PGRS TRACKIN'

Newsletter of the Piedmont Garden Railway Society.

April 2018

Editor: Scott Williams

OH BOY! Was Trainfest fun or what??

Dare I say it? The best one yet. They just keep getting better each time. We had a really good turnout in spite of the threat of lousy weather. The community room at Grace Lutheran church is a perfect facility for our needs and Jim Redmond interfaced his laptop smoothly with the two large big screen TVs.

We started off with coffee and doughnuts and with a presentation from Steve Clark, engineering services manager for Biltmore Co. He and co-worker Keith Bower came by to discuss with us that Biltmore will be setting up the large scale train garden again this summer and they're looking for Engineers again to help run the trains like last year. You'll be paid of course and it's an excellent way to get free anytime access to Biltmore with an employee pass, all the employee benefits such as 40% off all purchases, the ability to take friends and family up to Biltmore as an employee **AND** **get paid to sit in the shade and run large scale trains!!!** How often are you likely to get an offer like that? The more people who sign up the less often each person will have to actually work so the load can be spread around even better amongst the Engineers. Two days paid orientation which covers basic rules, history and usually includes a visit to the Winery and then you get to run trains and visit with the guests this summer in Antler Hill Village at the beautiful Biltmore Estate! For more info contact our club member Jim Redmond at: jmrdmnd@gmail.com

Next, Bill Hunteman swiftly covered the business part of the meeting and Bob VanWagner helped it along even faster when he made a motion that if all the officers and board members are happy with another term then all in favor of sticking with the current officers "Say Aye". [All were in favor.] Financial report from Doc explained what's in the bank from our 60+ member's dues and where we're spending it so we have plenty of money for the necessary expenses, insurance, etc., our travelling train show exhibit and open house money of 100 bucks for anyone

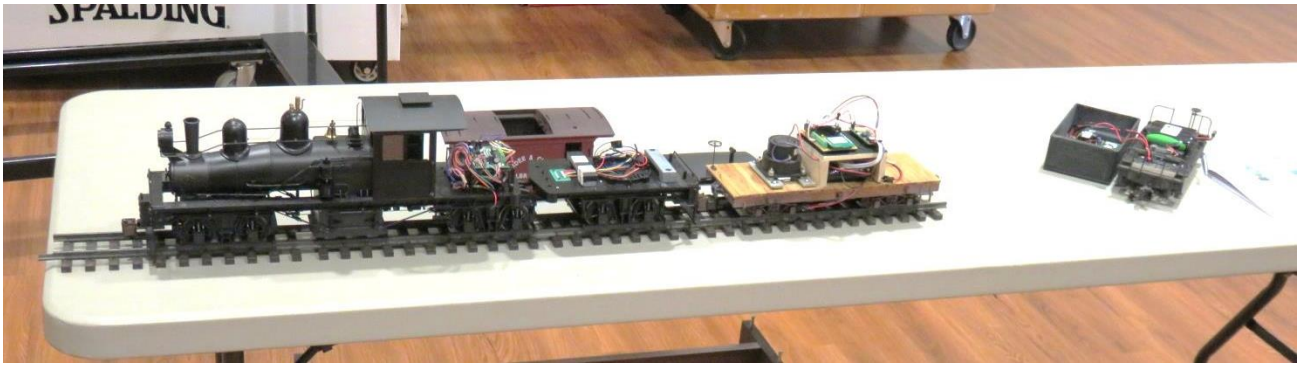
who wants to have an open house to cover refreshment expenses and money for cool attendance gifts for Trainfest, etc.

