Carolina Conductor

Volume 4 Number 1 **Monthly Newsletter of the Carolina Railroad Heritage Association, Inc.** January 2017

Preserving the Past.
Active in the Present.
Planning for the Future.

Web Site:
hubcityrrmuseum.org

Meeting Site:
Woodmen of the World Bldg.
721 East Poinsett Street
Greer, SC 29651-6404
Third Friday of the Month at 7:00 pm

Hub City Railroad Museum and SOU Caboose #X3115:
Spartanburg Amtrak Station
298 Magnolia Street
Spartanburg, SC 29301-2330
Wednesday 10-2 and Saturday 10-2

Officers:
President:
David Winans — 864-963-4739
Vice-President:
Mac McMillin — 864-624-9658
Secretary:
Marv Havens — 864-292-3852
Treasurer:
Terry Brelsford — 864-320-6201

Directors:
Milton Ashley — 864-504-5202
Charles Conn — 864-326-6070
Lee Dobbs — 864-268-3939
Bruce Gathman — 864-850-3642
Bob Klempner — 864-431-5409

Mailing Address:
Suite #129
2123 Old Spartanburg Road
Greer, South Carolina 29650-2704

Editor:
Bruce Gathman—
shaygearhead@bellsouth.net
Articles and club news due by the 2nd Wednesday of month.

All About Motorcars

Mac McMillin

Railroad motor cars evolved from hand pumped cars, known as velocipedes or handcars. Years ago a railroad was divided into sections of approximately 10 to 20 miles in length. Each section had a designated crew that was responsible for inspection and maintenance of the track in the section. Heavily traveled lines were inspected one or more times daily. Lesser-traveled lines were inspected on a more relaxed schedule.

Initially the track was inspected by walking the line with several walkers spread out over the section. Later a handcar allowed the inspection to be accomplished much quicker resulting in efficiency and cost savings. When a minor problem was found, the inspector corrected it, more serious problems were noted as to the nature and location and the section gang, along with tools and materials, was dispatched to correct the problem.

A foreman, who had overall responsibility for the condition and safety of the line, supervised the section gang. The foreman noted that if the crew had to pump the handcar for more than a short distance, the crew would be exhausted from the pumping and would not be very efficient in the repairs. When gasoline engines were invented and became practical, foremen began purchasing them using their personal funds and mounted them on the handcars. The handcar thus became a motor car and the crew no longer exhausted themselves just getting to the work site. Eventually a market developed for motor cars and the railroads themselves made the purchases. Over the years railroad motor cars have been manufactured by number of manufacturers, both in the USA and in Canada. Manufacturers included Fairmont, Kalamazoo, Sheffield, Buda, Fairbanks-Morse, Northwestern, Woodings, and Beaver.

Probably the most popular manufacturer has been Fairmont Railway Motors of Fairmont, Minnesota. They are still in business, now known as Harsco Track Technologies. For a while they were known as Fairmont-Tamper after merging with Tamper Corp. of Cayce, SC, several years ago. Today there are more Fairmont cars still in existence than the other brands. Although, no longer manufacturing motor cars, Harsco can still supply a

Continued on Page 3 - *Motorcar*

Arrivals

Progress Rail (EMD) Delivers First Tier 4 Locos

Progress Rail is shipping the first two production SD70ACe-T4s to Union Pacific. They will be the first EMD Tier 4 units ordered by a customer to be placed in revenue service. The locomotives, UP Nos. 3012 and 3014 were shipped from Bombardier's Sahagun, Mexico, plant, arriving in Laredo on Dec. 10. The locomotives are being moved to Union Pacific's Fort Worth diesel shop for inspection and to put the locomotives in service.

EMDX Tier 4 demonstrator units in regular freight service on the UP.

These are the first of 88 Tier 4 units ordered by Union Pacific, with a portion built by Bombardier and the balance by Progress Rail's Muncie, Ind., plant.

Union Pacific has also committed to purchasing 12 of the 15 SD70ACe-T4 demonstrators from Progress Rail when they are no longer needed by the builder. The first four demonstrators are being readied for delivery to Union Pacific this month. EMDX Nos. 1502 to 1505 are currently at Progress Rail's Tacoma, Wash., shop receiving Union Pacific equipment and full Union Pacific paint and reporting marks. These units will become Union Pacific Nos. 3000 to 3003. The balance of the demonstrator fleet will continue to test or demonstrate throughout the North American rail network.

The three demonstrators not being acquired by Union Pacific are SD70ACe-T4 EMDX No. 1501 and SD70ACeP4-T4s Nos. 1603 and 1604.

