



## NEWSLETTER

# Carb Heat

Hot Air and Flying Rumours

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SEPTEMBER 1989

## EAA CHAPTER 245

### ANNUAL FLY IN BREAKFAST

SUNDAY

Sept. 17 - 1989

8 AM to 12 PM IN THE CHAPTER HANGAR



Rain or Shine  
IFR - VFR



Bacon - Eggs - Pancakes

WELCOME TO ALL

## CARP ONT.

NEXT MEETING 15 SEPTEMBER 7:30 PM at the  
Chapter Hangar Carp.

TOPIC Jim and Tim Robinson and the Zenith  
CH 250. (Problems of inspection and  
paperwork.

NOTE October is the Annual General Meeting

President - Doug Richardson 592-5080

Vice President - Lars Eif 837-6680

Secretary - Andy Douma 224-0074

Treasurer - Deric Dods 692-6121

Editor - Ted Chambers 749-0269

Hangars - Dave Murray 592-8102

Aircraft Operations - Dick Moore 836-5554

Special Events - Gord Standing 224-2879

Membership - Rodney Stead 836-1410

Publisher - Dick Moore 836-5554

## EDITORS NOTEBOOK

A serious problem has arisen regarding the inspection and certification of Amateur Built aircraft in Canada. To learn more about this, and what can be done to correct it, come out to the next meeting and hear the Robinsons---two members caught in the middle

Your Executive has written an urgent letter to Rem Walker of the Canadian Council of EAA asking him to clarify the situation and to intercede on our behalf.

## ANNUAL GENERAL MEETING

The AGM is THE formal meeting of the year. This is the only time changes can be made to the constitution, and when decisions are made that govern the future development of YOUR Chapter.

Some of the changes that will be proposed are;

- A) Elections
- 1 President
  - 2 Treasurer
  - 3 Newsletter Editor

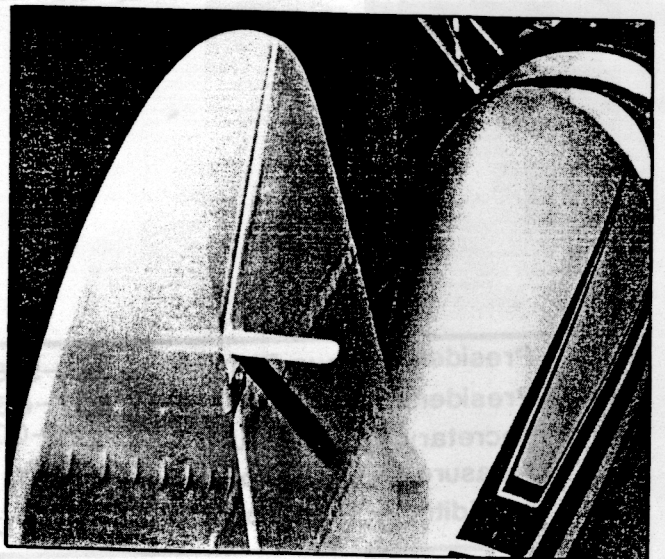
<u>B) Membership Fees</u>	<u>Present</u>	<u>Proposed</u>
Associate	28.00	30.00
Subscriber	30.00	35.00
Active Member	50.00	60.00
Initiation Fee	160.00	160.00

- C) Constitutional Amendments

- D) Winter Operations

Technical Counselor Glenn Tuttle, 682 West 3800 South, Bountiful, Utah 84010-8425. This is a design that Bob Barney came up with after his first Starduster I was completed and he was building his second Starduster I. In moving his plane around, Bob did not like the idea of having to push or pull on the streamline wires of the tail group. So he came up with the design of welding a piece of streamline tubing (about 8 inches long) onto the vertical stabilizer rear spar. It was welded so that about 3-1/2 inches protruded out from each side of the stabilizer spar, then pinched down (tapered) and rounded off on the ends and then welded closed. The normal filing and sanding will finish it off. This makes a great handle to move your biplane around with and it's very easy to install on an already completed aircraft, particularly if you have access to a heliarc welder.

## Aircraft Pushing Grip





# Flight Lines

by Olav Peterson. Sept. 1989.

EAA 33135

As simple as a brake disc is, it can still become an abnoxious pest which goes through sets of brake pads with great relish -- that is if you are still using the common garden-variety steel discs.

