

2013

HAPPY
NEW YEAR

Issue



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HORSELESS CARRIAGE REPLICAS NEWSLETTER

A Publication dedicated to the reporting of news, events, articles, photos, items for sale, etc, having to do with replica horseless carriages.

Newsletter published six times a year and special issues when needed.



From the Editor...

Hi everyone,

Happy New Years! To all of the HCR Builders and readers of the HCR News. The past is the past but what a year 2012 was. My hope is to make the new year an even better one...

Senior Builders

Without sounding like the doctor at the local clinic, most of our HCR Builder Members and readers are, as myself, senior citizens and have no chance of getting any younger and those of you, who are not quite there yet, will be before you know it. Some of us have had unfortunate medical setbacks recently and just can't seem to do the things we found easy to do at one time. Besides these setbacks, the aches & pains of aging just seem to creep up on us.

The only logical advice I can come up with is what I do. Force yourself to get up out of that chair and away from that TV or computer and get outdoors. Go for a walk at the neighborhood mall, if you are still able to, get a bike & ride it, ride it daily. Soon you will feel like you have energy to burn. As for me, I find that going in my shop and finding something to work on or build helps the most. The older you get, its really therapeutic to use your mind, hands & legs daily. So, don't sit there like you have been doing, exercise your minds & bodies on a daily basis. Get back to the things you like to do and keep living and having fun...

On a more personal note, those who have already purchased my Model "T" Speedster Body Plans, I have just finished putting together a new part on the fenders (following pages), that should be added to your existing plans. For the other Builders, perhaps the added file can help you build fenders for your HCR....Enjoy!

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Wooden Fenders on A Ford "T" Speedster

by

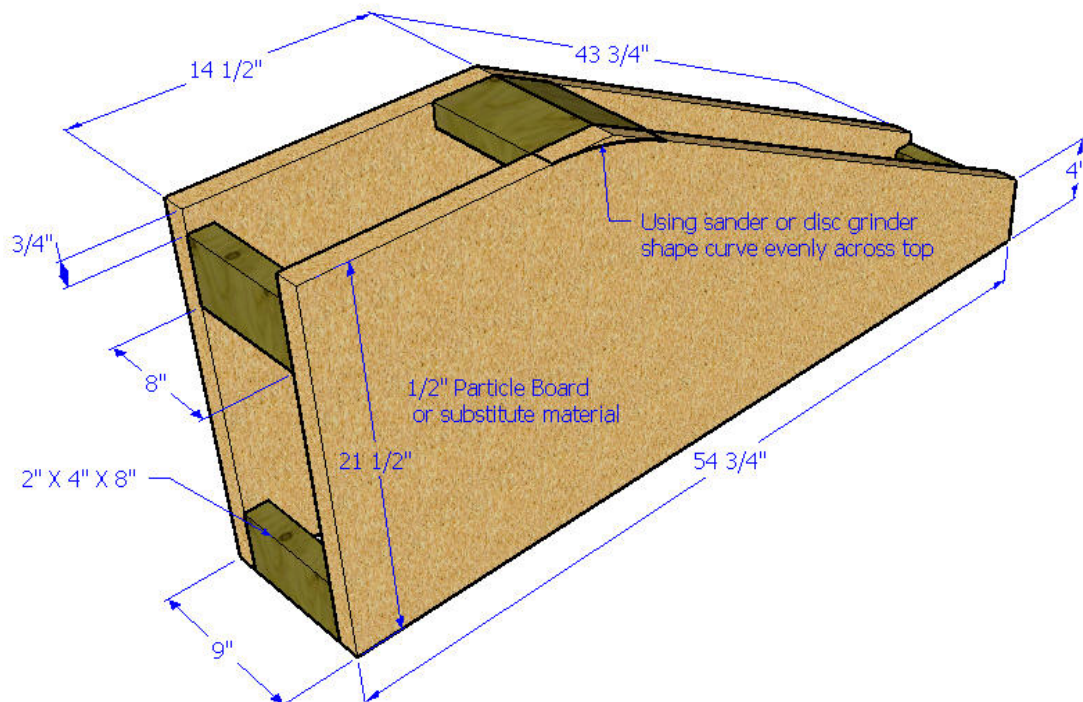
Lee Thevenet

You say "What", Why wooden fenders? Well, I can give you about 1200 reasons, all in US dollars. Nearing the final challenges in my Speedster build, the dwindling cash reserve set aside for the project and the fact that I had previously built a complete set for my last build, the 1905 REO Runabout Replica, helped make up my mind. Wooden fenders it would be.

