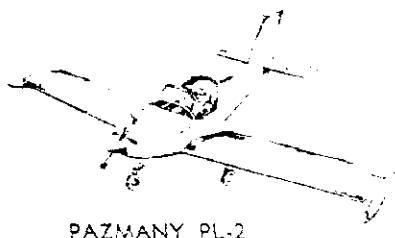


Pazmany Newsletter  
Number 63

AIRCRAFT DESIGNER  
Ladislao Pazmany  
P.O.Box 80051  
San Diego, Cal.



PAZMANY PL-2

Fall 1979  
Published Quarterly  
Rate \$4.00/year

EDITOR PL-2  
Dave Panton - Lib Panton  
3565 Askin Ave.,  
Windsor, Ontario,  
Canada N9E 3K1

EDITORIAL COMMENT: It has been a very busy summer with many hours spent preparing PL-2 C-GQUK for a trip to British Columbia. Primarily more radio and navigational equipment to allow for landings at large international airports was needed in order to simplify the flight. The aircraft was first flown with only a Narco Escort IIO either Nav or Communicate radio - a good starter unit. We added a 720 channel Narco Com I20 TSO radio, a Narco AT I50TSO Transponder, and a Narco ADF I4I TSO automatic direction finder. This combination fit the panel very neatly and still allowed a bit of room at the top for a row of switches to select radios, speakers, and so on.

Following the normal series of fowlups, delivery delays, broken promises and technical problems, we departed September 22nd and flew across the barrens of Northern Ontario, the Prairies, and over (through?) the Rockies into British Columbia, returning to Ontario three weeks and 5500 miles later. The aircraft performed admirably and attracted much attention everywhere we landed. The most interesting comment came from a Bonanza pilot at Winnipeg International: he was right behind us among the maze of taxi-ways and was told by ground control to "follow the homebuilt". His comment was "What homebuilt? I don't see any homebuilt".

I was concerned about limited fuel and range but we found Paz's tank sizes were adequate as we flew legs of typically 2-3 hours' duration, carefully planning weather and fuel alternates. Also we found we were able to pack winter jackets, survival gear, baggage and a few small tools and spares in the baggage compartment and still have a bit of room left. We were at a gross weight of about 1575 lbs. inclusive yet averaged a very respectable ground speed of 111 MPH takeoff to touchdown running only 2325 RPM max. The PL-1 & 2 is a very fine little cross country aircraft with an excellent combination of characteristics. The baggage compartment incidentally is clear of the battery which I located below the floor with access through a removable panel.

DAMAGED PL-1 REDISCOVERED: Quite by accident we met Wayne and Shirley Warwick of Oyen flying a Cessna I72 from Alberta. Wayne's uncle, Allan Caskey purchased a CF-SPQ (see it in the back of your Pazmany Construction Manual), Canada's first PL-1 after it had been quite badly damaged in a takeoff accident. Apparently it had some type of control lock installed and ran off the end of a runway into a shallow ravine when it refused to lift off without elevator control. Allan rebuilt the damaged gear, nose and I'm sure a lot of other nicks and dings over a 2 1/2 year period and now flies the aircraft from his home airport at Cereal, Alberta. He is a remarkable gentleman as he accomplished all this and learned to fly after having passed his 65th birthday. Next summer, Lib and I hope to drop in and see him on our next PL-2 trip to British Columbia.

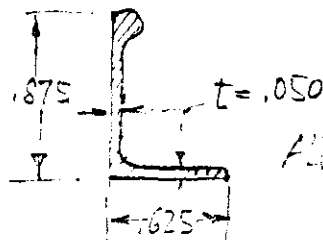
FRANK KREUZER, 71 Lister, Hamilton, Ontario, L9B IEI, is rapidly approaching his first flight as his completed, painted aircraft is being assembled at Hamilton's Mount Hope Airport in the local EAA Chapter's hangar. Lib and I flew to Hamilton on Sept. 19th in our PL-2 to have some final bugs exterminated in the new ADF by Dennis Grantam of Lectron Avionics. We arrived just at the moment Frank and his EAA friends mated the wing and fuselage at the airport. His airport work will be small as he had done virtually everything including interior trim on the fully assembled aircraft at home in his basement. Upon arrival at their home we inspected the work of the basement-Pazmany digger and masons who repaired the basement block wall after aircraft removal. I'm sure all aircraft home-builders become heartily fed up with the dumb question "HOW YA GONNA GET IT OUT WHEN IT'S DONE"? The answer is simple and people really do tear down walls to remove the final product. After

all, don't birds hatch from eggs which must be broken to remove the chicks? More will be written about Frank's project as he gets another Pazmany flying.

