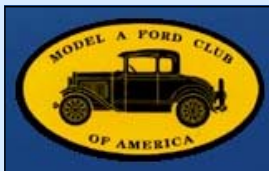


# THE 4-BANGER

## VOICE OF THE NAPER A's

THE 4-BANGER VOLUME 7, ISSUE 4 ★ WINTER, 2021

**AFFILIATED  
WITH THE  
MODEL A  
FORD CLUB  
OF AMERICA**



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## Bus Project Rolls Along!

Story By KEN EHRENHOFER Photos By Ken Ehrenhofer & Gene Egert



**M**eanwhile, roof wood and bows and finger-jointed parts are being fabricated in Flint, Michigan, by expert Larry Wallace with Steve Burton and Larry Sills helping, and they are almost finished with all the roof wood, which will be ready very soon. They have done a great job of duplicating the entire roof without the bus even being finished.

At the same time, Larry Rust is machining a duplicate part of the windshield frame. He is a master machinist with the skills to fabricate missing bus

*Continued on Page 3...*

**T**he 1931 Model AA adult passenger bus project is simply huge, and it has a lot of moving parts (Model A Folks) working on it. The goal is to have it at the Gilmore Museum so it can give rides to visitors around the facility.

**W**hat a great idea! Visitors can walk around and view all our beautiful Model A's and then go for a ride in one of them.

**T**o meet this goal, there is a lot of activity going on even as COVID-19 keeps us home and the snow and ice make it even worse. The Bus Boys are hard at work and right now the fully restored chassis awaits the new floor from Russ Moss who has completed it and is waiting for it to be picked up from his shop in Van Dyne Wisconsin.

**W**e just picked up two seats (right and left) from the Greenfield Village auto shops, have disassembled them, and await a quote from Chicago Tube and Iron on bending the tubing. Brother Ron and I will be welding up the frames, then Jim (Addison Auto Interiors) can start adding the finishing touches by upholstering them.

**W**e have all the side and rear panels waiting for assembly and are working on the front cowl. Once the new floor and the chassis come together, the sides are already done and can be mounted and installed. Then we'll be ready to move on to the roof installation.

### Nick's Fabulous Fender



**Wheel well panel and fender primed and ready for wet sanding and paint!**

*See How-to Story on Pages 4 & 5...*



# 1931 Town Sedan Front Seat

Story & Photos by Alan Petrik

I am getting to know my Town Sedan that I acquired last January. One issue for me, based on my legs and girth of my mid-section, is the front seat does not adjust rearward far enough.

The oak seat frame is attached to two 16-inch-long galvanized "U" channels at the far left and right sides of the seat frame. These channels slide forward and backward on corresponding "T" shaped rails that are bolted to the frame. The adjuster knob turns the course threaded shaft that forces the distance between the front edge off the seat and the fixed screw block.

Once the screw knob is adjusted and the seat is rearward all the way to the block, you are done adjusting. The "T" rails are pitched towards the back, about 15 degrees. This fixes the angle of the back of the seat and seat back. The screw block is screwed to the wood floor board and riveted to the storage box frame under the seat.

My challenge was to accomplish three things:

1. How can I move the seat rearward by 2 inches (at least)?
2. How can I adjust the angle of the seat back to become more vertical?
3. How can I keep the original seat adjuster functional?

Other observations leading up to the re-engineering of the seat attachments:

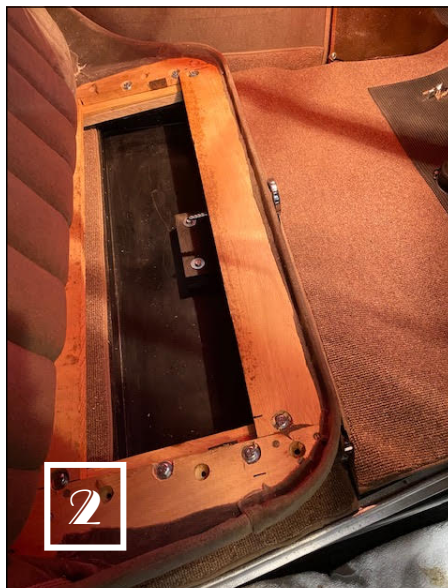
- Because of the angle of the T rails, when the seat was all the way back, the rear bottom of the seat was tight to the floor carpeting. No way to go back any further even if you could. The T rails were not moveable.
- The screw block needed removal and relocation a corresponding amount to the rear to allow for further movement.
- To allow for the seat to move rearward, I needed to change the rail angle or raise the seat. **I concluded that raising the seat and changing the angle was the best approach.**