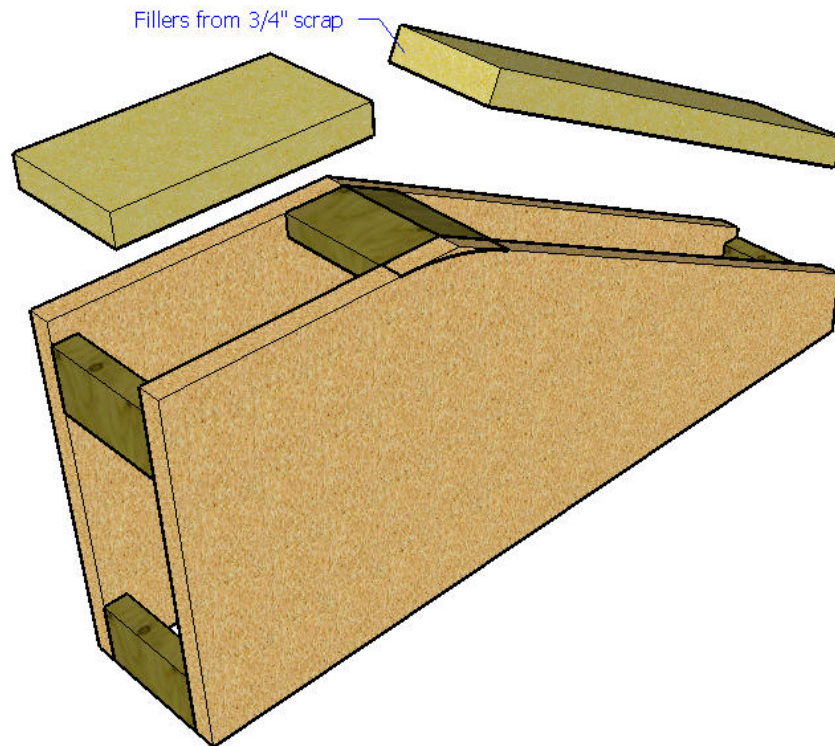
Just as the REO fender set I'd previously built, I knew I would need "Bucks". Bucks are forms to do the lay up on. By "lay up", I mean, the lamination of several pieces of thin plywood in the shape desired. Material for bucks can be scrap wood left over from other projects to save money.

In this case, I used some particle board I had on hand. Particle board is made up mostly of wood chip particles that are compressed together with a bonding agent to form sheets the size of plywood sheets, but much cheaper in price. I used a one half inch thickness. [The following drawing, text and measurements explain how I built the fenders.](#)

I first, constructed the "Fender Buck" below for the "front fenders".



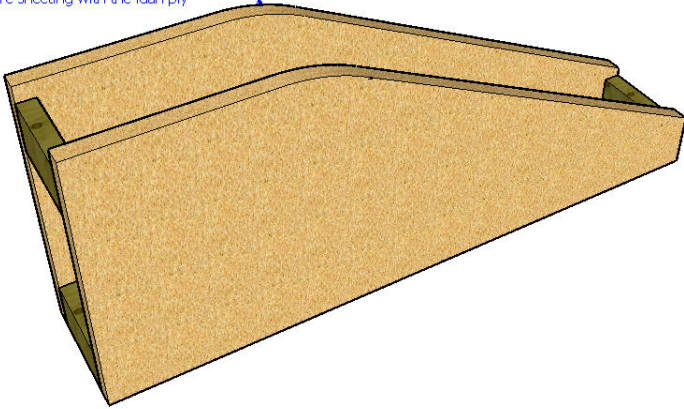
NOTE: The smoothness of the completed fenders depend on how smooth the top of each finished "Buck" comes out...



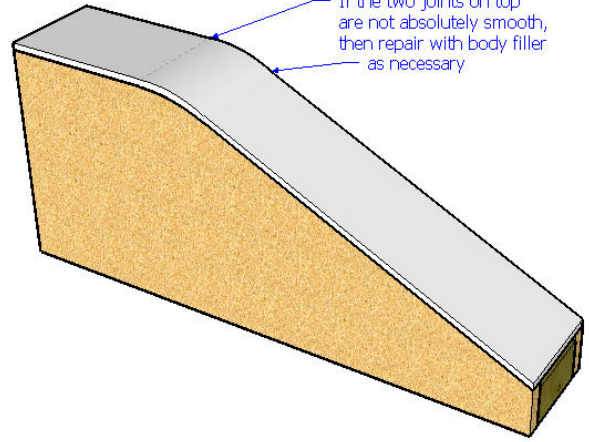
Make sure the fillers are even with top edge of sides, glue & fasten. One piece of Luan Plywood is installed to the buck to give it a smooth top surface.

IMPORTANT: If not perfect, correct with body filler. Unevenness will transfer to the top fender surface. (See exact areas on next page)

Make sure that this area is smooth and even on both sides before sheeting with the luan ply

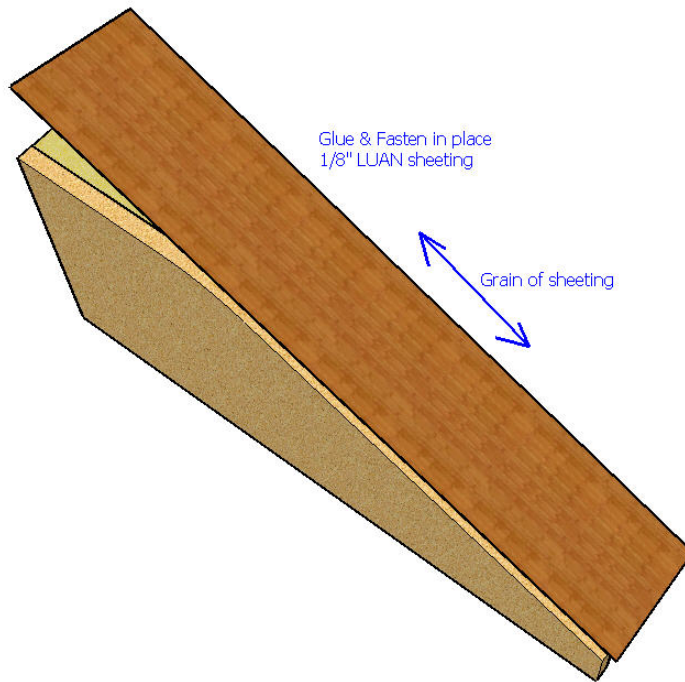


If the two joints on top are not absolutely smooth, then repair with body filler as necessary

