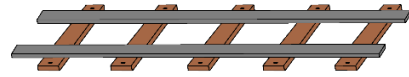


On Track



Vol 2, Number 4, April 2023

If you are receiving this newsletter for the first time, welcome to the fold! We are in the process of cataloging our visitors logs for the last few years, and your name and email appeared! If you wish to be taken off our list, just let us know, but we hope that you will stay with us, follow us online, and return as a visitor sometime soon. Previous editions of this newsletter may be found on our [website](#). If you have comments on the newsletter, please send them to nmslrhs@nmslrhs.org.

Current Status: The locomotive is currently spending most of her time in a dry layup condition in the engine house while the fireman's side compressor is reinstalled.

Accomplishments: Members of the society prepared for and satisfactorily completed a hydrostatic test of the boiler, an annual Federal Railroad Administration (FRA) requirement. This is in preparation for a static steam up and a steam and move, and possible future fundraiser beyond the 8th St. gate. Through our members, we have located an electrician who is qualified to work 480 V systems. He volunteered to work with us to complete the installation of our 90-kW generator in the support car. In addition, the installation of the generator's fuel tank is nearing completion. The engineer's side compressor rebuild has been completed and is in the process of being reinstalled (if you haven't been following the progress, please check out the rebuild videos on our YouTube channel – [@atsf2926](#). Once it's mounted and tested, work will commence on the fireman's side compressor. With luck that rebuild will go faster now that the team has had some practice!

Profile of a member: So, you want a tool to put a square peg into a round hole that is hidden behind four large pipes on the bottom of the boiler; or do you simply need a titanium alloy pin machined to telescope mirror tolerances; or perhaps you need a truly artistic image of our filthy firebox. So just drop by the machine shop or the casting area and find Ron Taylor—He's your guy!

Ron hails from Ruidoso and attended both New Mexico Junior College and NMSU where he got a degree in photojournalism. Unlike some of us who never used our college degree, Ron went right to work as an aerial photographer for Koogle and Pauls engineering firm and remained there for 25 years, eventually managing all their photo operations. He has brought that skill set to the 2926, taking artistic as well as useful engineering photos of various parts of the locomotive.



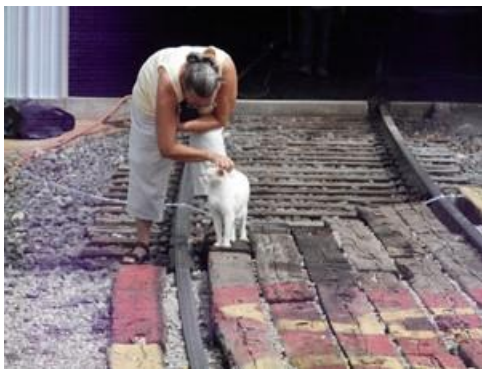
Before retiring, Ron was very active in a local effort to prevent the state from enacting a law that would have placed an extremely low limit on the amount of silver, in various compounds, that could be released into waste streams. As it turns out, mandating these limits would have all but shut down photo processing, X-ray processing, and jewelry manufacturing in the state. Silver, especially in the form of silver halide, interferes with wastewater processing, so in the days before digital photography, this was a big deal.

Ron found out about the 2926 about 13 years ago when thieves broke into the site and stole several parts. They probably managed to sell the metal for 10 cents a pound, but it cost us thousands of dollars and lots of time to replace them. Ron offered his closed-circuit video and security skills and helped upgrade the security at the site. He's been with us ever since.

Photography and security aside, you will usually find Ron casting parts for the 2926 or for the Cumbres and Toltec folks or designing a specialized tool to allow us to perform any of several operations that we all felt would be impossible. He has done things with a mag drill and a come-a-long that boggle the mind. He also machined several hundred staybolt caps, each of which had to match a unique angle to fit it to the round boiler. He says that he really has machine shop skills in his blood. His quote is, "If you want something badly enough, you'll figure out how to build it."

Ron and his wife, Lory, a retired schoolteacher, met in a bookstore and have been together for 20 years. They have taken on the responsibility of managing our feline population—feeding, watering, and providing shelter for the four cats that we see every day and two "nocturnals" who only appear at night to sample the free food.

We certainly appreciate Ron's various capabilities and Can-Do attitude!



What's new in the store: Our restoration site store has received a new Gayle Van Horn-imaged, 15-oz coffee mug. They feature the sunrise image of the 2926 steaming down the rails and our new round logo. The store now has all its spring merchandise in stock, as well as our 2926 Taylor "Big Boys Toys" history of the 2926 restoration book and the Van Horn/Taylor children's booklet "The Great Train Robbery (Almost)!" Stop by our store to get your new AT&SF 2926 spring items!

A short historical note: Some town names along New Mexico's rails:

The city of Clovis, originally known as Riley's Switch, was renamed for the sixth century King of the Franks by a station master's daughter who was studying European history.

The city of Deming in southwestern New Mexico, which was named for Mary Ann Deming Crocker, the wife of Charles Crocker, a major railroad magnate in the latter half of the 19th century. The completion of the second transcontinental railroad, the so-called Silver Spike, occurred just west of Deming in 1881.



