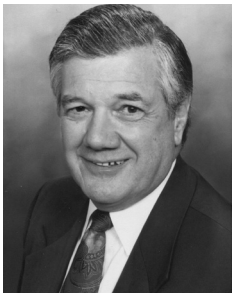
Railroad Trivia

By Bruce M. Flohr



Born in Wallace, Idaho, in 1939, Bruce Flohr was educated at Stanford University, Purdue University, and Harvard University.

He served in the Army Corps of Engineers in Alaska as First Lieutenant, Platoon Leader and Company Commander.

He has worked for the Southern Pacific Railroad (1965-1975), the Federal Railroad Administration (1975-1977), and RailTex, Inc., which he founded (1977-2000).

His community service includes work with the Bexar County Arts and Cultural Fund, the Witte Museum, Rotary, the Texas Water Mission, and the Episcopal Diocese of West Texas.

Married to Janet Lennie Flohr in 1973, he has four children and twelve grandchildren.

He was President of Torch Club of San Antonio in 2003 and Chair of the 2018 Torch Convention.

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The reader probably does not need to be told how large the railroad has loomed in American history, from the first chartered railroad, the Baltimore and Ohio, in 1827 to the 140,000 miles of track that cross the nation today. The railroad revolutionized transportation, commerce, and finance; moreover, it shaped our national imagination. Think of John Henry, Casey Jones, and the Wreck of the Old 97, or of all the movies you have seen with a tearful departure or a joyous reunion at a train station.

Our most familiar ideas about railroads are only the tip of the iceberg, however. A literal infinity of stories, most of them not widely known, arise from this industry and its long history.

Have your ever been stopped at a railroad track where the highway crosses, but a train is blocking your travel? We all have, sometimes when we are in a hurry. So, next time this happens to you…as it will…just relax and think about all the interesting facts about trains that you can recall, or better yet, tell the passengers in your car, especially your grandchildren. By reading on, you may be able to pass as an "expert" about an industry that has built so much of the life and civilization that we have today.

Why Use Rail?

As that train first stops you, think about why anyone even uses rail to move cargo and passengers. Based on tons/mile calculations, railroads today handle over 43% of all freight cargo, a percentage that has actually been growing over the last eight to ten years. Why? For one thing, trucking movements cost the shipper about eleven cents per ton/mile, while rail costs around seven cents for a single carload. However, for trains handling over 100 cars from the same origin to the same destination, the cost is closer to three cents. For really large volumes, such as coal to electric power plants, the rate is less than one cent.

Coal, as it happens, is the largest single commodity moved by rail, with truck trailers and containers in second place. As natural gas and wind or solar power replace coal, and with the continued growth of truck trailer traffic, that intermodal segment will be the number one revenue for the railroad industry within the next few years. If those cars in the train stopping you are carrying truck trailers marked "UPS," they are part of the largest single customer in the railroad industry, United Parcel Service. Their biggest competitor, FedEx, has been using FedEx Ground for its long haul, no rush, package delivery, but they too are shifting to rail.

Whistle Signal

Think back to when you were first approaching this road/rail crossing. What was the whistle sound? In the railroad industry throughout North America, the standard whistle signal for a train about to cross over a roadway is a long blast of the train horn sounded twice, then a short toot, and finally another long blast just as the front of the train occupies the road crossing. Why use this sequence of two long sounds, then one short, and then another long? Did a scientific study indicate this was the best way to warn a vehicle driver? No!—the signal is derived from Morse code. In the early days, a train dispatcher would send a "train order" to a train by telegraphing the information to the next station on the line using, naturally, the Morse code telegraph language. If the dispatcher had to hesitate for a moment to think about additional instructions, but desired to keep the recipient telegraph agent on the telegraph line, the dispatcher would click out the Morse code for the letter "Q": — — – — , two longs, one short, and another long. It meant "hold on, wait for more." So even today, when you hear a train blow its whistle for a road crossing, realize it is really sending out the Morse code letter "Q," asking the vehicle to "wait."

Auto Rack Cars

Next, if you are still waiting for the train to pass, think about the types of railroad cars on that train. Those extra-long and extra-high silver-sided cars are designed to haul automobiles and pickup trucks. Today over 90% of all newly manufactured autos move by rail from assembly plants in North America or after arriving by ship from Asia and Europe, and the rail car you are seeing has a very special design heritage.

When you hear a train blow its whistle for a road crossing, it is really sending out Morse code.

