

Waterways, Sir, produce benefits in three principal ways: first, their direct saving in the cost of goods actually carried by water; second, the indirect saving through the reduction of railway rates due to the competition of water routes, and, third, by what may be called the creative effect. There is no better way to determine the effect of waterways than by speaking of the results which they have produced. Let me cite one or two concrete instances. In the early part of the nineteenth century the business men conceded that Philadelphia would be one of the principal cities of the Atlantic coast. Up to 1820 the population within her present boundaries was greater than the combined populations of Brooklyn and New York, and in 1821 the state of Massachusetts rivalled New York in the volume of exports. By 1840, however, the combined population of New York and Brooklyn exceeded that of Philadelphia by nearly 100,000, and in 1841 the exports from New York were nearly three times as great as they were from Massachusetts. A history of Philadelphia published in 1884 says:

Be the cause whatever it may, the fact stands out prominently that, from the competition of the Erie canal, New York became what Philadelphia previously had been—the commercial emporium of the United States.

Beaten in commerce, Philadelphia sought to maintain her supremacy in manufactures, and for a time succeeded, only to see a little later, this prize also slip out of her grasp. New York was hopelessly behind in manufactures in 1830, the value of her product being but \$7,000,000, as against \$8,000,000 for Connecticut; \$11,000,000 for Pennsylvania and \$63,000,000 for Massachusetts.

Ten years later New York had advanced to first rank, with products valued at \$96,000,000 as against \$74,000,000 for Massachusetts and \$64,500,000 for Pennsylvania. Going over to the British Isles, we find another instance where the improvement of waterways has been of vast and material benefit to some of the great cities of England. I refer principally to the city of Manchester. The first railway came to Manchester in the year 1830. As hon. gentleman all know, Manchester is situated some 50 miles from Liverpool, which is one of the greatest ports in the world. It is surrounded by abundant supplies of coal, and is the centre of the cotton milling industry in the British Isles. In 1881 the population of Manchester was about 500,000. In the early eighties, however, Manchester suffered a

setback through the closing down of many of her industries, and it was evident that some remedy would have to be found to revive the industrial and commercial life of the city. Twenty years later a marvelous transformation had taken place. The mills which had closed down in the early eighties were again running, many new industries were started, and to-day the city of Manchester and its suburbs has a population of nearly 1,000,000, and is the nearest seaport for a district occupied by 8,000,000 busy, prosperous people. The cause of this stagnation of growth in the city of Manchester was costly transportation, and the miracle which remedied this condition was the construction of the Manchester ship canal. In Germany we find another similar instance. The city of Frankfort is situated in the heart of Germany, far from the sea, and more than twenty miles from the Rhine, on the banks of the small river Main. Frankfort was founded by the Romans in A.D. 150, and in after years, by the slow growth of many centuries, reached a population in 1880 of about 140,000 people. Something happened to make a wonderful change in the rate of growth of this city, with the result that in the next twenty years Frankfort gained more than in all the previous centuries. To-day, with its suburbs, which lie close around its borders, Frankfort has a population of nearly half a million. The 'something' which happened was the canalization of the river, completed in the fall of 1886, which made the Main a part of the Rhine navigation system, and which, while it did not allow ocean vessels to go direct to Frankfort, did enable that city to ship goods all the way by water to any port on all the Seven Seas. The locks have since been lengthened and other improvements made, so that much larger boats can now use the river, and Frankfort, which spent some \$2,000,000 back in 1886 to equip her harbour, is now spending \$17,600,000 on a new and greater harbour to care properly for her swiftly-growing trade. Germany, Holland and Belgium are three countries which, adjacent geographically, are widely separated politically. The area of these countries is very small compared with that of the United States. For the fiscal year 1908, however, the foreign commerce of Germany, Holland and Belgium amounted to \$6,433,347,839, as against \$2,845,044,087 for the United States; that is to say, the foreign commerce of these three countries was nearly two-and-a-half times as great as that of the United States. These countries have only about one-thirteenth of