Charlotte to Study Building Airport Rail Line

The Charlotte Area Transit System (CARTS) is planning on spending $1.5 million to study how it should expand its network to serve the west side of the city and its airport, the Charlotte Observer reports.

A decade ago, the transit agency proposed building a streetcar line along Wilkinson Boulevard, one of the city's main roads. However, that plan never went beyond being a proposal. CARTS Chief Executive John Lewis now wants a more detailed study. "My ultimate goal is I want to build these lines," he says.

Charlotte light rail train at station.

The study will determine where exactly the route should go, how it should access the airport, and how could it best serve the new River District development west of Interstate 485.

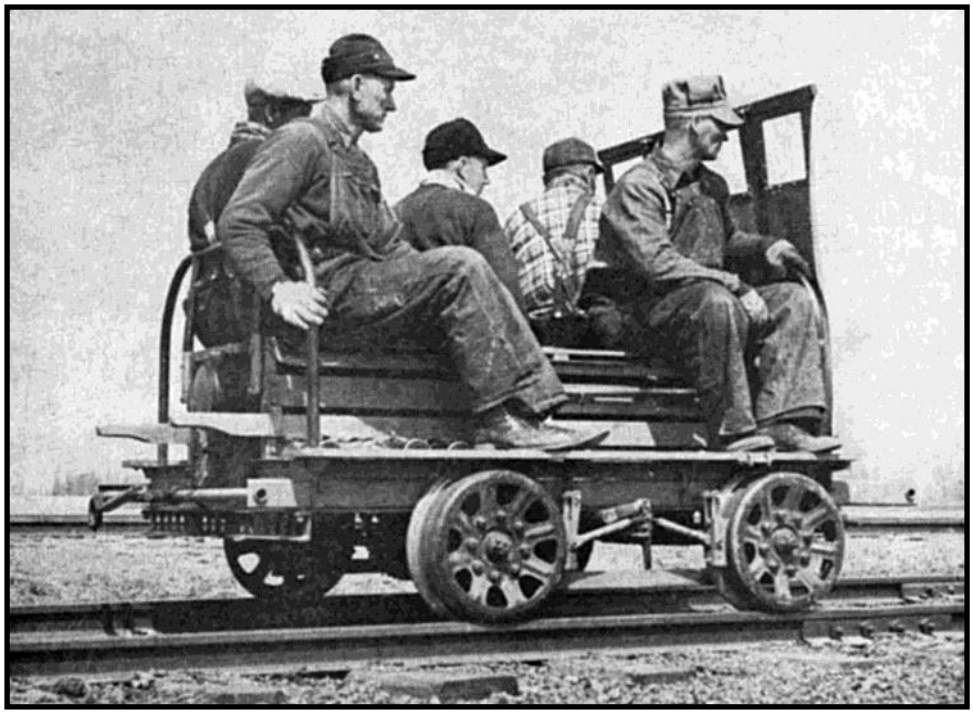
Why is the track gauge 4' 8.5"? Because it's the mean distance between the neck and ankles of damsels in distress.

What is the difference between a school teacher and a steam locomotive?. The school teacher tells you to, "Spit out your gum", while the locomotive says, "Choo Choo Choo!"

Departures

Continued from Page 1 - *Motorcar*

number of Fairmont parts which aid in maintenance and restoration of those cars now owned by private individuals and railroad historical groups.



During the past 30 years or so, the railroads shifted their track inspection and certain maintenance from crews using motor cars to more efficient trucks with retractable railroad wheels. Thus, motor cars became surplus property and were consequently scrapped in large numbers. The railroads slowed the scrapping when they realized there was a demand from the private sector to purchase motor cars for preservation and hobby operation. The hobbyists were willing to pay more than scrap value to obtain the used motor cars and spare parts.

The railroads were then faced with the very dangerous practice of individuals illegally operating their newly acquired motor cars on active tracks without permission of the owning railroad. Some short line railroads around the country began to allow weekend operation, especially if they were paid a fee and a liability waiver was signed by the motor car owners.

Eventually local motor car clubs sprang up, made up of individuals and groups who owned motor cars. They shared technical information and traded motor cars and spare parts among themselves. These local clubs joined each other to form a national club known as the North American Rail Car Operators Association (NARCOA). NARCOA has divided the United States into regions, with each region having an elected representative. Collectively these reps are part of the national Board of Directors. There are also national officers. Bob Knight is the current NARCOA president. Bernie Leadon is the Area 4 rep which includes SC, NC, TN, VA, WV, KY, and AR. Each area has several Excursion Coordinators, who must go through a year of intense mentoring before being allowed to set up excursions on local railroads.