Until the early 1960s, most automobiles did move in railroad box cars. Then the long haul trucking industry took all that business over the highways, helped especially by the new Interstate Highway system. As a result, the railroad industry designed a new flat car that could carry eight to ten vehicles on two rack levels. This innovation brought much of the auto haul business back to rail, but one problem remained: vehicles on the top level started arriving at destination with paint blemishes in their roofs and hoods from acid spills. (Many in the railroad industry still believe this was an act of sabotage from unemployed truck drivers who had lost this business.) In response, the rail cars were retrofitted with a roof to stop the acid damage. Those silver side walls came next, designed to stop window damage from trackside rock throwers. Many of that group would even keep score of the number of windows they broke.

The final innovation was to install the tall doors on each end of the flat car, to be opened only during loading and unloading. One might suppose these doors were to stop theft, but their principal purpose was to restrict hobos (see word description below) from riding cross country by rail using that new automobile as a very comfortable vehicle. The problem created by these free-riding hobos was not vandalism, *per se*, but rather that those travelling in the autos often designated one new auto on each flat car as the "out house" or bathroom auto. Those vehicles serving that purpose had to be destroyed upon arrival. The doors kept the trespassers out.

Hobo

The term "hobo" has long been in use to identify a person who was hitching a ride on a railroad freight train. Most often, especially during the Great Depression of the 1930s, several of these free riders would camp near the railroad tracks waiting for the next train. The name for these "gentlemen of the road" came from the contraction of "*Ho*meward *Bo*und," taking the first two letters of each word. Now you know.

Fuzees

As your train passes by, seemingly never ending (they can be up to two miles long), think about the last time you saw a flaming stick on the highway. That "flare" one sees placed on roadways is to warn the driver of an accident

or hazard ahead. It came from the railroad industry.

As long ago as the late 1800s, the railroads used these flares, which they still call "fuzees." In the early days before wayside signal systems, railroads needed a signaling device to prevent a following train from running into the rear of the train ahead if they were both going the same direction, so the industry developed a burning "stick" that was ignited and thrown out of the caboose of the train ahead. It is still designed to burn ten minutes. When the following train saw a burning fuzee ahead, it was required to stop and wait for the fuzee to burn out. This assured a ten-minute spacing between trains. However, there was one big problem with the burning fuzee—the fire. Crews were cautioned not to throw ignited fuzees onto wooden bridges, due to the danger of setting the bridge on fire, which happened more often than one would think. Due to the fire hazard, the industry asked companies, such as DuPont, to develop a "glowing stick" that could be seen by a train and that would extinguish itself after ten minutes. A glow stick replacement was never developed to meet the railroad requirement, but we now have glow sticks that we enjoy at Halloween and other celebrations, all thanks to the railroad industry.

Standard Time

If you are still being held at that crossing by a train, you have started looking at your watch. Here again, you have reason to thank the railroad industry, for it created the "time zone" you are now occupying.

You may already know that the state of Arizona does not switch to Daylight Saving Time each summer, and that Indiana did not switch until 2006. Where does a state seek permission to ignore the time change? From the U.S. Department of Transportation, and the explanation for that again goes back to the railroads.

There were over 300 different "sun time" towns, creating confusion and countless headaches for train operations.

Back in 1883, railroads were operating trains over long distances and through many towns. Back then each town had its "own" standard time because each town set its clocks based on noon occurring when the sun was directly overhead. That made the actual time in each railroad station a little different from the adjacent station. There were over 300 different "sun time" towns, creating confusion and countless headaches for train operations, including the timing of the meeting of trains and scheduling passenger trains. To address the problem, the industry leaders met in Chicago in 1883 and made up their own "standard time" zones. Eventually US Congress in 1918 directed the new Interstate Commerce Commission, and later the Department of Transportation, to set and modify time zones.

Watch Sales

Behind that watch you are using to measure your delay lies yet another story of how the railroads altered the nation's habits—its shopping habits, in this case. Back in the 1880s, if you wanted a watch (at that time, this would have been a pocket watch), the best place to buy one was at the railroad station, at least in Minnesota. Why? Railroads were not selling watches. However, the telegrapher working in the train station *would* be selling watches. Over a nine-year period, these telegraph operators sold more watches than almost all stores combined.