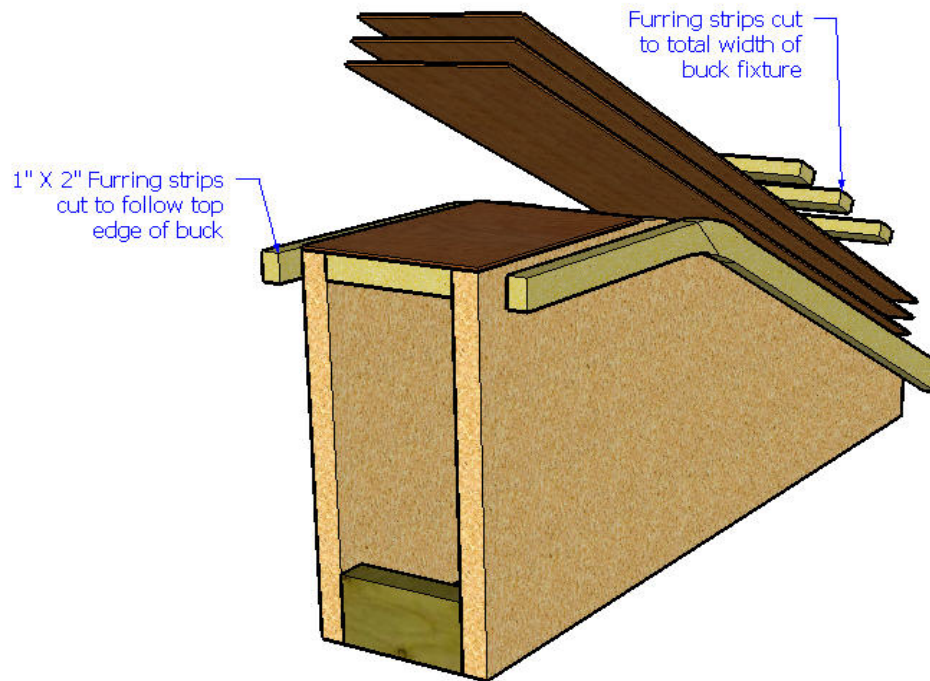


Glue & Fasten in place 1/8" LUAN sheeting

Grain of sheeting



Actual Lay Up of Fender



The material for the fenders is 1/8" "Luan" Plywood. There is another product that can also be used. It is called "Bendable Plywood". The Luan plywood is better for fenders because it is not only cheaper but gets better results. You will need three pieces for each fender. The top & bottom grain need to run with the buck. The center piece needs to have the grain run across from side to side. This will produce a stronger fender.

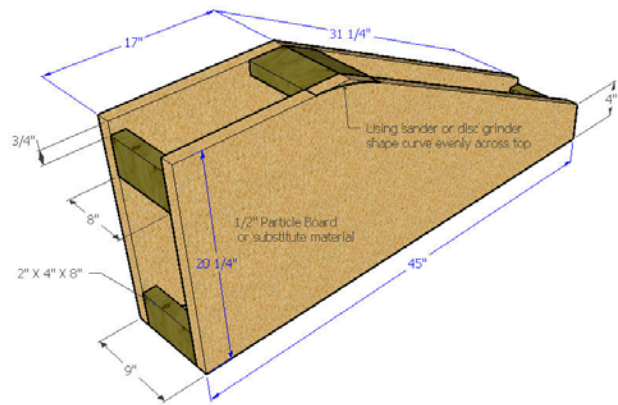
The glue used to bond the layers together was "Helmitin, Helmibond 805 Type II" wood glue and the purchase price was \$19.95 per gallon. Lay the bottom piece on a clean surface & apply glue to the entire top surface. Next, lay the piece with the cross grain down next to the first and apply glue on the entire top surface. Now flip the cross grained piece onto the first, align edges and apply glue to the top surface. Next apply glue to only one side of the last piece and flip over onto the other two.

You should now have three pieces, with glue on **ALL** inner surfaces. Align the outer edges of the three pieces. Place the stacked pieces on the top of the buck aligning the front edge with the front edge of the buck. Have someone hold the edges even, while driving two brads into the front edge of the pieces into the buck front top edge. Using plenty of clamps, clamp the furring strips cut earlier, starting from the front nailed edge, approximately two to three inches apart.

Continue clamping the pieces, making sure they will align centered on the buck top surface, until the tail end is reached (see pictures).



NOTE: Make sure you have everything ready as shown in these two pictures before starting. Notice the grain on the center piece shown in the picture on the left. Observe how it is opposite to the top and bottom piece. Also, the center piece had to be extended by adding a short piece. It will be sandwiched along with its matching piece in the center of the stack. (Increase the magnification on your viewer if necessary)...



Properly clamped for a period of (not less) 48 hours will give you satisfactory results with little to no voids between the panels. The buck in the background in the picture above and the drawing on the right is for the "rear fenders". **NOTE:** Although not all the measurements changed, only the highlighted measurements (blue) in the above drawing did.



