

# PGRS TRACKIN'

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## Newsletter of the Piedmont Garden Railway Society

**October 2020**

**Editor: Scott Williams**

The hot humid days are gone and we're moving in to cooler and drier Fall weather. It sure was a rainy summer. Even up here in the mountains near Asheville the air got pretty 'thick' this summer, **plus** twice-weekly lawn mowing kept us all busy. We're now heading in to some of the **best** weather to run trains outdoors in our region. I will now be spending much more time taking my trains out back to watch them run around my layout rather than mowing the yard. **Yippee!**

We can **still** get together at each other's homes to enjoy our hobby in spite of the Pandemic. When you feel like putting some trains on your rails then please invite another PGRS member or a neighbor friend and ask them to come '**hang out**'. Share your Garden Trains responsibly outdoors, 6' distancing, and please wear a mask when you have to gather close together indoors to prevent any chance of spreading the virus, especially around our older friends who may have some other conditions to deal with and we'll all get through this 'virus' thing.



**Fran Monahan** shares a photo of his...“Log Train”.

**This newsletter has turned out to be a Summer Pictorial Bonanza!! Hooray!!**

After getting very few photos last month I decided to personally 'twist some some club member's arms' that I knew were '**push overs**' to send me some photos from their great layouts. We can't have Open Houses this summer but we can **still** share photos from our homes and workshops. It keeps us all together through these difficult times and I hope it will encourage others to send in photos for us all to enjoy in the next newsletter.

**Please enjoy them in this month's Member's Photos section.**

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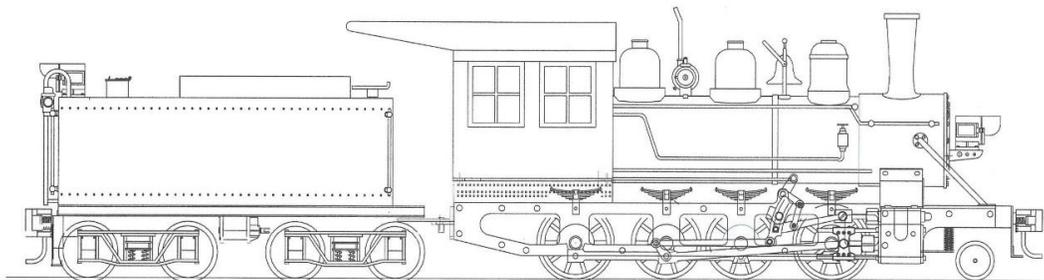
**Les Knoll.**

What can you say about Les Knoll's tireless energy? Maybe, 'Les is More'?

Our resident **PGRS Live Steam 'Maven'** [noun: *an expert or connoisseur.*] Has embarked on yet another, very ambitious project.

He has described it to me as such:

*"....on my agenda is a new design project for Steam in the Garden magazine, a year-long series to run in **2021**. It covers the construction of a small **2-8-0 live steam Consolidation** made almost entirely from ready-made components from **Roundhouse Engineering** and custom cut waterjet parts from **Denver Waterjet** here in **Denver, NC**. I will be able to send "portrait" CAD drawings soon as the early development is nearly completed. I am using **Terry Kethcam's Bachman Spectrum 2-8-0** as a pattern, and scaling the locomotive down a bit to match Roundhouse running gear. Two models will be covered: an outside and an inside frame locomotive, with few differences in parts (mostly frame spacers) to build either one of them. **One of the best features of this project is that it requires no machine tools**. Decent hand tools and a good drill press will get you through it. With all the ready made parts incorporated, it almost comes down to a locomotive 'kit'. **A teenager with good shop skills could build it**"*



Thanks Les! Your tireless devotion to the **Large Scale/ Live Steam** hobby is an inspiration to us all and we **loudly** applaud your continued efforts to promote and make it more accessible to people who may be interested in pursuing Live Steam.

