



The PLS GAZETTE

A newsletter of the Pennsylvania Live Steamers, Inc.

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Green Signals Ahead

Our running season winds down this October. Our last scheduled run day for the season is on the fourth Sunday, the 26th. If the weather cooperates, you might find a few trains out on the railroad for some late season running. Gauge 1 (our smallest size — no riders), will have the Turkey Trot Run on November 15, but as cold weather approaches we will be blowing down water lines to all the outside steaming bays and yard water faucets to prevent damage caused by freezing. Even with the most careful removal of the water in the pipes and valves I am sure we will have a pipe or valve to repair or replace when we start up the railroad again next spring. However, long before spring comes along, you will likely find several hardy members out on New Year's Day running around the mainline with electric or diesel locomotives — provided the snow and ice stays away.

If you have been keeping up with the news in this year's *Gazettes* you might have noticed that it was a busy year at the PLS. In recapping some of our accomplishments, you need to go back to the beginning of the year, April 2014, when we completed a significant amount of maintenance work on Building 3's transfer table. With almost 25 years of service many worn and broken parts were replaced by machining new ones and purchasing and installing everything needed to make the table good as new. Comple-

tion was just in time for members returning their engines to Building 3 and for the first run day of 2014. It was close, but we made it thanks to members like Bob Hillenbrand that spent many hours disassembling, cleaning and painting parts in order to finish this project in time for April's opening. Another project started last year was also completed as the new steel multi-gauge bridge had track installed by Ron Shupard and Bruce Saylor and was returned to service. Another project worked on by members Ron Shupard and Jim Miller was the completion of the lead track and installation of three-three-way stub switches for Building 8 just in time to accept several strings of One Inch rolling stock. Building 8 is now looking like a real car barn.

As all of you know last winter at PLS was not the best for project completion as we had snow and ice on the ground and roofs of our buildings for many, many weeks. This stalled the major roof extension project on the 1½ inch station, a project that rolled over into the New Year, but as soon as the snow cleared, members Steve Leatherman and Bob Morris were hard at work completing the shingling of the roof. The work continued with member Pete Brown wiring the lights in the station and Bob Morris, paint brush in hand, working all spring and summer to not only paint the new part of the station, but to go back and paint the main station building too. Way to go Bob! Did I mention that Bob also painted the 1 inch station and part of Building 3? And the painting continues!

Some of the smaller, but none the less time consuming projects also

received attention; member Larry Moss took on the task of building a new roof for our wooden water tank that sits at the east end of the 1½ inch station, next time you visit PLS be sure to look at the intricate work that went into reconstructing the water tank roof. Another small yet very time consuming project has been the re-alignment of the steaming bays next to the multi-gauge loop. Member Jim Salmons along with Bob Hillenbrand have been machining, cutting, banging and bending the ends of the bays back into alignment with the turntable. The bays' supports that are concreted into the ground have moved around over the past 30 years, most likely due to the very large sycamore tree that is growing in the bay and if the tree wasn't what caused the bays to move than maybe a bit of frost heave helped to push them around.

Let us not forget the work by members Bruce Saylor and John Bortz Jr. with the never ending track work they have been doing weekly all year long to keep our track level and straight. PLS is proud of the condition of our track and the smooth ride it allows all those that ride our trains to experience.

Two new water fountains were installed by member Ken Evasew along with a long list of other plumbing needs all around the PLS property. Dozens of valves, thousands of feet of piping both air and water, filters are always in need of Ken's skills. Did I mention electrical work as well?

Many of the projects above had the help and support of other members to keep these and other projects at PLS

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Green Signals Ahead

(Continued from page 1)

moving along and to all those that participated I would like to offer a grateful thank you to all.

As you can see by the partial list of projects we worked on this year the work at PLS never stops. I would like to remind all that are reading this *Gazette* that we still have open projects that have not been started. We are hopeful that in the next month we will have a building permit that will enable us to start construction on the 30 foot roof (porch) extension on Building 1. One more very important project that we will be undertaking will be the replacement of the curbing on the South side of PLS along the two mainline tracks that run past Building 1 to the trestle. This project will require a lot of digging out the old deteriorating railroad ties and replacing them with new ties or concrete block. Most of the curbing is one tier high, but as the curbing approaches the trestle it becomes higher and the existing stacked concrete core curb right at the trestle entrance will need considerable efforts to straighten it out. As of this writing we are still considering the best choice of material to fix this area of the curbing. One more project that we will be undertaking sometime in the future is the building of a shed roof on the east side of Building 3. This storage area will be used to house the work horse backhoe that has served PLS well for many years.