Since the Speedster fenders have no twists

like the REO, only two bucks are needed for making all four fenders. One, for the front two fenders and one, for the rear two fenders. If done with care, the lay up should give you smooth fender surfaces not needing body filler at all. A finishing wood strip of 3/4" X 1/2" and a 1/2" X 1/8" flat metal strip are added to the lower edge of each fender on both edges (next picture) to give it the original look while adding more strength. Also attaching brackets for mounting to the irons &



running boards will be made as well.

The pieces shown in the picture on the right are made by first making a pattern off the edge of the fender at different areas and should be made from 3/4"



stock material (avoid using plywood). A lap joint is used where ever side pieces are to be joined later.

As previously stated, the side pieces should be $\frac{3}{4}$ " X $\frac{1}{2}$ ". These side pieces are "straight" select pine. Wood working glue and $\frac{3}{4}$ " brads should be applied to all pieces to be joined.

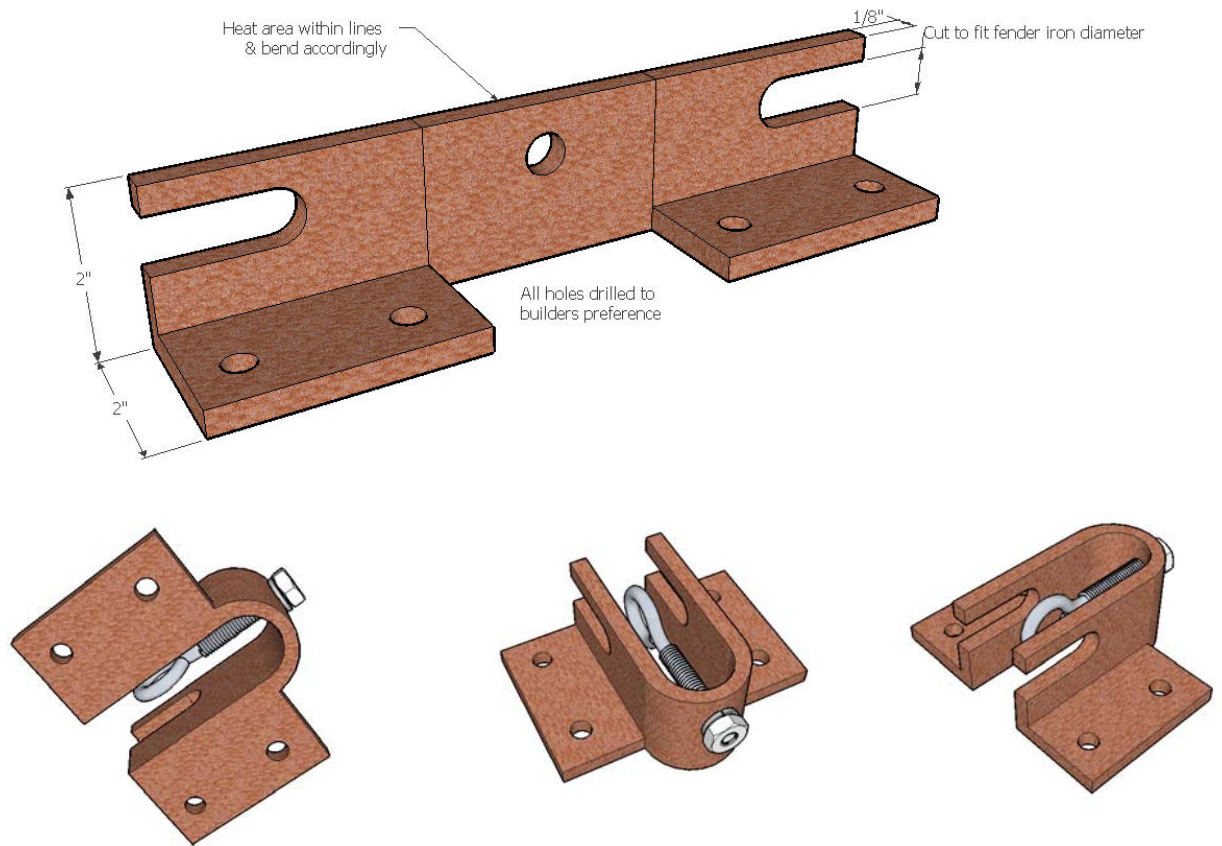
The excess fender length will be cut to the proper length after everything has set up for a reasonable time for all glue joints to completely cure.

The $\frac{1}{8}$ " X $\frac{3}{4}$ " flat metal strips are then cut to fit and drilled and counter sunk to accept #6 X $\frac{1}{2}$ " flathead screws. Four $\frac{1}{16}$ " X 4" X 6" plates are bent in the center, two at a 25 degree bend lengthways and two at 30 degrees, then cut to fit between the fender inner strips and tack welded in place. Remove from fender and complete welding to strips. These will be to attach the fenders to the running boards.



A simple under fender mounting bracket can be made from $\frac{1}{8}$ " X 2" X 2" angle. Slots on both sides are cut to fit fender irons. A hole at the rear "U" bend will accept a $\frac{5}{16}$ " X 4" eye bolt to attach fender to fender iron. Measurements for this bracket are up to the builders preferences. Sketches of the bracket on the following page shows the simplicity of it...





The fender on the right has been sealed with a product called "Kwik Poly". It is a two part catalyst type sealer that is great to fill the pores of the wood in preparation for priming, sanding and painting.



