

## A nickel buys a ride and a lifetime lesson

by Bob Lake

A nickel would get you from one side of town to the other. At the turnaround the Conductor/Engineer would remind you that another nickel was due. If you didn't have one your choice was to either walk or rely on your friendship with the driver. I often relied. I was a frequent rider and the bosses all got to know me. If I was short, the conductor would put his nickel in the box for me and I would pay him back on the next ride he bossed when I was in town. Being nine years old bought me a lot of slack!

The streetcars in Milwaukee were the best ride in town. They followed track laid right in the streets and drew power from overhead lines with a single stick catenary (cat) pickup. When the car needed to go in reverse, the Conductor would stop, get down and pull the rear cat down, then raise the front cat, attaching it to the wire. It was a thrill a minute watching this process in the rain when everything was wet and the electricity kept trying to get through the conductors leather gloves! Then he got back in the car at the other end and voila! It would go in reverse! When I finished my appointments I rode the cars all over Milwaukee filling in the time until my train was scheduled to leave for home.

Sometimes at night after the heavy traffic was over, they took some of the streetcars out of service and parked them in a yard near a big red maintenance barn. Some cars were parked under cover in the barn in readiness for repair the next day. When I missed my train ride home it was because I wasn't watching the time. They didn't hold the train for anyone, not even small boys! After some cold nights on the streets, I found the way into the yard and slept on the seats of one of the cars in the barn, getting up the next morning and taking the early train home.

I enjoyed my independence and thought nothing of the dangers while running around loose. Only on one occasion did my folks become aware that I had not made it home the night before. They were busy running a hotel, restaurant and bar named the Hotel Moraine in Elkhart Lake. When I was seen leaving the early train one morning, I caught H,E double toothpicks. I learned the value of honesty the hard way. I told a big, fat, lie to cover myself and was eventually found out. It was my spur of the moment excuse to further explore Milwaukee at will. Or at least until I ran out of nickels, credit and credibility! My Dad and Black Crow the Conductor had a meeting that resulted in curtailment of my nefarious activities. It also spelled the end of my unsupervised travel by train. When medical need arose, either my father or my mother would 1 September 2011

accompany me until a measure of trust was re-established. It became a matter of trust, but verify! Not a bad policy.

About that time, Milwaukee put electric buses into service to replace aging streetcars and reduce impossibly costly road and buried utility maintenance below the rails. The streetcars cost a nickel a ride, but the buses were fifteen cents! For the extra dime, you road in cushy seats on rubber tires in an enclosed, heated cab. Being heated was important in Wisconsin winters. These vehicles had a double stick catenary and the way I understood it's operation was that they pumped electricity down one line and it was picked up on one side of the double cat, routed down to the motor where it made it work and then the used electricity was put back in the second line and shipped back to the plant where it was repaired and sent back out again. Worked for me!

I still miss those red and brown streetcars with the rattles, bumps, whine and whiz sounds and especially the ozone stink from the electrical crackle and spark at the cat connection with the overhead wire.

Bob Lake

### President's Message: Greetings from the "Old Man" by Jim Brown, President RRA

Well now, it will not be long and the daily routine of Pioneer Park Historical Complex will come to a close. It will still be a busy time at the depot with all the different projects coming up!

Things will be discussed at future meetings. Due to O T D, or as I call it, Old Timers Disease, in last months newsletter I failed to mention in the thank you list a monetary donation to RRA by member Ray Dust. Sorry about that, Ray! It will be put to good use and all members of RRA including myself wish to thank you for it!

Last months business meeting we had a presentation by member Bob Dumke of holding a regional convention for N M R A in 2013. This idea must be approved by the region and more will be discussed on this at the next business meeting of RRA.

The last time an NMRA Winnebagoland Division meeting was held in Rhinelander was 2005 with RRA being the host. We will be looking for help and support from our membership to pull this off if it is approved by NMRA!

The modular system is coming along very well. We had a work session on it on Sunday, August 21st, at Tom Kolbek's place. Pictures will be shown at the next business meeting!