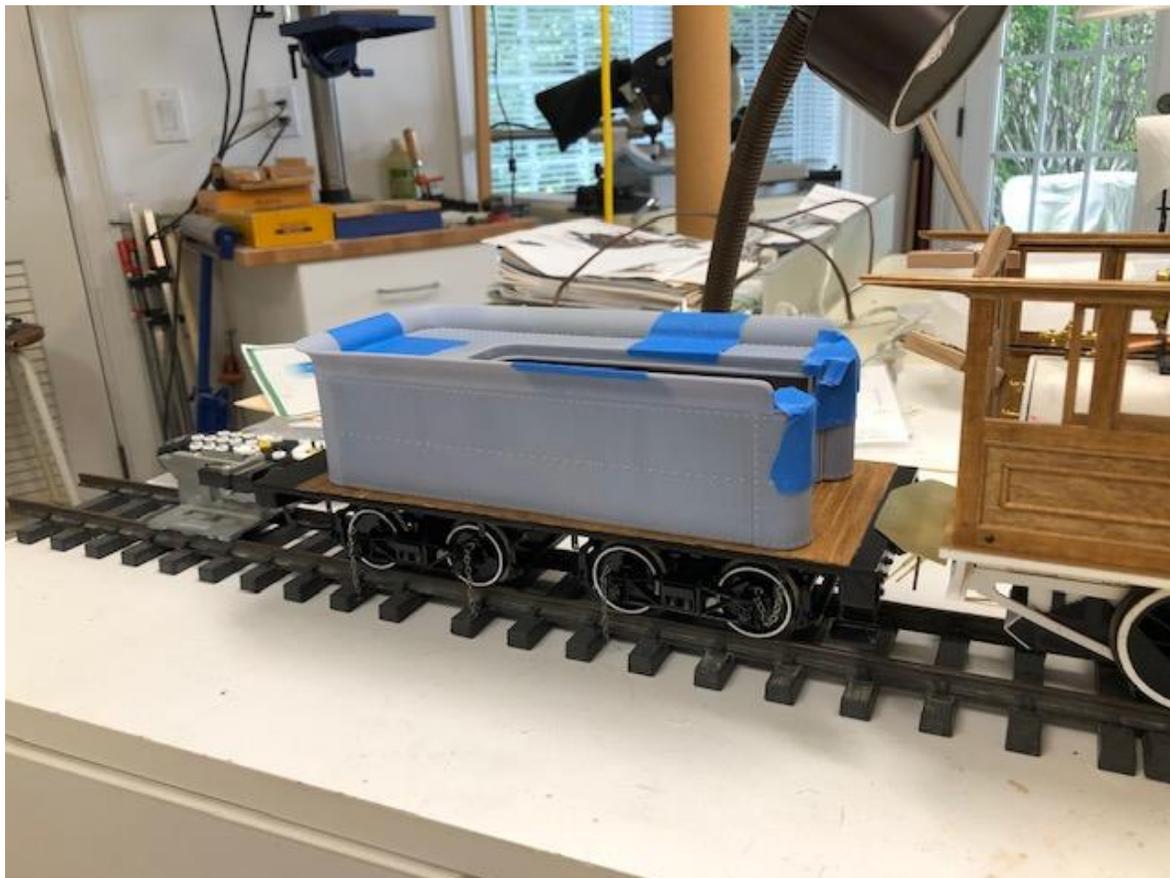
Kudos to you, your shop, and your excellent layout over in Denver NC.



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### **Doc's Scratchbuilt Mogul Project:**

Doc sent me this photo of his new 3D printed, locomotive tender that his son made for him with his 3D printer. It's all taped together in place on the frame in this photo from Doc's '**aseptic**' model train workroom and ready to be glued together. I've seen it in person and it looks **Awesome!** Feel free to count all the rivets but I bet you won't find **any** of them missing. Thanks for sharing Doc:



