, those little red plastic straws from aerosol spray lubes. In fact, I have collected many of those red straws as the I.D. varies between manufacturers. Sand a taper into the end of the tube and bore an undersized hole (with your pin vise) into both squares. Rough up the tube's surface with some 400 grit wet or dry paper. Poke the tube through the squares always leaving about a 1" separation. Put the glue (aliphatic is the best for this!) on the tube surface and slide the squares into the glue. Be sure there is plenty of tube length to chuck into your drill or Dremel. Roll the axle and "true" each wheel to prevent wobble. Let them dry for 24 hours!

The easy way to finish is to simply chuck them in your drill and very patiently sand them round with a sanding block that has 400 grit affixed to it. Don't bear down to hard or the glue joint will part company.

To further slow down your turning tools to keep the tube from whipping you'll need to reduce electrical current... With the Dremel, and especially those without the speed adjustment, make a speed control box with a rheostat and an old extension cord. Buy a quality wall switch (dining room style) for the rheostat control. Split the cord, laterally, and cut one side only to make an in-line connection with the switch. Wire the connections to the rheostat. Now, plug in your Dremel and keep the speed low enough not to "whip" the tube into a 90 degree bend.

Some folks make a fixture to hold their Dremel with a hose clamp on a wood block screwed into some plywood. Such a poor man's lathe is very effective! Go back to sanding the outside wheel diameters, measuring as you go. To separate the wheels, you can try cutting them with a razor saw. Or, cut a piece of hardwood narrow enough to fit between the wheels and use as a cutting board. Put your X-Acto #11 against the bushing tube and roll it back and forth until it cuts through. File each bushing so that the ends are smooth. Leave about 1/16" on both sides of the wheel.

For smoother airflow, taper sand the wheel from the bushing center out to wheel's O.D. This will track the wheel cleanly through the air as the model flies. Thin wheels will act as airbrakes if there's no taper.

The basic wheel is finished.

The bigger wheels use the same idea but .... bigger.

Scale Wheels:

Use the same sandwich concept with thicker balsa but add the a/c ply as a center layer. After the tube is inserted, turn in the same manner. Leave enough room between the two wheels so that when they are separated, they may be chucked from either side. Use the emery boards to create the curved part of the tire. Experiment with emery boards, files, whatever to shape the depression that a hubcap would fit over. You can also groove in tire tread with an X-Acto while the wheel is chucked on the drill/Dremel. This all takes practice but the results can be stunning.

Painting:

Leave the wheel chucked so that it may be rotated by hand. Dip your brush into the flat black and brace the brush. Rotate the wheel while the first circle is painted. Some folks use a Sharpie brand Ultra-Fine pen for this job. After that it's easy. Black on the outside, your hubcap or silver brake disc on the inside diameter. Mount the wheel on axle and cautiously layer a growing dab of glue to retain the wheel on the axle.

By the way, even lighter wheels can be made using pink or blue insulation foam with durability slightly compromised. Same process but use aliphatic (white glue) on all assemblies.

There are more to the details but I have run off enough for now!

Tom

Fellow FFML'er Marty Sazaki comments...

"Good article. I'll make one suggestion though. Don't start out with a square. Get as close as you can to the circle you want before you put it in the chuck and do the shaping. It will be a lot less stressful all around that way."

Tom responds with, "You're right about starting your wheel as a circle. That was one of the many "additionals" I thought about but edited out. Others were using spent bullet casings with ground sharp edges to put in lightening holes. Or, how about using a rubber o-ring as a tire, worked great on my Flying Aces Moth. What about paper cone wheels?

Here's what you do..... "

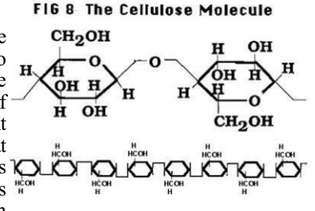
And one final thought from your editor.