So I removed the seat and fabricated two oak side frames (16" x 3" x 3/4") to

match the seat side frames (see Photo 1). I bolted these two new pieces to



the U channels. Then I lag-bolted the seat with new holes to these oak side frames (see Photo 2). In effect, I raised the entire seat 3/4".

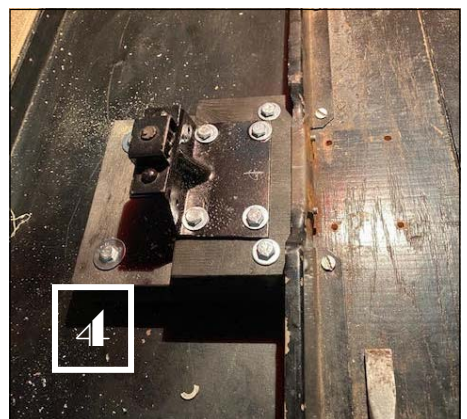


To adjust for the angle of the back, I added 16" shims, about 1/2" at the back of the seat to 0" at the front. Therefore, the original seat frame was bolted to the new side frames with the shims in between. This gave me the travel rearward I desired and made the back-seat angle a bit more vertical. As to the screw block, it needed to be moved rearward and raised 3/4" as well to allow for the screw adjuster to work (see Photo 3). The 1/4" rivets holding it to the storage box proved difficult, needing a Dremel tool to cut off the rivet heads and punch & chisel to get the screw block off the frame.

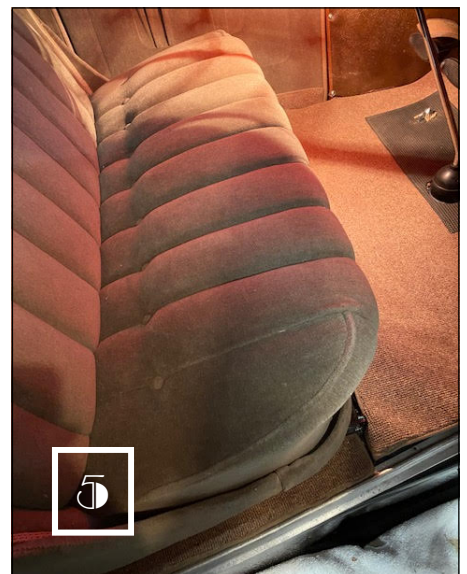
I used three pieces of 5/8" plywood to build up a riser platform to re-fasten the screw block. This platform was bolted to the storage box floor under



the seat (see Photo 4). I then lag-bolted the screw block to the riser.



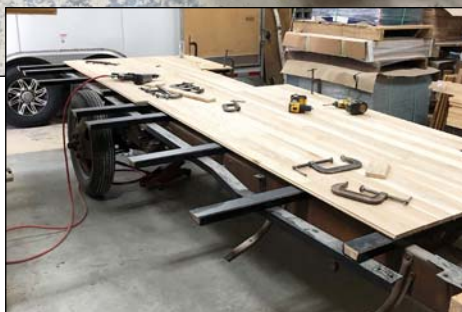
After clean-up and some paint touch-up, I re-installed the seat (see Photo 5). Seems to be good. The seat is back 2 inches and the back is a little more vertical and the seat adjuster remains functional. Check, check, and check on objectives 1, 2, and 3!



# Getting On The Bus! *Continued from Page 1...*

parts as we go along. One of his most recent projects was the rear door and the window crank handles.