PAZ SAYS: Paz has sent a newsy letter in which he wishes to pass on several helpful hints and some news of materials for his aircraft designs. He, like all of us, is having all sorts of problems with price increases and delayed deliveries from suppliers. Three spar cap sets in stock have been raised to \$700 per set. When these three are sold the next set will take 17 months to come from Alcoa and several more price increases are expected during that time. Even plans have had to go up to \$180 per set due to much higher blueprinting costs.

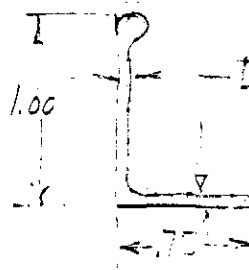
The fuselage angles are also a problem but he has substitutions available which are actually stronger and the prices are still quite reasonable. His stock of AND IOI33-1002 equal leg angles has been exhausted but he has stock on the bulbed angle for the tailcone substituting a Boeing extrusion slightly different from the AND IOI35-701 as shown. The short leg can be cut down to 0.62 or just left as is as the weight increase is negligible. The 7075-T6511 alloy is stronger than 2024-T3511. The price for the PL-2 set is \$80.00.

AND IOI35-701



Alloy 2024-T3511

BOEING EXTRUSION



Alloy 7075-T6511

Should any newsletter subscribers be interested in a PL-4 nearly completed and for sale, Paz advises that the Air Cadet League of Canada has one located in Campbellford, Ontario. The package includes a 90% complete airframe, direct drive VW engine installed, antennas installed, Escort IIO radio to install, all instruments installed as well as complete electrical system including battery and alternator. The whole aircraft is on a PL-4 trailer ready to go at \$5000 U.S. as is where is. Paz inspected it during construction and said it looked excellent. Inquiries should be directed to Paz as he offered to help the Air Cadet League sell the aircraft.

PHILLIP MORRIS, RFD#5 County Squire, Statesboro, Georgia, 30458, has purchased Harold Sponagules' PL-1 from Vero Beach, Florida. Phillip is planning on installing a set of wheel pant and gear leg fairings as well as a set of wing root fillets and asks for advice on doing this work right on the aircraft. Errol Jansen of 2514 Munger, Houston, Texas 77023 built his in this fashion by gluing polyurethane foam directly onto the aircraft and then shaping it using conventional tools. He says a hot wire will not cut it well and toxic fumes are given off to boot. Once the shape he wanted had been achieved he used bidirectional fiberglass cloth #RA 5277 from Aircraft Spruce and Specialty. This cloth follows around compound curves without pulling away. The final exterior surface was not smooth so he used a Varieze filler called Featherfill to obtain the slick finish found on Variezes. Ross Whitney of Lambeth, Ontario, built his wing root fairings in a generally similar way and he also got excellent results. I used purchased PL-2 parts from Wisconsin but they had to be extensively reworked to fit.

R. SHOEMAKER, 1310 Willow Valley Rd., Brandon, Florida 33511, writes he is progressing slowly on his PL-2 with wing, fuselage, rudder and landing gear completed. He has for sale PL-1 machined parts including lower and upper rudder supports and stabilator bearing fittings.

G. WAYMEN, T3327 95th St. Edmonton, Alberta, T5E 3Y3, is actively working on his PL-2 with all 4130 steel hardware complete and all form blocks done for soft aluminum work.

GERRARD GERDES, I549 Cynthia, Hanover Park, Ill. 60103, has a major portion of his project complete as he has assembled his fuselage and wing spar. His rudder is also complete and I am sure, having this much done, he will be encouraged to progress further. Just a thought, perhaps of interest to Gerrard and others: Monty Montgomery of Detroit completed all PL-2 components save fuselage a few years ago and then sold them for medical reasons to Don Bidlingmeir also of Detroit. If Don has not done more on it possibly it could be combined with someone else's components to complete an aircraft in record time.