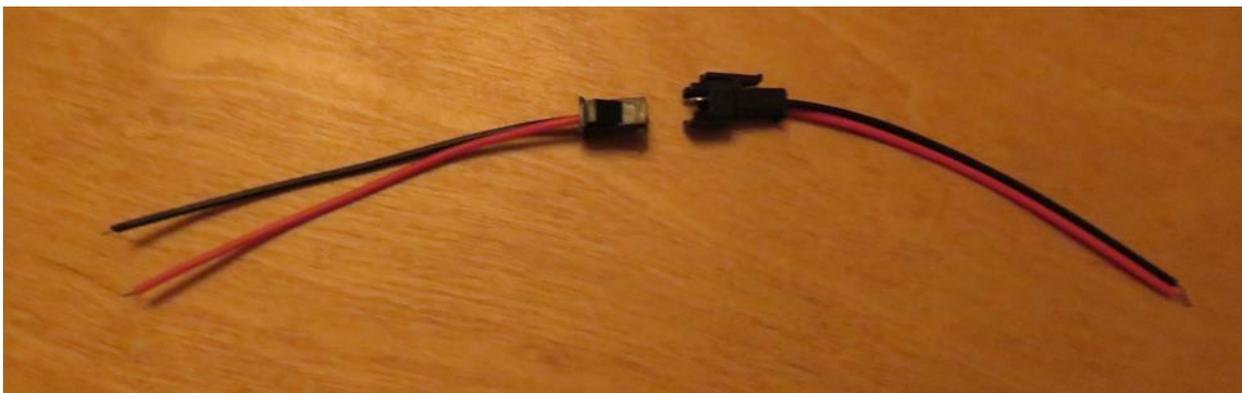
\*\* When I accuse Doc of having an 'aseptic' model train room it's only because his workroom more closely resembles a **Surgical Operating Theater** with things neatly filed away in drawers. In my case however, at the other end of the spectrum, this **chaos** is what you'll usually find in my train room:



But hey! **We all have our own methods.** I kinda' know where everything is...I think. It's in a cardboard box...or a drawer...or a bag...somewhere...I'll find it...eventually.

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**2 wire connectors:**



My brother Larry ran in to this problem a while back and it just 'Bit' me recently. I bought a bunch of new connectors and while I was converting my Connie to Railboss/battery control I was totally 'stymied' by a wiring issue that I couldn't figure out.

Larry reminded me of the problem he had recently and I flipped the wiring to the circuit board and things worked out just fine.

**Apparently**, there's a bunch of these connectors floating around with the 'red and black' wires'...switched, which will play havoc with your polarity. The connectors still work perfectly well but the red and black wires are 'reversed'. Look out for this issue and try switching your wiring accordingly if you run in to trouble and you'll probably be just fine. Just a 'Heads up'.

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### **Iron Creek Shops:**

A nice source for 1:20.3 'bits and pieces'.

<https://www.ironcreekshops.com/store/>

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### **Thomas's 'Big Problem':**

I asked **Randy Theis** to send me some photos from his layout. He apparently has been locked down a little too long for the last few months with his loving, long suffering, wife Kathy [God bless her], up on top of their mountain lair at the end of a VERY long dirt track road overlooking some of the most beautiful countryside in the western NC mountains that you have ever seen.

#### **Randy sends us this:**

Thomas: Dispatch, I have a problem. I know you told me to pull these heavy stone cars over to the mill, 2 at a time. I wanted to surprise you with how strong I was so I pulled all 16 cars over empty.

Dispatcher: Thomas, that's too heavy for a little train like you.

Thomas: I did real good with the empties until I pulled under the mill and the operator loaded them all. Now I am out on the mainline and I can't move the cars no matter how hard I try and my eyes are crossed. Please send my strong friend **James the Red Engine** to help me.

Dispatcher: Thomas, your friend **James** is sick with a dirty boiler. I will try to find someone to help, but try harder.





Thomas: Dispatch, never mind sending help. I am stronger than I thought and the train is starting to move now.

Dispatcher: That is good news Thomas. I told you that you were strong. By the way, you may want to toot your whistle at **Big John** the next time you see him. He is your friend.



Big John gives **Thomas** a 'PUSH' but **Thomas** doesn't know it.