Bill also put out a call for anyone who might think they'd like to throw an open house this year to tell the officers, a reminder about taking advantage of the Train Lover's Luncheons for all including non-club members with an interest in trains and a thanks to the Apple Valley and reminder for club members to take advantage of the generous offer from that club to PGRS members to bring their trains up to Hendersonville to run on the PVC railroad. For the newer club members Terry sent me this for the newsletter:

The Apple Valley Model Railroad Club is located inside the Hendersonville, NC historic railroad depot located on Maple St. and 7th Ave.
Inside is an HO model railroad open to the public free of charge on Wednesday's 1pm to 3pm and on Saturdays from 10am to 2 pm.
A few years go we built a Large Scale railroad behind the depot. It is elevated and we run track power, battery power and live steam. We have a mainline loop and an upper level switchback where logging locomotives might feel more at home. There is a large yard off to one side where engines and rolling stock can be set up before running out on to the mainline.
The PGRS has a standing invitation on the last Saturday of every month to run your equipment on the Apple Valley 's Railroad. Or if you just want to run some of our equipment, that is fine as well.
No advanced notice is required, just show up
We have wagons to aid in transporting your equipment from your vehicle to the railroad.
Feel free to call me if you have any questions.
Thanks
Terry Ketcham
828 890-8246

Then after the drier stuff was dispensed with we got off on the seminars starting with a nice presentation from Randy Theis on how easy it is to build a trailing battery/control car to power several different engines on battery instead of track power.

Don’t let the wiring spaghetti intimidate you. Randy explained how you only have to modify one or two wires to make the change from track to trailing battery car power. The instructions for the control cards and sound cards are easy to understand and color-coded. Plus, you have quite a few PGRS clubmembers who can advise you how to make this mod as they’ve done plenty of them already. Questions? Just ask us.



After another short bathroom break Terry Ketcham gave us a great seminar on how to build and paint realistic looking “bottlebrush trees” for a layout as an alternative to actual living plants.

Terry shows how a folded over piece of wire with inexpensive, natural fibers from a piece of rope arranged in between the wires then twisted with a cordless drill makes a “bottlebrush” which you then trim in to a conical shape. Spray with black and green paint, and affix to your layout and Voila’. Easy, weatherproof evergreen trees.

We then broke for a nice light lunch of coldcut wraps, sandwiches and salads and more comradery and inspection of the models club members brought of their recent projects and a chance to peruse the swap sale tables and the door prize giveaway tables.

After we refueled ourselves Randy Theis moderated a new segment called Stump the Chumps, [er, I mean, Stump the Experts.] This is where some of the more senior club members were each assigned beginner's questions regarding how to model large scale trains and build reliable train layouts. It was fun, stimulated some good questions and discussions, and flowed along smoothly with Randy as a moderator and Bill wants us all to think of, and submit questions for future Trainfests.

Final presentation was Jim Redmond's on the upcoming 34th Garden Scale Train Convention happening in Atlanta June 4th-9th. Jim explained what is planned and gave the website to go to

for more information if you want to attend this event this year while it's practically in our backyard.

We finished up with raffling off the large assortment of very nice door prizes of lots of model train cars and even an LGB tank porter loco which came from the vast collection of our late club member who passed away last fall, Tony Potter. Thanks Tony, your memory and collection lives on with many of our PGRS club members who now have trains and equipment from your stable in our own collections.

Nobody went away empty handed as everyone who attended was presented with a super handy set of 12 assorted Jeweller's type files for their toolkits. There were 43 club members and spouses in attendance.

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Weathering a model so it doesn't look like a shiny new piece of plastic;

At Trainfest I was asked about several easy methods without using an airbrush to make plastic model trains not look so much like, well, Plastic.

1] the first thing I do with a model is spray it lightly with a clear Matte finish. Testors makes a product for that's called Dullcote which works very well and usually reacts well with all model plastic. Krylon clear matte finish also works well with most model train plastic but experiment on a small section before you go over the whole car to see if it gives you the look you're after. If so, lightly overspray the entire car. If there are windows you will have to mask off the clear windows with something like blue masking tape, trimming it with an X-acto knife or they will become 'fogged' from the dullcote which you won't want.

This will kill the 'shiny' look and soften the plastic appearance and you may want to stop there if you're happy with that.

2] If you want to further 'weather' the model and enhance the details what many model train enthusiasts in all scales do next is apply a wash made of a few drops of India ink in an alcohol wash. There are about a million formulas for this on the Internet but I find it's best to experiment and make your own **weak** wash of a few drops of India Ink in to a ¼ cup of solution of isopropyl alcohol. EXPERIMENT on your own making a weak wash of India ink/alcohol solution and apply it with a wide soft brush on scrap plastic surfaces. This works well on plastic and wood for weathering.

