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# THE MONTGOMERY COUNTY STORY

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## HISTORY OF THE STREET CAR LINES OF MONTGOMERY COUNTY

By William J. Ellenberger\*

Introduction by the Editor: By now, Connecticut born Frank J. Sprague, 1857-1934, Naval Academy graduate and Thomas Edison's protege, has a well earned place in history as the father of the American electric street railway. With the exception of those who were well acquainted with his work and inventions, it was not always the case; for one must sympathize with those inventors who competed in Edison's circle. As happened in Sprague's lifetime, Edison's genius and reputation quite overshadowed other innovators of his era.

Because Sprague's electric propulsion motor was made possible by Edison's constant-voltage distribution system, just as Edison's work was made possible by other's inventions (e.g., Morse and Bell); and because of the Sprague-Edison early

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\*Mr. Ellenberger, a professional engineer for nearly forty years, has lived in Washington, D. C. since he was a year old. He holds a degree in both electrical engineering (1930) and mechanical engineering (1934) from George Washington University. He was employed by the Potomac Electric Power Company for ten years prior to World War II, and he taught electric railway engineering at George Washington University in 1941.

collaboration, confusion is understandable. In truth, Edison was not a modest man. Roger Burlingame wrote of Edison, "Often when he was given credit for something like electric traction which belonged, in toto, to others, he seems simply to have refused comment."

Edison stated in an interview in 1884 (the same year that Sprague left Edison to form his own company), "I have not given much thought to the substitution of electricity for horses on surface street cars."

Subsequent biographers and engineering colleagues of Sprague, as well as Sprague's second wife, Harriet, who published in 1947, Frank J. Sprague and the Edison Myth, have clarified this misunderstanding, which was further heightened by the splash Edison's exhibit made in Chicago in 1883. But John Winthrop Hammond wrote:

Nothing tangible came of Edison's adventure into the realm of electric railroading, nor of the joint three-ton locomotive which he produced with Stephen D. Field in 1883 to appear under the name of "Judge" at the Chicago Exposition for Railway Appliances.

Stephen Field, an early developer of the street cars that were to aid the transportation problem of San Francisco's hilly terrain, had assisted Edison at his lab in Menlo Park, New Jersey. He died shortly after the Chicago Exhibit and in 1883, Sprague went to work as Edison's assistant. Sprague designed the copper feeders and mains for Edison's three-wire distribution system and it was at this point that the confusion over priority of invention probably began. Sprague's own arrangement of constant-voltage distribution, while similar to Edison's, was Sprague's own brain-child. However, the patent, filed in 1885, a year after Sprague left Edison's employ, was assigned to the Edison Company.

Men earlier than Field and Sprague and the immodest Edison had envisioned the street car. In 1834 Vermont blacksmith Thomas Davenport invented and exhibited a toy tram. In 1851 the first full scale field test took place when Smithsonian's Professor Page propelled a small electric car, using current from a battery of 100 Grove cells, at the top speed of nineteen miles per hour between Washington and Bladensburg. However, like numerous other experiments, this test ended with the destruction of the batteries. The first major success of this form of traction occurred at the Berlin Exhibition in 1879. German inventor W. Siemens ran his car on a track a third of a mile long and used a dynamo electric motor which took current from a third rail, with a track return supplied by a stationary dynamo.

Sprague, then, after working in the shadow of Edison for a year, knew he had fashioned his own dynamo. In 1884 he started the Sprague Electric Railway and Motor Company on a shoestring and soon he was installing industrial electric motors all over America. In February, 1888 Sprague completed construction of the parent of all American trolley lines, the traction system in Richmond, Virginia. Eight months later, the Washington, D. C. line went into operation, to be followed in 1892 by the first trams into Montgomery County, close on the heels of the Chevy Chase development.

For the following history of the Montgomery County street car lines, Mr. Ellenberger, in addition to his own notes and sources, acknowledges Leroy King's 100 Years of Capital Traction as an important and thorough primary source.