NARCOA offers a rule book and liability insurance to its members, who must pass a rule book examination before being allowed to purchase insurance. Safe, accident-free excursion operation is paramount, and any member who violates any rule is subject to disciplinary action, including exclusion from the club. NARCOA members, as a condition of continued membership, must agree to never set their motor cars on a railroad track without permission of the owner of the track. Each member's car must pass a rigorous safety and mechanical inspection before being allowed to participate in each excursion. Additionally, each motor car operator must initially be mentored on a run to demonstrate operating proficiency and must have the NARCOA insurance to participate in an excursion.

Fairmont has basically three sizes of motor cars: Inspection cars, the smallest; Section cars, larger; and Gang cars, larger still. The cars are usually identified by the first letter in the type as follows: M equals an inspection car; S equals a section car; and A equals a gang car.

The M cars originally had a single cylinder two-cycle engine with a wide fabric belt connecting the motor pulley with the rear axle pulley. Characteristic of a two-cycle engine is that oil must be mixed with the gasoline. The spark plug eventually fouls from the oil requiring spare plugs to be carried at all times. The engine runs equally well in either direction after resetting a timing lever.

Inspection cars are commonly designated as M9 and

Continued on Page 4 - *Motorcar*

Continued from Page 3 - *Motorcar*

M19 depending on the wheelbase among other things. Since these cars are canvas belt driven, they are not suitable for climbing other than gentle grades and do not pull unpowered trailer cars easily. They generally will accommodate only 2 people in seats. There is practically no room to carry track tools on the car. These cars can easily be set on or off the track by two people. Later M cars, designated MT, had a two -cylinder four-cycle Onan engine and a two-speed transmission. MT14 and MT19 cars seem to be popular.

S cars generally are a larger version of an M car and are heavier and more difficult to handle.

For large groups the most desirable car is the A car. The reasons are: four, six, or eight-cylinder four-cycle engine; three or four speed manual transmission with automotive type clutch; transfer case to allow equal operation in either direction; can carry six or more people with ease; has room for track tools; can pull several trailer cars loaded with track supplies. A cars are designated A3, A4, A5, A6, A7, and A8 depending on wheelbase and size of engine.

The A3 is the smallest version and has either a Waukesha or Hercules four-cylinder engine. A4 and A5 cars are very similar with the wheelbases slightly different and having different engines. The A4 car has a Ford four-cylinder industrial engine similar to a Ford tractor engine, and the A5 has a Waukesha four-cylinder engine. The A6 has a Ford six-cylinder 240 or 300 CID engine. The A7 and A8 cars generally have a V-8 engines.

Concerning the complete Fairmont nomenclature, the first letter indicates the broad classification of the car. The next character is a number which identifies a specific model. Then there can be another letter that identifies the series. Then one or more numbers indicating any factory supplied options. Using an M19G for example, the G signifies the series as having a specific engine. With an A4D1, the D indicates the series, probably a Ford engine, and the 1 possibly signifies a factory installed roof and windshields on both ends.

If you want to ride a motorcar on a local excursion, your best bet is to join the Carolina Railroad Heritage Association. They operate a Fairmont A4D1 gang car which can carry six riders and an operator. This car participates in several nearby excursions each year carrying club members.