**Y**es, the talent is wide and varied in our great club. Soon we will be installing the walls, then this summer raising the roof. Wow, it seems like we started such a short time ago, but it will start looking like a new bus by this summer and then we'll move on to the interior work and enter the home stretch. Many thanks to all of the great Model A Family who are stepping up and making this tremendous accomplishment possible!



# NICK'S LEFT REAR FENDER REBUILD

Story & Photos By NICK MAZZERELLA

In preparation for priming and painting my 1931 slant windshield Fordor this spring, I have been spending considerable time restoring rusted out body parts, starting from the front panels and working back on both sides. This involves metalworking, welding, fiberglass and filler applications, and finally applying primer. While I could have opted to replace the fenders, door skins, and various panel sections, the cost would have been prohibitive, and in this case the work to install new parts may not have been much easier than restoring the original ones.



*Fender after the rotted partitions were removed and a few tools of the trade.*

I decided to start with the left (driver's side) rear fender and wheel well panel as this area was in the worst condition owing to significant rust-out and damage from an accident. After removing the rot, I filled the gaps by cutting, shaping, and welding in new segments of 22 gauge steel, making sure to reproduce the numerous compound curves of each part . . . a tricky challenge for a novice! I turned to YouTube for

advice on how to attack the problem and found a restorer in Nova Scotia who goes by the moniker "Fitzee." His channel *Fitzee's Fabrications* (which I recommend checking out) features several videos on how to replace rusted-out parts. The secret to restoring a compound curve, I learned, is to recreate each angle separately using the original (bad) part as a template, and then to weld these pieces together to form the complete replacement panel.

*Fitzee* is obviously an experienced metalworker, so he makes it look easy, but I got the idea and with some patience was able to closely match the shapes I needed. Whereas designing car parts from scratch is all about drafting and machining, restoring them is more like making a sculpture using the trial and error method, eyeballing, fitting, modifying, and refitting until the result is correct.

Before I could assemble my replacement panel segments, I needed to rebuild the understructure of the wheel well. This proved to be one of the most crucial and difficult elements of the job. A structural beam which is supposed to run along the undersurface of the well to give shape and strength to a seam where multiple panels join was virtually gone. I constructed a new one, measuring 2 inches wide by 32 inches long, out of 16 gauge steel bar. As I added my replacement panel pieces to the well, I successively anchored them to the new support beam.

As I worked behind the panel, I discovered that I also needed to rebuild areas of the outer floor pan and interior side panel of the cabin. Eventually I layered all of these parts together in their proper order and welded them in place to reform the complete wheel well panel.

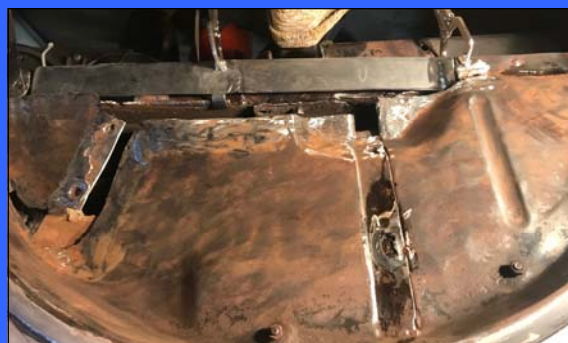
The tools needed for this particular project included: a combination of manual and power metal shears, a 5-inch vice, a homemade metal brake, peening hammers, metal shaping blocks, brazing rods with MAPP gas, and a MiG welder. In most cases because the new pieces were curved in more than one direction, I used metal screws or steel rivets to hold the pieces in place temporarily while I tack-welded them with the MiG welder. I then removed the helper screws and rivets and filled in the holes.

One caveat to pass on: I was doing so much MiG welding that I ran out of Argon/CO2 gas so I switched over to flux-core wire so I could continue the work without losing time. However, this made the welding much harder on the sheet metal and created a lot of splatter and toxic gas. It was not long before I stopped and got more inert gas from a local supplier. The accompanying photos show what I started with and the finished results as they appear before final painting.