All members, Associates and Regular are encouraged to give a hand in helping to finish the existing projects and stop by and see how they can

2014 PLS Calendar of Events

Saturday, Oct. 18	Board of Directors Meeting - 9:30 AM Membership Meeting - 12:30 PM Fall Clean Up Afternoon/Evening Run*
Sunday, Oct. 26	Run Day - Members & Guests
Sunday, Nov. 2	Run Day Rain Date
Saturday, Nov. 15	Board of Directors Meeting - 9:30 AM Membership Meeting - 12:30 PM
Friday, Nov. 28	Turkey Trot Run – Gauge 1 only – (rides not available)
Saturday, Dec. 20	Board of Directors Meeting - 9:30 AM

participate in the new ones we will be starting. Although the running season is coming to an end the work days continue all year and you can find us working every Wednesday and Saturday all year long, but not to worry, we do take off for Christmas Day.

One funny thing comes to mind as I finish up this project recap, all of the people at PLS that perform the tasks I mentioned do this because for them it is a labor of love and most find it fun to work out the problems, find solutions and use their skills for the work that needs to be done.

See you on the main line,

Frank Webb - President

Donation Acknowledgements

PLS wishes to thank the following for donations received during August and September: Robert Normart and the family of Al Mercer.

Membership Gauge

As of September 30, PLS has:

104 Regular Members
251 Associate Members
9 Honorary Members

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Historic Help Request

Since 1997 I have been researching the history of the Old Perkiomen Copper Mines at Schwenksville, Pennsylvania, and I'm interested in obtaining any information concerning the filling in and sealing of the mine entry access(s) that would have been located along the Perkiomen Railroad bed at the time of its construction in the years around 1880.

As best I have been able to determine, the mine entry(s) were located near the junction of the Swamp and Perkiomen Creeks between Schwenksville Borough and the village of Delphi/Zieglerville.

I would very much like to find any reference to the construction of the

rail bed in this vicinity, the specific location of the entry(s), and/or other details of this mine which could be provided to me. The Old Perkiomen Copper Mine is an older colonial copper mine than what existed at Audubon, Pennsylvania., often called "The Perkiomen Copper Mine." The two mines are often confused when referenced. My contact e-mail address is vze59wgc@verizon.net.

Thank you,
Phil Smith

Club Membership News

PLS welcomes new Associate Members Camila Desotti, John Dubeck, Dave Christmas, and Fred Daddi.

Fall Meet Thanks

PLS had an excellent group staffing the kitchen during this year's event from set up to cleanup. Kathy Parris wishes to thank those who provided baked goods and/or volunteered in the kitchen. This includes, among others: Al Hein, Rose Ann Wagner, Sue Borders, Gayle Keir, Ross Magee, Walt Mensch, Bruce Saylor, Mary Saylor, Barry Shapin, Walt Mensch, George Cooper, Rich Poletto, Bruce Barrett, Pat Heller, Sue Webb, Barb Miller, Carl Miller, Mike Moore, Carol Quirk, Deb Rose, Mary Magee, John Bortz, Dave Laird, Roy Nelson, Pat Speak, and Cathy Barker. Special mention also of continued support by Redner's Warehouse Markets and the Philly Pretzel Factory.

Thank you also to Jay Shupard and his family for again hosting our successful Pot Luck Dinner.

Fall Meet Photos

At Right: Doug Pyatt's Model "A" Ford was a hit; **Lower Right:** Jeff Dolhanczyk hauling some tractors; **Below:** visitor on the multigauge line.



Photos by Allen Underkofler

Trainman 4602 Videos

Watch and learn

By Bob Thomas

PLS member Dave Sclavi is known on the popular Chaski live steam discussion forum¹ by his Screen Name, *Trainman 4602*. In a generous extension of his broad knowledge and skill as an accomplished live steam locomotive designer and builder, Dave has devoted an enormous amount of time and effort since 2008 to passing along the fruits of his experience to the rest of us through more than 160 video programs freely accessible on YouTube. They typically run 10-15 minute's duration and have had nearly 17,000 views! In fact, his videos are so profuse and have become so popular he now has an exclusive YouTube Channel with 3600 subscribers. The channel's home page displays all his programs as thumbnail screen shots with a clickable link to your selected program.²

The vast majority of Dave's videos are practical explanations presented in clear, conversational style showing how he goes about making a complex part, tackles major construction jobs like a passenger car, or performs many of the processes encountered in locomotive construction and operation. The videos have what is known in broadcasting as, "high production value." Video quality, lighting and picture steadiness and postproduction editing are all excellent. Dave wears a wireless mike to ensure uniform audio quality in all circumstances. The location of those programs is usually his shop but surprisingly it is sometimes right in the kitchen, possibly with a pot of



Brittany Grimm discusses her Gauge-1 K4 with Dave at 2012 Cabin Fever Expo.

