

RADIO SPEECH

By Thos. H. MacDonald

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Tonight I want to talk to you about roads. It strikes me as especially interesting that I am enabled to do so by radio. I am talking to you by means of the newest and most wonderful medium of communication about another medium that is as old as man.

Different as they are in most respects there are some striking points of similarity between these two means of communication. For instance, both are free for the use of all without toll or tariff. No corporation controls them and the only restrictions of their use are those imposed for the public good. Radio is free as air; and the open road is symbolic of freedom.

They are alike also in their omnipresent extent. No place is so distant or out of the way that radio will not reach it; and wherever man is there the road is also, primitive and undeveloped it may be, but present nevertheless as a tie that links him to his fellows. Radio can not be measured in miles. Its reach is as wide as space. Roads are measurable it is true, but compared with other means of communication they have no rival in extent. There are two and a half million miles of them in the United States. The telephone trails a million miles behind. The telegraph has less than a fifth as much mileage; and all the railway systems of the country have only two hundred and fifty thousand miles of track, just one-tenth as much as the length of the roads.

It is interesting also to observe the parallel that exists between the modern development of the road and the inventions that led up to the radiophone. John L. Macadam's first macadam road was built not many years after Benjamin Franklin's Kite brought down from the skies electricity to be trapped in a bottle. In these two events there were the germs of the modern paved road and the radio; and the actual invention of wireless followed by only a few years the development of the modern types of pavement.

There is this also that they have in common: That both are still in a stage of development. All radio fans know what great strides are being made in the improvement of wireless communication. I suspect there are not many who realize that roads also are the subject of scientific study and that the advances that have been and are still being made in their design are comparable almost to the improvements in radio. Try to remember the roads of a generation ago. How few of them were smooth and hard! How many were dusty and bumpy! And how many of them were impassable the long winter through on account of the mud! Now compare the roads your memory pictures with the paved highways of today - highways smooth and hard the year around and carrying through all seasons heavy trucks and fast flying motor cars with ease and comfort. Recall how rare it was to pass a neighbor on these roads of a generation ago, and then think of the teeming traffic of our modern highways. In that space your memory spans highway traffic highway traffic has increased to ten times its former proportions in number and weight, and yet the modern roads have proved more than equal

to the greater burden. Travel by road is now a pleasure. Not many years ago it was a chore.

What has it cost to bring about this improvement in the roads? You are all interested in that because you, as tax payers, are paying the bill. If I tell you that we spent more last year than in any previous year and that the amount we spent was about \$750,000,000 you will probably say that the bill is pretty large. Let us see how large it really is. Say there are a hundred million people in the United States. That means that the cost of the roads to each one of us last year was about \$7.50. How many radio fans spend less than \$7.50 in the course of a year on their receiving sets? Now consider this! That even this small expenditure was more than returned to you as a result of saving in the cost of driving over the roads which was made possible by the improvement of the roads. In one case that we have recently observed the reduction in the cost of gasoline alone for operating motor trucks over a particular section of road was sufficient to pay off the cost of the road in eleven years and all interest charges on the use of the money during that period.

In one other respect roads are like radio - in the splendid future that lies ahead of them. For almost a century after Macadam built his first road, all road building in the United States was done by the counties. Very little improvement was made during all this period. Between 1890 and 1915 a number of the States took up the problem and were successful in bringing about great improvement in highway conditions within their borders. In 1916 the United States also

went into the road building business as a partner of the States. The Federal aid road act which was passed in that year provided an appropriation with which the United States Government could aid the States in the construction of roads to be built under the joint supervision of the Federal Government authorities and the State highway departments. As a result of this act competent highway departments were created in all States and the work of road improvement has been still further accelerated. The Government pays any part of the cost of the work up to one-half or a maximum of from \$15,000 to \$20,000 per mile, which gives it a voice in the prosecution of the construction work.

Since 1916 \$400,000,000 of Federal money has been appropriated for this purpose, and \$178,000,000 has been spent in conjunction with more than an equal amount of State funds for the 24,509 miles of road which are now completed and the 13,503 miles additional which are 60% completed. In other words a mileage of road sufficient to encircle the earth has been built in seven years under this plan and more than enough to make four roads from the Atlantic to the Pacific will be completed shortly. More than 10,000 miles were completed last year.

A year ago last November Congress passed another act known as the Federal Highway Act which, in addition to providing funds for the continuance of the cooperative Federal and State work, called for the selection of a system of connected main roads covering and tying together all the States and limited to not more than 7 per cent of the

mileage in each of the States. To this system all future Federal money will be applied on the theory that it is better to concentrate the expenditure on a limited mileage of main roads than to scatter it over a large mileage by improving a great many unconnected sections. This system, the selection of which is now practically completed, will include more than 180,000 miles and it is hoped to complete its improvement within the next fifteen years.