ALFRED F JONES, P.O. Box E, Oranogo, Mo. 64855, writes he has only got a start on his project by making all the straight parts. Alfred is looking for suppliers of parts and I hope last issue's listing will assist him. Joggles seem to be a popular problem and he, just like I was, is puzzled as to how to make them. On parts formed soft, they are simply pounded into the form block shape with a lead-tin bar or in some places worked down with a small piece of hard wood tapped by a small hammer. Joggles in T3 parts formed in straight bends are done by making a hardwood form block using much the same method, being careful not to form sharp radii which will crack. In all cases, the parts won't look as neat as in Paz's drawings, but no matter; when all assembled and rivetted together the finished product will look just fine. More ambitious than most of us, Alfred is putting up a storage building-hangar for his project on a 20 acre plot of land north of Joolin, Missouri.

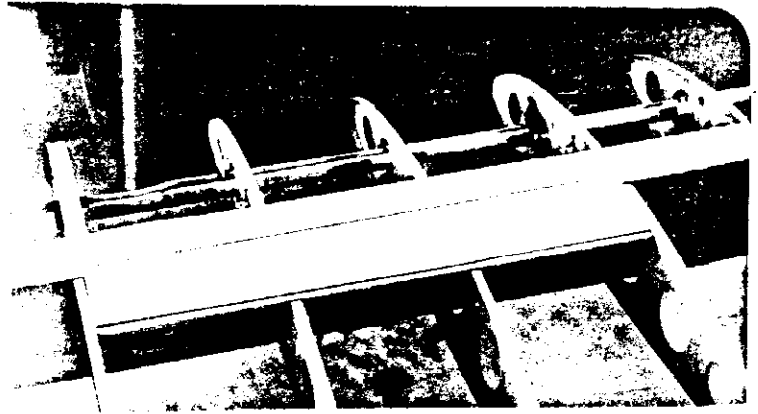
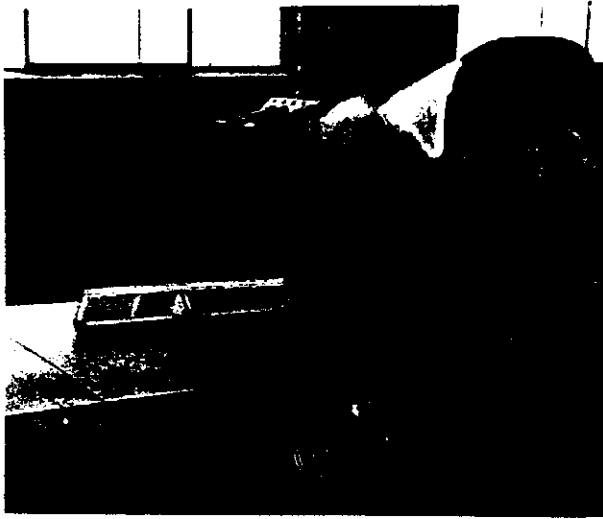
DEWEY GREENE, Rt. No. 3, Box 22, Geneseo, IL. 61254, works on his PL-I project when he's finished with his outside work and retreats in from the cold. He has a very nearly finished aircraft and is completing the canopy, engine cowlings and all the time-consuming nuisance work which most of us find seems to take forever. The pace of progress near completion revolves around picky little problems of wiring clips, missing plumbing fittings and all sorts of frustrations. Best of luck, Dewey; hope you have it in the air by the time you receive this newsletter. Please let us know how you are doing. Some tools are available from Dewey, including aluminum flanging dies and moulds for aileron and stabilator counter weights.

ROBERT BUSSE, P.O. Box 87, Gaylord, N.M. 55334, purchased one of the IO original PL-2 projects. He is not actively working on the aircraft but writes that he has some PL-I parts for sale. They include rough cut spar caps, wing ribs and three sets of Corsair tailwheel struts. I have heard they can be adapted to make landing gear for a Pazmany but don't have any details of how it is done.

