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Norman Wilson Storer

By Edward L. Miller

NORMAN WILSON STORER, the most recent recipient of the Lamme Medal, was born in Orangeville, Trumbull County, Ohio. He completed the work offered by the public schools, and also a preparatory course, before coming to the Ohio State University. Here he studied electrical engineering and graduated in 1891 with the degree of M.E. in E.E. After graduation, Mr. Storer joined the Westinghouse Electric and Manufacturing Company, where he worked at minor jobs for about two years.

In 1893, he started in design work as first assistant to Benjamin G. Lamme. Together, they developed a line of small D-C multi-polar generators and motors which were the standard for the company for ten years or more. Storer remained in general charge of this sort of work until 1904. At this time, he was placed in charge of developing all railway work for Westinghouse. For the past twenty years, he has worked along general lines, acting as consultant railway engineer for his company.

It was Mr. Storer who in 1932 offered what he called the "Bi-Way System," a subway conveyance which may revolutionize mass transportation in cities. This consists of traveling sidewalks or platforms on which passengers ride to and from the business areas in the larger cities which are now using elevated and subway transportation. This continuous high-speed transportation system is worthy of a lengthy explanation. Briefly stated, its advantages consist of greater seating capacity than the present street subway and elevated cars; greater total capacity; low first cost; low operating cost; enhanced value of real estate along route; quiet operation; safety; relief from crowding; high scheduled speed with low maximum speed; adaptability to mass transportation below surface or through high buildings; reliability; great convenience; and time saving. The inventor hopes that this system may be tried and proved to be more efficient than existing means of transportation in cities.

Mr. Storer has proposed a simple approximation which considered the inertia of the rotating parts of a car in



—Courtesy Alumni Monthly.

NORMAN WILSON STORER

calculating rates and power requirements for acceleration. He worked on the electrification of the New York, New Haven, and Hartford Railroad; the St. Clair and Hoosac Tunnels; the Chicago, Milwaukee and St. Paul Railroad; and the Brooklyn Elevated Railways and Subways. He also was responsible for the use of six motors giving $\frac{1}{3}$, $\frac{2}{3}$ and full speeds for railways, as well as the scheme of regenerative braking on the 3000-volt D-C Milwaukee locomotive. The 5000-volt experimental car which was run on the Grass Lake line of the Michigan Railways in 1915-1917 was designed by Mr. Storer. This was the highest D-C voltage ever used in commercial railway service and was a complete success. He designed the flash suppressor which made it possible to short-circuit generators without causing a flash-over or serious sparking.

In June, 1933, Mr. Storer received the Lamme Medal. Donated by Benjamin Garver Lamme, himself a graduate of this university, the medal is awarded annually by the Ohio State University to a college of engineering graduate who has in active practice made an outstanding contribution in engineering.

Mr. Storer has been Chairman of Advisers on Traction Motors for the United States National Committee of the International Electrotechnical Commission. In 1895, he joined the American Institute of Electrical Engineers and became a Fellow in 1913. He was manager of the Institute from 1911 to 1914 and one of its vice-presidents from 1914 to 1916 and from 1921 to 1923. He also served as chairman of the Institute's sub-committee on Standards for several years.

Other engineering societies of which he is a member are the American Society of Mechanical Engineers, the Engineering Society of Western Pennsylvania, the Pittsburgh Railroad Club, and the Engineers' Club of New York.

He has not cut off his school acquaintances even though he has been busy. He has held the chairmanship of the Board of Visitors and also the presidency of the Ohio State University Association.