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One of my earliest recollections is riding the "traction cars", as my parents called them, out into the country to visit relatives. As a boy I went all over town on the street cars and later out into Montgomery County on the suburban lines to Chevy Chase Lake, Glen Echo Park and Rockville. In those days when there were fewer automobiles, the way to get around was on your own two feet, by bicycle, or by street car. We Boy Scouts rode the "Toonerville Trolley" from 14th and Kennedy Streets to Carroll Avenue and Sligo Creek to go hiking on Sunday afternoons. Some of my high school classmates commuted from Montgomery County to Washington on the street cars.

Those street cars that had such an influence on our lives are gone. Our children in turn were influenced by the automobile and most of our grandchildren have never seen street cars unless they have visited the National Capital Trolley Museum in Wheaton, Maryland or some similar repository for our past vehicular technology.

The street cars of Montgomery County were the offspring of the Washington, D. C. lines. It began in July 1862 when the Washington and Georgetown Railroad Company (W&GRR) ran its first horse drawn cars on Pennsylvania Ave. By 1872, those cars ventured close to the Montgomery County area near the Silver Spring boundary. It was a big day in October 1888 when local citizens, as excited as the Richmond, Virginia, residents had been eight months earlier, watched the opening run of the first trolley car make its two and a half mile trip from the Soldiers' Home to the car house at 4th St., N. E. The Washington Star wrote:

The cars do not differ materially from those found on other lines — except no place to hitch horses....The interior of the car is fitted up with mahogany...seats with springs are upholstered in slate-colored plush.

Extensions into the suburbs were inevitable as the street cars reached the city limits and provided rapid transit for those who no longer cared to live "down town." In order to follow this outward expansion beyond the District of Columbia, one needs to note the ends of the original street railways. Two lines ran to Georgetown and others to the city limits (Florida Ave.) at Connecticut Ave., 14th St., Georgia Ave., and H Street, N. E. Later these lines were extended to the District Line. The lines at first used the overhead trolley system, then the cable system, but in 1897 a serious fire destroyed the large central power station at 14th St. and Pennsylvania Ave. and afterward, the conduit electric system was adopted. (Horses were again hitched to the trolleys until repairs could be undertaken). Montgomery County was not beset with these problems. Leroy King wrote:

While the city lines' progress was slowed by the search for a more acceptable form of propulsion (to comply with the Congressional prohibition against overhead trolleys), no such restraint slowed the development of the suburban lines.

Electric railways were incorporated with high sounding names and far destinations. For example, the Baltimore and Washington Transit Company was chartered in 1894 to build a line from 4th and Butternut Streets, N. W., to Baltimore via Ellicott City. It never got farther than the Wildwood section of Takoma Park, Maryland. However, the following are the lines that did serve Montgomery County residents.

#### The Tenallytown and Rockville Railroad

The Georgetown and Tenallytown Railway Company (G&T) running from Georgetown to the District Line along Wisconsin Avenue was one of the pioneer electric lines outside the city proper. It commenced operation in April 1890. Just before that the

Tenallytown and Rockville Railroad was chartered. Its route was from the end of the G&T to Alta Vista (Bethesda Park) via Rockville Pike and Old Georgetown Road. Bethesda Park was a popular suburban amusement park featuring roller coaster, merry-go-round, bowling alley, shooting gallery and dancing. It was destroyed in a hurricane on September 29, 1896 and never reopened. The street car line was extended to Rockville in 1900 terminating at the fair grounds. During the fair each fall traffic was so heavy that two-car trains were run to accommodate the crowds. Later a further extension was made through Rockville on Montgomery Avenue to the Chestnut Lodge Sanitarium on the far side of town.



Leroy King describes this street car as one of Washington Railway's majestic "Rockville" cars, at 4 switch in 1908. Note multiple unit jumper box under center front window.