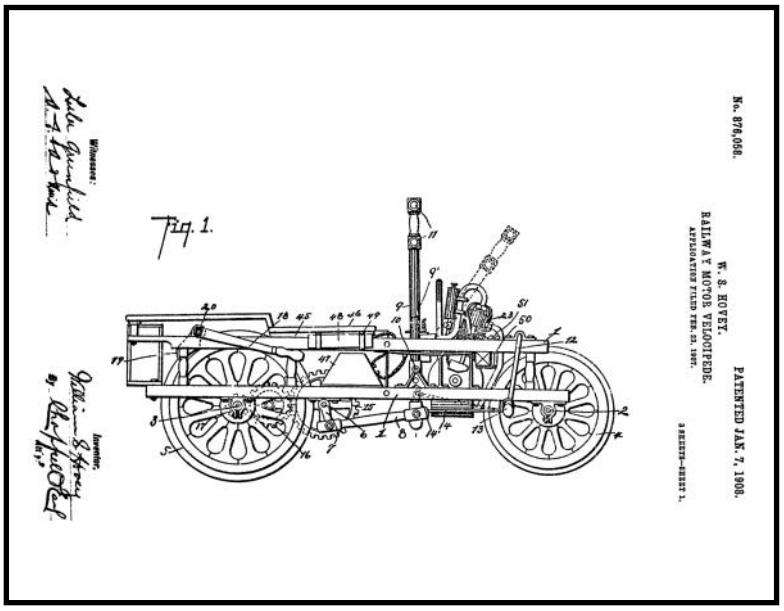
Fairmont Motor Car #3695

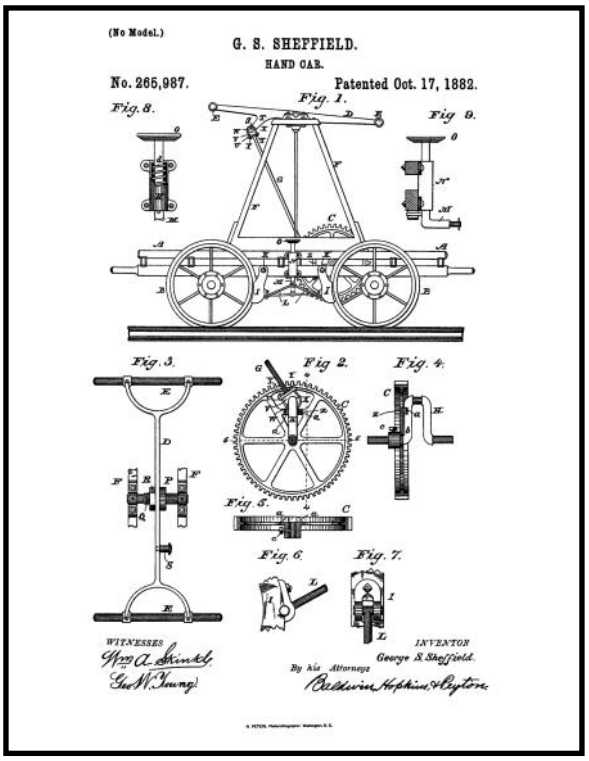
Former Owner: Southern Railway
Date built: 1967
Built by: Fairmont Railway Motors, Inc., Fairmont Minnesota
Model: M19G
Engine: Single-cylinder two-cycle. Five horsepower. Gasoline and oil must be mixed; one quart of TC-W3 oil per five gallons of non-ethanol regular gasoline.
Drive: Direct belt from engine pulley to pulley on rear axle. Clutch is third idler pulley which tightens belt.
Speed: 25 MPH with ease, possibly higher. Called a "Track Speeder".
Electrical: 12-volt automotive-type battery and alternator with built-in voltage regulator.
Ignition: Spark produced by "buzz box" coil similar to those on a Ford Model "T".
Reversing: Because there is no transmission and no reverse gear, the engine must run equally well in either direction. Hand crank or push to start in the direction desired after resetting the timing lever.
Controls: Throttle, ignition switch, ignition timing, choke, fuel mixture, clutch, brakes, electric windshield wipers, headlight, tail/brake lights, strobe light, warning bell. All controls are hand operated.
Engine Cooling: Water hopper with radiator. Cooled by convection. No water pump.
Suspension: Small coil springs between frame and axle bearing boxes.
Capacity: Four persons, two in folding back seats and two on motor box housing.
Use: Inspection of track, signals, and structures.
Weight: Approximately 1000 pounds.
Handling: Extension lift handles allow car to be set on or off track by two persons.
Factory Options: Headlight, taillights, and alternator.

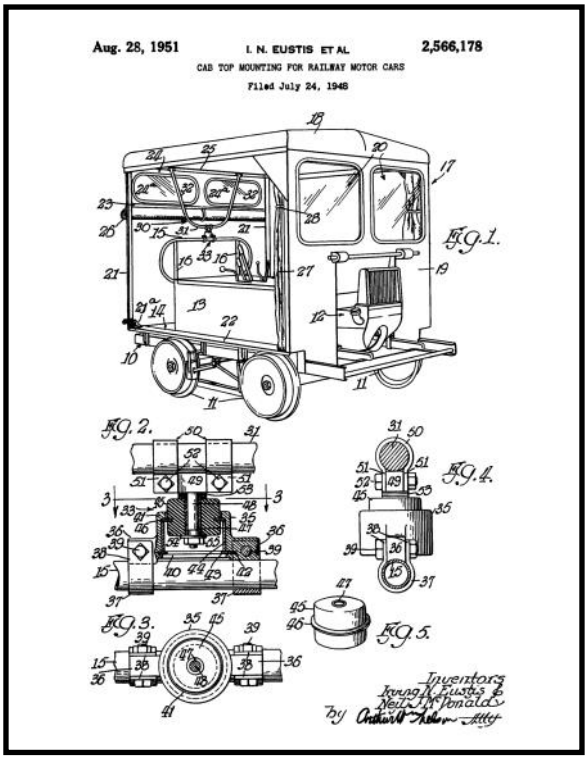
Railroad Added Options: Windshield, wipers, roof, amber strobe light, folding back chairs.
NARCOA Required Options: Electric bell, fire extinguisher, first aid kit, red flashing brake light, front and rear hitches, and tow bar.
Current Owner: Mac McMillin of Seneca, SC. Purchased the car from a friend in Columbia, SC, in 1991, who had purchased it from the Southern Railway roadway shop in Charlotte.