Pasta e fagioli (pasta fazool if you're from Jersey) simmering on a stove in the background. He also posts video records of visits to club tracks near and far, and in the near category fifteen programs originated at Rahns, including regular run days, picnics, double-heading K4s, and solo running of 3651 with son Dan. Dave gets around to other builders' shops, museums and prototype railroads and has a number of videos illustrating those trips. A notable bit of history is the 1997 inauguration of the 3" scale NYC J1e Hudson Dave built for a west coast customer, shown in a video at his shop and one issued commercially by Don Wood Productions. But make no mistake, the greatest value of Trainman 4602 videos is the time-tested information they convey to the serious live steam locomotive builder.

I became acquainted with the videos from two made during construction of Dave's K4s cab when he mentioned *Cleco Clamps* on Chaski. That was thirty years too late for me, but still just in time to use them in my own shop. Clecos are used by the thousands in aircraft construction to hold aluminum skin in proper alignment while it

is being riveted on the air frame. Dave used them in a similar way to hold the sides of his cab to frame members while they were permanently riveted in place. In two videos he shows exactly how Clecos are employed, different types available, a special tool used to install and remove them, and a variation in the form of an extremely powerful spring-loaded clamp that can be set in position with one hand.

One of the most practical Trainman 4602 instructions is a 6-part series on wheel turning, in which every step in machining a rough casting into a finished wheel is demonstrated down to the smallest detail. This is a situation, as with many of Dave's methods, where there are alternate ways of doing the same job, so there will be the usual carping by other builders that he is all wrong and their way is better. True perhaps, but all the dissenters have to do is post their own pet method on YouTube and leave it at that. Dave frequently acknowledges existence of other viewpoints and repeatedly states that he is simply showing what has worked best for him making 1.5" scale equipment. Wheel turning videos are supplemented by two others on the op-

¹ Chaski Live Steam Forum: www.chaski.org/homemachinist/viewforum.php?f=8

² Trainman 4602 YouTube Channel: <https://www.youtube.com/results?q=trainman4602>



Introduction to Metal Etching — Dave's kitchen table approach to the etching process. At right are examples with Sharpie masking and the finished plate.



eration of engine lathes for large scale locomotive construction.

Difference in opinions is no better illustrated than with Dave's air brakes, cause of many ruffled feathers on Chaski. In short, Dave is not fond of vacuum brakes, preferring his version of the Westinghouse air brake system. Although complex, his air brakes, as with the prototype, are fail safe, causing both ends of a separated train to stop immediately. Additionally, they allow the same exquisite control of application, as WABCO brakes, from a few pounds reduction on moderate down grades and station stops, to full emergency. Finally, so-called "safety" chains are not required other than by legislation that seems blissfully satisfied with flimsy hooks and weeny chains destined to straighten out or break in a real emergency.

Some of the non-controversial topics covered by Trainman 4602 videos describe proven methods for metal plating and etching. These include four videos on the basics of metal etching in which making of diamond plate steps is used as a typical application. Related videos show how to do photo etching to make deep-etched builders' plates, number plates, and cover plates for electrical conduit junction box covers with minute raised lettering. Take a close look at 1361 to see numerous examples of the realism Dave's methods achieve. A similar series is devoted

to plating, and as in all his "kitchen" projects, he passes along actual sources for buying chemicals, pre-sensitized copper and inkjet-printable film, and inexpensive auxiliary devices used for rapid processing and uniform results. There are no secrets here!

Not many locomotive builders make their own patterns for wheels, cylinders and other major components. Dave does and demonstrates all the details of pattern and match plate making. His section on cylinders is covered in four videos, while driver patterns occupy another five videos. All of these are accompanied by lucid explanations of how patterns are prepared for the foundry and how cores are used. It's a real education but not many viewers seem interested, based upon the number of views these videos have had compared to others on more general (easier?) topics.