And, on that note, the next business meeting of RRA will be on Wednesday, September 7th at 7:00 pm at the depot. Come on down and see what is going on!

Hope to see you there! Take care, Jim Brown, President, RRA.

### Railroad Happenings: or semi local coming events..

September 18, 2011- WISE Division Meeting, 12:30 PM Best Western Airport, 5105 S Howell Avenue across from Mitchell Field. Three Clinics TBA

Sept. 24-25, 2011- Green County Model RR Show & Swap Meet- Monroe, WI Stateline Ice & Community Expo- 1632 4th Ave. W http://www.gcmrrinc.org

October 1, 2011- NMRA Winnebagoland Division Fall Meet- Lakeshore Lanes-Sheboygan, WI Info at: <u>www.wld-nmra.com</u>

October 1, 2011- 2nd Annual Hope Train Club Show & Sale- Wesley Center 199 E. Jefferson St. Waupun, WI (920) 324-2350

October 15-16, 2011- Layout Open House- Railroad Lodge- SSSMRE-Sheboygan, WI 1001 N. 10th St. Food, Refreshments & Fun 10:00-4:00

October 15, 16, 2011 Cisco Junction Train Show, Cisco Center, 325 Eldon St Cisco, IL Cisco in between Champaign & Decatur, IL: Tentative: Monticello RR Museum will operate 401 Steam Loco: contact <u>Don@ciscojunction.com</u> or 217-669-2261.

October 16, 2011 - WISE Division Meeting, Veterans Terrace, Burlington, WI

October 23, 2011- Cedar Creek Central Model RR show & Swap Meet Circle B Recreation - 6261 Hwy 60- Cedarburg Info at <u>www.lammscape.com/cedarcreek</u>

November 5, 2011- Winnebagoland Division Annual Operating Session- Waupaca, WI Info at: <u>www.wld-nmra.com</u>

November 12-13, 2011 – Trainfest, State Fair Park: Note: Early Bird Tickets are \$8 at Milwaukee area hobby shops Greenfield News and Hobbies- Greenfield, Hiawatha Hobbies-Waukesha, Silver Spring Hobby & Games- Milwaukee, Sommerfeld's Trains- Butler, South Side Trains- Milwaukee, Walthers Terminal Hobby. Outside metro Milwaukee: EngineHouse Service- Green Bay, WI, J & D Whistle Stop- Sheboygan, WI, Lombard Hobbies- Lombard, IL, Madison Hobby Stop- Madison, WI (more later?) Always check locally with Dale at the Choo-Choo store in Three Lakes for any changes or updates (*the editors unsolicited advice*).

# The Catenary: getting wired

by R.G. Blocks

Bob's story about two catenary systems in use within his boyhood on the streets of Milwaukee reminded me of other similar systems. I believe the word comes from dangling a wire or chain between two supports. It is the resultant form when gravity plays upon a flexible line of finite material supported at equal height on both ends. In physics or geometry it describes the curved line resulting from a suspended rope. It is not quite a parabola but looks quite similar. Mom's clothes-line was a form of catenary; but, she (we) didn't call it that.

The catenary or hyperbolic cosine is also a product of the Italian mathematician and physicist,

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Jesuit Vincenzo Riccati (1707-1775). Vincenzo was expert in the field of linear differential equations. Differential equations are common to the fields of engineering and physics, biology and economics. Thought you might like to know that fact. It reminded me of Italy.

Travel within Rome is painless. The city has a fine underground subway system and signage is excellent. Travel between cities in Italy is legendary: the Romans built roads that last. SS-1 Aurelia is the world's first Interstate Highway to my knowledge. In 225 BC the Romans defeated, nah annihilated 40,000 Gaul's at Talamone along SS-1. Roman SS-1 would be the essentially the road from Rome to France (Paris) running along the western (lower) coast in the picture below. We would travel by rail using a rail artery running across Tuscany more or less direct Rome to Florence. It would be both smooth and rapid: akin to the Roman road.

