

NCLRA

NATIONAL CONTROLINE RACING ASSOCIATION

June 1995

Editors: Dave McDonald & Lari Dziak

What's in this issue.

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Plus More

Presidents Corner:

Lari Dziak

In the last issue we announced the formation of a points list, District Reps, and Rules Advisory Committee. I am sorry to say that so far the response has be less than exciting, like none. We are going to continue with our plans however. If you want those contest results published **YOU MUST SEND THEM IN**, please include number of entries along with top three winners..

The 1995 Nationals is almost here. So make sure you have sent those entry forms in and get ready for the Nationals in the Richland area. In the Nationals update area you will find more information on this event.

The NCLRA was represented by Dave at a planning meeting for the 1996 Nationals in Muncie. The 1996 Nationals are scheduled to start July 8 1996 in Muncie so watch for more information later.

See you at the 1995 Richland Nationals.

Points List:

This will be a continuous column so send those results in. This month we have included a guide to show how this system works. As you can see the more entries the more points available.

<u>Entries</u>	<u>Points for 1st-2nd-3rd</u>
3	3.2.1
4	4.2.1
5	5.2.1
6	6.3.2
7	7.3.2
8	8.4.2
9	9.4.3
10	10.5.3
11	11.5.3
12	12.6.4

Points Leaders

Team Race

Lenard/Aaron Ascher 6pts
Lambert/Ballard 3pts
Kusik/Braun 2pts

Goodyear

Dave McDonald 5pts
Jerry Meyer 2pts
Lari Dziak 1pt

Slow Rat

Dave McDonald 3pts
Lari Dziak 2pts
Jerry Meyer 1pt

Non AMA Events

Mike Palermo 8pts
Jerry Bobb 4pts
Peter Mick 2pts

***Points thru 5-30-95 Send results to P.O. Bx 384 Daleville IN 47334 include number of entries in each event along with order of finish, sanction number.

Contest Calendar

June 3 Muncie IN. Bob Matson Memorial. Limited Goodyear. Foxyhazel. Site Westside Park. Contact Dave McDonald P.O. Bx 384 Daleville IN 47334 317-378-7228.

June 3 Huntersville NC. Fox Ray Racing, Fox Trophy Racing. Site David Waymer Park. Contact Dale Campbell P.O. Bx 661 Newton, NC 28658 704-324-0261.

July 10-13 Richland WA. AMA Nationals** Mouse II to be held on July 11 after Goodyear, Mouse II hosted by NCLRA.

July 23 Sewell NJ. Events #314, 315 (JSO) Site Gloucester CO Inst. of Tech. *314 Class II no engine restriction. 315 Cox Reed Valve only. 1oz. Goodyear .15 Eng. .014 x 52' lines Contact Lester Froelich 356 Walnut St., Coatsville, PA 19320 610-384-5046.

July 29 Fargo ND 39th Red River Valley Champs Events #313, Midwest Sport Race, MAAC .35 Sport Race. Slow Rat 10minutes 2pits most air time wins. Site Club Field. Contact Mike Olson 305-27th Ave N, Fargo ND, 58102 701-232-3647.

Nationals Update

The Richland Nationals are just around the corner. As you know this year the NCLRA will be hosting Mouse II at the Nats. This event will be held on Tuesday at the conclusion of Goodyear. The entry fee for this event will be \$5.00, this is to cover the costs of modest awards. There is no need to pre-register, just be ready to go at the conclusion of Goodyear.

The NCLRA Banquet will be held on Wednesday evening and final details will be available on Monday at the Nats, just look for Lari, or Dave. Remember the schedule of events are:

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>
Mouse I	Goodyear	Slow Rat	F2C
	Mouse II		Fast Rat

We look forward to seeing you all at the Nationals.

Contest Reports

US T/R Championship

by Kenn Smith

April 8th and 9th some of the nations top F2C team met at the Control line facilities at Whittier Narrows Recreation Center in South El Monte California. The 4th U.S. T/R Champs had

competitors from around the United States. They came from Florida, Kentucky, Indiana, and Minnesota as well as from southern California.

The weather was good, with only small periods of wind difficulty. Each team competing ran three 100 lap races each day. After the 6 races the three fastest times for each competitor is added together to determine the three teams to advance to the 200 lap finals.

Five of the six teams competing were running Vorobiev, with one team running Cyclone equipment. The airspeeds across the board were very close, with the difference being made in the pits.

This year saw the addition of a new F2C team, McDonald/Dziak. This team did an excellent job by posting 6 complete races, at their first ever T/R competition, and they did not finish last.

The finals put the teams of Lambert/Ballard, Ascher/Ascher, and Kusik/Braun running for the top three places. After good initial starts by all three teams the team of Kusik/Braun retired after 137 laps. That left team Ascher to fight it out against Lambert/Ballard. Airspeeds were real close, with the difference being that Lambert/Ballard went hard and required an extra stop. This still was a close race with team Ascher winning by only 12sec. after 200 Laps. With this kind of close competition the F2C trials should prove to be very close.

