

Undaunted by failure the promoters tried again. The third reading of the bill was carried in the Commons by a vote of 88 to 41. The cost of obtaining this act was £27,000.

The opening of the line took place on the 15th September, 1831. The next week one of the engines travelled over 31 miles in an hour.

These two railways proved to be the beginning of a new mode of locomotion which has now grown to such greatness that the mind almost fails to grasp the immensity of the development. It is like trying to grasp the distance of the several planets from each other and from their central sun.

324. In January, 1895, Europe had in operation 148,230 miles of railway; Asia, 24,102; Africa, 7,695; Australia, 13,067, and America, 225,682, while the building of over 3,000 miles was being prosecuted.

These railways carried over 3,000 million passengers and nearly 2,000 million tons of freight.

The number of passengers carried in a year is nearly three times the total population of the globe.

The *Quarterly Review* dismissed the "visionary schemes" as unworthy of notice, but the "vision" of 1825 has been eclipsed, far and away, by the realities, the United Kingdom and the United States together carrying in each year as many passengers as there are inhabitants of the world.

325. The present cost of operating the railways of the United States by steam is \$643,000,000 a year; transporting a tonnage, which, if carried by horses, would cost \$13,000,000,000. That is to say, a return to old systems would render commerce practically impossible.

OTHER COUNTRIES.

326. Next of European countries following after England in the adoption of the locomotive and the rail came Belgium, which, by the revolution of 1830, became separated from Holland and lost the mouths of the Scheldt as an issue for its commerce, and accordingly determined to counteract the loss by the adoption of railways. The necessary enactments were passed by the legislature in 1834. The execution of the project was begun 1st of June, same year. Within two years portions of the system were completed and opened for traffic. In 10 years 348 miles were constructed. Belgium has now 3,380 miles of line opened, being a greater mileage relatively to area than any other country in the world.

327. The first Railway Act in France was passed in July, 1835. It was for a passenger railway between Paris and St. Germain and was ten miles long. The projector encountered strong opposition in his efforts to obtain the consent of the authorities, the contention of M. Thiers being that railways could never be more than a mere toy, while Arago, also, doubted their utility. The railway, which became the nucleus of the Great Western of France, was opened in August, 1837, France having, at that date, 85 miles opened against England's 490 miles.

France has now 24,455 miles of railway conveying 288,077,679 (1893) passengers, and 95,713,000 tons of freight. The gross receipts were \$230,530,000.