### The Washington and Great Falls Electric Railway

The Washington and Great Falls Electric Railway (GFERY) was incorporated in July 1892. After amendment and change in plans for track location, construction from Georgetown to the District Line was completed in September 1895. Later the line was extended to Glen Echo and ultimately to Cabin John but Great Falls was never reached. As we will see later, a line was built to Great Falls from Bethesda. Much of the route of the GFERY was on the bluff overlooking the Potomac River making it one of the most scenic trolley rides in this country. The line served a desirable residential area, the International Athletic Park (which featured a bicycle racetrack), the Brookmont community, Glen Echo and Cabin John. At Glen Echo, where there was a Chautauqua, the street cars brought most of the audience. Later, Glen Echo Amusement Park was a place well patronized by me and my high school classmates. Riding the summer street cars to Glen Echo and elsewhere was great fun. Their only disadvantage was that summer thunder showers were likely to drench passengers even when the curtains were pulled down. But that did not dampen our enthusiasm. There was an earlier amusement park, long before my time, at Cabin John near the hotel. The Cabin John Hotel was a popular summer resort for escape from Washington's summer heat.



The trolley cars at Glen Echo, 1959.

These represented the acme of street car development in the United States. (Courtesy of Richard Kotulak)

### The Washington and Great Falls Railway and Power Company

The street railway finally reached Great Falls as part of a land development scheme west of Bethesda covering a broad sweep of land toward the river, including Congressional Country Club. The Washington and Great Falls Railway and Power Company's track originated at the junction of the Rockville line, Bradley Boulevard and Wisconsin Avenue. The track was located generally on the north side of Bradley Boulevard. From the Congressional Country Club it ran cross-country to Great Falls. The charter was granted in May 1912, the line placed in operation in July 1913 and discontinued operation in February 1921.

### The Rock Creek Railway Company

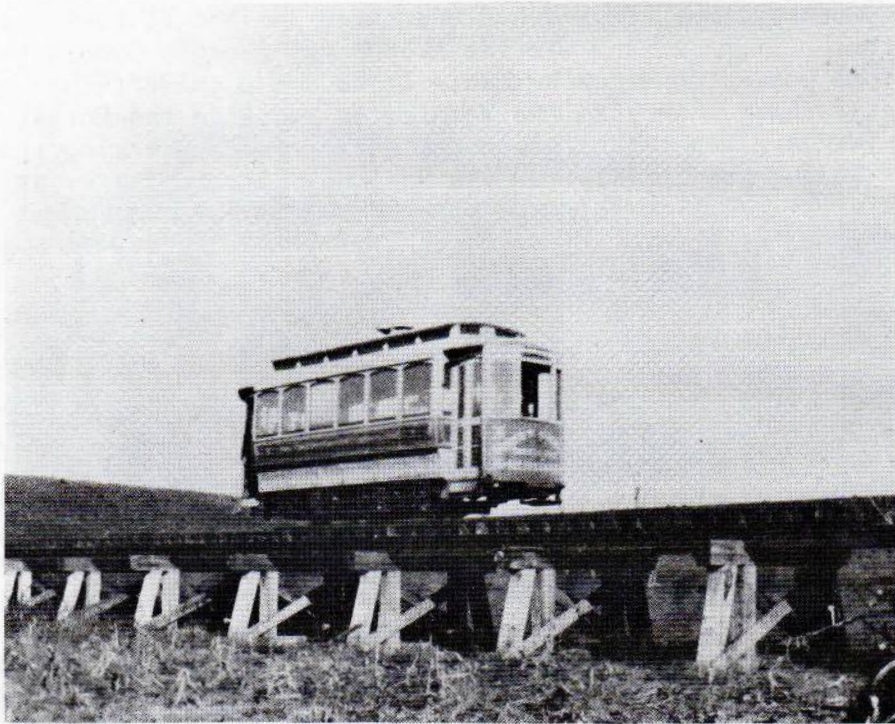
The Rock Creek Railway Company (RCRy) built a line from 18th and U Streets, N.W., to Chevy Chase Lake in 1892. The Maryland portion of the line was built by the Chevy Chase Land Company. Both companies were controlled by Senator Francis G. Newlands of Nevada. The charter of the RCRy required that it build substantial bridges open to the public over Rock Creek (Calvert Street) and Klinge Valley. Needless to say, this construction and the street car service had a startling effect on real estate development out Connecticut Avenue all the way to the lake. The investment by the land company in a street railway greatly enhanced the value of building lots for blocks on either side of Connecticut Avenue. In 1895 the RCRy was merged with the W&GRR to form the Capital Traction Company (CTCo). The Newlands Fountain in Chevy Chase Circle memorializes the man who so greatly influenced the growth of Chevy Chase.