What does this wash do? It will exaggerate/highlight any detail on the model. Our plastic models often have tiny features like wood grain and bolts and hinges and this wash will find its way in to nooks and crannies and highlight those features and the alcohol base will allow this wash to dry quickly highlighting those details. It will also add a further 'flat' dullness to the model when dry. You may wish to stop right there with your weathering efforts. If you think the ink wash is too light…apply another coat after the first coat has fully dried and you've had time to really see the results outside in the daylight. In my experience it's better to apply more light coats of weathering than apply too dark a coat of weathering washes from the 'git-go'.

3] Okay, if ***you're really wanting*** to dirty up your model further consider buying acrylic model paints in the following colors to make thinned down washes:

Light gray

Sand

Rust or Raw Sienna

These acrylic colors can be thinned down with water to very light washes and applied on trucks and lower car body parts to simulate dust, grime and rust.

4] Don't forget those shiny wheels. I also mix up a mash of rust and gray and flat black colors and paint the faces of wheels of my cars being careful not to slop onto the rims of the wheels. Just look at real train car wheels and simulate the patina they have on your model train wheels. Usually kind of a grimy dark gray with some rust.

I like to build up light layers using washes like these to get the right look of age and exposure to the elements and find it's a pretty forgiving method for weathering.

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Testing trains with your Multimeter:

I found this link on Google under "Using an inexpensive Multimeter to Troubleshoot and Test Trains". It may be helpful to folks as a refresher on how to use their multimeter to measure and look for problems. Click on or copy the link and paste it in your webbrowser search bar.

http://www.trainelectronics.com/Meter_Workshop/

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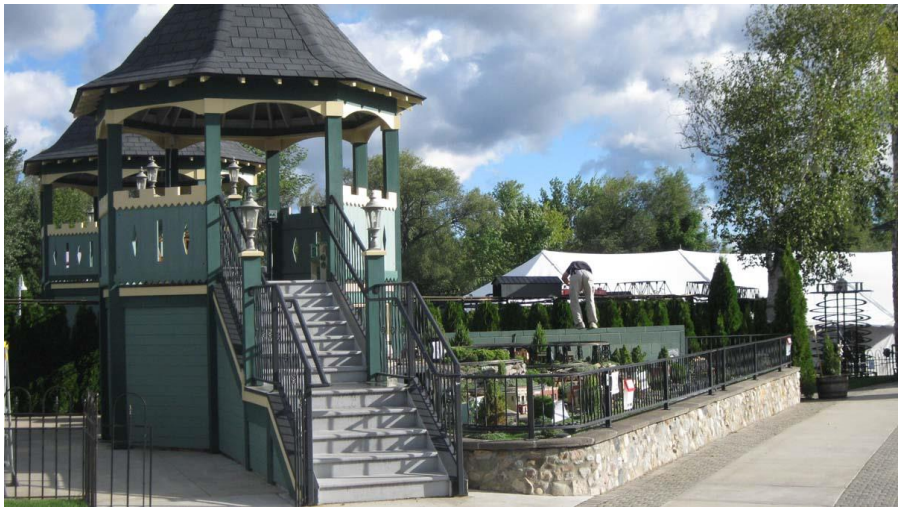
Member Photos:

At Asheville Train Show…

I found these photos online of the trains at Castle Farms in Charlevoix MI.



Impressive train tower!

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Trivia Question: Headlamps were first employed for locomotives, not to see, but to be seen when running at night and [hopefully] avoided by pedestrians. When did headlamps first appear on locomotives?

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** A reminder from Terry Ketcham that PGRS club members are invited to come by the Apple Valley Model Railroad Club in Hendersonville the last Saturday of each month to run their large scale trains on the club layout from 10 – 2 pm.