SATURDAY HEAT RACES

TEAM	RACE 1	RACE 2	RACE 3	RACE 4	RACE 5	RACE 6
Bob Whitney/ John Ballard	4:55.30		4:04.80			4:40.31
Lenard Ascher/ Aaron Ascher	4:09.33			3:34.22	3:39.46	
Jed Kusik/ Dave Braun	3:36.42		3:45.13		3:46.48	
Dave McDonald/ Lari Dziak		4:38.47		5:18.50		4:20.44
Ken Mogi/ Dale Long		DQ	71 laps			4:17.15
Dick Lambert/ John Ballard		3:51.22		3:51.72	4:20.51	

SUNDAY HEAT RACES

McDonald/Dziak	6:23.72		4:24.28		3:57.74	
Lambert/Ballard	4:05.08			3:36.24		3:48.42
Ascher/Ascher	3:28.80		3:43.04			4:00.93
Kusik/Braun		3:59.07		3:58.86	3:49.42	
Whitney/Dziak		4:19.93		4:40.53		4:14.71
Mogi/Long		3:55.54	4:50.46		3:51.51	

FINAL

FIRST - ASCHER/ASCHER 7:47.70
 SECOND - LAMBERT BALLARD 7:59.93
 THIRD - KUSIK/ BRAUN 137 LAPS

Midwest C/L Championship

by Jerry "Who" Meyer

The racing events held at this 29th annual event are AMA Scale Racing, AMA Slow Rat, and Foxy Hazel. The weather this year left something to be desired, the temperature was not bad, however the wind was on the STRONG side of the scale, with gusts of 40mph.

Foxy Hazel proved to be most interesting, with the winning time this year to be almost 2 minutes slower than last years winning time. There was only 8 brave souls that attempted to fly in the wind conditions in Foxy Hazel, however there were no torque roles even with several airplanes being taken off into the wind. This years winner was Mike Palermo, with 2nd going to Jerry Bobb, and 3rd to Peter Mick.

Goodyear this year had 5 entries, and the competition was almost dead even, but Dave McDonald must have been a little faster on the draw than the others and snatched first place for the first time. While Jerry Meyer was the 2nd place winner, and Lari Dziak was a close 3rd.

Slow Rat was again an almost dead heat but Dave again sneaked into the winners circle (I think a re-count is necessary). Lari Dziak took home the 2nd place award, while Jerry Meyer was 3rd.

One-Step GLASSFIBER FINISHING

by Stewart Willoughby

Basically, the balsa is covered with 3/4 oz. glass cloth/epoxy resin in the usual way, then a plastic film is layed over the top and smoothed down. When cured, the film is stripped off to reveal a super smooth, shiny surface. The secret is to use the right kind of film. Mylar is the film to use.

Firstly, get the surface to be covered nice and smooth with very fine sandpaper and fill any dents. I do the left and right halves of the wing separately. Cut two pieces of film, one for the top half and one for the bottom half - cut the pieces flush with the leading edge and tip but allow 1/2 " overlap at the trailing edge. Cut out a piece of cloth, enough to cover the top and bottom surfaces in on piece, wrapping around the leading edge. If it's the outboard wing (catching side), cut an extra strip to wrap the leading edge extending an inch or two back on the top and bottom surfaces - apply this piece first. Mix some laminating epoxy resin, lay the glass on the wing and brush on the resin - use only enough resin to wet out the glass -it's heavy stuff! Complete one surface and cover with plastic film before you turn the wing over to cover the other surface. The film is applied slowly and carefully to avoid trapping air bubbles. For the average Goodyear of T/R wing, the front edge of the film should lay about 1/8" back from the leading edge, so if an overlap is allowed, a fillet of resin will collect in this region and you will spend 5 or 10 minutes filing it away later. Overlap the trailing edge, but again, keep it short of sharp tip curvature. Smooth out the film and squeeze excess resin and bubbles out to the edge - I have found a credit card works best for this. If you didn't put too much resin on, the smoothing out process will be easy - if the wing was awash with resin, it will take you some time to squeeze it all out and get rid of "ripples". Don't overdo this squeezing process or you will leave the glass cloth too dry and the weave won't be filled - this mistake is easily recognized through the plastic during application and is easy to avoid.

Now, turn the wing over and, being careful not to disturb the finished side, repeat the process on the underside. Set aside to cure (let it overhang edge of bench). When cured, strip off the plastic, trim off the flash at the trailing edge, smooth the leading edge and you're all done. If the wing is to be painted lightly sand off the shine.

The benefits of the method

1. Produces a super finish in one step - no hours of sanding which also carries the inherent danger of "going thru" the glass, producing a very weak spot.
2. Very light finish - no excess resin or multiple coats of finish required.
3. Strong - a very even skin is produced.

Omitting the glass and using just resin also works fine but the wing/stab won't be as strong and some of the grain may show necessitating light sanding.

If you want to cover a basswood wing or stab, firstly seal the wood with an initial coat of resin wiped into the surface and left to cure otherwise, the wood will tend to suck all the resin out of the glass and the cloth weave will show through the finish.

NB Original method employed a press made from two pieces of 1/2" ply faced with 1 1/2" thick foam plastic. The covered wing with Mylar applied was placed between the foam, and the press bolted down tight to cure. Results were essentially no better than they are without the press provided care is taken not to use too much resin. Additionally, a problem with the press was that the balsa tended to be compressed a little (noticeable just in front of the trailing edge hardwood strip) and asymmetric sections (e.g. flat bottom) got a little distorted!