### The Glen Echo Railroad

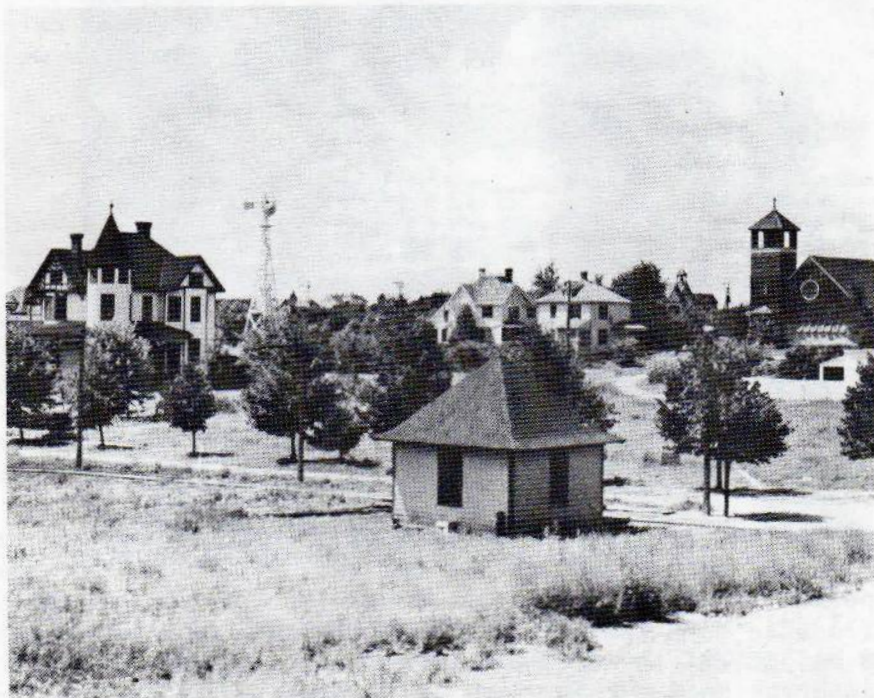
This company was typical of what Leroy King calls "the electric car boom." Like many others this one quickly went bust! It was chartered in December 1889, went into operation in June 1891, and ceased operation in the fall of 1900. Most suburban railway was light construction in contrast to steam railway practice. Once the right-of-way was acquired, grading, track laying and trolley construction followed rapidly. The Glen Echo Railroad originated at Wisconsin and Willard Avenues and ran west to Glen Echo and Cabin John. It was the extension from Glen Echo to Cabin John that partially fulfilled the aspirations of the GFERY incorporators. In 1897 a branch was built to Chevy Chase. It crossed Wisconsin Avenue at about Oliver Street and terminated at Chevy Chase circle but did not connect with the trackage of the Rock Creek Railway.

### The Kensington Railway

The Kensington Railway began service in May 1895 as an extension of the CTCo line terminating at Chevy Chase Lake. It ran via Connecticut Avenue and Kensington Parkway to the bank in Kensington near the B&O railroad station. In 1902 the Montgomery Electric Light and Railway was chartered to extend the Kensington Railway to Ellicott City, Maryland. An ambitious plan to say the least! In 1906 the name was changed to Sandy Spring Railway when it acquired the Kensington Railway. Construction was started but progress was slow; the line reached Norris Station in 1916 but made no further progress toward its objective. The CTCo operated its cars over the line for ten years beginning August 1923. From August 1933 until September 1935 the owners attempted to continue operation but their line could not compete with the Capital Transit buses.