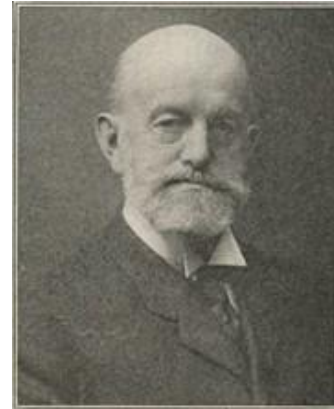
The town of Gallup was named for David L. Gallup, an Atlantic and Pacific Railroad paymaster.



Clovis, King of the Franks



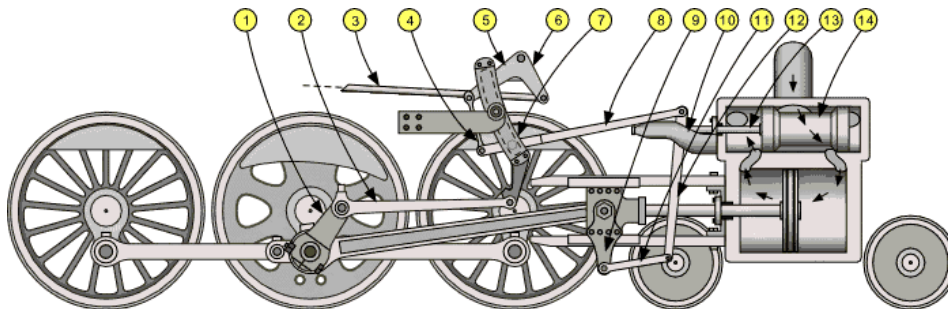
Mary Ann Deming Crocker



David L Gallup

How does it Work? The Walschaerts valve gear, named for Belgian engineer Egide Walschaerts, who patented the design in 1844, allows the engineer to regulate the amount of steam ported into the cylinders for both maximum power and maximum efficiency. It does this by adjusting the position of the piston valve relative to the fixed inlet and exhaust ports in the cylinders to admit steam for part of the piston cycle and to vent the steam for part of the piston cycle. The engineer controls the piston valve position by using the power reverse (also called the Johnson bar). In the attached diagram, the power reverse connection is component #3, called the “reach rod” and the piston valve is #14. There are numerous videos explaining the operation of the Walschaerts valve gear on YouTube: this is [one](#) (no affiliation with NMSL&RHS).

The valve gear also operates both the Nathan lubricator and the steam cylinder lubricators.



The key components of Walschaerts Valve Gear:

- | | | |
|---------------------------------------|---------------------------------|-----------------------|
| 1. Eccentric crank (UK: return crank) | 6. Reverse arm | 11. Union link |
| 2. Eccentric rod | 7. Expansion link | 12. Combination lever |
| 3. Reach rod | 8. Radius bar | 13. Valve stem |
| 4. Lifting link | 9. Crosshead arm (UK Drop link) | 14. Piston valve |
| 5. Lifting arm | 10. Valve stem guide | |

At any setting, the valve gear satisfies the following two conditions:

- The valve opens to admit steam to the cylinder just before the start of a piston stroke. The internal energy of the steam provides the driving force.
- Just before the space on one side of the piston starts to contract, the valve starts to release steam from that space through the exhaust port, so as not to impede the movement of the piston.

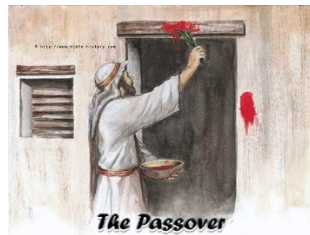
In an economical setting, steam is admitted to the expanding space for only part of the stroke, and, at a point set by the engineer using the power reverse, the intake is cut off. Since the exhaust is also shut, during most of the rest of the stroke the steam that has entered the cylinder expands in isolation, and its pressure decreases. Thus, the maximum energy available from the steam is used. The exhaust valve is shut just before the end of the stroke to provide some cushion for the piston as it “turns around.”

Some locomotive engineers compare the throttle and the power reverse lever to the accelerator and gear shift on an automobile. The throttle is the accelerator and the power reverse is analogous to the gear shift.

What’s new on the website (2926.us)? We do our best to keep things updated, so check it out!

Follow the money: The New Mexico State Legislature has approved the Society's Capital Outlay request. After the Governor signs the bill, the society will have funds available to spend in approximately 3 to 6 months. These funds are specifically earmarked for work on, primarily, the city-owned turntable, but we may be able to spend them on other areas in the Rail Yard, and can't be used for any other project or purpose. We received Next Generation Rail's inspection report and repair quote. A team of our members is reviewing the suggested work and we will determine what our volunteers are able to accomplish so that we may gain maximum benefit from the state's funds.

How you can help and other tidbits: If you are interested in donating to our cause, check the [website](#) to donate through [Paypal](#) and/or click on our [GoFundMe](#) and [Venmo](#) links! Be sure to check out our [Facebook](#), [Youtube](#), and [Instagram](#) pages as well! Other potential sites of interest: our friends at the [Wheels Museum](#) and activities at the [Albuquerque Railyards](#). The Board of Directors is soliciting volunteers to act as a Webmaster for the organization. This person would need to be a member but could work remotely. Tasks would include maintaining the website, adding photos and photo captions, and adding other materials as needed (e.g., newsletters, advertisements for the store, etc.). If you are interested, please contact [John Roberts](#) or [Gail Kirby](#). In addition, election season is not far off. We know that we will need candidates for Secretary and Treasurer, so please be thinking about helping us out!



Happy Easter/Passover/Ramadan