A Different Connecting Rod

Dave McDonald

Two years ago I bought a Moki .15 sport version for a local Goodyear event. The event is basically old style Goodyear, any engine except a Nelson, or Gillott Rossi, on 52' wire. After getting the engine and running it as is, I decided to do some work on the inside of the engine. First I polished the crank to get a better fit to the bearings. This picked up several hundred RPM's. After running the engine like this for the rest of the year, and being happy with its performance in the low 18's high 17's for 8 laps I decided that I wanted to try some different ideas on how to make this thing run even better. I built a new backplate and put pressure to the engine with a very little increase in performance being noted. So again what to do. A friend of mine Jim Irwin a local boat racer, and I talked about what a round connecting rod would do. The longer we talked the more interested I became in the idea. So, a round rod was built and immediately this engine went from a good local engine to a killer for local events. My 8 lap time has been in the high 14's to low 15's with the new rod. This rod has been run for two years and has not failed, or shown signs of wear.

So here is how I made this rod, it is not difficult and anyone with a mill and lathe and a little patience can make one also. First I started with a piece of 1/2" diameter 2024 T6 Aluminum as the material for the rod, and some 660 phosphor bronze for the bushing material.

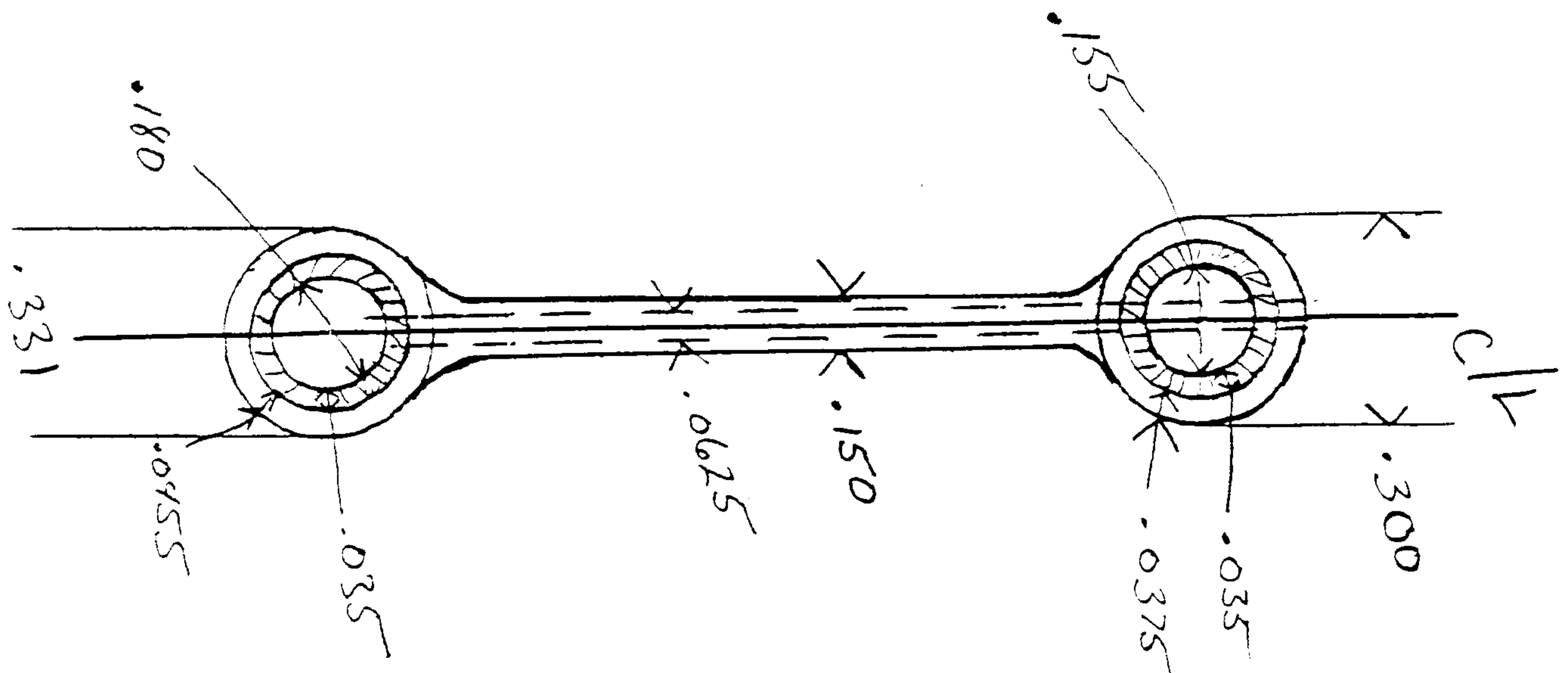
The initial step in building the rod required some careful measurements of the existing rod, crank pin, and wrist pin. After all measurements were taken and double checked, the 1/2" aluminum was turned down in to the shape of a dog bone. I left some unfinished material at the end of the piece and then drilled a hole down the length of the rod being careful not to come completely through the bottom end of the rod. This hole creates an inner and outer wall to strengthen the finished product. After putting the hole through the rod the wrist pin end was finished by hand to make the ball. This end is the top of the rod.