*Start of adding new 22 gauge steel to the fender.*

*Fender parts being welded in, and, in some places, brazed to smooth out the welds. The seam on the top is a repair of a tear caused by a fender-bender collision several years ago.*



*Well panel support beam being replaced using 16 gauge steel with three reinforcements struts.*



*Outer part of the floor pan at the junction being replaced. This required blending it into the new side panels with the new beam acting as the common connection point.*



*Panel rebuilding using individual 22 gage pieces to match the original stamped panel. Note that the nut plate the fender attached to needed new nuts welded in and then needed blending into the rear panel.*



*Well panel with rust-out removed.*

*With the metalwork was completed, I applied filler compound to the reformed parts. These steps required a great deal of patience, diligence, and when finish sanding, plenty of elbow grease. I did not use glass or filler to cover any open holes, but only to even out surface irregularities and seal the welds. A good respirator mask was essential for this part of the process, as toxic vapor and dust are unavoidable when working with these materials. With glass and filler applied to smooth surface ripples, the fender was ready for priming. SEE PAGE ONE PHOTO FOR THE FINISHED RESULTS!*





## PRESIDENTIAL RETIREMENT PROJECTS

*Continued from Page 8...*

To resolve the switch problem, I put in a different cover with a hole that was deeper, then filed down the top with all the brass detents. We took the radiator out to fix the pulley on the end of the crankshaft. Taking the drums off to inspect the brakes that were rebuilt five years ago, we found four loose studs that needed to be re-pressed (swedged) at Ehrenhofer's 40 Horse Farm garage. The axle nuts on the rear were also loose.

## ARMATURE GROWLER

By Lindy Williams      Photos By Alan Petrik

I had an opportunity to help club member Pete Pope after he was driving home and his generator froze up. He towed the car in and we removed the generator to troubleshoot why it was completely locked up.

Upon pulling the generator apart in my basement shop, we found the field coils completely destroyed and jammed around the armature (See photo of inside the generator with armature removed).



While new field coil parts were on order, I decided to test the armature. The Club's "Growler" machine can perform three tests on the

armature to ensure good service. Test #1 is to see if any of the commutator bars are

grounded to the center shaft. Test #2 is to find if any of the armature windings are shorted. Test #3 checks for balance across the commutator.

Gene and Alan came over for a quick tech session and we worked together to check Pete's generator armature along with two of Gene's starter armatures.

In the photo below you can see the Growler in action. I manned the tester probes while Gene held the armature on the Growler



while rotating it to allow our testing the commutators, two at a time. Alan took photos. Note: Pete's generator armature with short shaft is next to the Growler. Gene's starter armatures has a long shaft.

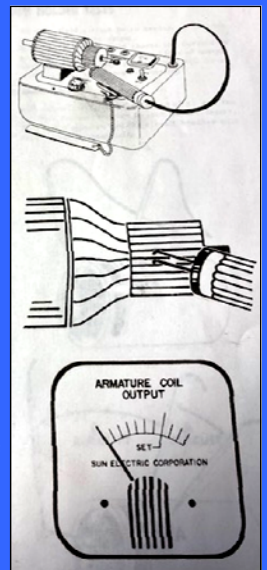
## THE RESULTS

All three armatures tested perfectly!

This illustration from the Growler instructions shows Test #3 that we performed.

Once you take apart any starter or generator, it is advised that you perform all three tests.

The club Growler is available for use by all members, upon request to Lindy.



# 2020 Naper A's Fall Picnic

Cerny Park ☐ September 26, 2020



Alan Petrik and Tom Marks were checking out the cars as Gar Williams and Steve Paul visited in the parking lot. Hopes are running high that 2021 will feature more in-person events like this.



Photos By GENE EGERT

Our 4<sup>th</sup> Annual Picnic was held at Cerny Park in Warrenville on September 26<sup>th</sup> and drew eight Model A's bearing hungry passengers. Brats and burgers were the fare of the day and everyone also brought dishes to pass. It proved to be our last event of the year to be held in person.