Before the steel ones became replaced with chromed, it was an annual ritual for me to drill out rivets, if they already weren't abraded off by the rough, corroded and pitted steel surface, and attach new pucks to the plates.

Now with the chromed surface the replacement rate has thinned out to better than 4 to 5 years.

The brake disc can get exceedingly hot even on a light plane if, for instance, the tower tells you to take the first turn-off immediately after you touch down from an unintentionally fast approach. And you don't have to touch the disc to believe - the heat leaves tell-tale blue-ish discoloration on the metal.

Since the coefficient of expansion for chrome and steel is significantly dissimilar, the plating process is inherently not very durable under the best of process control and miniscule surface cracks, in time, will allow ingress of moisture and the start of corrosion.

My first set of chromed discs from Cleveland actually lasted only a month before the plating blistered off. The replacement set covered by warranty have been on ever since, which approaches now exactly six years. The thin chrome plating is now starting to show signs of wear exposing the copper under-layer in several places of the breaking surface and on the welded rim, over the welding rod material, there is contamination by spots of rust.

Deterioration may proceed rapidly from now on.

The chromizing process includes a copper plating on steel to provide a more superior adherence of chromium. In order to save on expensive chromium, this plating is obviously quite thin.

When the price ratio between steel and chrome is only about 1:1.4, these shiny discs are definitely a hot buy.

But what is really worth while looking into are the ONE PIECE, STAINLESS STEEL brake discs from Appalachian Accessories in Tennessee. They are probably indestructible and permanent and real easy on the brake lining.

For a rather convincing comparison the chromed discs cost approximately 38% more than the steel and the stainless steel are some 82% more. But once you have decided to get chrome, the stainless steel is only 32% more than the chrome!

I'll post the price list and the address of the supplier on the Club House bulletin board.

.....  
When your wedding anniversary comes up this summer or for her birthday, or any other excuse which you could invent, why not invite your wife, but lacking one, your girl friend, to Morrisburg; I can guarantee you a most pleasant day.

The place to which I'm referring is, of course, the Upper Canada Village, situated on the North shore of the St. Lawrence River, approximately 6 miles East of Morrisburg.

So why is it so special?

Well, first of all, you can fly there.

The runway is paved, 75 feet wide and 2500 feet long. There is no Unicom to give you the runway favored by the current local wind conditions; you are on your own! But a windsock, roughly in the South-West quadrant of the field, will point you for the correct approach of runway 25/07.

The plane can be left on the apron, large enough to accommodate 20 small planes; a steel cable but no tie-down ropes.

Secondly, everything is within walking distance; even for those who rarely make use of this mode of locomotion.

The Village is only 500 feet on the other side of Hw.#2.

In spring the ground is wet; so don't let her come in her best high-heels from Bally.

When you have managed to get this far you'll be rewarded by a wide variety of activities to choose from:

1. Go and smell the roses in the rose garden dedicated to Queen Elizabeth on her visit to Canada in 1987. Admire the various hybrids, their colour, beauty and fragrance and cool your feet in the water fountain.
2. Visit the Village store; buy a fresh hearth-baked bread and a bag of curds; sit by the stream and share your meal with the huge catfish.
3. Enter the Village and become transformed 100 years into Canada's past and experience first hand the day-to-day chores and life-style of the early settlers.
4. Meander over to the golf club restaurant at the end of RW 07 and try something from their soup-to-nuts menu.
5. If you brought your own picnic lunch there is no better place to spread your blanket than on top of the Chrysler Farm Hill over-looking the Seaway.

In the fall the park grounds become the launching site for huge formations of Canada Geese on their south-bound migration. It's quite memorable to observe their noisy preparations and share the sky with those large, beautiful birds.

.....  
Clear skies, sunshine, fly-in breakfast, an airshow; a day on the airport walking up and down the flight line and gazing at all the beautiful planes means only one sure thing by the end of the day-- a king-sized sunburn. Laurent Ruel in his infinite wisdom in the ways of the world of airplanes flew along with us to the combined Rockcliffe Fly-in breakfast and NAM's 1st year anniversary festivities dressed from head to foot and he suffered nought. However, most enthusiasts in attendance for this enjoyable fly day seemed to have been preoccupied with the hot and humid weather and had overlooked the suffering that a day's accumulation of ultraviolet can bring.