The next step is to take the rod from the lathe and prepare to mill the sides of the top and bottom square. The trick here is to make sure that the milled sides are 180 degrees from each other. The best way to accomplish this is to make a fixture to clamp the rod into so you can mill both sides with out removing the rod from the fixture. Remember the crank end is milled more than the wrist pin end. Next you are ready to put the holes in for the bushings. The important thing here is to check that the mill has no run out. The center line of the holes must be on the C/L of the rod, along with the correct spacing.

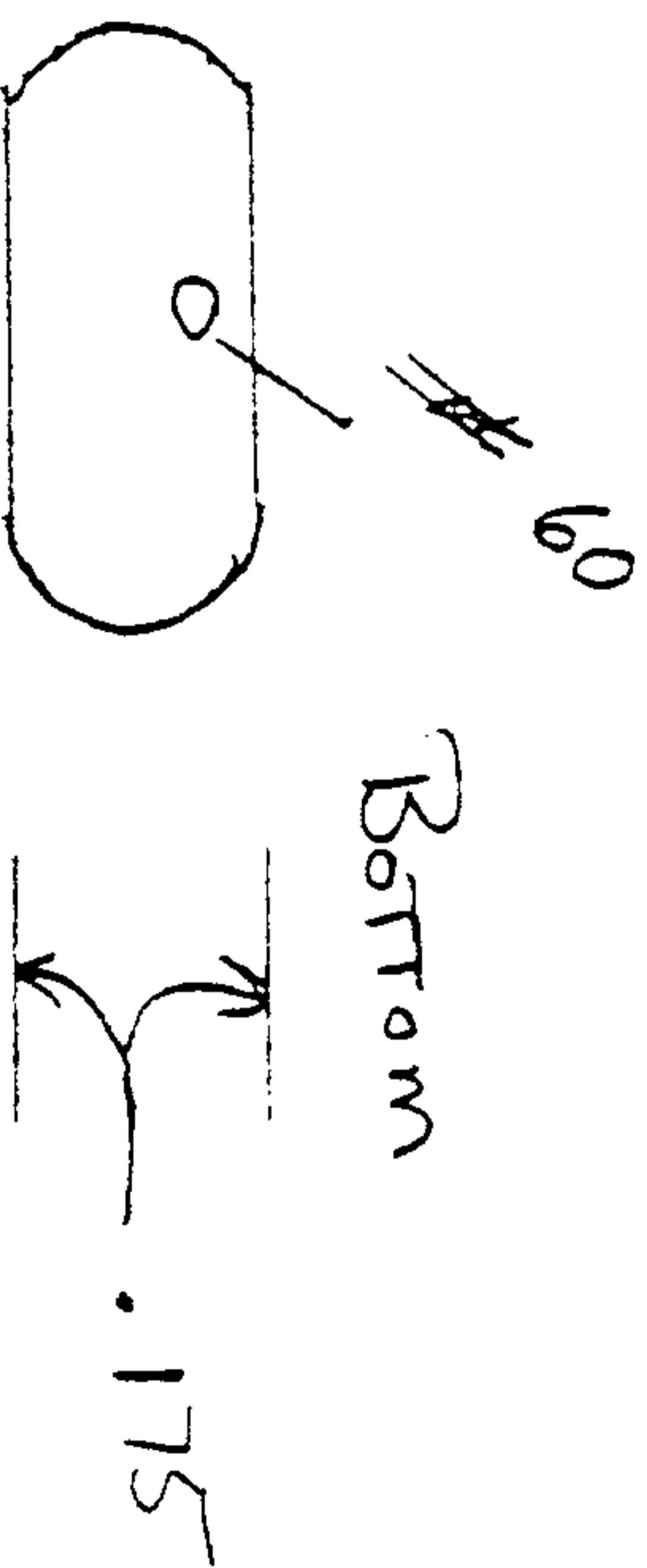
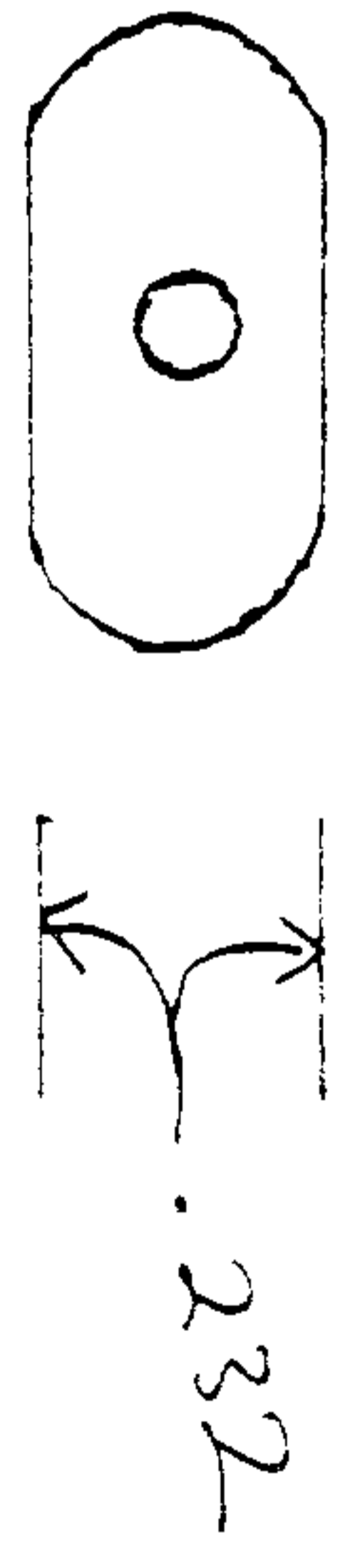
Now you are ready to turn the bushings down and press them into the rod. I used a .004 press fit from the bearings to the rod. The best way to press the bushings in is to make a small spring pin fixture to align the bushings in the holes. After the bushings are in place check the inside dimension of the bushings and ream to correct size if necessary. I have used a .003 - .004 clearance on the crank pin. As I think most racing engines are setup to tight.