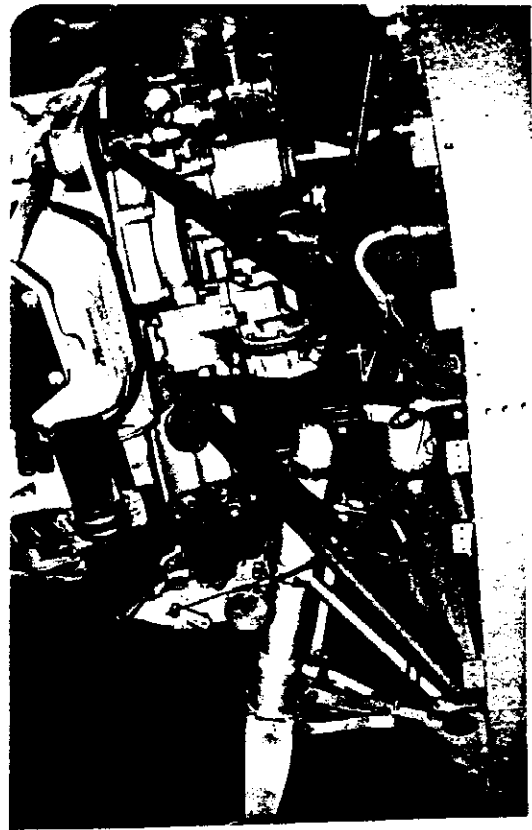
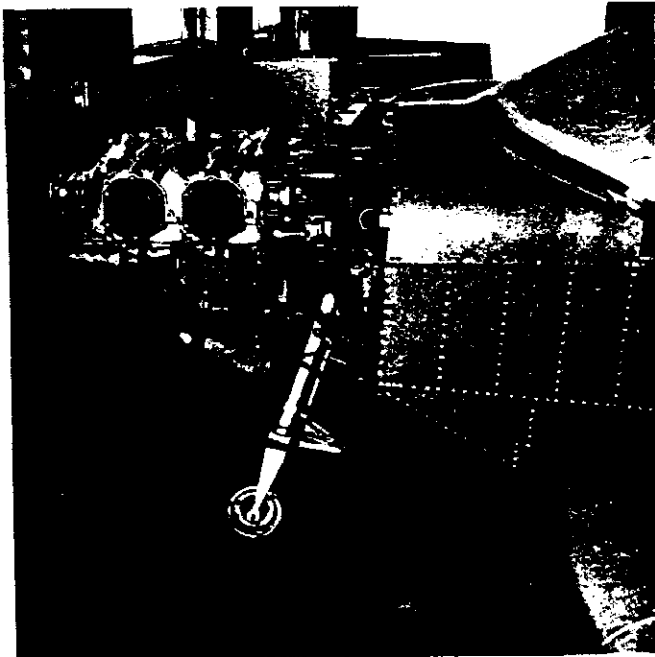
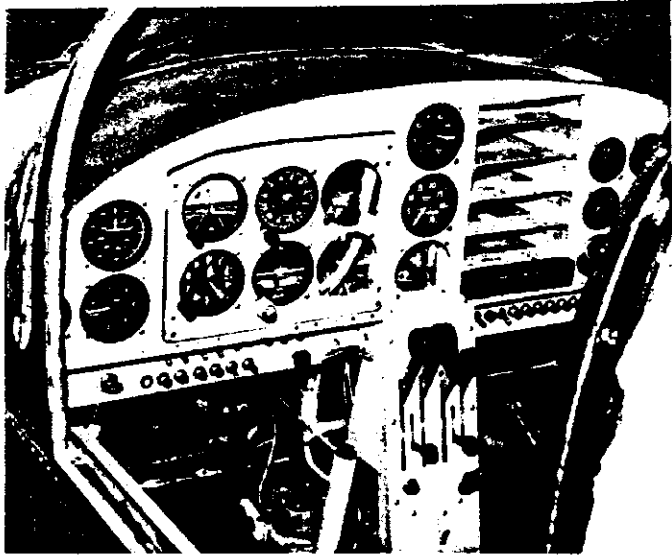
BOB WEBER, 8951 Golden Gate Ave., Orangevale, California 95662, is beginning to build a PL-2 utilizing a Lycoming O-290-GPU engine which he is converting for use in his project. Bob asks about the light crankshaft flange on this engine and if it can be strengthened. Thorp designed a split stiffening plate which attached to the rear of the flange and I think he may have sold plans and/or plates. Perhaps your local EAA Chapter members could shed some light on the subject. If they can't - Ross Whitney, R.R. #2, Lambeth, Ontario, may be able to assist as he currently flies a GPU in his PL-2. He is however in the process of changing to a Lycoming O-290-D2 trading in his GPU at Aeroserv in Thamesville, Ontario.