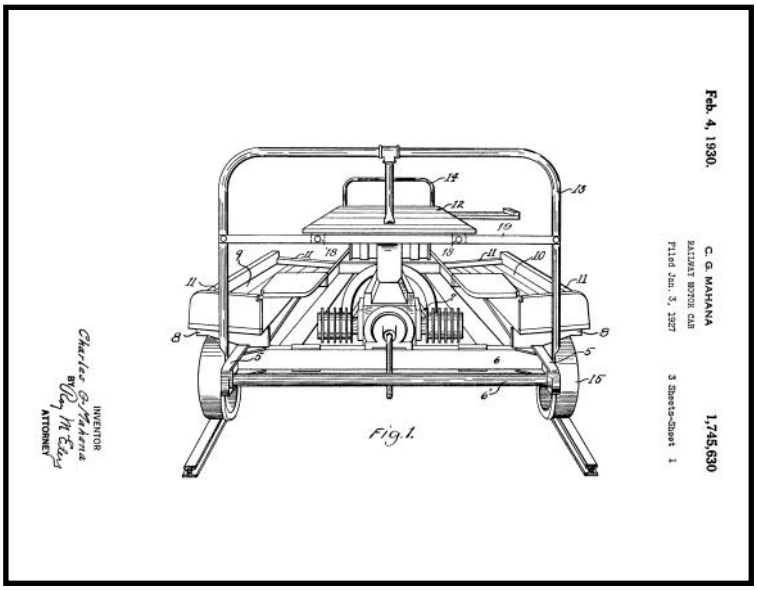
Rare Mileage

Velocipede and Motorcar Patents









Marker Lights

The Black Mariah

The ALCO DL-202-2 and DL-203-2 diesel-electric locomotive, known informally as the Black Mariah,

was an experimental freight locomotive produced by ALCO of Schenectady, New York. The primary diesel builders Alco, Baldwin and EMD pushed the War Production Board (WPB) for more opportunities to build more diesels. The Transportation Equipment Division of the WPB announced a production schedule on December 10, 1943 that allowed Alco to build one 4500 horsepower experimental diesel locomotive. This experimental diesel locomotive was to be built in the fourth quarter of 1944. The two A units were built in January 1945 and the B unit later in 1945. The two A units were put on test at Building No. 37 at Schenectady to work out problems with the connecting rods and turbocharger in the Alco 241 engine.

The total production run included 2 cab DL202-2 A units, and a single DL203-2 B cabless booster unit. The locomotives were powered by a V12 ALCO 241 diesel engine, rated at 1,500 hp. The units were released for test in September 1945. The locomotive could attain a top speed of 50 mph in freight servbice and 78 mph passenger service.

With the B-B wheel arrangement and carbody construction, equipment layout and electrical gear these experimental units were the immediate predecessors of the EMD FA units to come in early 1946. Outwardly, the bodies strongly resembled those on the DL-109, some of which were still under construction at Schenectady in early 1945.

The three units were numbered 1500A, B, C and were tested on the New York Central Railroad, the Delaware and Hudson Railroad, the New York, New Haven and Hartford Railroad, and the Bangor and Aroostook Railroad, among others. As no orders materialized for such units, and no railroad bought the demonstrators, they were scrapped in September 1947.

Wanted—Articles for the Carolina Conductor

Submit an article of 200 words or more with some photos and captions and see them in print. Every one of us has some unique railroad experience that would make interesting reading for our membership. With Jim Sheppard's passing your editor needs more contributions of local railway history and news.

Check out the CRHA on our Facebook group.
www.facebook.com/groups/crhainc/

Check out the HCRM on the internet: www.hubcityrrmuseum.org