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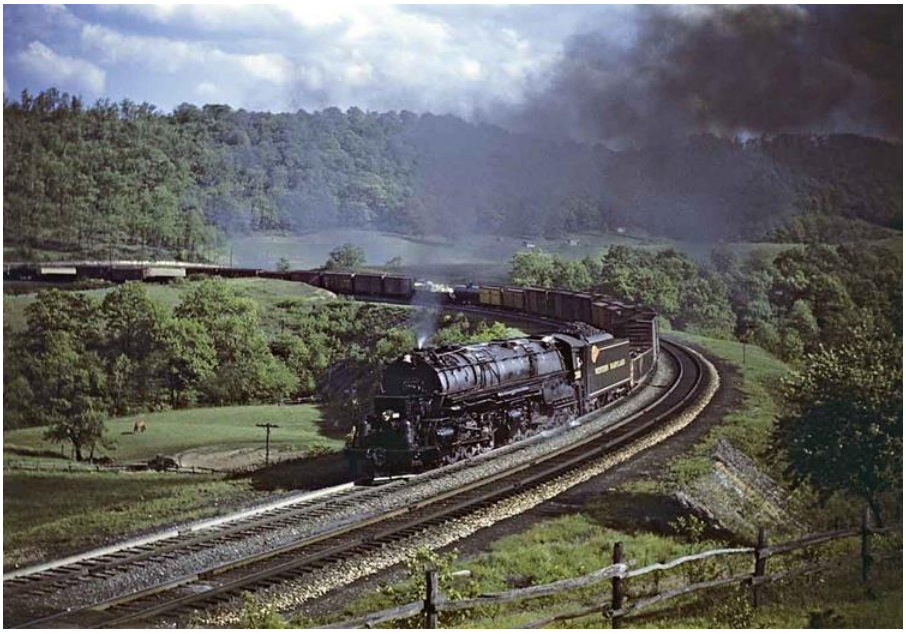

Western Maryland 4-6-6-4 1203 rounds famous Helmstetter's Curve west of Cumberland, Md., with a train for Connellsville, Pa., on May 15, 1953.
Edward Theisinger photo

A work train slowly moves across 1,130-foot-long Baird Creek Trestle during the bridge's construction in 1940 at Weyerhauser Co.'s St. Helens Tree Farm near Longview, Wash. The 235-foot-high structure was dismantled in 1961 when the railroad closed.
Weyerhauser photo

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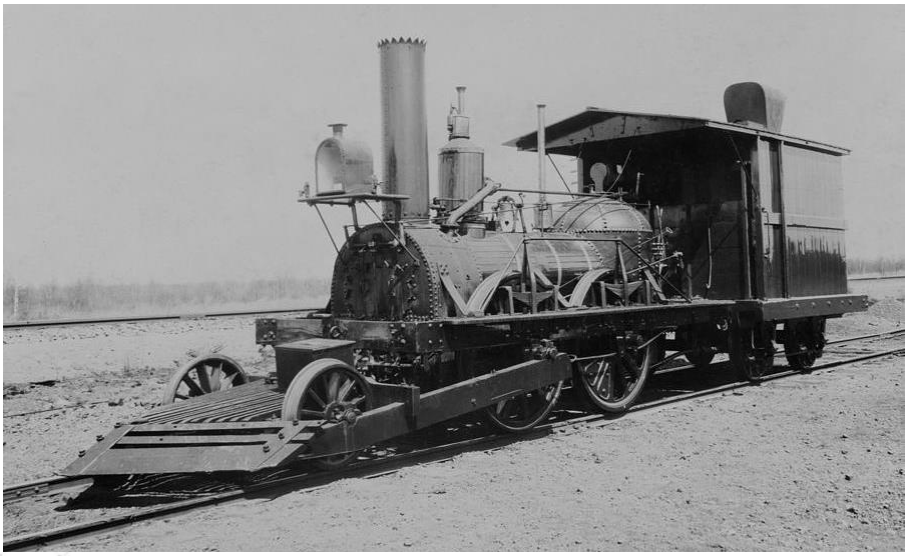
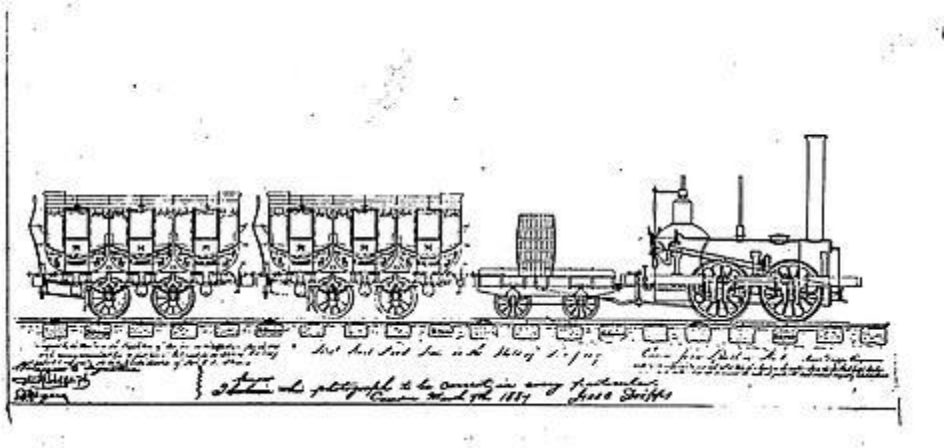
Trivia Answer: The oldest record I've seen mentions that Horatio Allen had Locomotives push "fire cars" for nocturnal running on the Charleston and Hamburg line in South Carolina sometime after he became the engineer in 1829. The oldest photos I've found of a loco with a headlamp are of the John Bull which operated in regular service from 1831 to 1866. However the oldest sketch of the engine shows no headlamp and it was modified a great deal during its service so it's uncertain when the headlamp was first mounted.