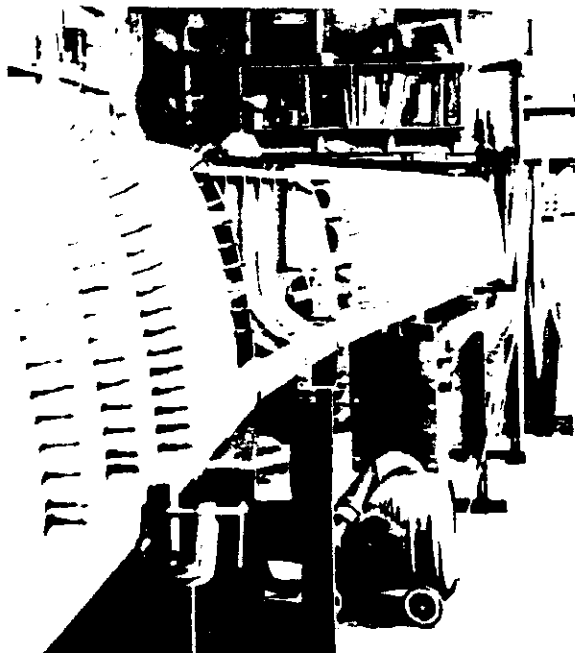
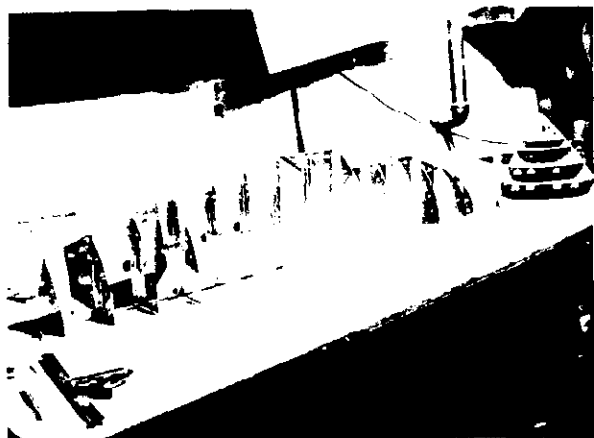
PHOTOGRAPHS on the following pages have been reproduced by a low-cost copy process and their quality may lack detail. However they do show progress on various aircraft and completed, flying PL-2s.

Al Bartel 1153 E 168 St., Cleveland Ohio 44110, has been working on his PL-2 #27 for 9 years and has about 90% of his components done except fuselage and tanks. Al is custom building a pair of Cavalier 102.5 tip tanks. They mount at a sleek angle like a Cessna 310 Skyights. Since they hold 20 U.S. gallons each, Al will reduce them to 16 by locating suitable bulkheads inside.



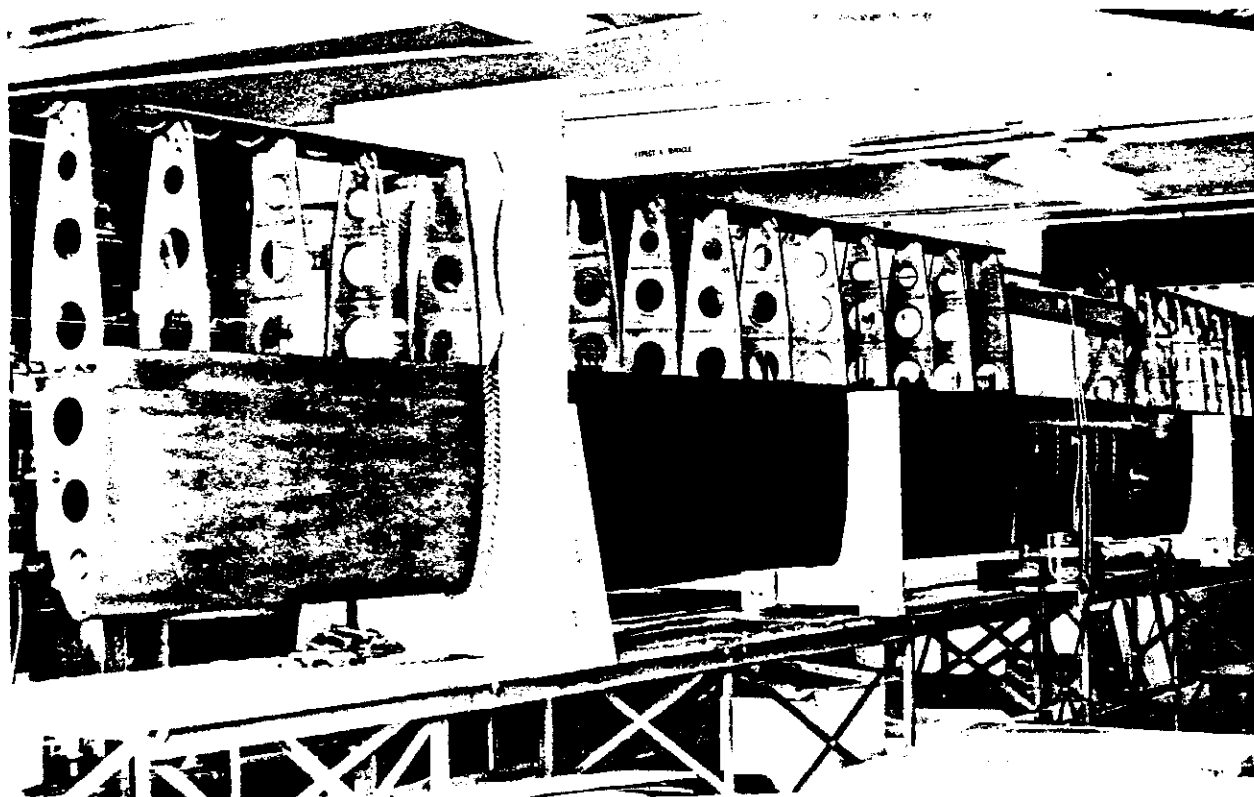
Stan Hurleys PL-2 #104 reported in last newsletter. Detail of spoiler installation and operation in wing surface. Instrument panel showing engine, prop and spoiler controls in consol. Stan will need lots of \$\$\$ to fill all those radio trays. Engine installation also shown with Lyc O-320 A3A O smoh to turn a new Hartzell Constant speed prop. The whole aircraft has been flush riveted and the photos reveal first class workmanship. This ship should be a real winner. Not shown is a custom built right angle drive on the rh rear of the engine to power the prop governor. I hope Stan writes us with more photos as he gets the flight testing underway.