With each fender mounted temporarily, cardboard patterns can be made so the splash shields can be cut out and decorative edging or beads rolled in the material. The shields were fabricated of 20 gauge galvanized metal.



The picture on the right shows one of the completed fender splash shields that will be attached to the fender using a fastener called a "screw rivet", available from:



"Restoration Parts"

15182 Hiland Valley Rd.

Escondido, CA. 92025

(800) 306-7008

The shields will then be primed with a special primer made especially for aluminum or galvanized metal called "zinc chromate ". It is an etching primer that will create a bond for the paint to adhere to.

Since there is a rolled bead in the fender and running board aprons and a bead can not be rolled in wood, so a different method was used for the tops of the fenders. A ½" wide half round reed type molding will be attached to the tops of each fender so everything will match.



This type of reed molding is often used on original carriages of the brass automotive era as trim. It will be attached using wood working glue and brads. The brad holes will be filled when sight imperfections in the fender surfaces are repaired.

This is the ½" wide, half round reed, Part # RHR12, Cost \$7.60 (2 required) and also used in "Basket Weaving" and can be purchased from:

The Country Seat, Inc.

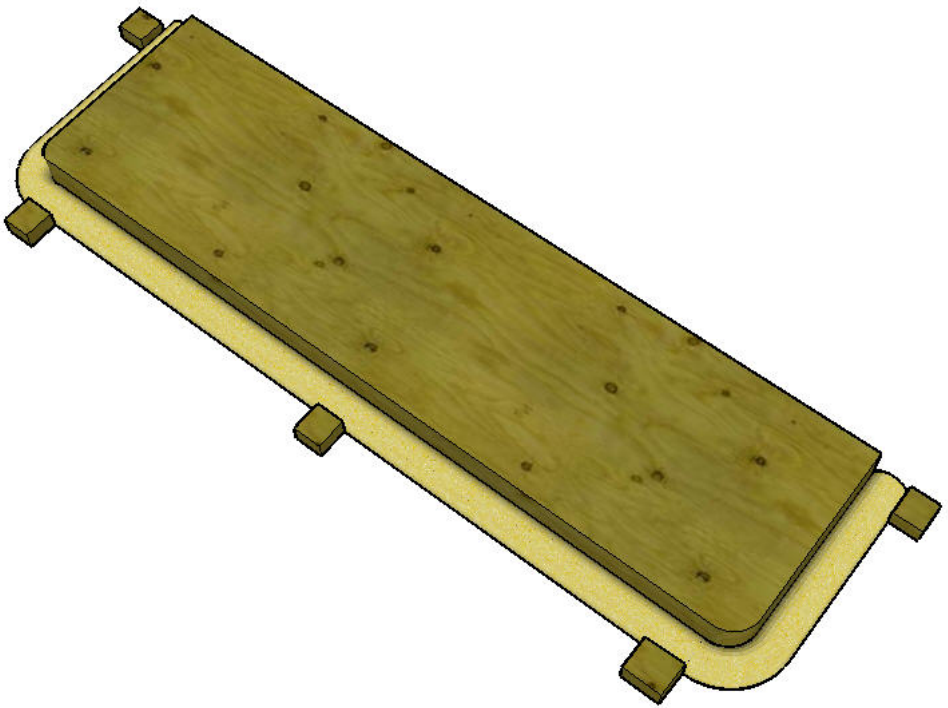
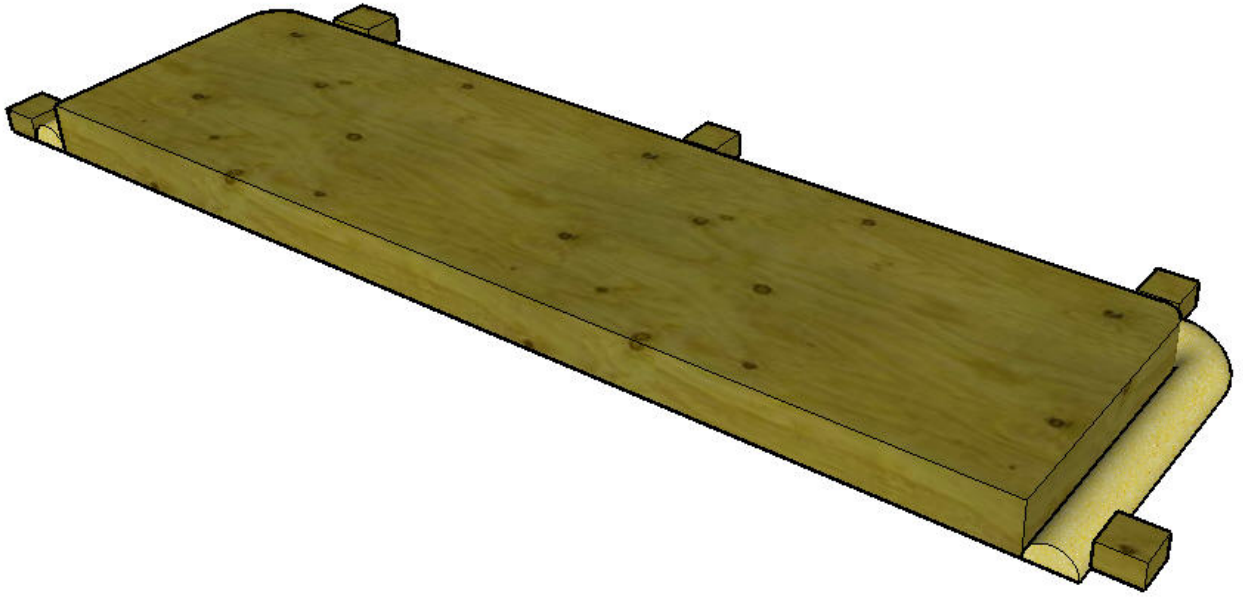
1013 Old Philly Pike