I personally find that a Dremel turns the potentially out of balance rough wheel blank too fast for comfort. I have seen things get ugly in a hurry when the 1/16 soft aluminum tube bends. Instead, I chuck the axle in my hand held cordless drill and use the dremel tool spinning a coarse sanding drum to do the rough shaping. Turning the wheel more slowly helps prevent any out of balance issues from becoming scary and sneaking up on it with the sanding drum allows rapid material removal. Once I have the desired shape, I smooth the wheel with fine sandpaper.

Why Does Tissue Shrink
by Gary Phillips -- Ripped from www.antiquemodeler.org

Understanding the molecular structure of paper helps one to understand why it tightens. This overly simplified description of how the paper is made was "lifted" from a search on the Web. Paper is composed of cellulose molecules. Fig 8 shows what cellulose looks like. It is a large molecule built up by linking together a large number of identical units one after the other, like forging a long chain of many links. The basic link is a sugar called glucose. It consists of a ring of carbon atoms bristling with what are called hydroxyl (OH) groups.

FIG 8 The Cellulose Molecule



Cellulose is extremely hydrophilic and therefore in a wet sheet of paper, after pressing, the fibers would be interconnected by a whole series of water droplets, and during drying, all the interconnecting water droplets would start to shrink. As the film recedes during drying, surface tension forces bring the cellulose surfaces closer together. Finally, due to the propensity for oxygen molecules to be attracted to hydrogen molecules, linkages between the hydroxyl groups of the adjacent cellulose surfaces create forces which hold them permanently together. This connection between adjacent hydroxyl groups, as oxygen links with two hydrogen atoms, is called a hydrogen bond. It is the hydrogen bond that makes water liquid so that human life is possible, and holds cellulose fibers together after dying so that humans can make paper.

FIG 10 Fibers & Water Droplets

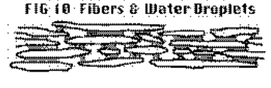
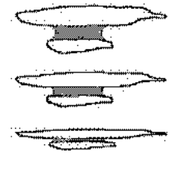


FIG 11 Surface Tension Pulling Fibers Together

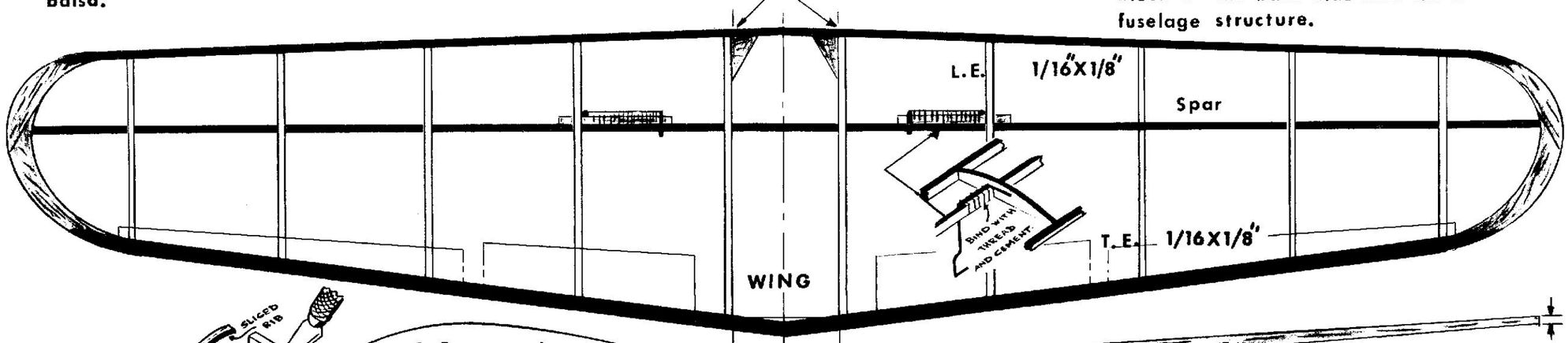


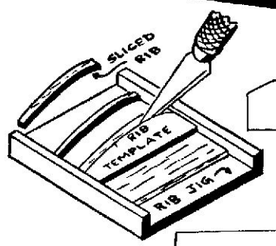
After youve covered your model with tissue, when you spray it with water and then let it dry, you're essentially repeating the process, and as the cellulose fibers draw a little bit closer, the tissue is somewhat tighter than before wetting. Since there's a limit as to how close they can be drawn together, the shrinking process has its limits.