The next step is to put the rod back into the lathe and cut the rod from the remaining aluminum at the crank pin end. I always leave the rod attached at this end just in case you need to put it back in the lathe for anything. After removing the rod from the material some very small hand work is needed to finish the bottom end of the rod. I then put a small #60 hole in this end (off center) for oil to get into the bottom end of the rod.

The final step is to make sure the part is clean, and re-assemble the engine. I use the oil hole in the bottom to tell me which is the front and back of the rod. The oil hole goes toward the backplate.



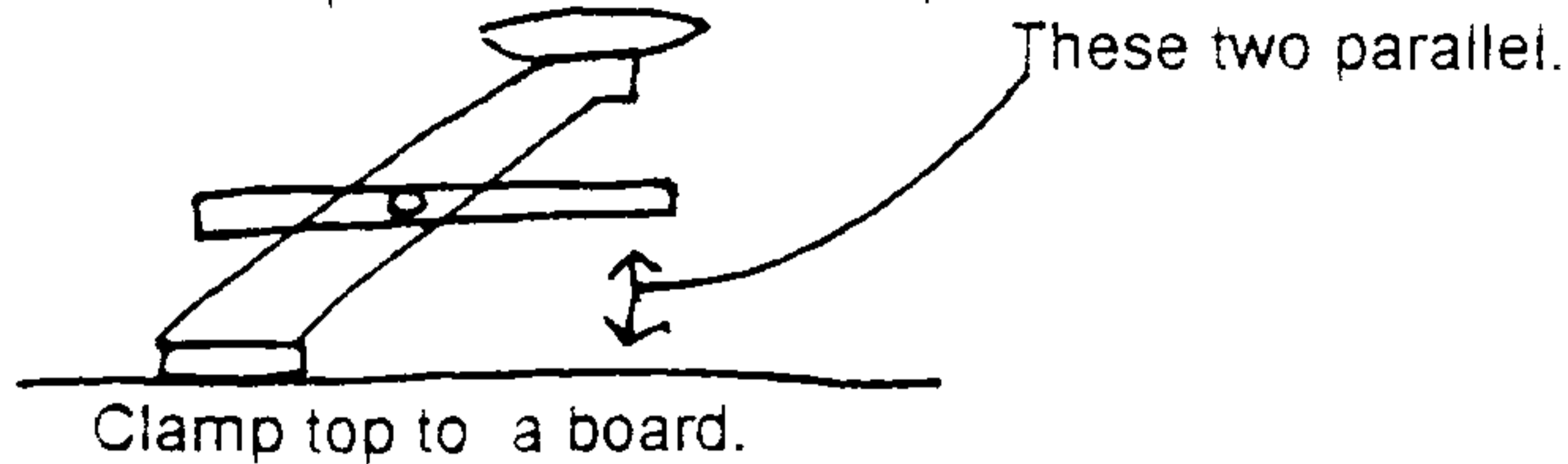
END VIEW
TOP.



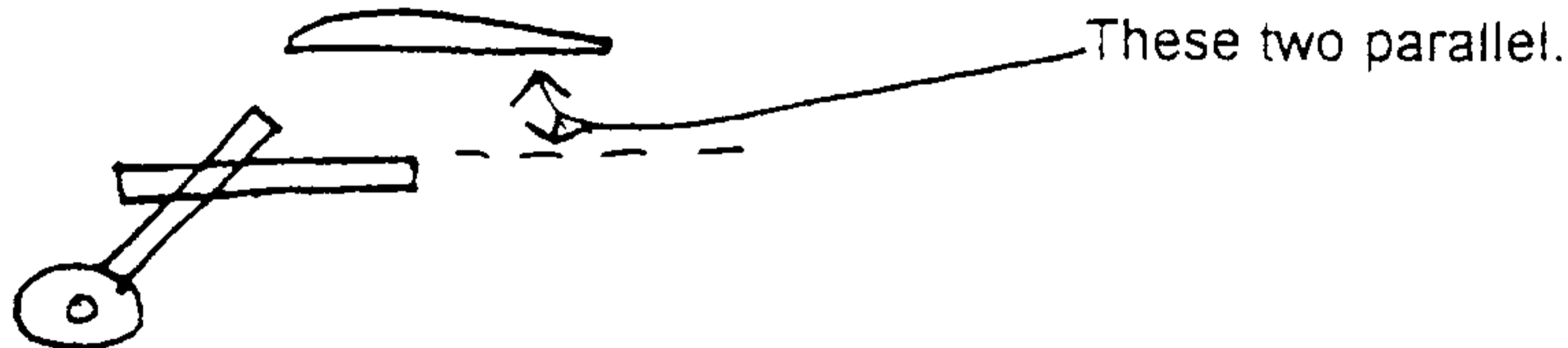
Setting landing gear at 0° Incidence

Glenn Lee

Clamp 6" rule to the strut parallel to the board.



