PUBLIC SAFETY AND THE INTERURBAN ROAD VS. THE RAILROAD MONOPOLY IN MASSACHUSETTS

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Public safety and the interurban road vs. the railroad monopoly in Massachusetts by Howard C. Forbes

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HOWARD C. FORBES

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THE Railroads propose to suppress rapid transit by electric railways in two ways: first, by owning them; second, by occupying the field with slow railways which never can give rapid transit. Either way they win. But in this plan, Public Safety is omitted.

1. The Railroads propose to own the electric railways through the so-called "Merger" bill, which would directly authorize it. The real value of this bill, however, is the State sanction that it would give in extending their Monopoly to the electric railways.

2. The Railroads propose to prevent rapid transit on electric railways by the so-called "little bill," which would allow street railways to run on private land. This would confine electric railway development to street railways running partly upon private right-of-way, and would produce the hazardous conditions of high speed upon street railways. Thereby, rapid transit would be prevented. Instead, we should have high speed cars with slow running time.

THE Railroads are face to face with a situation which has but one of two outcomes,—either competition in rapid transit must arise from the electric interurban railways, or the Railroad Monopoly must be complete. Railroad Monopoly versus rapid transit by electric cars is the main contest.

But the main contest is obscured by the clamor of a smaller contest among a few syndicates, over a local situation, as to which shall have the privilege of selling the franchise to the Railroads. This sub-contest is shown in the reports of the committee on street railways—minority and majority—of the last Legislature, which are appended.

The following argument takes up the merits of this whole question, and shows that Public Safety is the most important issue, and that the Railroad Monopoly should not be extended.

195935

TO THE SPECIAL JOINT COMMITTEE ON RAILROADS AND STREET RAILWAYS

MR. CHAIRMAN: — It is now some years since I began to feel that the railway laws of Massachusetts were, perhaps, not the great public boon that they were supposed to be. As electric railways have developed, I have been more and more impressed with the artificial conditions which these laws have produced, and with their general detriment to the best public interest. This committee has been appointed for the specific purpose of revising the general laws relating to railroads and street railways, so that they may better serve the public interest. I desire, therefore, to present to this committee my views on one aspect of these laws, — their relation to the interurban electric railway.

My proposition is simple. We want in the further development of our railways Public Safety, Rapid Transit, and Progress. The people should be carried with the greatest degree of safety that is possible. The modern demand for rapid transit should be supplied by a genuine rapid transit, as distinguished from high-speed cars with slow-running time. And we want the greatest opportunity for progress. We want a progress that at least will keep pace with progress in transportation elsewhere. That the realization of such obvious public benefits is simply a question of proper laws, which will encourage the natural development in electric transportation, — the interurban railway, — I hope to make plain to you.

The Possibilities of the Interurban Railway

The interurban railway is a new kind of passenger transportation. We have developed street railways, which are primarily for the streets; and railroads, for high speed on private right-of-way. And now another class of transportation has arisen, — the interurban road. As the name implies, it runs from a point in one city to a point in another city, in distinction from the street railway, which runs through all the city streets and into the suburbs. It combines the service of the railroads and the service of the street railways. It runs at high speed on private right-of-way like the railroads; and it gives cars at frequent intervals, stopping on signal from passengers, at low rates of fare, like the street railways. It operates by electricity. Such, then, is the interurban road as we know it to-day.

To make clear that the possibilities for public safety, rapid transit, and progress are greater on the interurban road than on the street railways, and even greater than on the steam railroads, I have but to direct your attention to a few obvious considerations. The interurban road, properly constructed on private land, away from the travel of the street, will be free from a large class of street accidents. On private right-of-way the tracks need not follow our crooked streets, and hence can run with fewer curves than the street railways. This should eliminate a large class of collisions which are due to blind curves. In fact, the tracks of the interurban roads can be kept nearer straight than the tracks of the steam railroads. Long freight and passenger trains require a comparatively level track. To secure this the steam railroads must wind in and out among the hills so that the maximum grade shall not exceed 2%. The electric cars, single or in short trains, with a motor

on every axle and every wheel pushing, can go over the hills taking grades of 5 % or more. Thus they can secure more nearly a straight line, and therefore fewer curves, than the steam railroads. Again, in the matter of grade crossings: there are some nineteen hundred grade crossings in Massachusetts on the steam railroads. On the interurban roads there should be none.