Trolley run from Chevy Chase to Kensington  
on trestle over Rock Creek.



Trolley station in Kensington, c. 1902.  
(Courtesy of Robert R. Humphreys)

The Washington Woodside and Forest Glen Railway Power Company

The Brightwood Railway Company was chartered in 1888 to build trackage and provide transportation from 7th and Florida Avenue out Georgia Avenue to the District Line. After some motive power experiments it became a conventional overhead trolley electric street railway. In 1895 the Washington Woodside and Forest Glen Railway Power Company (WWFGRy) was organized to extend street car service from the District Line to Silver Spring and Forest Glen via National Park Seminary, at that time a fashionable private school for girls. (The school is now the Forest Glen Annex of Walter Reed Army Medical Center.) By March 1927 rail service was abandoned, giving way to buses.

The Baltimore and Washington Transit Company

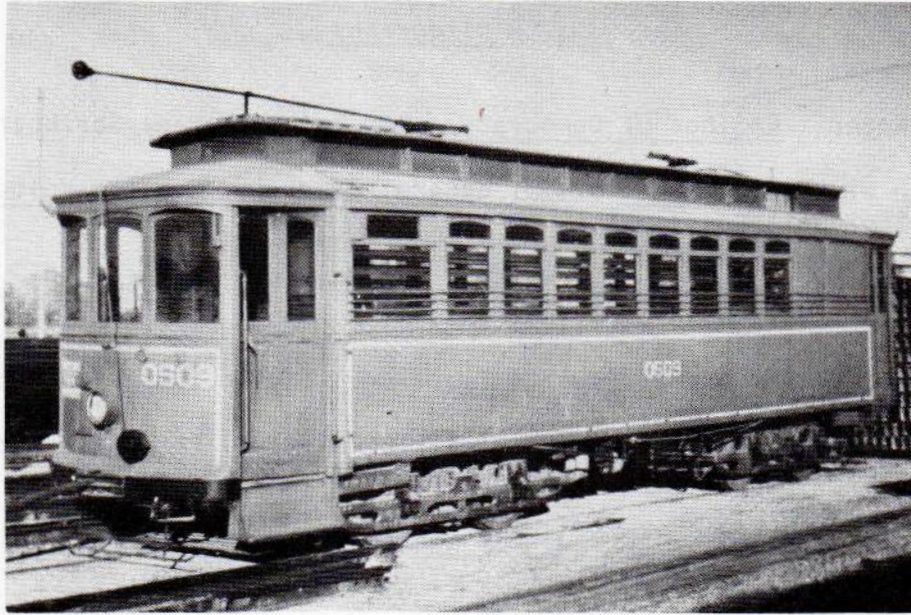
This corporation with a pretentious name has already been mentioned as one that failed to live up to expectations. By September 1897 its tracks had been built from 4th and Butternut Streets to what is now Elm Avenue and Heather Lane just south of Sligo Creek in Takoma Park, Maryland. The line must have been built with great optimism for there were few customers to draw upon. On May 27, 1900 Wildwood Park opened with its dance pavilion, vaudeville shows and restaurant in a "beautiful sylvan setting." The railway had few riders and the amusement park faced stiff competition from other parks. By February 1907 the rolling stock was junk; the trolley wire and much of the rail were gone. On May 30, 1910 some brave spirits reopened the line, this time with two gasoline powered cars but with a new point of origin at 14th and Kennedy Streets, N.W. (the end of the 14th Street line). The new route was via Kennedy Street, 3rd Street north to Aspen Street where it joined the old line. The far end was at Carroll and Laurel Avenues. The remainder to Wildwood was not used. A fire in September 1913 destroyed the barn and rolling stock, again putting the line out of business. After another corporate change, the line was reopened for electric operation in August 1914 running to the District Line. In May 1918, following a track extension along Carroll Avenue to the Washington Sanitarium, the CTCo operated the line under lease and ultimately acquired ownership. In August 1927 they abandoned the Maryland portion of the line. Now there are no street car lines in Montgomery County and the little waiting stations have been razed, as well as the car barns, including one at Glen Echo which was constructed of stone.