Then the 6" rule should be parallel to the bottom of your wing.



F2C Team Trials

Preparations are continuing to be made for the upcoming team trials. I have asked the AMA to appoint Doc Jackson as head Jurist, I have also received responses for Walt Perkins, and Kenn Smith to be two of the three needed for the jury. I hope to have the third jury position nailed down by the end of the Nationals. Awards are being made for both team members, and nice weather has been ordered (sorry no guarantee on that).

The site will be ready for practice on Friday September 1, and we have arranged to have the site thru Monday in case of a rain day. We are planning on processing models on site Friday evening, details are being worked out with the AMA to accomplish this.

Remember the AMA has a block of rooms being reserved at the Roberts in Muncie, these are only being held until July 31st, so make your reservations ASAP, as the stunt boys will be making reservations also. The telephone # for the Roberts is (317) 741-7777, make sure you tell them you are an AMA member to get the special rate.

Racing Advisory Committee

We did not receive any additional inquiries about serving on this committee. If no additional people come forward by the end of the Nationals, we are going to submit the following names as a NCLRA recommendation to serve in this capacity.

Chairman; Stewart Willoughby Dist. #6
Dick Lambert Dist # 5 Bill Lee Dist #8
Jim Ricketts Dist #9 Paul Rice Dist #11
Kenn Smith Dist #10

If you would like to serve send your name to us ASAP.

Slimline Goodyear Tank & Shutoff

The next two pages are of drawings from the old CL-RPM Newsletter of a Goodyear tank and Shutoff. Sorry no how to build tips, but the drawings look easy to build.