NOTE All parts, unless otherwise noted, are 1/16th thick balsa.

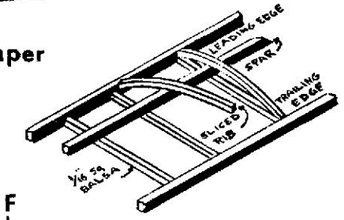
Dihedral break.

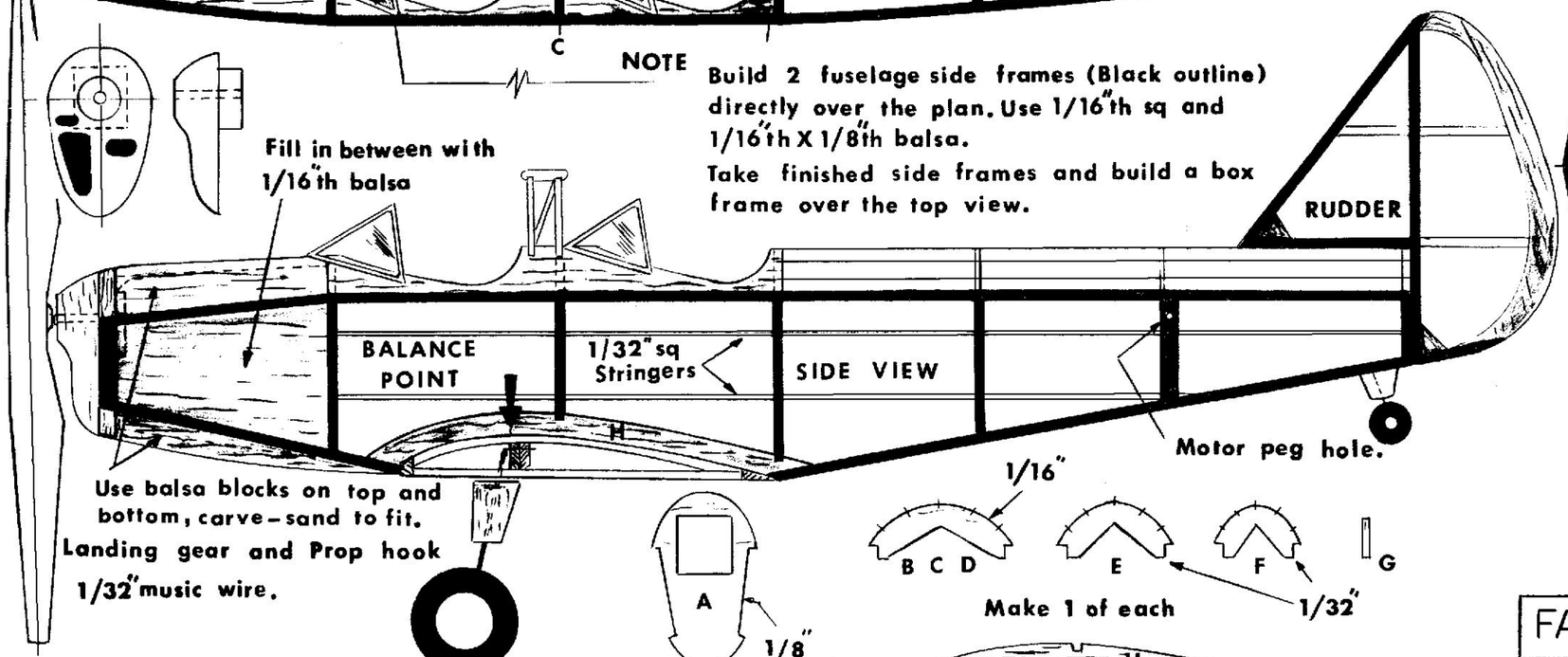
NOTE Nose block is removable and has a locating block on the back side that fits inside the fuselage structure.