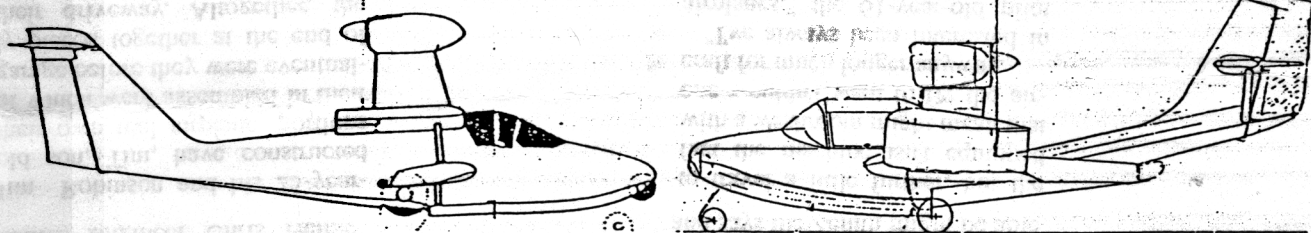
Either an awful lot of Ottawonians are all of a sudden getting exceedingly airminded or else the hordes came out for some cheap thrills but according to the daily paper, 100,000 curious were



crammed into the area surrounding the airport boundary - to see the free performance of the Snowbirds fly their 30-minute routine.

Chapter 245 was quite well represented; there was Jim Bradley in his Davies, C-EJOY; Dick Moore and son arrived in their recently-acquired Cessna 150, CG-GJJ; Jim Butler attended with his family and took home one of the lucky draw prizes; but Ken Cavers and Gord Standing were equally fortunate.

The highlight of the day, of course, was the rolling out and the "preparation-for-flight" ceremony of NAM's Sopwith and Newport which culminated in the lift-off and fly-pasts of these venerable machines.



Had you noticed the humongous increase this summer in the bird population at our Carp airport? I don't think too many areas remained untouched by their indelible droppings; absolutely nothing seemed to be sacred for these prolific pests: picnic table tops, propellers, elevators, stabilizers, wings; even the flowers around the hangar! You name it and more likely than not it had been hit.

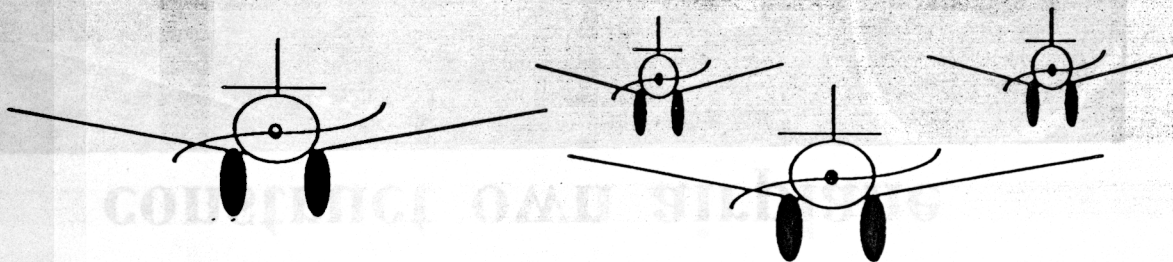
If you left it on for a week the chemical reaction, assisted by the heat of the summer sun, really baked it into the paint job and left your pride-and-joy looking like a polka-dotted Easter egg.

Reincarnated EAA'ers they are not -- EAA'ers do fly but they do not litter.

And as if this curse were not bad enough we now have squadrons of seagulls squatting on the runway frequently making airplane landings and takeoffs a "thrill of a lifetime". Entering one of these disoriented gaggle of birds swooping wildly all around one can only hope that none of the gulls develops a sudden case of hysteria or a morbid urge to revenge their disrupted solitude.

Perhaps we should get Westair to send up their FALCON ultralights to instill some respect into our feathered friends.

Come-on y'all inventors and devise an instrument which would repulse the intruders!



# Father and son flying fanatics construct own airplane



Photo by Mark Holleran/The Star

The Robinson airplane took three years to construct.

By Richard Carter  
Star Staff

Most people are satisfied with building plastic airplane models, which sit quietly and gather dust upon some forgotten shelf in the house. Not the Robinsons.

Using a design created by Aeronautical Engineer Chris Hein

Jim Robinson and his 25-year-old son, Tim, have constructed their own real airplane, portions of which were assembled in their garage before they were eventually pieced together at the end of their driveway. Altogether, the project has taken the two Robinsons three years of spare time.