Some of Dave's videos end with the enigmatic credit, "Production by Charles Nelson Corrigan." Who is that guy? Well, he turns out to be a fictitious character having the initials CNC, an elusive reference to a machining method Dave tried tirelessly for six months with an actual CNC machine and, without getting into the details, finally decided it was not for him – even for production runs. He wound up instead with a Hardinge Chucker (a versatile, massive machine from WW-II) to complement his rugged 15"

lathe and K&T milling machine. The capabilities of each machine are shown in separate videos. Dave is convinced that, *for live steam locomotive construction*, the builder has to "feel" the machining to get the personal satisfaction that can be realized only by manually controlling feeds, making tool changes, setting stops and, most of all – observing the cut – to be fully immersed in the operation.

If you have been to Rahns in the past year you must have seen the rake of six PRR passenger cars with 1361 on the point. All cars are equipped with glass windows, diaphragms, and air brakes with air supplied by a battery-powered compressor in the RPO. Their construction is shown in no less than twelve videos (thirteen including a trip Dave made to Rahns for setting-up the brakes and road testing the first car). Additional videos describe making other components mentioned above. Of course there are also many more how-to videos on the channel including riveting, cutting and applying Mylar lettering, powder coating, making and using rubber molds for detail parts by lost wax casting, reproducing exact prototype colors, and too many more to even mention here. But you get the idea; there is a lot of useful information to be found on the Trainman 4602 YouTube channel, even if you might not agree with some of it. Watch and learn! 🍷

NYC 3 Power Locomotive

Another Project ... By Bruce Saylor



The original locomotive was built back in the 20's as diesel, battery and third rail pickup. They were used on the Rock Island and Illinois Central though the Rock Island didn't have third rail pickup.

This model was built by Doug Spear of PLS back in the 80's. It was in service about 87-88. I believe all the sheet metal work was done in Al Mercer's shop on Boyertown, PA.

There are actually two of them. The second one is bare and needs a lot more work than this one did.

Doug passed away, a member of PLS bought it with the idea of improving it. That never happened.

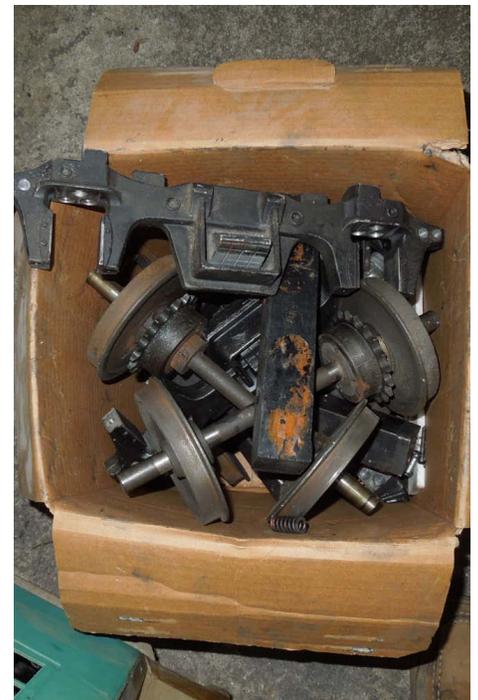
After about 18 years I purchased it and completely restored it to what you see here. A second one is now under construction.

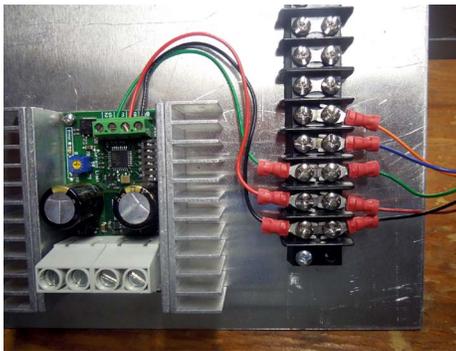
The trucks were completely rebuilt,

the interior was all tossed out, the body and roof were all striped and refinished. The roof had some serious rust. After I needle scaled it I felt it was okay to finish. The complete body was torn apart to flat pieces that made it easier to needle scale. I used PlastiKote self-etching primer and top coat.

I purchased two 650-watt scooter motors from Monster Scooter Parts and made special brackets to mount them. I put #25 sprockets and chain on one axle and #35 sprockets and chain from axle to axle. It has two 12-volt marine batteries and a control system from Roy Stevens of Ride Trains, using his Syren 50 (50 amps). It operates on 24 volts.

Once I got everything running correctly I added a remote control from Hobby King. 🛠️







The PLS GAZETTE

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FIRST CLASS



Allen Underkofler

Dave Sclavi's PRR Coach at the Fall Meet — Related story on page 4.