RIB template





NOTE Build 2 fuselage side frames (Black outline) directly over the plan. Use 1/16th sq and 1/16th X 1/8th balsa.
Take finished side frames and build a box frame over the top view.

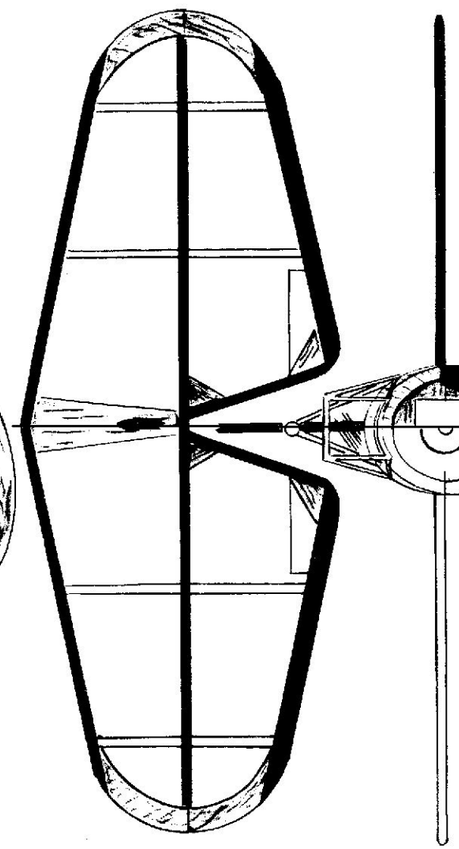
Cutdown Sleek-Streek propeller

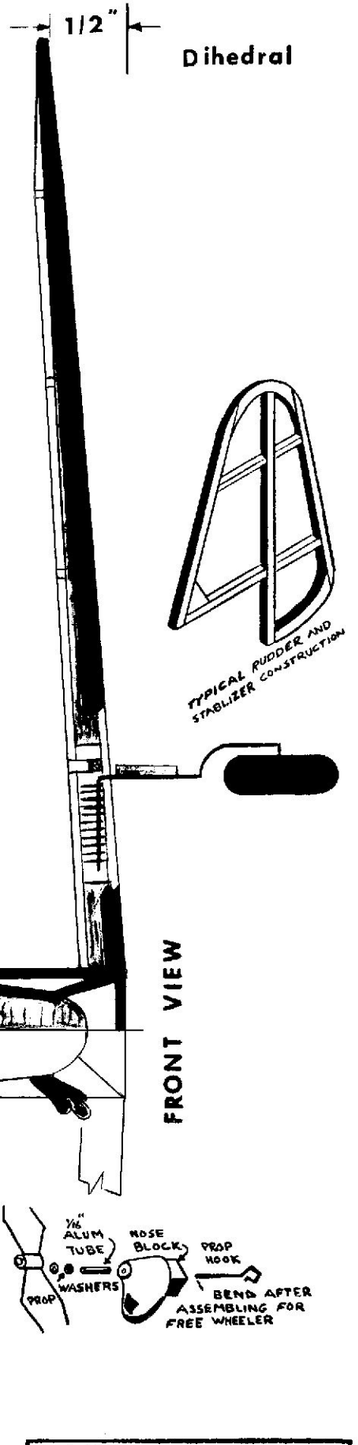
Wheels 3/4 dia

Make 1 of each

Make 2 of H

STABLIZER





TYPICAL RUDDER AND STABLIZER CONSTRUCTION

FAIRCHILD PT-19

JANICK MODEL ENGINEERING
32 FARLEY ROAD SCARSDALE N.Y. 10583
PLAN Nº L-100

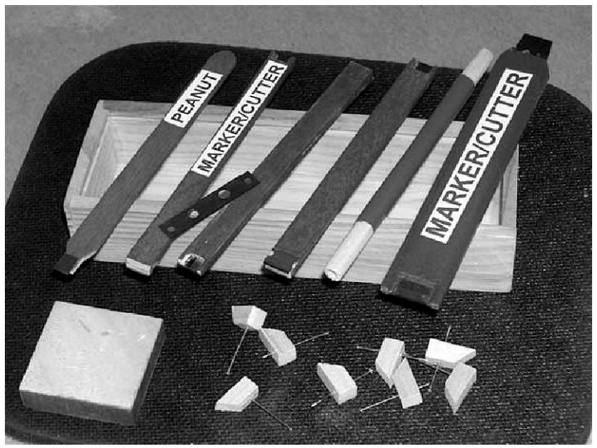
A Faster Method For Stick Fuselages

by Marcel Lavoie
Jan 26, 2007

Over the last several years I have devised a method of building box fuselages from stick balsa by lifting up the longerons when building a side frame, then placing a strip of balsa under them for marking and cutting the uprights, together with some tools to do the job.

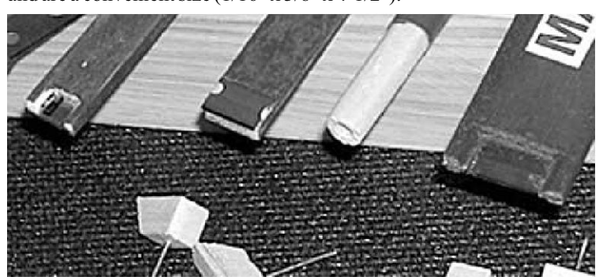
The typical way people build is to place the upright strip over the longerons, and by sighting down or eyeballing, try to obtain the correct angles and length. That requires quite a bit of skill and time. My approach is far easier and faster. It works great for diagonal spacers and Warren truss type of structures with all the angled cuts, as well as for cross pieces.

The method described here deals with 3/32" and 1/8" square balsa strip, with some changes when using smaller and larger sizes of balsa(more on this later). A favorite model, the Miss Canada Sr., is used to illustrate the system. As a side note, the method has been found to be a great help to a fellow modeler handicapped by a stroke.



Getting ready:

