NEW MONORAIL AT THE FAIR.

Latest Development of Rapid Transit is Demonstrated With Miniature Car Which is now Being Operated at the World's Fair.

[SPECIAL CORRESPONDENCE OF THE TIMES.]

ST. LOUIS, July 26.—That a monorail high-speed electric line can be operated profitably in connection with, and along the right-of-way of any one of the big trunk lines between Chicago and St. Louis is the opinion of F. B. Behr, inventor of the rapid transit system about which the scientific world has been talking for years and which is now being developed in the construction of a line between Liverpool and Manchester, in England.

Not only is the project feasible for the two greatest Western cities, Mr. Behr says, but the monorail would be just as practical as an adjunct to the New York Central, the Pennsylvania or other Eastern lines, in connecting by a quick means of transportation the other large cities of the country. In fact, Mr. Behr thinks that all of the fast express traffic of America can be handled by the one-rail route, and that a separation of the speeds secured in this way will result in a better and more profitable transportation service.

With a model of the monorail car in operation in the Palace of Electricity at the World's Fair, the inventor is demonstrating to American railway magnates the advantages claimed for his device both as to speed and safety. The miniature is a subject of much interest and is daily inspected by prominent persons in search of technical information such as is elucidated here by Mr. Behr.

Consent of Parliament has been given to the construction of a monorail line between two of the greatest cities of England. Among the consulting engineers employed in the carrying out of the scheme is Lord Kelvin, one of the most eminent men of his profession in the world. On this line it is proposed to develop a speed of 110 miles an hour, and the best-known engineers of Europe, after inspecting Mr. Behr's plans, have given it as their opinion that such a speed would be not only safe but highly profitable.

Cars are run singly, instead of in trains, over the monorail, and there is a resultant saving of energy because of the even and regular consumption of power. The danger of accidents is lessened by an absence of couplings, and a more satisfactory service is rendered because of the frequency of cars. The cost of construction is less than that of the average steam railroad; and where operated in connection with a trunk line, the cost of building is greatly lessened by the saving in the matter of right of way. The monorail can be conveniently operated inside the fences of the average steam line, using the same stations and terminals.

"All of the existing lines of railway are suffering from a congestion of traffic caused by what is known as a mixture of speeds," says Mr. Behr, the originator of the monorail system. "The cost of operating mail and express is far in excess of the revenue from them, and the loss is a tax on the freight traffic, which is delayed and harassed by the fast trains.

"There is a big profit in the express business when operated independently, and with the monorail a much better service and faster speed are secured than is possible with the steam line. When the two-rail system is freed of the demoralizing mixture of speeds, freight congestion becomes relieved and there are to be secured larger profits, even on lower tariffs, than now obtain. There need then be no losses in the operation of any branch of transportation, and the service will more nearly approach perfection.

"Elaborate experiments have proved that, with the present facilities for the manufacture of steel and production of power, a profitable speed may be procured at 110 miles an hour with the monorail system. The cost of electricity required to produce speed beyond that is excessive, and the demand for a greater speed does not justify the additional outlay. For this reason the speed of the Liverpool-Manchester line was limited to 110 miles an hour. Satisfactory profit and absolute safety are assured under this arrangement. A running speed of 110 miles an hour is as practical as is a speed of ten miles an hour on the average trolley line."