Now sitting at the Rockcliffe Airport, the plane awaits final electrical wiring before a flight permit is issued by the Department of Transportation in about two weeks.

Officially called the Zenith CH-250, the plane is the second the Robinsons have been involved in

building; the first had to be sold due to a lack of space for the huge wingspan.

The Zenith two seater is no 747, but it is capable of flying for about four hours at about 145 miles an hour before having to land. The elder Robinson smiles and says the Zenith might be able

to travel a little further, but the fact the machine isn't equipped with a washroom might mean that one wouldn't want to fly the aircraft for much longer anyway.

"I've always been interested in airplanes," the 61-year-old pilot remarks, "Oh yeah, a long time."

Like father like son, the cliché runs, but not untruthfully in this case. Tim got his pilot's licence two years ago and is an apprentice aircraft maintenance engineer for Westair Aviation at the Carp airport.

Sometimes beauty is hard to put into words. Robinson acknowledges that from both building the airplane and subsequently flying it, one can derive satisfaction, but finds further explanation difficult.

"It's just a love of flying that's all," he says. "It's a great feeling to be up in the air, flyin' around."



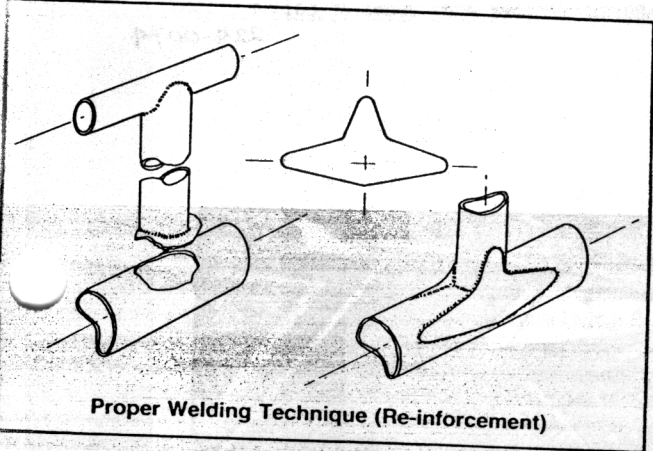
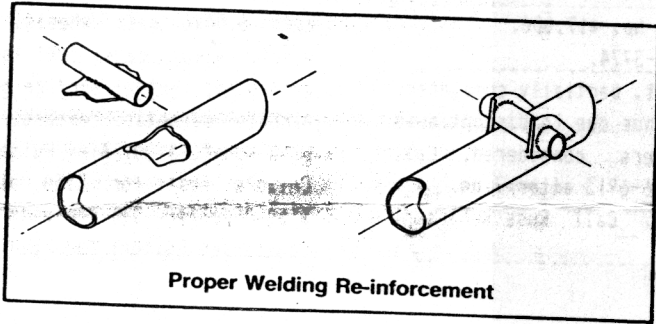
# Steel Tube Welding

**SAFETY NOTE** from Ralph Korngold, 385 Wilton Avenue, Alto, California 94306.

reports he is currently operating a Wittman Tailwind (The second one he's built.) The first problem he had involved a rudder pedal failure and was the second failure experienced on the second Tailwind. The rudder attach pedal broke near the conclusion of a cross country flight. The pilot attempted to stretch his legs to sharpen up for the approach and landing, reared back in the seat, pushed hard with both feet against the rudder pedals when "WHAM"! The left one went right to the firewall. Experimentation revealed availability of brake only on the left side, but with close attention, the landing was uneventful. Inspection revealed that the torque tube wall had fatigued at the edge of the weld as a result of repetitive localized bending. The repair consisted of rewelding the brake, plus the application of a finger patch on each side. With a little ingenuity and careful measurement, the rudder assembly can be cut from the fuselage and all welding done at the bench. A stub is welded in at the hacksaw cut, and the assembly can then be slipped back into the bearings and secured with 2 each AN3 bolts through the stub. The drawing shows the patch repair. He mentioned this to a fellow