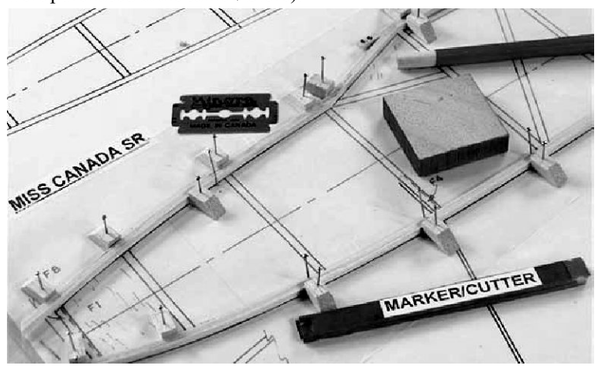
The tools for cutting spacers are very simple to make. There are two types of cutters, but at this point the discussion centers on what I call a MARKER/CUTTER because it is a double-ended tool in which one end is used to mark where the cut goes, and the other end of the tool, the cutter, finishes the job. The tool is made by sandwiching a short (3/8") length of razor blade between two popsicle sticks having both ends squared off. Cut a 5/32" deep x 1/4" wide U-shaped opening in one end and square off the inside corners, then glue a piece of blade to the other end to serve as a marker. The blade should project from both ends no more than 1/32". I use popsicle sticks because they are readily available and are a convenient size (1/16" x 3/8" x 4-1/2").



Use epoxy for gluing the sticks together and contact cement for the marker blade. This arrangement gives a very rigid support for the blade, even the narrowest ones I use which are 1/4" wide. The long "handle" helps a lot in keeping the tool close to the vertical for nice square cuts. I use blades from our local Dollar Store and some double edged blades. I will leave it to the reader to work with what he has available. Better quality blades should give better results but the tool works beautifully to ensure accurate cuts on the first try, thus speeding the work along greatly. A second item that is required is a set of jig/building blocks as can be seen in the photos . These are made from a strip of hard 1/4"(16 lb.) square balsa cut into blocks 1/2" long with one end sanded to 90 degrees and the other end cut to about 30 degrees. They could be made of pine or some similar wood.