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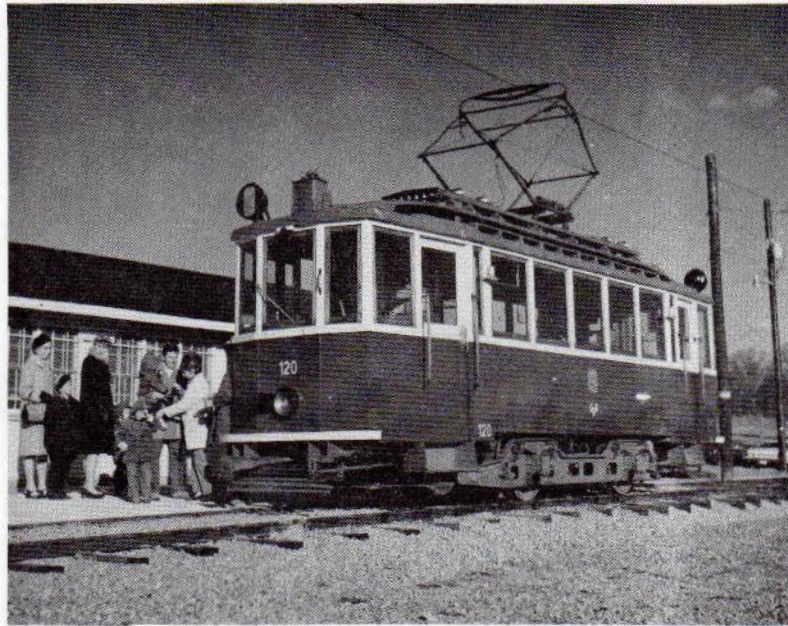
The rise and decline of street railways is another example of the inevitability of change. It has been said that the price of progress is problems. Certainly rapid transit has problems for the use of buses did not solve the transit problem; it brought on other problems. METRO will provide rapid rail transit, hopefully coordinated with bus lines in the National Capital region. It is long overdue.

Now that we are energy conscious and ecology conscious we may need to reexamine the METRO plan. It has been irrefutably shown that a street car takes less space in the street per person transported than any other form of transportation. The PCC street cars, introduced here shortly before the decline of street railways, were clean, quiet and economical in energy consumption. Just as we face a forced return to railroad transportation for long distance freight and passenger service we may be forced to return to street cars in some locations where the traffic pattern makes it feasible. They would revive a lost era.





Built c. 1899, this street car ran to Rockville. It was rebuilt in 1947 to haul "trucks" to shop.



In March 1965, ground was broken for construction of the Trolley Museum in Wheaton, Maryland. Built with donated funds, materials and labor, it is run by volunteers under the aegis of the Maryland-National Capital Park and Planning Commission. The museum also features street cars from Europe. Shown here are sight-seers waiting to board a 1909 Austrian street car in front of the museum. (Courtesy of Mr. Robert Flack).

Bibliography

- Burlingame, Roger. Engines of Democracy. New York: Charles Scribners' Sons, 1940.
- Hammond, John Winthrop. The Story of General Electric; Men and Volts. New York: J. B. Lippincott Co., 1941.
- Jackson, Donald C. "Frank Julian Sprague, 1857-1934." The Scientific Monthly. Vol. LVII. (Nov. 1943), pp. 431-441.
- King, Leroy Jr. 100 Years of Capital Traction. Taylor Publishing Co., 1972.
- Sprague, Frank J. The Growth of the Electric Railways. Atlantic City, N. J.: American Electric Railway Association, 1916.
- Sprague, Harriet. Frank J. Sprague and the Edison Myth. New York: The William Frederick Press, 1947.
- "The System of the Capital Traction Co." Electrical Handbook. The American Institute of Electrical Engineers, 1904, pp. 101-115.
- Wyer, Samuel S. Fundamentals of Transportation Problem. Columbus, Ohio: Ohio Chamber of Commerce, 1928.