Kempton, PA 19529-9321

A length should be cut from the reed material, long enough to make the bead for the end of each fender. Soak one cut piece at a time overnight in clean water. Remove from water after soaking the advised time & shape in place on a jig like the one shown on the following page. Two jigs could be made to speed up making the ends, if desired.

The Jig

A simple jig made of ¾" scrap wood to the shape and size desired to follow about 1" from the outer edge of the front of each fender end. Small blocks can be cut from scrap to retain molding in place until dry. Blocks may be clamped in place or attached temporarily with small brads & reused several times. Once the piece is dry & removed from jig, it will retain its new shape. Each end should be beveled a bit before installing in place on fender surface.





As seen in picture of installed bead on the previous page, a good tight & straight joint is barely visible after installation & can easily be filled for finishing. The correct amount of body filler should be added (using finger) along each side of molding & feathered (sanded) accordingly. This will make the molding resemble one that has been rolled onto the wooden surface...

So Builder, if your rolling "T" chassis came without fenders and \$1200.00 seems a bit much to add to your build budget, then, do as the plans author did and build your own...

Questions: E-Mail...thev@centurytel.net

Good Luck!

Lee Thevenet

X Word

X Word

Down

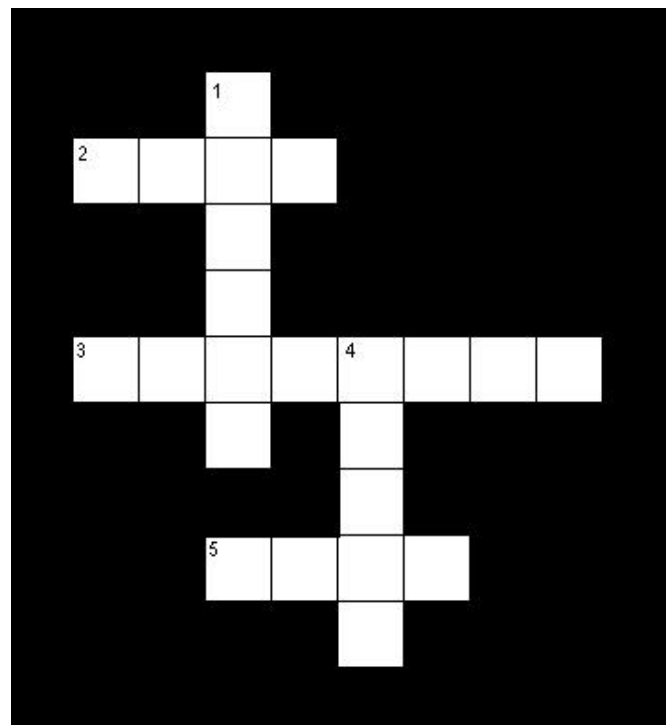
1. The opposed of improper
4. The wise person _____ his money

Across

2. Rubber around rim
3. Tires should have proper _____
5. Gas is known as _____

Make a sentence using the words

Answers on last page...



Our CDO HCR

By
Robert Salg

Recently, after a year and a half, my neighbor Joseph Melino and I, have finally completed our joint curved dash HCR.

We followed Lee Thevenet's CDO Plans pretty closely, making modifications as necessary to accommodate the Honda twin cylinder, thirteen horsepower, liquid cooled engine and a five speed transmission from a model 3813 lawn tractor.

We reside in Winchester, NH and this set up allows for a top speed of thirteen MPH, is quiet and cruises very nicely.

We built our own wood spoke wheels using the ash lumber taken down from my yard over ten years ago, along with clincher rims from American Vintage Rims and Universal tires...

In a recent E-Mail exchange, Robert had this to add...





Hi Lee,

Good to hear from you. So far I have only received one parade picture that I am including. Sorry about the quality, I didn't take the picture. This was the Picklefest parade in our town on 9-22-2012

The rear wheels are free spinning, driven by roller chain from the tractor transaxle shafts. All the wheel hubs were cut from VW brake drums with the bolt pattern increased from 4 to 8 bolts and are mounted on VW bolt on spindles. We added adjustable struts to the rear axle to immobilize it so the chains do not jump the sprockets.

Robert

Great job, Rob! There will be many more parades, Enjoy!...Thanks for the article!...Ed

Picture From the Past





Two More New CDO's Completed

Photo's sent by E-Mail

This great looking CDO Replica belongs to Senior HCRB Member, Terry Beasley. Even though Terry attended the 2012 HCR Builders Meet in October, not all of you were there to see it. Terry has two parades under his belt so far, including this year's Christmas Parade that he is shown driving in this picture.

Looking Good, Terry!