## JIM'S TECH TIP ON FINDING RATTLES UNDER THE HOOD

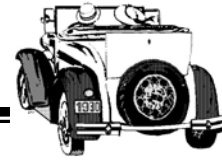
By Jim Cannon, MAFCA

**V**ery few things are as annoying as a persistent rattle under the hood while you drive your Model A. Of course it always stops making noise when you pull over and look under there! Here are some things that I have found over the years can sound like rattles under the hood:

- ☐ The radiator support rods. They come loose at the radiator or at the firewall.
- ☐ The engine pans. Just one loose bolt/nut can rattle like crazy (hard to find).
- ☐ Hood support/prop brackets. The ones that "fold in" will rattle if closed all the way; open it back up ½" to separate the halves from touching.
- ☐ Brake rods. Jiggle them by hand. You may need to install some of the oversize clevis pins to tighten things back up, or replace the return/anti-rattle springs.
- ☐ Tools and things under the seat. (I found a large screwdriver once in my side curtain pan, way in the back, that was causing a rattle that I chased for 2 years!)



## A Word From Gene Egert... **THE PREZ SAYS...**



### **Hello my Fellow Model A'ers!**

**T**hese have been a tough last ten months dealing with all the Covid-19 issues. Hopefully, everyone in our Club and their families have remained healthy. Likewise for the cars, which have taken a back seat to staying healthy. With no meetings, car shows, or events to travel to during 2020, they didn't get as much exercise as usual...and at this point have long since gone into Winter hibernation.

**O**f course, it's never too late to consider what our cars need to gain top running condition for the next driving season ahead, particularly since it's really not too far off! In fact, we've been discussing such matters at the last few "virtual" Club meetings on-line.

**O**ur Zoom conference meetings have had unexpectedly good participation and have kept our ball

rolling until we can start meeting again in person as a group. One thing nice is that we get to see our southern members, the snowbirds, who can tune in from Florida. Hopefully, we can get together soon for meetings and tech sections in small groups, and later on have outdoor events and get-togethers.

**S**o far as your President is now concerned, I have retired after 43 years of service to the Nalco Chemical Company. With more personal time available as a result, I have now commenced much long-postponed work on our 1930 Roadster, fixing many small things that kept getting put off:

- First up were the motor mount rubber pads, for which I used the club's frame spreader. That was a big job, with the old rubber fused to the frame and bolts were rust-welded tight.

I also installed a new pulley on the crankshaft. The old one had a wobble and the wrong size nut with broken hand-crank tabs. I had to remove the radiator to get a 1 7/16" socket on the big nut, but that's really the right way to do that job anyway.

Now I'm putting a new wiring harness from the light switch. Well, it turns out that the round Bakelite plate that all the wires go to is thicker than the old one, so that installation is not going too well. I'm thinking of having a small tech session to try and resolve the issue.

I purchased new 16" white-wall tires from Coker Tire and had my rims powder-coated at Speed Powder Coatings in West Chicago. The wheels turned out very nice in Tacoma Cream with a satin finish and the new tires look a lot better than my 40-year-old tires that were on the car.

We also had a new safety glass windshield installed at Herb's Glass & Mirror in Elgin, where Phred was very helpful and now a person can see out through much clearer fresh glass.

**S**ee Page 6 for some pictures that prove I am staying pretty busy in this new retirement gig, improving the car and getting it ready for a full new season of Summer tours. We are also personally planning a three-day tour to take in Model A days in Hickory Corners, Michigan, this coming September.

**B**e well my friends... hope you're getting the Family Model A ready for a better and more active driving season in 2021!

All the Best,

**GO TO  
PAGE 6**

**Gene**



### **Please Donate To The Bus Project!**

**The Bus Project is in need of your support! We are trying to keep the cost of the restoration very low with donations of parts and labor. We thank everyone for all of the great effort but the cost of restoring the bus is still very expensive even with all of our efforts we still need your financial support!**

**Please donate today! All donations are tax deductible. Send your donations to: Model A Ford Foundation Inc. (MAFFI); PO Box 28, Peotone, IL 60468-0028**

**We thank you for your support!**