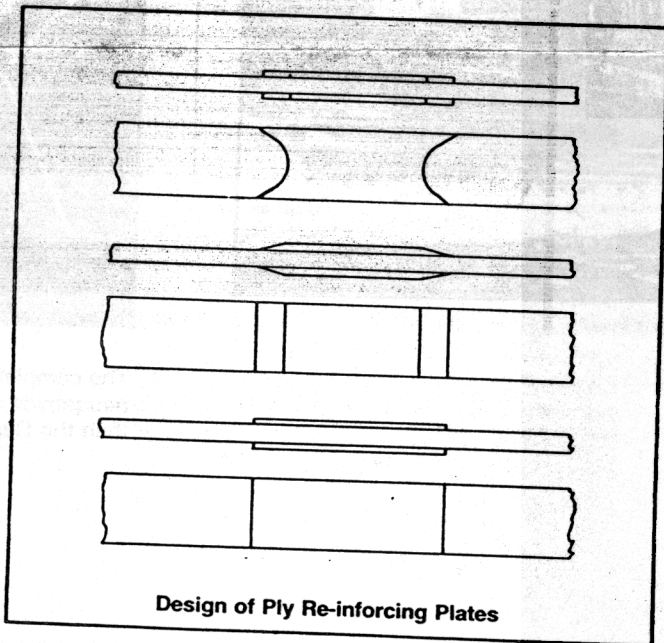
failure as he started to flare for a landing at the Big Reading Fly-In. In front of 10,000 people, he wiped out the gear and went skating down the runway on his belly. Everyone said it was the best act of the day!

The problem was failure of the basic tube structure in localized bending with resultant fatigue immediately adjacent to the weld bead. The obvious cure is the addition of a flanged triangular gusset to each side of the torque tube after welding the cross tube back in place. A further refinement is the incorporation of 2 each ball bearings, which eliminate 100 percent of annoying play at this point. Even a few thousandths clearance in this hinge can result in considerable lash at the stick grip. The drawing on the left shows the broken part and the drawing on the right shows the correction with gussets.



## Design Of Reinforcing

The design of reinforcing plates always requires some tapering of material of reinforcing plates near the outer edges to eliminate stress risers. The bottom example in the drawing shows sharp edges that are simply not acceptable that precipitate very high stress areas. The middle one is the usual tapered block and the top one shows another method of rounding cutouts to reduce stress concentration.



builder/pilot and learned that he had this same experience. It happened at the first correction after touch down. The aircraft departed the runway into unimproved terrain. Like the good sized ditch that wiped out the gear and did other damage! I hasten to dispell any such image that the W-8 is a fragile machine. I have flown mine over 2000 hours. It's an exceptionally strong aircraft, one example having registered 3.3 "G's" in an emergency pull out during flight test and another survived a high speed stall during a pull up following a low approach at over 180 mph. A truly fine and forgiving airplane. However, I would also like to bring to your attention a failure of the control stick at the attach point to the torque tube. I was flying with a lady passenger who I was trying to impress. I was flying at very low altitude following a winding road through the foothills. All I can say in defense of the operation is that I had thoroughly checked the route for obstructions previously from a safe altitude. The nature of the terrain required some pretty violent rolling maneuvers. One severe application of aileron resulted only in the stick smartly banging my knee with no corresponding roll. A gentle pull on what was left of the stick cleared the next hill. With further application of the elevator bungee, we continued to climb. Experimenting with throttle and trim it looked like we at least be able to walk away from the landing. I only had for a big pair of vise-grip pliers!

Actually the landing wasn't that bad. I've made worse and the aircraft wasn't broken. I think the element of surprise makes the difference. A friend of mine experienced a similar

Piel Emerald C-FUCW, 125 hp, 260 hrs.  
Bubbie canopy. Always hangared.  
\$12,000. Bob Comber, Holland Center  
(519) 749-3467.

Luscombe BE, parts and pieces, 100 hp  
Lycoming, also new crank. Could be  
restored. \$2,000 or best offer, Randy  
Randall, 44 Boucher, Hull, PO J6Y 663  
777-2899.

Piper Pawnee, 150 hp, \$17,000.

Mike Sacoutis 729-3774.

Minicoupe project, partially completed.  
Unable to continue due to discontinued  
kits. All offers considered. Call  
Richard Taylor 596-6913 after 7 pm.  
Davis D2A plans. Call Russ Robinson,  
831-2485.

#### CLASSIFIED SECTION

Contact Mike Sacoutis at 729-3774 for  
the following parts:

Propellers - 0 time constant speed

- Wood pusher prop.