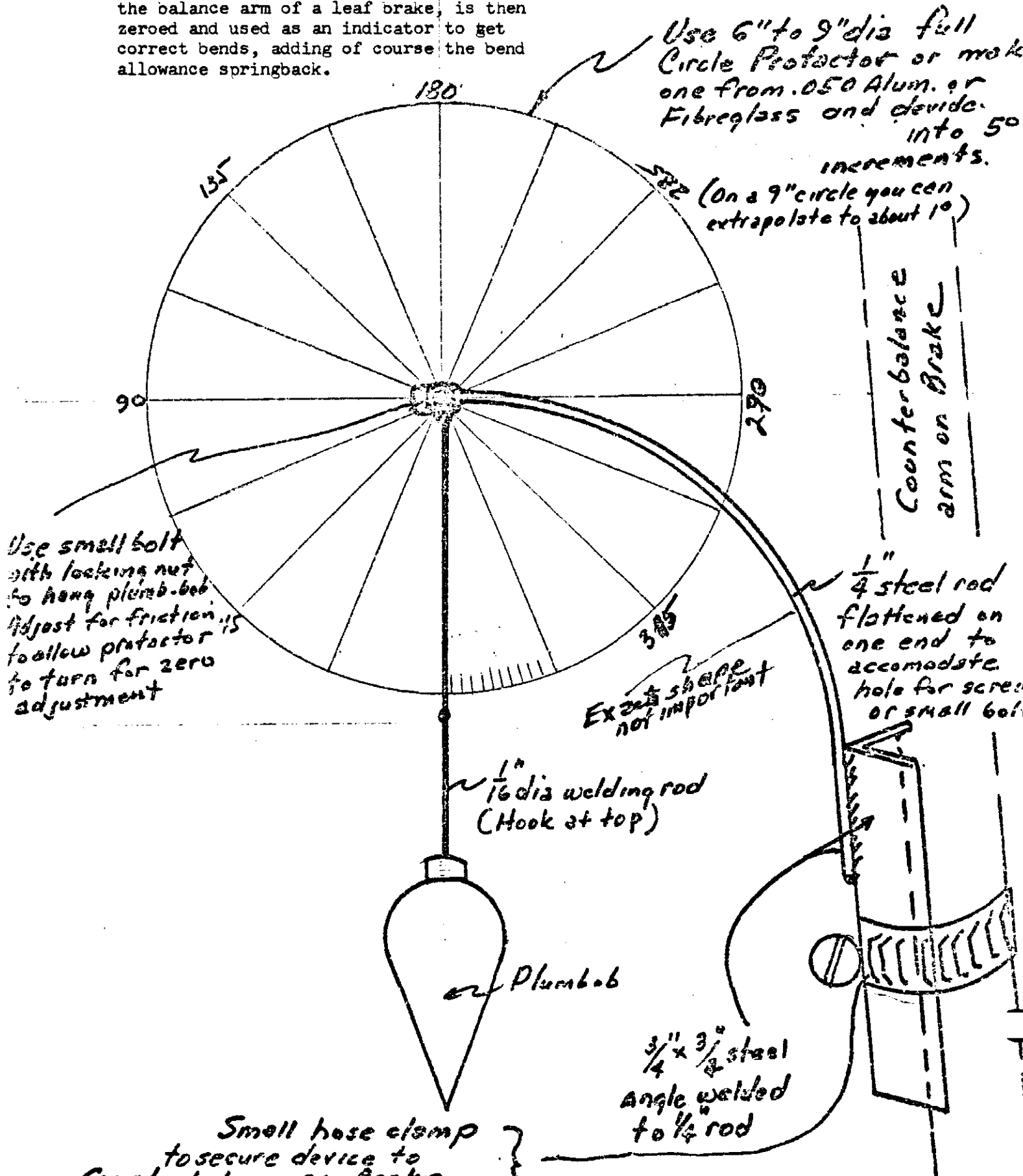
Above, Al Bartel's wing under construction , and Cavalier tank forms awaiting plaster fill to complete their shape. To the left, Al himself doing a little delicate bending work. With Paz's blessing Al is adding 12" to his fuselage tail-cone length to help compensate his cg for the extra weight of a 150 hp engine and 4" prop extension.