Another recently completed beauty, is Senior HCRB Member Gary Cristensen's CDO, completed on December 3, 2012. This is Gary's second "Full Size" build. His first was the Locomobile. Perhaps 2013 will bring us build articles in the HCR News on both of these fine HCR's



THE FULL CIRCLE

By

Stu Martyn

About 15 years ago I lusted after having my own steam car. No way could I ever afford to purchase an original, so got my desires satisfied, to a small extent, by building a toy steam car. I cast up my own wheels and then used Styrofoam to cut out the tire shape and then applied

some canned 'insulating material', (looks like rubber) over the Styrofoam tires and they came up looking like real tires. Well, near enough anyway.

The chassis is all aluminum, as is the body, and you will note from the photos that I cut up hacksaw blades to make my own leaf springs.

The engine is a twin, double acting and runs on about 10 psi with the steam being generated by the use of Butane gas firing. I have no idea of what scale it ends up as.

In 2004, I became bored watching my little 'dribblers' running around the floor. I hankered for something big enough to sit in/on and drive. I eventually built a 7/8ths size Stanley C4 steam car so at last had a reasonably proper steam car to play with.



Once bitten by the HCR bug, I then built another two full sized cars (stories on them appear in past newsletters) but have finally ceased to build anymore as my finances have become weaker.

I find that the size of my home built toys is related directly to my spare dollars, so now that things have tightened up financially, I'm back to trying to make smaller stuff. I started this hobby with small stuff, so one could say the wheel has now done a full circle and I'm back to building little weenie things. I'm now 72 years of age (will be 73 on August 2, 2013) so was a bit concerned to see if my eyes were good enough, and my hands steady enough, and able to handle little taps and dies with my old hands. Over the years, I've broken more taps than I care to remember, building smaller gear, and was pleasantly surprised to make the latest steam engine without any breakages!

It's nothing outstanding and was a good excuse to use up some of the shed's scrap. I had cast up more wheels than I ever required for my little steam car model so decided to use a couple of the left over ones for my latest steam engine's flywheels. Turned off the tire lips and bingo, two flywheels! The bore is only 1/2" with a stroke of 7/8" so the light flywheels do the job, OK.

Rather than use an external cam to drive the valve gear I made up a small Scotch Yoke to be driven by a cam mounted internally in the crankcase.

Because of the relatively small movement to operate the valve I elected to use a 'piston' valve. These are messy buggers to make as they consist of a 'bobbin' shaped bit which in turn runs inside it's own cylinder with ports placed strategically to do the job. Because I don't plan to run this 'weeny' on steam, any time soon, where things get a bit hot, I soft soldered (resin cored solder) the valve cylinder to the main bore, where I usually use silver solder to do the same job. I make up my crankshafts from scrap, with rods, webs, shafts, etc, silver soldered into position. Haven't had one let go on me yet! Crossed fingers!



This effort only took about 5 hours and it runs nicely even though completely useless for any worthwhile work!

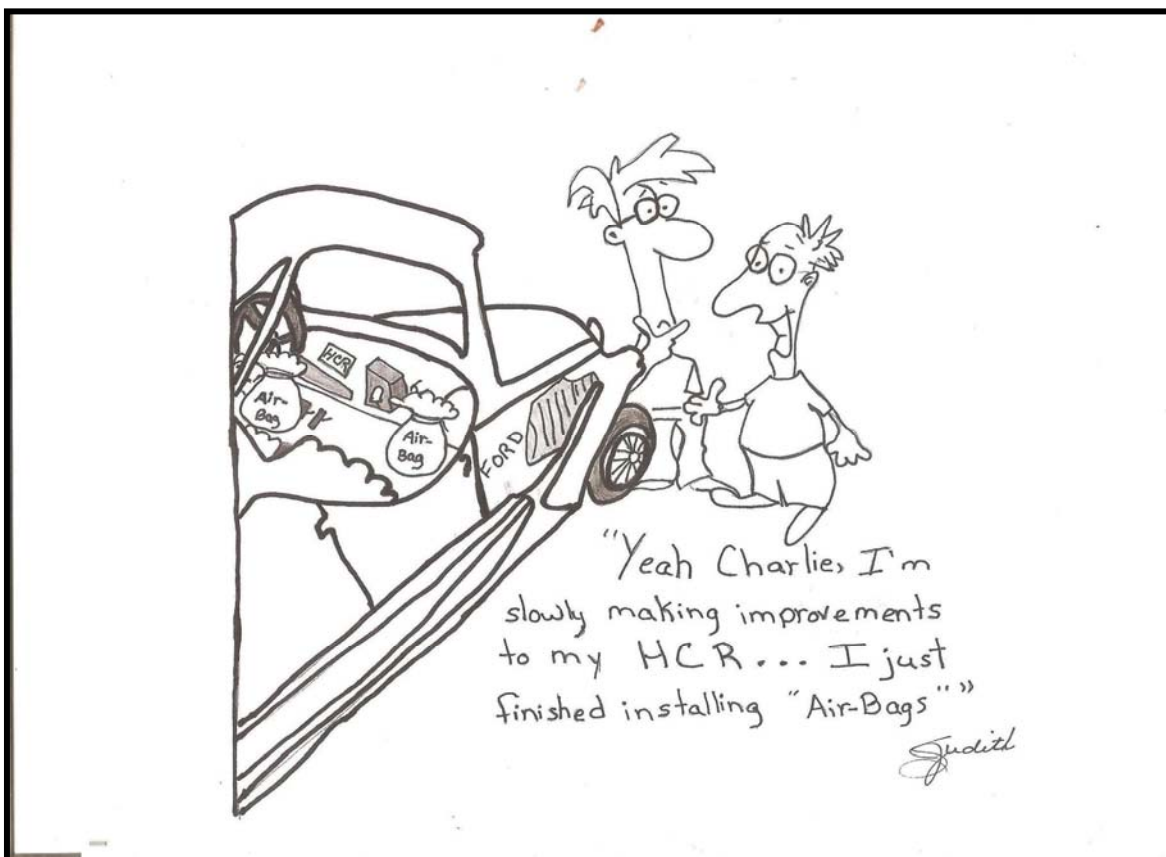
One good thing about building smaller stuff is that this experience makes building full sized stuff a breeze! One never knows - I could win Lotto and then look out! I'll be into bigger stuff, again, quicker than a rat can climb a rope!
Cheers,