Now I have long held a principle for the safe operation of railways, which is but an adaptation of the principles of safety that are common in engineering practice. In engineering practice, for instance, a power station is so designed that it cannot be shut down by a failure in any one place. We protect the incomes of corporations by duplicate methods of safety why not the passengers? And so it seems reasonable to provide in the transportation of passengers duplicate and independent safeguards against accidents. The first and most important of these safeguards involves the question of a straight track. The track should be kept so straight that the motorman can see ahead at every point to a distance in which he can stop his car without fail. And the second safeguard is the automatic block signal. Here, then, we have two safeguards which are totally different in character, each complete in itself, and absolutely independent. The first depends entirely upon human agency, actuated by the strongest of impulses, that of self-preservation, with mistake and forgetfulness eliminated. The engineer sees the train ahead of him, and he has sufficient space in which to stop. There is no chance of mistake; there is nothing to forget. He will stop his train as usual. The block-signal system should be entirely free from human agency, depending solely upon mechanical devices which will stop the train automatically when it approaches within a mile or two of another train.

This duplicate system of safety, supplemented by the usual safety devices, would be a method by which railway accidents might be reduced.

Such a duplicate method of safety can be applied to the interurban roads. Let us see to what extent it might be applied to the steam railroads. The steam railroads are now operated by what is known as the "Train-Dispatcher" system. The movements of the trains are directed by the train dispatcher, — a man who receives at his office all information, calculates how the trains shall proceed, and where they shall meet, — or, on a double-track road, where the passenger trains shall pass the freight trains, — issues his orders, which are transmitted to the agents, received and signed for by the engineer and conductor, repeated to the train dispatcher, and receive his "O. K." This system depends solely upon human agencies. Obviously it has the possibilities of mistake in calculation of the position of trains, mistake in transmission of orders, mistake in understanding orders, and forgetfulness. As a system of securing railroad intelligence it is adequate and probably necessary. But as mistakes and forgetfulness are inherent in human nature, so is the train-dispatcher system, in spite of its repetitions, sooner or later, bound to fail. How often it does fail we may not know. There is not necessarily an accident every time. The trains may have met in a place where the track was straight. A recent accident in Ohio illustrates the possibilities for mistake. The press report states: —

". . . The wreck, according to the officials of the company, was due to a misunderstanding of orders, or a neglect to obey them, on the part of the crew of the freight train. . . . President Caniff . . . stated that, from information in the hands of the officials, the freight-train crew had orders to go on the siding at Kishman and there await the passing of a passenger train. Why this was not done in time to permit the passenger

train to go by, or a flagman sent out, has not yet been learned. . . . It is said that the watch of the engineer of the freight train was slow, and that the engineer believed he had eight minutes to get his train on the siding before the passenger train was due. The freight train had slackened speed and was about to back in on the siding from the main track when the passenger came tearing along at the rate of forty-five miles an hour and dashed into it. . . ." — *Boston Herald*, Aug. 14, 1905.

Whether or not the accident happened exactly in this manner, the opportunity for mistake is evident. Obviously, the train-dispatcher system of safeguarding against accidents does not stand for a very high degree of public safety.

To what extent then can the railroads improve their present methods? They can add a block-signal system. Some of the railroads already are equipped, more or less, with block signals, but without a device for automatically stopping the train. They can complete their equipment. But the other great means of preventing accidents — namely, to provide that the engineer, after he sees trouble ahead, has sufficient space in which to stop — is beyond the reach of the steam railroads. Their lines abound in curves. Their trains require an excessive distance in which to stop. Smoke and steam, from his own engine or another, frequently obscure the engineer's vision. In steam-railroad practice much of the time the engineer cannot see ahead to a distance in which it is possible to stop his train. Much of the time he is running blind, relying upon his orders from the train dispatcher. It is perfectly evident that this must be so, when you consider that in fog or blinding snow the railroads intend that their trains shall come in on time. Who ever saw "weather permitting" at the head of a railroad time-table? Whatever we may think as to whether it is desirable to run slower in a fog, the main point is clear. The engineer at times must run blind all the way. This question of run-