Drill pilot holes about one third of the way from the square end to receive the pins which should be a tight fit in the hole. Make about 30-40 of these blocks which will be used mainly on the outside edges of the longerons. The pins remain in the blocks permanently. This size block can be used for both the 3/32" and 1/8" strips. A Pin Driver is next, make this from a 4-5 inch length of 1/4" diameter hardwood dowel with a 1/8" diameter hole drilled into each end. The depth of the holes is such that the straight pins do not penetrate my gypsum wallboard building board and ruin the kitchen table(ouch!). A last item that is needed is an end-grain chopping block, again hard balsa or pine, onto which the strip is placed for cutting after it has been marked. The two faces of the block have to be parallel of course and sanded smooth. Always use the end-grain block as this will give a cleaner cut as well as prolong the life of the blades.

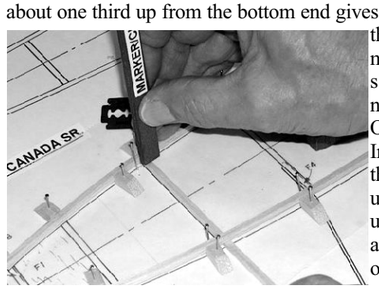
Paint/colour all these tools (though not the faces of the block) with a bright colour so that they will be easy to spot among the clutter. This may seem like a long preamble but the tools just described will be available for future building jobs. It would be useful, nay, necessary, to provide for some type of container to hold the knives and blocks (mine were purchased at the same $ Store).



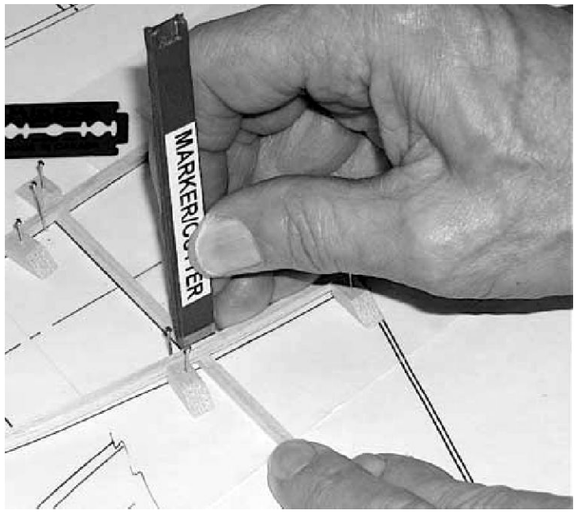
And now, for the fun part:

Compared to the standard way of placing the upright strip over the longerons, this new way is actually fun. Protect the plan in your usual way to prevent the structure from sticking to it. Lay down the longerons by placing the blocks for the top longeron in line with the upright positions. For the bottom longeron, place the blocks about 1/4" off to the side of the upright positions so as to allow free passage of the upright strip under the longeron and to leave room for the marker. Glue up the several pieces of the top longeron if it is made up of more than one piece such as for a cabin model. For the inside edges of the longerons a pin at every second station might suffice.

A word here on how to hold the tool... I find that holding it at a point about one third up from the bottom end gives a good control in keeping

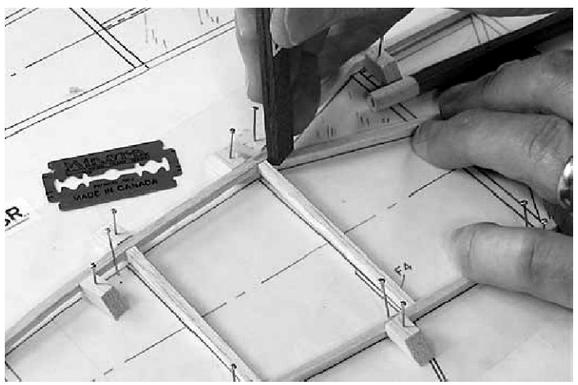


the tool vertical as well as making it easier to apply a slicing motion when needed for harder strips. OK, so we are ready to start. Insert a strip of balsa under the bottom longeron, then under the upper one. Line it up on the upright position and gently push blade side of the marker up against the top longeron to mark the angle at that end. At this point it would be a good idea to put a mark of some sort on the piece to ensure its proper orientation later - a "<" pointing towards the front is what I do.



