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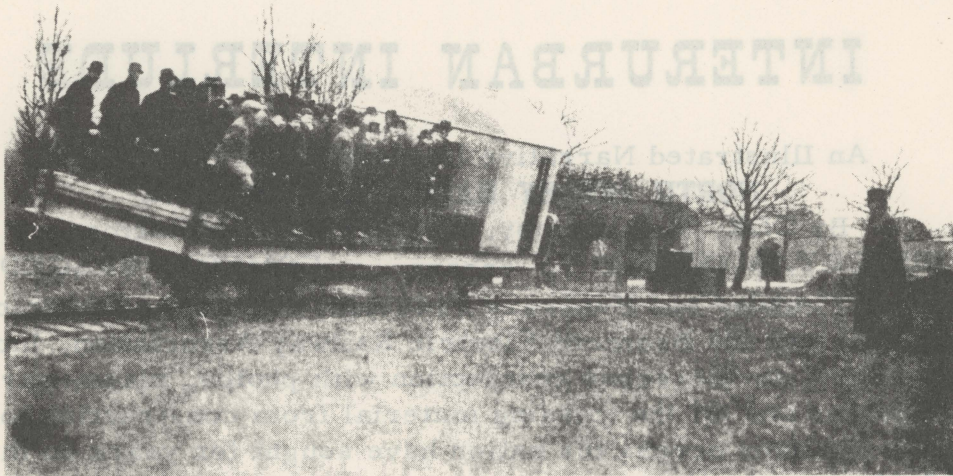
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ELECTRIC RAILROADERS' ASSOCIATION, INC.

THE GYRO-MONORAIL

By E. JAY QUINBY, Honorary Pres., E. R. A.

Back in 1909, Louis Brennan who had invented the Brennan Torpedo, startled the world by exhibiting and demonstrating a unique, mysterious electric railway car that balanced itself above a single rail. Carrying a standing load of some 40 passengers, this car careened around curves, automatically tilting itself to compensate for centrifugal force just the way a boy tilts his bicycle rounding a corner. Strangely enough, the passengers felt no sensation of unbalance, for the speed of the car and the degree of its tilt had a wierd way of accomplishing happy match, eliminating any necessity for the passenger to brace himself for the curve being rounded.



Photograph by Edwin Levick, New York

**THE BRENNAN MONORAIL CAR RUNNING ON A CURVED TRACK
MONORAIL EXPERIMENTS OF 1909**

Brennan further startled his spectators by running the car across a deep ravine on a steel cable instead of a conventional track supported by a bridge. It was reported that he had some difficulty in getting a crowd of volunteers to ride across with him, but a few of the younger devil-may-care passengers finally agreed to take the chance, and away they went. The weight of the car and its passengers caused the cable to dip beneath it as it progressed, but all were landed safely on the opposite side of the small chasm, - to subsequently brag that they had crossed a valley on a tight-rope!

The car which Brennan demonstrated before the Royal Society of England in November 1909 was equipped with twin gyroscopes revolving at 3000 rpm in opposite directions about vertical axes through step-up gears powered by electric motors which drew their current from storage batteries. This equipment was contained in a cab at the forward end of a flat-car on which the passengers rode. This car had double trucks, each of which had only two wheels. The four wheels were arranged in single-file and were provided with double flanges, - in other words, they were grooved wheels. The car body was 44 feet long, 10 feet wide, 13 feet high to the top of its cab, and weighed 22 tons. Each of its two gyroscopes weighed 3/4 ton, incased in vacuum and provided with special "frictionless bearings". Passengers were encouraged to move freely about from side to side on the car's deck to demonstrate its strange ability to balance itself despite the shifting load, as its electric traction motors propelled it along at impressive speeds.

The question might be raised concerning what would happen to the car's stability in case of a power failure. The answer is that supporting struts would be automatically lowered to brace the car and prevent its capsizing, whenever the speed of the gyros dropped below a predetermined safety rate. If the gyros slowed below this rate while the car was traversing a cable over a valley or stream, weighted arms resembling pendulums would automatically drop to maintain the car in its proper upright position. In any event, there would be better precautions available and more time to introduce them than in the case of a power failure aboard a modern plane which presents an immediately serious hazard of emergency proportions when its engines fail.

It seems unreasonable that such a progressive and apparently practical and efficient development was subsequently allowed to die on the vine. What an economical and simple railroad could be built over which to safely speed such cars!

INTERURBAN INTERLUDE

An Illustrated Narrative Description of Life on the
NORTH JERSEY RAPID TRANSIT LINE

By CDR. E. J. Quinby, Former NJRT Motorman

HISTORY, MYSTERY ----- COMEDY, TRAGEDY

The Author, Founder and Honorary President of both the Electric Railroaders' Association, Inc. and the Branford Electric Railway Association, Inc. (Trolley Museum), provides on-the-scene description with photos, maps, car-drawings, tickets, timetables and all the missing material from construction to destruction which Electric Railfans across the nation have sought for years on this spectacular project. \$7.95 postpaid from:

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