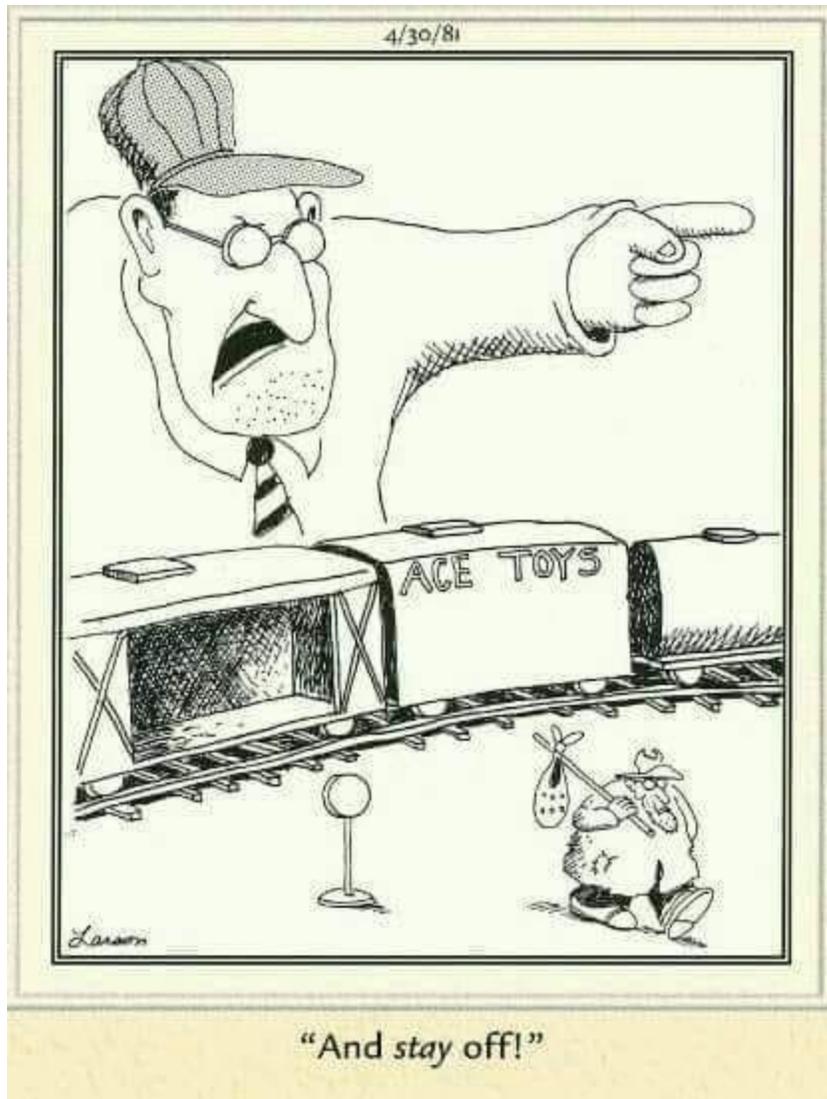
Thanks **Randy**! Glad you're having so much fun with **Thomas** and all of his friends!!

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Randy said that when he went outside to bring his toys indoors that a 'neighbor' came by to offer to help him but he declined his assistance and went back indoors until later.



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**MEMBER PHOTOS:**

This newsletter I ‘twisted the arms’ of folks who’ve contributed excellent photos in the past to get them to share some more great photos from their layouts. It’s been a tough year for all of us not being able to get around and visit like we normally do with no Open Houses, etc., so I ‘leaned on’ some of our club members to send me some photos of their trains posed in their favorite settings for us all to see. They all responded!! And now the gauntlet has been thrown down. I expect the rest of you to send us all a photo or two of your favorite loco, posed in a favorite setting.

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**Bill Davies** in East Asheville started a new garden layout this spring when the country went in to **lockdown**. “Just for something to do”. He has made some **great** progress and things are moving right along and now that he’s satisfied with his grading he’s put down some ballast:



The logging Shay is “in the hole” on the passing siding to let the ‘Varnish’ roar by.