Tickets, dispensed via Kiosks at rail terminals were both easy to obtain and almost guaranteed a seat. Prices were about \$50 US per head for the trip: not cheap but less than a rental car for the two days involved. This trip could take us across the longest bridge in Europe (but we never sensed it and cannot say we crossed it). Perhaps it was the smooth ride that soothed us into a quiet lull.





The railroad between Florence and Rome is powered by an electric overhead catenary system. It is virtually identical to Bob's electric trolley line. It is however designed for high-speed traffic. The overhead catenary wire, in the Italian rail example is almost a straight line. The wire is stretched between two supports as in Bob's boyhood example; however, it is a very shallow curve held in high tension with considerable counterweights and



intermediate supports. European highspeed rail construction offers us another system to model.

Our introduction to the Italia Rail System began at the Terminal in Rome (above). Italia Rail is the sole provider of tickets in Italy. Each of the tracks (that we saw) was served by an overhead power feed (our catenary). The retaining walls were tagged with graffiti wherever one looked (see below). Graffiti is an Italian word (19<sup>th</sup> century) meaning to scratch. Note the counterweights (lower right in photo).



We wished to see the museums and City of Florence (City Firenze), a city of art. Here one finds the original statue of David and two exquisite look alike's. Firenze was founded by the Romans on the banks of the Arno River. Folks go there to enjoy the Basilica Santa Maria Novella Church, Duomo Dome, The Golden Bridge, Palazzo Vecchio, the Pitti Palace, Uffizi, and the Accademia. It is the only place I know where you possibly get your fill of Ruben, Van Dyck, Murillo and Michelangelo. It is the birthplace of Dante, Boccaccio, Machaivelli and Gallileo. A great place when one arrives fresh by train, 315 km from Rome.

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Italian's call it ferrovia direttissima Firenze-Rome or the most direct Florence to Rome railway (called the DD). The line was built in 1934 and converted to the first high speed rail line in Europe (opened in Feb 1977 when about half done) and completed in May of 1992. The trip time for the fastest train is 1 hour and 20 minutes. A slow rail line runs parallel to the fast line and referred to as LL. In the photo below a branch for the slower trains heads off to the side.



My estimate of the steepest grade is 8/10ths of one percent. I failed to count the tunnels; however, I'd estimate there to be in excess of a dozen. I was told and have not verified that the train we were on goes so fast that it must pass the slow train (or other trains) at a reduced speed so as not to suck out the other train's windows. You could feel pressure changes within the cars when you entered tunnels.

Notes taken at the time of our return trip showed that we covered the 197 miles in 1 hour and forty minutes. There were 15 miles of reduced speed entering and departing yards at Florence and Rome. The reduced speed, by my estimate was around 30 mph. Our average speed for the trip was 118 mph. Peak speed was 156 mph. A full glass of water would not have spilled during the entire trip. It was exceptionally smooth. The cabin was extremely clean with fresh paper head supports. Cabin noise was minimal. It was much quieter than any US train I'm familiar with. Fifty-two trains per twenty-four hours was typical of the Rome to Florence and return service at the time we were there in 2009.



Art and graffiti are not the same. Enter a city and the noise barriers are defaced by graffiti. Terminals however are things of beauty. The round trip was accomplished in the beauties we see in these photos below. The opening in the roof was there to provide the catenary pickup.



There are many ways to travel. We were in Italy to bike across Tuscany and perhaps absorb a little art and wine. We also chased down each clue in Dan Brown's book "Angels and Demons" and absorbed the vibration from the 2009 earthquake in L'Aquilia. The train ride was simply frosting on our cake. More photos of Italian Rail in Florence are included for your viewing.

Rhinelander Railroad Association











All photos on this page were taken at the time of departing Florence Italy. The passenger train provided an excellent ride. My wife, on the left, concentrated on her book. My eyelids simply wanted to touch. Perhaps biking and sight seeing were taking their toll. It couldn't have been the wine. Written by Roger G Blocks September 4, 2011 for train buffs everywhere.