Below, Pete Karmouche, mainplane under construction. Possibly not visible except in original, sign on ceiling beam "Expect a Miracle". Pete should be in the air by now and I hope he will send along word of his progress.



# Gauge for Bending Angle on Sheet Metal Brake

W.C. Dronatsky, 9304 Sorrento St., Dallas, Texas, 75223, PL2 #100  
This tool, invented by WCD clamps onto the balance arm of a leaf brake, is then zeroed and used as an indicator to get correct bends, adding of course the bend allowance springback.



Use 6" to 9" dia full Circle Protractor or make one from .050 Alum. or Fibreglass and divide into 50 increments.

(On a 9" circle you can extrapolate to about 1°)

Counterbalance arm on Brake

Use small bolt with locking nut to hang plumb-bob. Adjust for friction to allow protractor to turn for zero adjustment

Exact shape not important

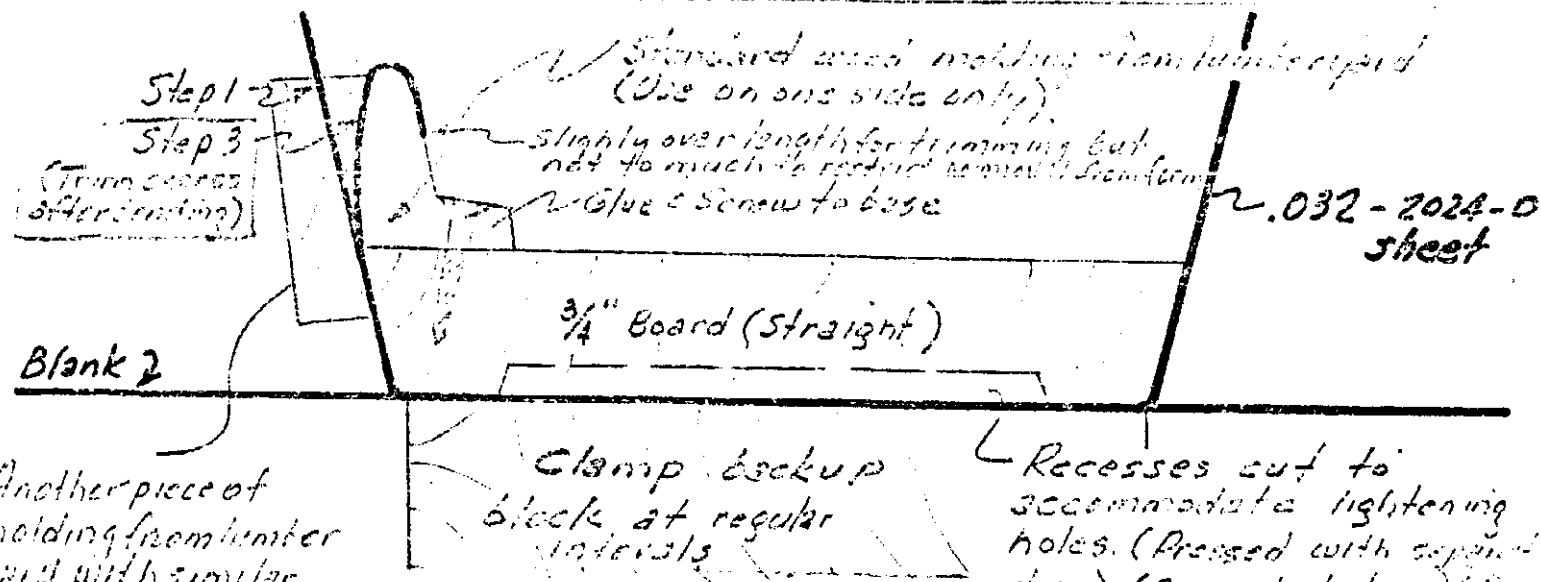
1/4" steel rod flattened on one end to accommodate hole for screw or small bolt.

