TRANSPORTATION COSTS IN THE UNITED STATES.

DEQUATE transportation facilities are a vital factor in the prosperity and civilization of any country. They are essential to the development of its agriculture and manufactures, to the working of its forests and mines, and to the spread of education and enlightenment among its citizens. This necessity has been recognized by the foremost nations of every age and steps taken to meet it by improving the methods of transportation then current.

Writing in the 1914 year-book of the U.S. Department of Agriculture, Mr. J. E. Pennybacker, chief of road economics, U.S. Office of Public Roads, refers to the growth of the transportation problem in that country. He states that a movement for internal improvements was projected almost contemporaneously with the establishment of the federal government. This first took the form of highway improvement through the construction of toll roads by private corporations and the building of national highways by appropriations from the national government. These appropriations for national highways were continued by Congress for a period of nearly half a century, and a total of about \$14,000,000 was thus appropriated. About 1832, however, the steam locomotive was first used in this country, and an era of railroad development followed. It was believed by many that the railroads would obviate the necessity for highway improvement, and, consequently, efforts at improving the public highways of the country were largely abandoned. During this period of activity in railroad construction many thousands of miles of railroads were built. The success attending this movement is evidenced by the fact that to-day there are in the country practically 244,000 miles of railroad, costing about \$16,000,000,000, including equipment. This mileage carries annually more than 1,000,000,000 passengers and over 2,000,-000,000 tons of freight. Railroad freight rates have fallen from 71/3 cents per ton-mile in about 1837 to 71/4 mills per ton-mile at the present time, or about one-tenth the original rate, and yet, even at this low rate, the annual gross receipts of the railroads amount to about \$3,000,-000,000. The cost of ocean transportation has been reduced even more phenomenally than railroad transportation. It costs under normal conditions only 41/2 cents per bushel to carry wheat from New York to Liverpool, a distance of 3,000 miles, which would be at the rate of onehalf mill per ton-mile. These rates have remained practically unchanged for a number of years, indicating that we can not hope for much further reduction in cost by these methods of transportation.

Present Cost of Public Road Transportation.—It should not be assumed, however, that all of our transportation problems have been solved, nor that there can be no further saving in our cost of hauling. The public roads throughout the country, which constitute the primary means of transportation for all agricultural products, for many millions of tons of forest, mine, and manufactured products, and which for a large percentage of farmers are the only avenues of transportation leading from the point of production to the point of consumption or rail shipment, have been improved to only a slight extent. By reason of this fact, the prevailing cost of hauling over these roads is about 23 cents per ton per mile. More than 350,000,000 tons are hauled over these roads each year, and the average haul is about 8 miles,

from which it can readily be seen that our annual bill for hauling over the public roads is nearly \$650,000,000. The cost per ton-mile for hauling on hard-surfaced roads should not exceed 13 cents. It is therefore evident that if our roads were adequately improved a large annual saving in the cost of hauling would result.

RAILWAY CONCESSION TO FURTHER ROAD CONSTRUCTION.

A recent decision of the Board of Railway Commissioners for Canada is of considerable interest to municipalities concerned in the good roads movement.

Mr. J. D. Armstrong, M.P., made an application to the Board, requesting it to order that low commodity rates should be extended by the railway companies to the movements of gravel so as to enable the municipalities in western Ontario to proceed with the work of general road improvement at a reasonable expense.

Sir H. L. Drayton, Chief Commissioner, after hearing evidence given by the applicants and the railway companies, says in his decision: "The Board cannot order the companies to put in unremunerative rates, nor a rate so low as to be unfairly out of line with rates which are necessary to be maintained in order to permit the continuance of satisfactory operation of railways, due regard being had to proper consideration of the value of the commodities shipped and the service performed. While, therefore, I felt that it was impossible for the Board to make any order, the Board urged upon the companies the advisability of recognizing a public interest and the benefits which would result to the companies themselves from a proper system of good roads.

"The Ontario Government has also intervened, and is very desirous of obtaining extremely low rates, with a view to aiding the present campaign for good roads. The companies are insistent that they require more revenue, and that their rate returns as a whole are inadequate and insufficient, and, in the first instance, took the position that while they admitted the need of good roads, that, in view of their present necessities and of their present application for increase in freight rates, no concessions could possibly be made by them, as this would be construed as evidence that an increase in rates generally was not required. The railways have been assured that no such construction will be made by the Board.

"The railways now state that, regarding the question in the light of public policy and the possibility of increased railway business as a result of the added prosperity, and with the understanding that the rates offered are not to be regarded as indicating sufficient rates for similar commercial service, they will carry in the territory in question gravel that the municipalities require at a flat blanket rate of 50 cents per ton for any distance up to and including 50 miles, the rate to be a carload rate and cars to be loaded to their full stencilled carrying capacity, the gravel to be consigned to the clerk of the municipality and to be used for the purpose of roadmaking; and the railway companies to be notified in advance of the number of carloads required, so that special instructions may be issued in each case. It is anticipated that 50 miles will be the maximum haul, but should municipalities at further distances require the gravel the rate will be scaled down in the usual manner for greater distances."