The 'Ten Wheeler' just finished taking on water and is moving back out on the mainline.

The Shay starts out around the temporary curved trestle that connects Bill's whole layout together. He plans to replace this temporary structure with an impressive curved trestle. When finished it will complete his awesome new layout.



The spur to the future Train Barn. Yet another great future project that we look forward to seeing photos of. It looks great Bill!!

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**Doc Watson** sends us these photos of his incomparable Mason Bogie pulling his scratch-built combine. Large Scale, Narrow Gauge modeling perfection!



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**Fran Monahan** got his trains out in the fresh air also. He struts out his beautiful Mikado Loco, alongside his awesome GG1. Gorgeous Locomotive models!!!



**Fran's** trains on display out back alongside his shady viewing spot. A great place to sit and view the trains run around his layout.



Fran's War Bonnet Santa Fe diesel.



Fran apparently has an **Impala SS** on a flat car that looks **quite similar** to the **'real'** one that he has in his garage behind a promotional reefer of the family business.

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**J.R. Snider** sends photos from Kernersville NC.



A unique Mallet model pulls some freight cars past his local brewery.



Some 'Heavy Iron' passes over and under on J.R. Snider's layout.



A 'flock' of steamers are waiting to get the job done in town.



Look at that flanger! It's gonna' keep the tracks clear this winter.



Railbus express at the station with lots of 'interesting' folks hanging 'round the station.



West Side Lumber Shay hauling logs across the trestle bridge.

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**Terry Ketcham** sends some photos from the Apple Valley Model Railroad. He has kind of been working by himself these days as the Apple Valley has been closed due to Covid. He's managed to trim some of the faster growing vegetation to keep the railroad running smoothly:



Terry Ketcham also fired up his Live Steam Accucraft Shay recently.



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**Randy Theis** also sent these photos. The sawmill crew really beat their quota so the Boss sprung for some jugs of corn 'likker' and they're partying. They don't seem to notice, or even care about the black bear family sitting on their front porch.



The track crew has been busy fixing one of the turnouts



An impromptu 'Hoedown' at the station as the 3:15 pulls in right on schedule.



Three locos, all working the mill at once. It's a traffic jam!





Who's got the Right of Way here!!

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**Les Knoll** sent some photos of the town of 'Hungry Horse' on his layout as seen after dusk.



Downtown Rivendell after sunset.





Working late at the Engine House.



Drawing logs up in to the Sawmill from the Mill pond.



Switching the work train in the daylight at Hungry Horse.



**Thank you Everyone!!! These photos are Fantastic!!!**

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## For 40 Years, Crashing Trains Was One of America's Favorite Pastimes!

From 1896 until the 1930s, showmen would travel the country staging train wrecks at state fairs.

BY [JUSTIN FRANZ](#) JULY 1, 2019



A crowd swarms over the wreckage to claim souvenirs in Buckeye Park in Ohio after a staged train wreck in 1896. H.F. PIERSON/LIBRARY OF CONGRESS/CORBIS/VCG VIA GETTY IMAGES

**ON SEPTEMBER 15, 1896**, TWO locomotives crashed head on 14 miles north of Waco, Texas. The locomotives' boilers exploded on impact, sending debris flying through the air for hundreds of yards, killing at least two spectators and maiming countless others. One man even lost an eye to a flying bolt. But no one ran from the calamity. In fact, after the crash, thousands of bystanders ran toward the destroyed locomotives hoping to claim a piece of the wreckage. That's because the 40,000 or so people scattered along the tracks that

September day knew the locomotives were going to crash and had paid to be there.

From 1896 until the 1930s, staged train wrecks were a popular—albeit destructive—event at fairs and festivals across the U.S., long before anyone ever thought of wrecking old automobiles at a demolition derby or monster truck rallies.