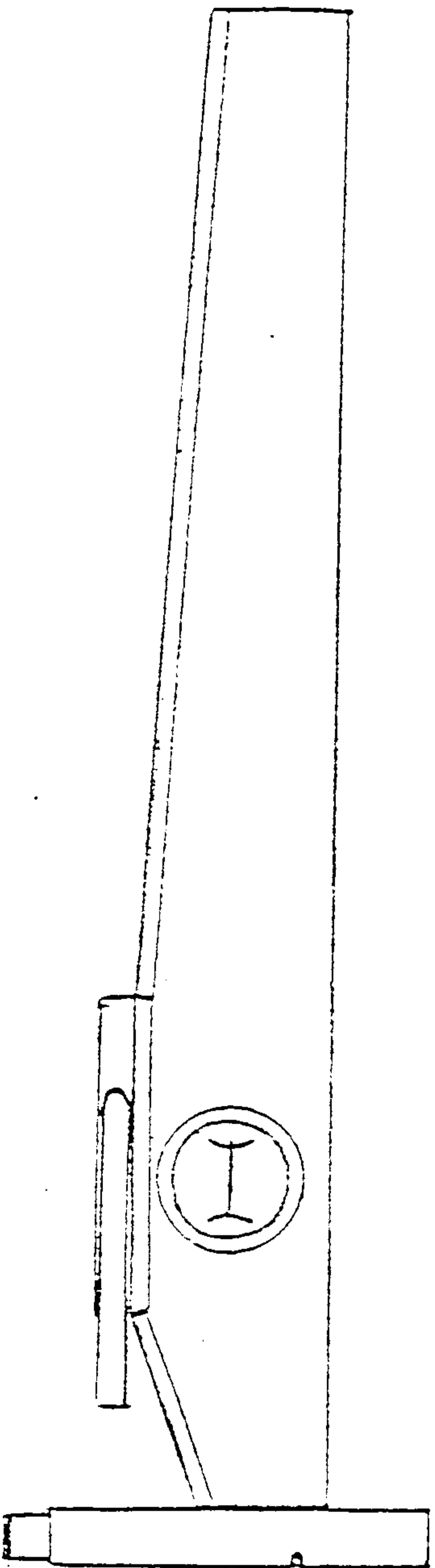
What's ahead

Nationals roundup

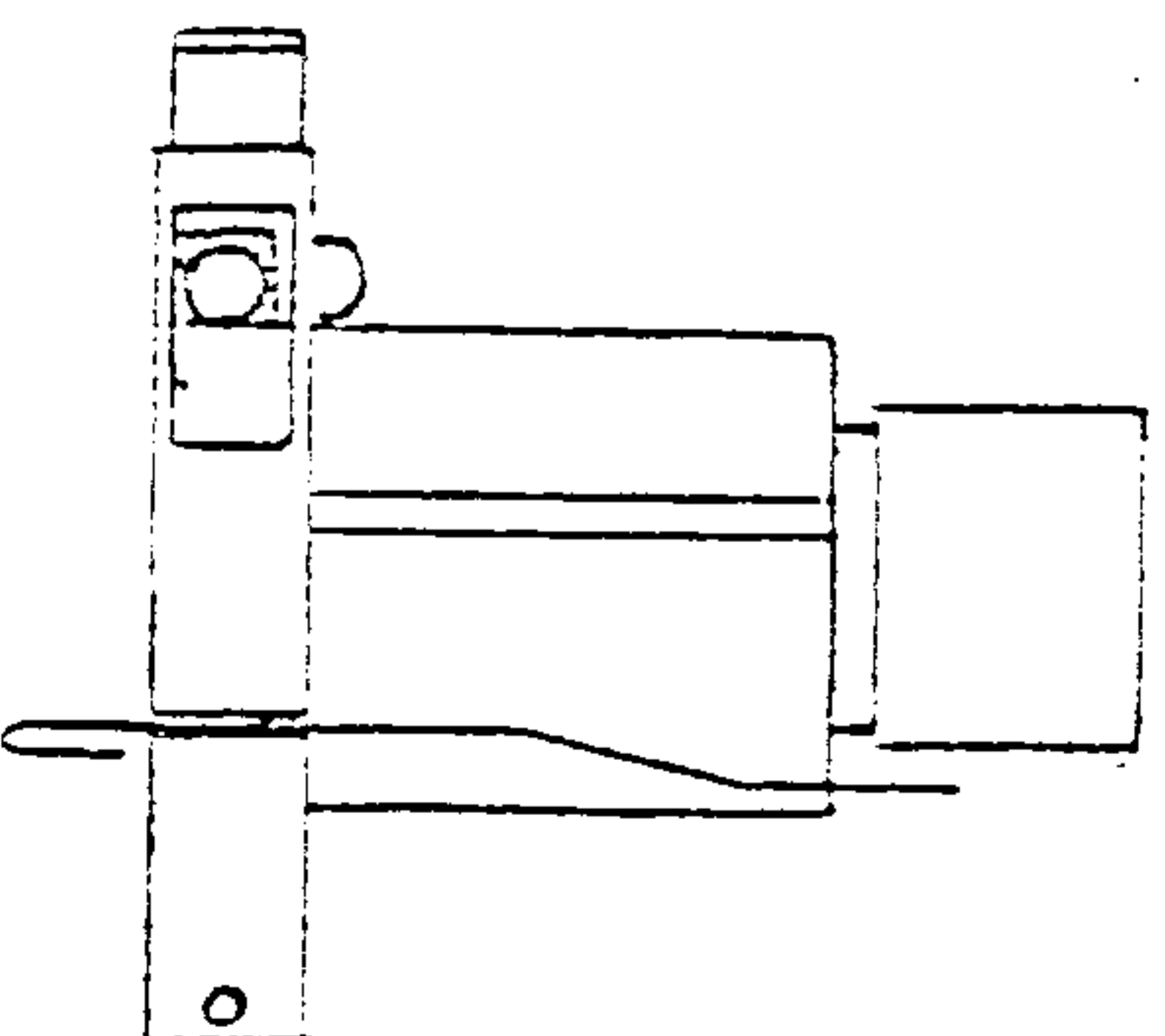
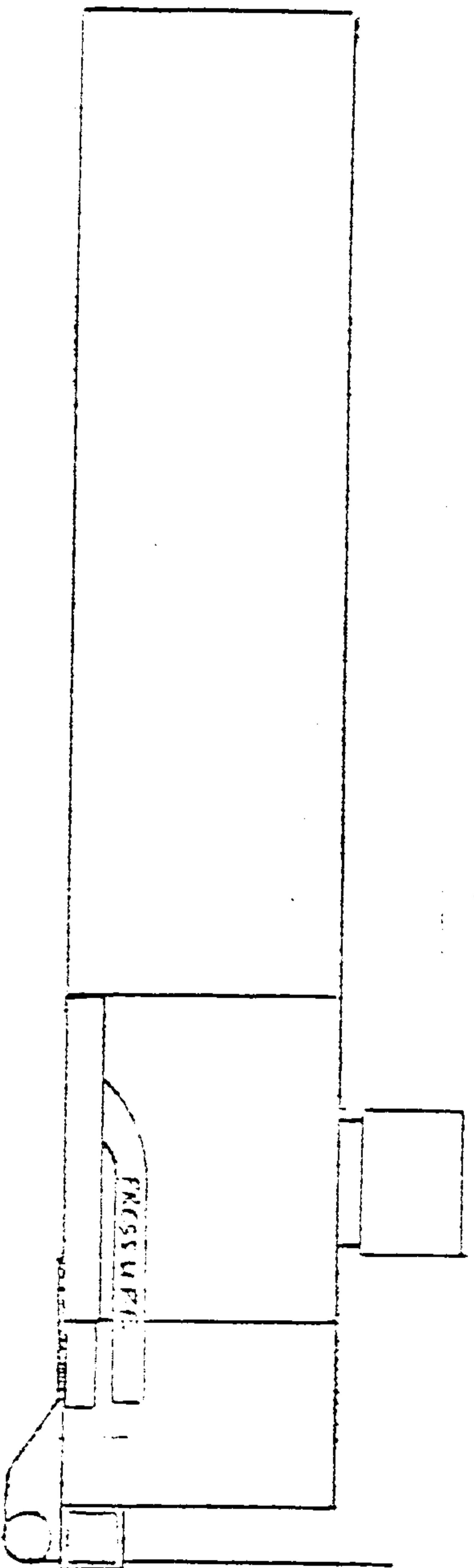
Presidents Corner

Plus More

**We are almost to the bottom of the letter bag, so send those questions, comments, articles, etc..... or bring them to the Nationals, without your articles this Newsletter will not grow. We all have knowledge, remember no idea is too small, so jot it down and send it in we will take care of the rest.