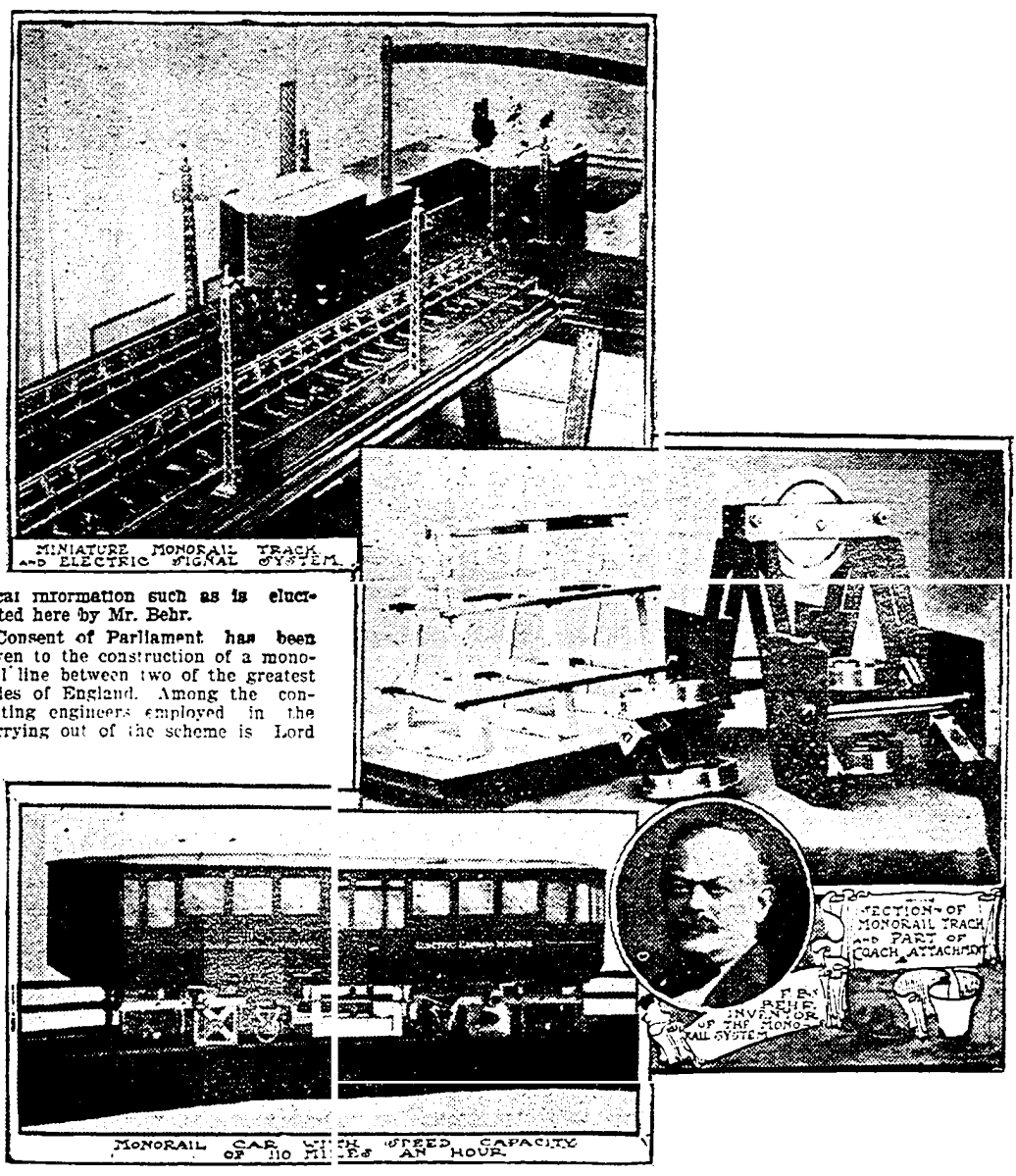
In the model displayed at the World's Fair is to be seen in miniature the very system soon to be in operation in England.

A new and valuable electric system of signaling, largely automatic, is to be employed. Each day, before the first car is started, the track is cleared, all semaphores are down and all indicators show an open line. As the first car leaves the terminus and passes the first signal, the semaphore hoists the danger signal and the indicator in the signal cabin shows the line to be blocked. The same operation is repeated as the car passes the second signal. When the car passes the third signal, the same operation is again repeated, and in addition it reestablishes the electrical circuit controlling the first signal, causing its semaphore to be lowered and the indicator in the signal cabin to show a clear line. A second car can now leave the terminus, but cannot proceed further than signal No. 2 until the first car has passed the fourth signal post. There is always one complete section blocked behind each car. The arrangement is such that if the attendants should disregard the signals, the car would be safely stopped by the automatic working of the appliances.

According to the evidence of expert engineers examined before Parliament, the working expenses of the railway, including the cost of maintenance, renewals, and general administrtion, will be 15 cents a car mile. If every car carried an average of twenty passengers out of the possible thirty-eight trips, at the same fares as are now charged by the railway companies, the net profit would, it is said, admit of the payment of dividends of 5 per cent. on the capital of the company as sanctioned by Parliament, viz., $12,800,000.

It was in 1886 that Mr. Behr constructed his first monorail behind Victoria street in Westminster. In 1887-8 he constructed the monorail between Listowel and Ballybunion, Ireland and in 1897 an experimental monorail was constructed under his direction at Brussels and tested at high speeds. On the latter line, with a carriage weighing about seventy tons, which was much in excess of the intention and estimate, a speed on curves of over 500 meters' radius of eighty-three miles an hour, and a speed of seventy miles an hour on an ascent of one in ninety, were attained.

The model of the monorail car is operated every half hour in the Palace of Electricity at the World's Fair, and for a month or six weeks its inventor will be at St. Louis to point out its advantages and give reasons why it should be introduced in this country.



Commenting on the recent Woman's Congress in Berlin, an Austrian journalist expresses his satisfaction that the questions of the ballot for women, teetotalism, and world's peace were kept in the background, and prominence given to the problems of education, charity, marital rights, servants, and, above all, the wages of women workers.