Here's an essay that's got a lot of historical points relating to headlamp development:

https://www.presentationmagazine.com/history-railway-locomotive-headlamp-16257.htm

The Evolution of the Railway locomotive Headlamp

The role of the locomotive headlamp is not as one may suspect to light up the track for the driver. Unlike a car, the momentum of a train traveling at a reasonable speed means that it was

unlikely that it would be able to stop if it saw an obstruction.The main purpose of the headlamp is that it can warn people on the track ahead of an approaching train, and with sufficient time for them to take evasive action. The other main benefit is the ability to light up whistle posts and landmarks.

In the UK, most, if not all of the track is fenced off from the public. However in the United States, with many miles of unguarded track and unguarded level crossings, the requirements for a powerful headlamp were more important.

The Early American Headlamp

When railroads were introduced into North America, the need to increase profits came up against one major problem – how to run trains at night. The first recorded solution came from Horatio Allen who built the South Carolina Railroad Company in the early 1830s. Allen solved this problem by placing a fire of pine-wood knots kept burning in an urn-shaped basket made of iron rods. The basket rested on a bed of sand that covered the foremost of the two platform cars in front of the locomotive. (2)

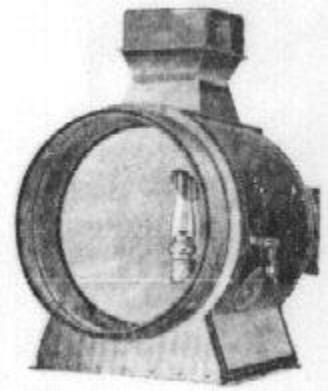
This form of lighting could only have been a stopgap measure. In August 1840 the Boston and Massachusetts Advertiser announced

“The Boston and Worcester Railroad Company is preparing a very bright headlight with powerful reflectors, to be placed in front of the locomotive which is to be run on the road after night.”

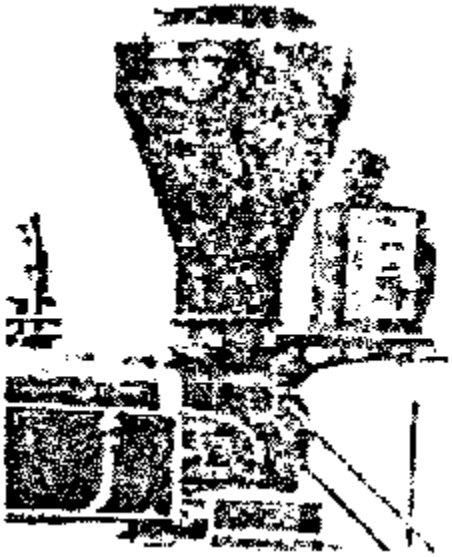
“The transportation of freight at night is a very material gain at this point of time.”