- Zenair wood 68x46

Hanlon Wilson mufflers.

Mooney Parts - Complete retract gear  
with 6.00x6 main wheels, 5.00x5 nose  
wheel. Also seats, fuel tanks, gauges,  
gyros, and control surface pushrods.

Airbath magnetic compass, 0 50H 1987,

base mount, \$100, Alex Fulton, 234-6753

Child's seat for C150, aircraft type,

\$150 or offer, Jim Robinson 830-4317.

Classified Editor: Lars Elf 837-6680.

Brakes and wheels. Rosenhan. Suitab  
for Vari-Eze, Davis, etc. Offers  
welcome. Eric Taada 749-4264.

WANTED: One set of Cleveland wheels and  
brakes 5.00x5. James Oliff, Work  
722-9115. Home 596-1949.

#### CLUB NEEDS

Hot Plate for top of 4-burner stove.  
Needed for Fly-In Breakfast

Platform weigh scale like type to weigh  
farm animals. We have one, need a  
second one.

Gas-powered snowblower needed.

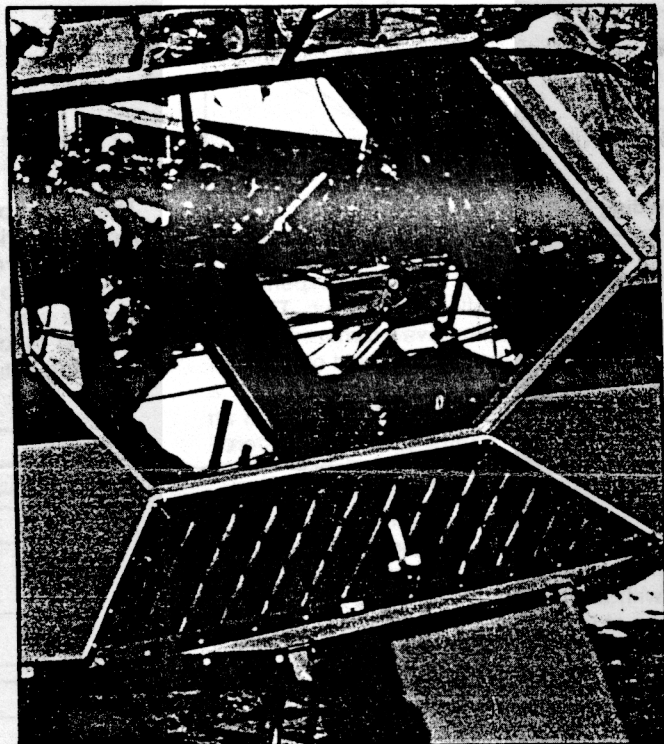
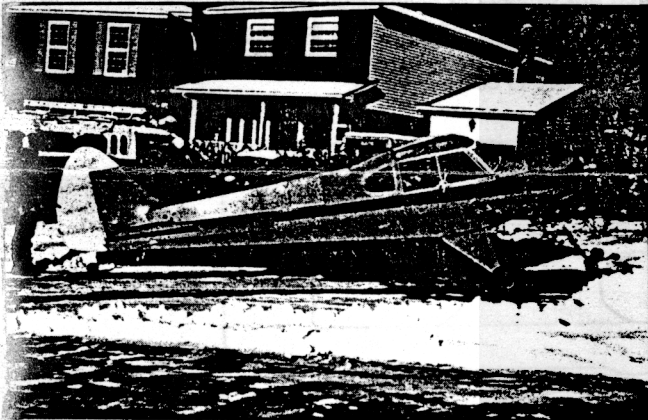
#### KIT SHOP

Ch 245 golf shirts with logo available  
in white, light blue, dark blue \$16.  
See Andy Douma or call 625-1557.

224-0074

#### GARRY FANCY AND HIS SUPER "HUSKY CUBY"

Showing the side view. The main landing gear legs are about  
3 inches longer and a little closer together so the aircraft sits  
higher from the ground. The panel behind the rear window  
gives access to the battery mounted on the lower longerons  
and also gives good access to the interior of the fuselage. I  
am still looking for a larger tailwheel at a reasonable price.  
Hope to have skis on it and then floats!



The complete interior of the cabin will be lined with the same  
naugahyde as is on the door. The fuselage is 4 inches wider  
than the Super Cub, hence I shall call it the "Husky CUBY".