One of the first staged train wrecks was done in 1895 by a railroad equipment salesman named A.L. Streeter in Ohio. The wreck used the same formula that nearly all other staged train wrecks would follow for the next 40 years. Organizers would lay a stretch of track, usually anywhere from 1,800 feet to a mile-long, and then get two old steam locomotives and put them at either end of the track facing each other. They would then hire two brave locomotive engineers to wait for a signal from the organizer. When they got the go-ahead, the engineers would pull the throttles back as far as they could to get the

locomotives up to speed. They would then jump from the locomotive before the two trains crashed in front of a crowd who had paid a few dollars to see the spectacle. According to the historian James J. Reisdorff's book *The Man Who Wrecked 146 Locomotives*, Streeter's wreck was so successful that there were at least six staged train collisions the following year, including the most infamous one north of Waco, Texas, known as the "Crash at Crush."

The wreck near Waco was the brainchild of William George Crush, a passenger agent for the Missouri-Kansas-Texas Railroad, better known as the "Katy Railroad." The Katy had been struggling to regain its financial footing following the Panic of 1893 and the appropriately named Crush was tasked with finding a way to attract new passengers to the railroad. Crush offered a deal where people could pay two dollars to ride the Katy to the wreck from anywhere in Texas.

Crush secured two old steam locomotives, Nos. 999 and 1001, and painted them red and green. Railroad employees then built a stretch of track between three hillsides that formed a natural amphitheater, perfect for viewing the wreck. Crush expected a crowd of 20,000 people to come to the event, so he built a temporary town and called it "Crush." To support the thousands of spectators, he drilled water wells, set up a borrowed circus tent to house a restaurant, and built a wooden jail in case people got out of hand. He even hired 200 constables to keep the peace. On September 15, people began to arrive at Crush aboard trains that would steam into town every few minutes. By 4 p.m., more than 40,000 people had arrived, far more than Crush's original estimate, making Crush the second-largest city in Texas, at least for a few hours.

At approximately 5:10 p.m., Crush climbed on his horse and rode to a spot between the two locomotives. At the wave of Crush's hat, the two trains began to barrel toward each other. The locomotives reached 50 miles per hour before they collided, crunching into a mass of bent steel and shattered wood before exploding. One witness described the terror: "There was a swift instance of silence, and then, as if controlled by a single impulse, both boilers exploded simultaneously and the air was filled with flying missiles of iron and steel varying in size from a postage stamp to half a driving wheel." A Civil War veteran who was there said it was more terrifying than the Battle of Gettysburg.



Prior to the event, Crush had asked a number of Katy engineers about the dangers of crashing two locomotives. All of them but one said it was safe. The engineer who said the locomotives would explode was quickly dismissed as a negative naysayer.

Crush was fired **immediately** after the crash, but after realizing that most people in attendance had a great time, the railroad rehired Crush the next day and he worked for the Katy until he retired. Connolly began to criss-cross the country putting on wrecks from Boston to Los Angeles, Tampa to Salt Lake City. According to Reisdorff, he also found ways to add to the spectacle, including strapping dynamite to the front of the locomotives and filling freight cars behind the engines with gasoline and hot coals so the vehicles would be engulfed in flames after they derailed. Connolly and other train wreckers also liked to paint names and phrases on the sides of the trains for different political candidates or

causes so that spectators could cheer for their respective locomotive. One wreck in 1932 featured “Hoover” versus “Roosevelt.” Connolly got so proficient at putting on train wrecks that he allegedly even tried copyrighting it, although Reisdorff was unable to find proof that he ever actually filed the paperwork to do so.

By the 1930s, staged train wrecks were starting to lose their popularity because wrecking old but otherwise useful locomotives was seen as wasteful at the height of the Great Depression. Connolly put on his final wreck at the Iowa State Fair in 1932. According to Reisdorff’s book, after the destructive display, Connolly said, **“Well that’s that,”** and walked away.

The last staged train wreck for public viewing was in 1935, but that was not the last time people crashed two locomotives on purpose. In 1951, two steam locomotives were wrecked in Colorado in front of the cameras for the movie *Denver and Rio Grande*, a western-themed film about the construction of the railroad of the same name.