It was believed that candles were used to produce this “bright light”. In any case the fire car was now a thing of the past.

Subsequent headlamps used whale oil burning through a wick burner.



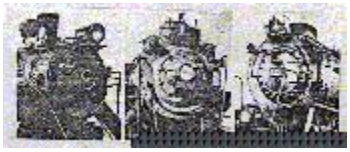
By the time of the American Civil War, the headlight had been standardized in the form of a box with a glass front. Some of these lamps were of a considerable size – up to 26 inches high and 23 inches wide. Often plain in appearance, these were sometimes decorated with landscapes, animal studies, portraits and other works of art.



A painting on the locomotive W A Smith showing a portrait of the former president of the North Carolina Railroad (later the Southern Railway).

The decoration on the headlamps did not last for a long time. The lamps became smaller and rounder. Engine numbers were stamped out of the metal and covered with glass. These spaces served as an additional identification of the engine. Other changes occurred through continuous experiment with various types of reflectors and lenses. (2)

In 1865, Irving Williams, introduced coal oil (kerosene) for use in locomotive headlamps. This kerosene lamp, while lacking power as a strong headlamp proved to be very successful, often as a tail or marker lamp, and was used on various locomotives for almost a century.



In the early years of the 20th Century various headlamps were introduced using acetylene gas which although the results were very encouraging, never really took off in a significant way.

The Electric Headlamp

The days for the Kerosene headlamp were limited. Two Americans invented electric lamps. Charles Francis Brush introduced his arc lamp and Thomas Edison invented his incandescent lamp.

In 1881 the Westinghouse Air Brake company was reported to be replacing electric lamps in the place of oil lamps (6). Run by dynamo, the largest problem was that of supplying electric power when the train was in a station. The carbon arc lamp, familiar to many from its use as an anti-aircraft lamp, produced a light that was so bright that it would temporarily blind the drivers of incoming trains(7). The only alternative was to turn off the beam of the lamp while in the station.

The filaments developed for use in the incandescent lamps were too delicate to withstand the vibrations of the locomotive (8).

Shortly after 1888, when he purchased some earlier patents and organized the National Electric Headlight Company, Robert Pierce of Indianapolis produced an instrument that operated continuously from terminal to terminal. Within eight years his lamp was in use in 20 railroads in the US and on two foreign railroads (4).

In 1896 George Pyle, who had been associated with Pierce in the National Company, adapted and elaborated on the newly developed steam turbine for use with the headlight. He also developed a simpler arc light.

Pyle and the old National Company organization joined forces. Now the Pyle-National Company, the firm began production of the new light and in 1899 sold 472 Pyle-National headlights. Up to the previous year, less than 175 electric locomotive lights had been manufactured in the United States.

In 1902 a powerful arc lamp was developed which had a vertical beam as well as a horizontal beam. The vertical beam, which served well as an indication for other train drivers and people crossing the line, had been seen at up to 21 miles on a cloudy night. (9),(10)

However the powerful arc lamps frequently gave erroneous or phantom aspects to signal lanterns. (11)

The arc lamp was a big step forward in the development of the locomotive headlamp. However the largest breakthrough occurred in 1913 when a new ductile tungsten filament was developed with a new method of attaching the filament to the lead in wires. This was strong enough to resist the vibration of a powerful locomotive. (12) Still stronger filaments followed, and with them bulbs with greater vacuums to make the filaments burn brighter. The new filament lamps, often battery supplied, fulfilled all the requirements of a modern locomotive headlamp. The headlamp had come of age. (4)

The Modern American Headlamp

With the widespread introduction of the diesel locomotive, it became possible to operate the headlight off a battery that was charged by the locomotive generator – itself turned by the diesel engine.