1/8" dia welding rod (Hook at top)

Plumbob

3/4" x 3/8" steel angle welded to 1/4" rod

Small hose clamp to secure device to Counterbalance on Brake



Another piece of molding from lumber shop with similar beehis clamped to mold while bending top radius

Clamp backup block at regular intervals

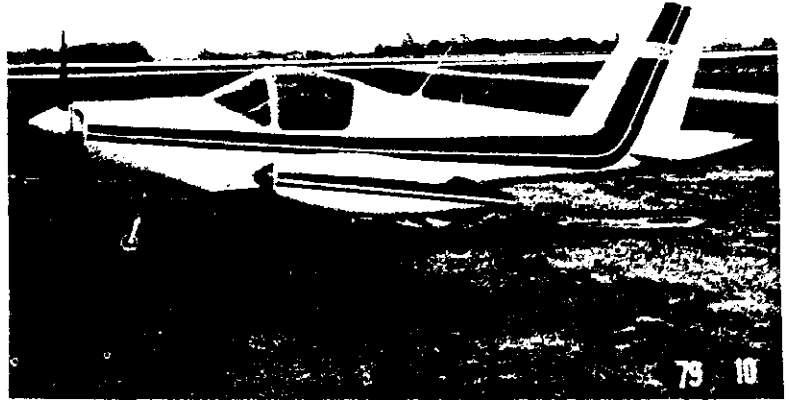
Recesses cut to accommodate lightning holes. (Pressed with separate dies) (See note below) (Could be one continuous recess)

Procedure for getting a rudder spar that looks exactly like Patman's drawing

- ① Clamp .032-(2024-0) sheet between wooden mold and back up block. (Don't forget lightning hole pilot holes)
- ② Bend Step 1 (Both sides) using a block of wood to prevent hammer marks
- ③ Remove from form and press lightning holes using separate dies. (Probably will pull sweep into spar)
- ④ Before bending Step 3 (Final bend) cut recesses for pressed lightning holes in back of wood mold, with fly-cutter. Since both sides of spar are formed on same side of wood mold, hole recesses will overlap when reversing the metal on the mold. (Simpler method would be to rout out recess full length of back of spar to solve this slight problem)
- ⑤ Reclamp assembly and bend Step 3, after clamping second piece of molding against side while bending top radius
- ⑥ Reverse and bend other side
- ⑦ Trim excess from spar
- ⑧ HEAT TREAT TO T=472 Condition

(This idea also by WCD, too late to help me, I just used two or three small bends. DJP)

The Panton Pazmany PL2#110 C-GQUK on the ramp at the EAA hangar at Hamilton Ont Sept 21, all avionics working and ready to depart from Windsor the following day for its trip to British Columbia. Build a Pazmany and see the world, or at least a pretty good slice of it. The colors are white with red and black trim. The Kreuzer PL2, just out of its basement sits inside and should soon make its first flight.



The Winter newsletter needs news, photos and whatever you have, send them along and they will be sent back in due course. Thanks All.

PAZMANY NEWSLETTER  
 Dave & Lib Panton  
 3565 Askin Blvd.  
 Windsor Ontario  
 Canada  
 N9E 3K1



L. PAZMANY  
 P.O. Box 80051  
 SAN DIEGO  
 CALIFORNIA