Even today, train wrecks still offer grim appeal for the public. One only needs to look at the 2010 disaster movie *Unstoppable* to see an example of a modern audience waiting with bated breath for a train wreck. But the trend of destroying trains in front of a live audience is one that died out long ago, along with Connolly and Crush, the masters of the bizarre craft.



The “Crash at Crush” explosion. THE TEXAS COLLECTION, BAYLOR UNIVERSITY

While Crush was perhaps the most well-known train wrecker, one man turned it into a career. Joe Connolly staged more than 70 wrecks and destroyed at least 146 locomotives between 1896 and 1932. He even earned the nickname “**Head-On Joe.**”

Connolly grew up in Iowa along the tracks and as a boy often wondered what would happen if two trains ran into each other. “I believed that somewhere in the makeup of every normal person there lurks the suppressed desire to smash things up,” Connolly wrote in an article in 1933. “So I was convinced that thousands of others would be just as curious as I was to see what actually would take place when two speeding locomotives came together.”

Besides wanting to satisfy his boyhood wonder, Connolly worked in theater and knew a good show when he saw it. For his first collision, Reisdorff writes, he

teamed up with a veteran locomotive engineer, J.H. Bancroft, in order to safely carry out the event. Connolly went to the state fair board in Des Moines and offered to put on a crash for \$5,000. That initial price was a bit too steep for the board but he came back with a more acceptable offer: \$3,000 plus a cut of the ticket sales. The board agreed and on September 9, 1896—a week before the infamous Crash at Crush—Connolly held his first staged wreck. About 5,000 people paid 50 cents each to sit in the grandstand to watch the show and thousands more stood along the fence outside. The wreck was a success and both Connolly and the fair made a profit.

<https://www.atlasobscura.com/articles/staged-train-wrecks>



The crowds swarmed the wreck, hoping to take home a souvenir. THE TEXAS COLLECTION, BAYLOR UNIVERSITY

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**Member Photos:**

Send any idea, project, photo, something you found surfing on the Internet, etc., no matter how great or small you may think them to be to your newsletter editor. We all love trains so...if it's about trains, and you've got it on your computer, chances are you won't be the only person who might enjoy viewing it.

Send your photos to: [srwavl@outlook.com](mailto:srwavl@outlook.com)

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**Trivia Question:** Last month we discussed that one of the smallest steam locomotives, the Porter, was originally conceived to run tender/bunker forward. That design allowed a small locomotive to place the bulk of the locomotive's weight right over top of the main driving wheels for maximum 'tractive effort'. The Porter proved successful running both backwards and forwards and was usually run boiler forward later on.

At the other end of the locomotive spectrum though, some of the **largest** locos ever built were also configured to run 'CAB-forward'. What railroads did this? And why?

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**Membership:**

Please consider sharing this newsletter with friends who might be interested and if they wish to become members ask them to contact our PGRS Secretary/Treasurer for a membership form.

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**Train Lovers Luncheons:**

...have been postponed until things get safer with the Coronavirus.

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\*\* A reminder from Terry Ketcham that he's been running some trains out back on the club's Large Scale Layout on Saturdays while the Farmer's Market has been going on.

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**Trivia Answer:** One of the first **Cab Forward** locomotives for a standard gauge American Railroad was arguably not such a successful design. The North Pacific Coast Railroad, later part of the **SP**-owned Northwestern Pacific company, rebuilt an **1875 4-4-0** into a **cab-forward** locomotive. This innovative engine was built by **William Thomas**, the NPC master mechanic and holder of a number of patents. Thomas used the running gear and frame from **NPC locomotive #5, the "Bodega"**, which had been wrecked in **1897**, to build **NPC 21**. With the addition of a new and unusual marine water tube boiler and an all-steel cab, installed in reverse order from standard engines, this unique creation earned Thomas a patent on the locomotive design. No. 21 entered service in **1900**, but only lasted a few years due to design flaws in the boiler. The crews were also not satisfied with the new engine, finding it difficult to operate, and with fears of the possible results of a collision sitting in front of the boiler, instead of behind it, (the usual practice). Oil leaks could also cause the wheels to slip. A nuisance under most conditions, it resulted in at least one fatal accident. They dubbed it "**The Freak**".