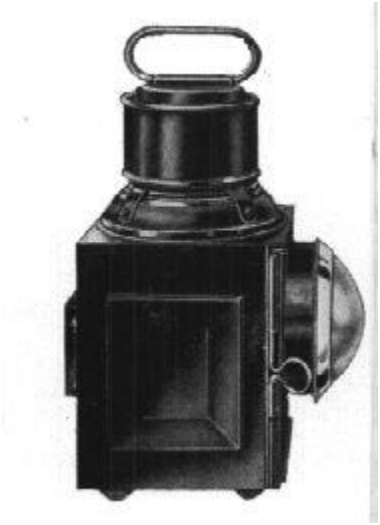
The locomotive headlamp had developed into a standard fitting. Although lamps came in a wide variety of powers, technical specifications and “standard fittings”, adding a headlamp to the locomotive was a very simple task at the design stage. (13)

Current American law requires all locomotives to carry two flashing headlamps that must be operated when the train is running over or coming up to level crossings. The only type of lamp

that fulfills these regulations is xenon strobe. These flashing headlamps are used in conjunction with a main headlamp. It is hoped that it will make level crossings without warning signals or barriers much safer. (14)

The Railway Headlamp in Britain

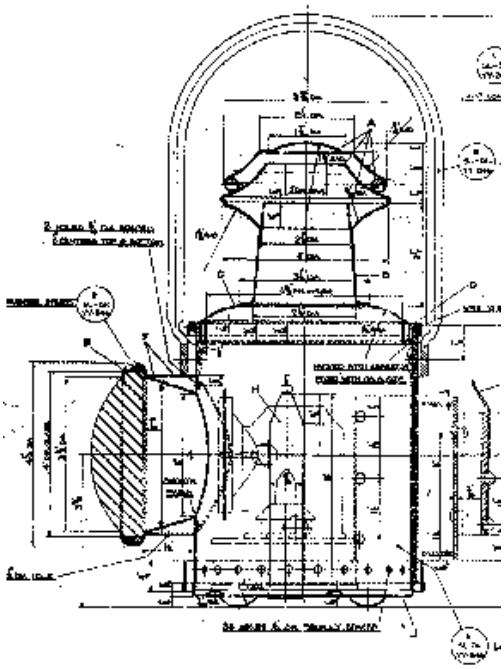
In Great Britain most of the railway network and every level crossing is gated or appropriately guarded. (15)



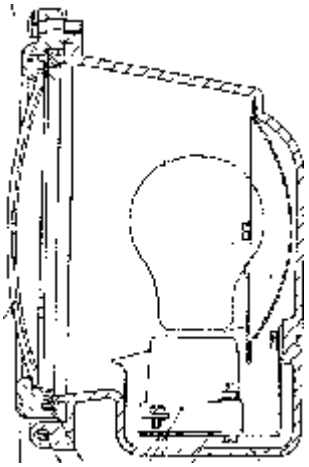
The need for a headlamp was simply as a nighttime indication of an incoming train to staff on the permanent way. This was especially for signalmen and railway policemen who, in the early days, hand signaled trains from the track side. The headlamps were small oil lamps that could be fixed onto the front of the locomotive. (16)

Around 1880 railway companies began to use a headlamp code in which positions of headlamps on the locomotive signified the type of train. This enabled signalmen and other staff to identify them. Different companies used different codes. In cases in which there were joint or shared lines this constantly lead to mistakes and often to fatalities. (17)

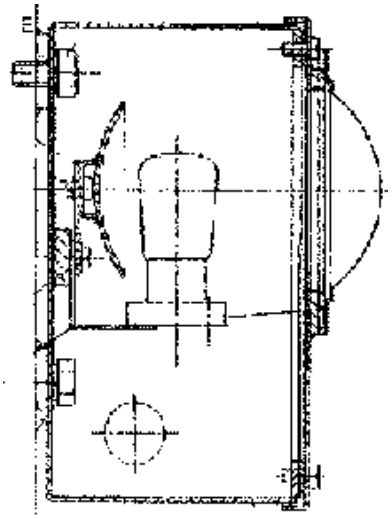
In 1903 the railway companies and the railway clearing house brought in a universal code of engine headlamps. It also required that all lamps show white light. This code was not completely successful and there were still regional variations in use. The headlamp code only became completely standardized when the railways were nationalized in 1948.