Stu

Toon

By

Judith





Middletown, KY's First Gas Station

Pictures by Bob Ferry



Received these two pictures by E-Mail from Senior Member Bob Ferry.

The larger of the two, featuring Bob's beautiful two seat HCR, seemingly not out of place in the front of Middletown's First Gas Station. The smaller picture (inset) tells a bit of the story behind it.

Bob remarks that, "I think the new highway built 76 years ago is the only reason the quaint Main street of Middletown , Kentucky survives to this day"...



Chickasha, Oklahoma

2013 Pre War Swap Meet

Members & readers it is again the time of the year I like to remind all of you of this fantastic swap meet. If you are within driving distance of Dallas, Texas or Oklahoma City and are presently working on an HCR build, planning to start building one or have one finished and looking for just that correct part to enhance the look, this is the "toy store" to visit.

The picture on the right is the aerial view of the swap meet grounds, buildings and parking field, so you can get a look at the immense size of the facility. The view is orientated North at the top, South at the bottom, West to the left and East to the Right.

Starting at the top of the view, is the hwy leading into Chickasha. A small parking lot for employees in front of the two North buildings. A breeze way (blue roof) connecting the North building to the South building. On the extreme right, is the huge parking area for vendors and visitors. The inside of both North and South buildings and the areas surrounding all buildings are filled with vendors during the meet. A map of the area is on the right and a flyer on the next page...



Any HCR Members planning on attending the 2013 Pre War Swap Meet, Please contact me. For the past few years several of us have met there to discuss and exchange HCR build techniques and ideas...Lets chat about it on the HCR Builders Group blog. I would love to meet you there.....Lee

**23rd ANNUAL NATIONAL
PRE-WAR SWAP MEET**

March 21st & 22nd, 2013
Sponsored by Old Pueblo Touring Association




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CHICKASHA

**30 miles SW of OKC on I-44 – Exit Highway 62 (Exit 83)
West to the Grady County Fairgrounds.**

Make Checks Payable to PRE-WAR SWAP MEET
P.O. Box 562 Chickasha, OK 73023
Deadline: Pre-Registration (for same spaces) Oct. 1, 2012
All Spaces in Advance \$45 through Nov. 1, 2012
(\$50 after Nov. 1, 2012)

NAME _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE _____

E-MAIL _____

COMMENTS _____

NUMBER OF SPACES REQUESTED

_____ Outside (Approx. 10'x30')

_____ South Bldg. (Approx. 10'x10')

_____ North Bldg. (Approx. 10'x10')

_____ Tables (North Bldg. only) \$10

If more than 1 space, request layout:
_____ end to end _____ side by side

In Closing

By
Lee

Well, we close one more year and begin a new one and once again, I wish to give a "BIG THANKS" to those HCR Members who have supported the HCR Newsletter in the past years by sending in their articles & pictures. It is refreshing to me when I hear or get news for publishing. This tells me that there is one more person out there who loves this hobby as much as I do and also means the continuation of the HCR Newsletters.

C'mon Members, give me something to work with in 2013. Send in your build pictures, articles, stories of your past or interesting projects you have built. Each time I start putting together a new Issue, I wonder if it will be the last due to lack of information sent in.

Like I've said before, the HCR.com website gets more & more hits each Month. That means the whole world reads the articles about your builds and sees the pictures of your new carriages.

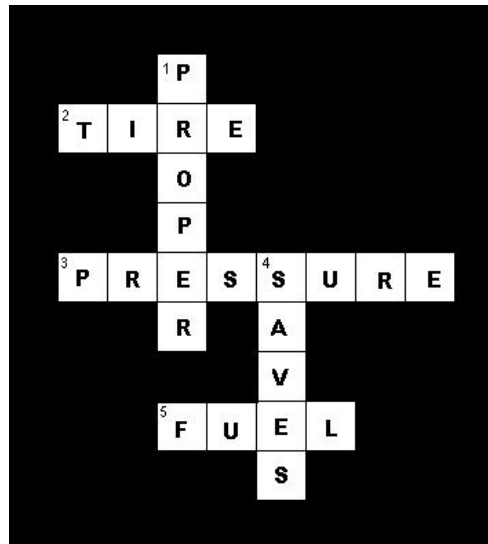
Many of these new readers see your carriages and stories. They join our Yahoo Group and want to know more about the HCR Hobby.

Give them something really interesting to read about, send in your guff, as Stu Martyn would put it.....☺

From my family to yours...

Happy New Year!

Lee and Elaine Thevenet



Answers to X Word on Page 15

Proper tire pressure saves fuel