A telegraph operator by the first name Richard started this trend. He was on duty in the North Redwood, Minnesota, train station one day when a large box arrived from the East: a huge crate filled with pocket watches. When no one ever came to claim the crate, Richard sent a telegram to the manufacturer and asked them what they wanted to do with the watches. The manufacturer did not want to pay the freight charges to return the box, so they wired Richard to see if he could sell them. Accordingly, Richard sent a wire to every agent in the system asking whether anyone wanted a cheap, but good, pocket watch. He sold the entire case in less than two days, making a handsome profit.

That started it all.

He ordered more watches from the watch company and encouraged telegraph operators to set up a display case in their station offering high quality watches for a cheap price to all travelers. It did not take long for the word to spread, and soon people other than travelers were coming to the train station to buy watches. Richard became so busy that he had to hire a professional watch maker, who happened to be named Alva, to help him with the orders. The business took off and soon expanded into other lines of dry goods.

Richard and Alva left the train station and moved their company to Chicago. And thus it was that in the 1880s, the biggest watch retailer in the country was at a train station, and it all started with a telegrapher operator named Richard, last name Sears, and his partner Alva, Alva Roebuck. Yes, *that* Sears and Roebuck!

Pullman Sleeping Cars

George Pullman built the Pullman Sleeping Car Company from an idea he saw in Telluride, Colorado. The concept of installing fold up beds into railroad passenger cars led to his company becoming the largest operator of sleeping cars in North America. But where did he learn about beds that folded away in the daytime?

George, as a young man, worked as a miner in Telluride. Those who have been in Telluride have seen the steep mountains that surround the valley; since the miners lived near the mines on the hills, their bunk houses were literally hung on cliffs, and were very narrow. To make room for moving around, the bunk beds folded up against the walls. George Pullman simply applied the trick to railroad sleeping car beds.

Next Time

The train has finally passed, the crossing gates are back up, and the red flashing lights are extinguished. Safe travel, and now you are another "Smarter Railroader."

FURTHER READING

Ambrose, Stephen E. *Nothing Like It in the World: The Men Who Built the Transcontinental Railroad, 1863-1869.* Simon And Schuster, 2000.

Holbrook, Stewart H. *The Story of American Railroads: From the Iron Horse to the Diesel Locomotive.* Dover, 2016.

White, Richard. *Railroaded: The Transcontinentals and the Making of Modern America.* Norton, 2012.

Wolmar, Christian. *The Great Railroad Revolution: The History of Trains in America.* Public Affairs, 2013.

---. *The Iron Road: An Illustrated History of the Railroad.* DK, 2014.

Paxton Leadership Award

The Paxton Award, created in honor and memory of W. Norris Paxton, past president of the International Association of Torch Clubs and editor emeritus of Torch, is given to the author of an outstanding paper presented by a Torch member at a Torch meeting. The winning author for the 2014 Award will receive an appropriate trophy, a $250 honorarium, and paid registration to the 2014 IATC convention in St Catharines, Ontario, Canada. The winner will be introduced at the convention banquet where he or she (or a designated representative) will deliver the paper on June 21, 2014.

ELIGIBILITY: The author must be a member of a Torch club. The paper must have been delivered to a Torch club meeting or a regional Torch meeting between January 1, 2018 and December 31, 2018 (inclusive), and be submitted to the IATC Office by February 15, 2019. *Current officers and directors of IATC are ineligible for this award during their terms of office.*

- A publishable Torch paper should be approximately 3,000 words in length.
- Local clubs are not allowed to submit papers directly for Paxton consideration.
- The Paxton Award paper will be published in the Fall 2014 issue of Torch.

PROCEDURE: All papers to be published in Torch should be sent to Scott Stanfield, Editor, at torch.magazine.editor@gmail.com, along with the current Manuscript Submission Form, duly signed by the author and a club officer. Paxton candidates will be selected by the Editorial Advisory Committee from all papers submitted for publication in Torch. The Paxton Award Committee will consider the EAC recommended 2018 papers in the spring of 2019 to determine the 2019 award winner.

JUDGING: The reading and judging panel comprises five people: a member of the Board of Directors of the IATC, one of the last five winners of the Paxton Award, a member of the Editorial Advisory Committee, and two members selected by the IATC Board of Directors. Judging is based on the principles set forth in the IATC brochure "The Torch Paper" and the "Manuscript Submission Suggestions" at the Publications link of the IATC website at www.torch.org. The winner of the Paxton Award and other contestants will be notified early in May 2019.