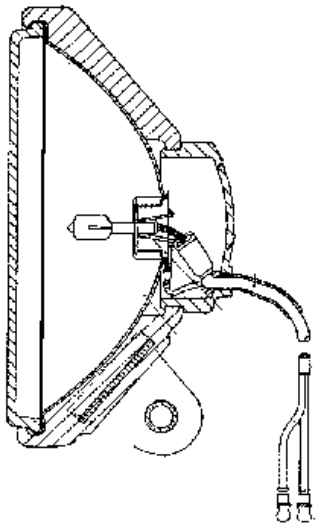


With the advent of the diesel and electric locomotives the old lamp gave way to electric marker lights serving the same purpose. These have recently been phased out.



Fairly powerful headlights have now appeared on modern motive power in Britain. This is particularly to give line side staff and permanent way workers warning of the approach of a train, in particular the fast modern trains such as the high speed trains.





Conclusion

Ever since the railway locomotive was invented there was a need to operate the railway safely during the hours of darkness, which represents well over one third of the day. Since the first night travel in the 1830s the railway headlamp has taken a variety of forms and has been beset by technical problems. Today, the headlamp is now a mere standard fitting, very much of an afterthought in locomotive design.

The headlamp has been nursed out of its infancy by far-seeing engineers. These engineers had the determination to operate trains at night with a speed and safety equal to that possible in the light of the brightest day.

References

(1) The Engineer 23 October 1914 p391

(2) “The locomotive headlamp”, Railway Employees Journal, April 1962 pp. 8-9

(4) “Ties”, Southern Railway Employees Journal, February 1962

(5) The Engineer 25 October 1901 p431

(6) Railway World 19 February 1881

(7) The Electrician 2 October 1925 p381

(8) The Electrician 23 September 1910 p975

(9) The Electrician 9 May 1902 p85

(10) The Electrician 26 September 1902 p895

(11) The Electrician 15 November 1912 p208

(12) The Engineer 13 March 1914 p283

(13) “Recommended Lamps for locomotive and passenger car lighting”, Manual of Standards and recommended practices. RP 564 Association of American Railroads 1958 pp. 342 – 343

(14) “Proposed requirement for display of alerting lights by locomotives at public grade crossings”. Federal Railroad Administration, US Department of Transport [RSGC-2, Notice 2] 1979

(15) Tulpin, WA “the Steam Locomotive” p100

(17) The Engineer 6 February 1903 p147

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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.

Don Watson
125 Mistletoe Trail
Hendersonville, NC 28791

docwatson@morrisbb.net

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Train Lover Luncheons:

The current luncheons are:

Columbus Area: Meets every Third Thursday of every month at Larkins Carolina Grill, 155 West Mills Street in Columbus, NC 28722. @ 1:00 PM. Contact Pete Gendron: 954-812-6270

Greater Greenville Area: Meeting the first Tuesday of every month - at 11:30. Meeting at the A&P Restaurant on Rte 14 in Greer. Contact Ken Majchrzak at: kemajchrzak@gmail.com or call Ken at: 864-385-4951

Asheville Area: Meets the 4th Thursday each month. We meet at 11:30 AM at Gondolier Italian Restaurant and Pizza located at 1360 Tunnel Road, Asheville 28805. Contact Tim Wagner timwagner2012@gmail.com
The location is on the east end near the VA hospital, so it is recommended that you access Tunnel Road from I-40, exit 55. Take a left at the first light after you exit and a left at the next light. The venue will be on the right a few hundred yards from the intersection.

Charlotte luncheons are meeting at Bubba's BBQ 4400 Sunset Rd. (exit 16, rte. I-77).
at 11:30am on the third Tuesday of each month.

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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 reading about it.

Send your input to: srwavl@outlook.com

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Business Related to Our Hobby
Any Member who has a business related to our hobby is welcome to submit an entry for inclusion in **PGRS Trackin'** each month.