SMALL HOLE IN FUSelage
FOR THIS END TO FIT INTO.



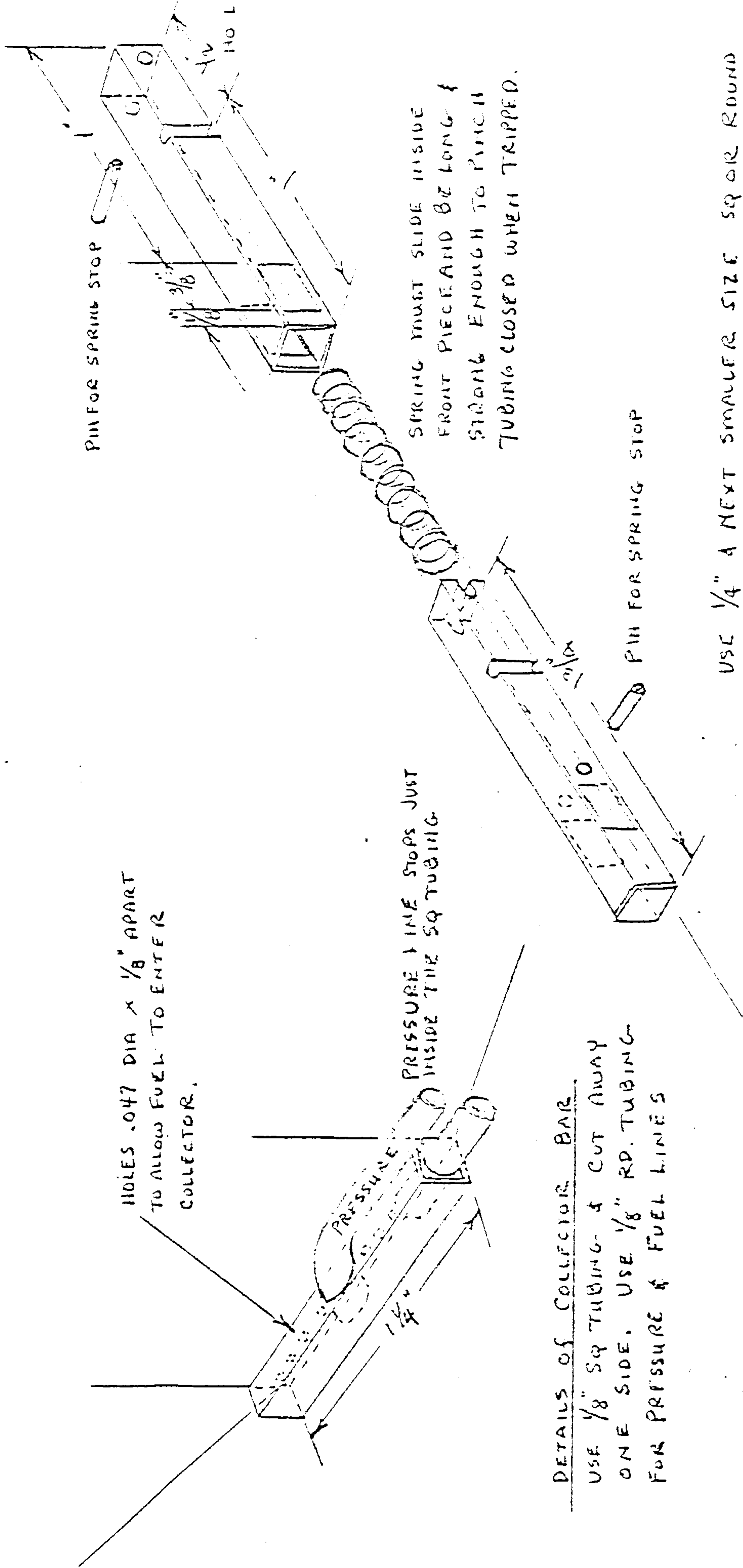
2 oz Slimline Goodyear Tank

FABRICATE FROM .010 BRASS OR TIN STOCK.
BACK, TOP, BOTTOM & ENDS ARE ONE PIECE.
FRONT IS ONE PIECE. USE BONS QUICK FILL.
SEE ATTACHED PAGE FOR DETAILS ON FUEL
COLLECTOR AND SHUT OFF.

ACTUAL SIZE
TO SCALE

R DUNNOM

8/28/71



USE 1/4" A NEXT SMALLER SIZE SQ OR ROUND BRASS TELESCOPING TUBING. A LARGE SAFETY PIN CAN BE USED FOR THE TRIP WIRE.