Remove the strip and place it on the block for cutting with the other end of the tool. Re-insert the strip under the bottom longeron and slide it up against the top longeron which by this time has been lowered back down onto the plan. Push the strip up fairly tight against the top longeron and proceed to mark the lower end of that upright. Experience will tell you how much pressure is right. Remove, cut, and, voilà, one very neat fitting upright.

The angles and length are perfect! You really have to work hard to get a reject. The speed of this method and the high degree of accuracy is miles ahead of the old ways. After one side is built, remove it from the building board, but leave the blocks in place to build the second side. With the jig blocks in place it should not at all be difficult getting the two sides the same. A little care is necessary, but then again, we always do use a little care, don't we?



The business of cutting diagonal cross pieces is handled in the same manner. Since we need the top view of the plan to cut the cross pieces, I draw a basic copy of that onto a strip of paper and staple it a few inches above the top view of the actual plan. The assembly of the side frames is done over this drawing using poster board triangles about 5" high x 3" at the base to keep the frames in line and square. An extension at the base is bent over to a 90 degree angle to allow stapling the triangles to the building board. For a typical model of, say, 36" span, eight to ten of these triangles are needed. As each pair of cross pieces is cut mark them with an arrow as before. When gluing in place put the arrow marks towards the in- side of the fuselage.

For smaller models using 1/16" square such as Peanuts, life is even simpler:

The tool, if one can dare call it that, is simply a short length of razor blade glued onto the side of a popsicle stick. Narrow the end of this tool to 1/4" wide to accommodate tighter inside curves on small models. Leave no more than 5/64" projecting from the end and glue it on using contact cement. A neat way to measure this is to push the cutting edge of the blade through a scrap of the chosen longeron material with about 1/64" projecting. This simple device will be used to cut the uprights and cross-pieces while the strip is still under the longerons. For 3/16" and 1/4" wood on larger model the type of marker/cutter described at the outset is made bigger, eg, two strips of 1/16" ply or pine, 3/4" x 5" long, with a 1/2" wide opening, just over 1/4" deep. Jig blocks 1/2" square could do for these two sizes of strip.

So, there it is. It is not an automatic thing, but after you get the feel of using these tools - and this will come quickly - you will be surprised at the beauty of it. Anyone having questions or suggestions can reach me at harrier@nb.sympatico.ca, or at, Marcel Lavoie, 111Victoria Street, Campbellton, N.B. Canada, E3N 1J6

Editor's Note: If visual is more to your liking, go to the internet to Youtube.com then to www.youtube.com/watch?v=wt5VeA7sACc.

There is a three part series here that is very interesting.

Ripped from
www.easybuiltmodels.com/tips.htm
Lot's more tips there, check it out

When adding wheels to the landing gear wire, you will need to use retainers to keep them from falling off. The usual choices are:

A) Wrap soft wire around the landing gear wire and fix with solder. This adds weight, and may imbalance the model causing unwanted turns in flight.

B) Wrap heavy thread around the landing gear wire and fix with glue. This adds less weight than wire, but may also cause imbalance.

C) Build up a layer of glue on the ends of the landing gear wire. Unless exactly the same weight of glue is used on both sides, imbalance may occur.

D) Bend the ends of the landing gear wire. This does not affect in any way but one, it doesn't look good esthetically.

Here is a great no-cost alternative wheel retainer that adds very little weight, causes no imbalance, and is virtually invisible. There is always a bit of celluloid left over after cutting out the window patterns for a model (other plastics can be used as well), use a paper hole puncher to easily make small round, invisible retainers of equal size. Now use a pin to make a hole that is less than the diameter of the landing gear wire in each of the retainers. All that remains is simply to force the plastic onto the ends of the wire. Friction will hold the plastic retainers in place, and they are invisible.

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