**BUT LATER,**

**Southern Pacific railroad embraced the design:**

### Mallet compound locomotive, Cab Forward.

Initially, a Mallet-type steam locomotive, the **Cab Forwards** have their beginnings around **1908** when the **Southern Pacific** ordered two Mallets of the **2-8-8-2** arrangement to negotiate the very steep Sacramento Division (with grades of 2.5% in some spots), over a 150-mile stretch of main line over the Sierra Nevada. Because this main line runs through high mountain passes it was, and still is in some areas, lined with numerous snow sheds. **It quickly became apparent that these snow sheds wreaked havoc on train crews since traditional steam locomotives have cabs located at the back near the tender and they caught the brunt of the exhaust, which was very dangerous and could cause asphyxiation.** The new design placed the cab at the front by the simple expedient of turning the entire locomotive, minus the tender, by **180 degrees**. **This arrangement was made possible by burning fuel oil instead of coal.**

The cab forward design was widely used by the **Southern Pacific Railroad**. The design was able to deal with the peculiar problems of its routes. The 39 long tunnels and nearly **40 miles** (64 km) of snow sheds of the Sierra Nevada could funnel dangerous exhaust fumes back into the crew compartment of a conventional locomotive. **Initially, Engine crews were supplied with breathing filters to keep from being asphyxiated by the locomotive's smoke and fumes but this proved not to be an ideal solution.**



After a number of crews nearly asphyxiated, it was decided to run the locomotive in reverse. **This meant that the tender was leading the train**, which introduced new problems. The tender blocked the view ahead and put crewmen on the wrong sides of the cab for seeing signals. The tenders were not designed to be pushed at the lead of the train, which limited speeds. Southern Pacific commissioned Baldwin Locomotive Works to build a prototype cab-forward locomotive, **then ordered more units even before the prototype had arrived.**



All of the cab-forwards were oil-burning locomotives, which meant there was little trouble involved putting the cab at what would normally be the front of the locomotive. The oil and water tanks were pressurized so that both would flow normally even on uphill grades. Visibility from the cab was superb, such that one crewman could easily survey both sides of the track. There were concerns about what would happen to the crew in the event of a collision, and at least one fatal accident did occur on the Modoc Line in Herlong, California when a moving locomotive struck a flat car.



One problematic aspect of the design, however, was the routing of the oil lines; **because the firebox was located ahead of the driving wheels** (This occurred in 1941 when a cab-forward with leaking steam and oil lines entered the tunnel at Santa Susana Pass, near Los Angeles.) The tunnel was on a grade, and as the slow-moving train ascended the tunnel, oil on the rails caused the wheels to slip and spin. The train slipped backwards and a coupler knuckle broke, separating the air line, causing an emergency brake application and stalling the train **in a tunnel** that was rapidly filling with exhaust fumes and steam. **The oil dripping on the rails and ties then ignited beneath the cab, killing the crew.**

No other North American railroad ordered cab-forward locomotives, although some, like Western Pacific, did consider the type. Built to deal with difficult terrain, these locomotives became an easily recognizable symbol of the **Southern Pacific**. In total **256** such Mallet-type articulated locomotives, in three different wheel arrangements, were placed on SP's roster. One example of the type, Southern Pacific 4294, is kept at the California State Railroad Museum in Sacramento, California. It is a **4-8-8-2** locomotive and is the only one to escape being scrapped. It was also SP's last new steam locomotive, built in 1944.

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**Businesses associated with our club:**



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**The Right Track Toy Train Museum**  
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**\*\* Jim Hendley has moved.** To reach him use the following number:

**828-333-2523** and if the email above does not work try [hendleyjim4@gmail.com](mailto:hendleyjim4@gmail.com)

**\*\* Peggy Keyes announced on Facebook that due to Covid the museum will be closed until further notice. Check The Right Track Facebook page for further developments.**