the court-house, the town-hall, the corn exchange, the chamber of commerce, the workhouse, the infantry barracks, the county hospital, and the fever hospital. A ship canal, permitting the passage of ships of 200 tons burden, and constructed at an expense of £30,000, connects it with Tralee Bay. Coal, iron, and timber are imported, and there is a considerable export of grain. There is a large trade in butter. The population of the town in 1871 was 9506 and in 1881 it was 9396.

Tralee, anciently Traleigh, the “strand of the Leigh,” owes its origin to the foundation of a Dominican monastery in 1213 by John Fitz-Thomas, of the Geraldine family. During the reign of Elizabeth it was in the possession of Earl Desmond, on whose for­feiture it came into possession of the Dennys. At the time of the rebellion in 1641 the English families in the neighbourhood asked to be placed in the castle under the charge of Sir Edward Denny, but during his absence a surrender was made. The town was in­corporated by a charter in the 10th of James I., and had the privi­lege of sending two members to the Irish parliament. Though disfranchised at the Union, it obtained the privilege of returning one member in 1832, but in 1885 it was merged in the county.

TRAMWAY. Originally a tramway signified a wheel track laid with timbers, and afterwards with iron plates, having a flange on the inner edge by which wheels of the ordinary sort were kept in the track (see Railway). The introduction of the flanged wheel and edge rail caused tramways to be superseded by railways, but not until many miles of tramroads had been laid and successfully worked in various parts of the United Kingdom. Although the name is sometimes given to a light railway, by a tramway is now generally understood a street railway, constructed so as to interfere but little with the ordinary traffic, on which vehicles having flanged wheels are propelled by animal or mechanical power. Tramways in this sense originated in the United States.

A street railway for passengers was laid in New York in 1832, but it was soon removed on account of the accidents caused by it. In 1852 a French engineer, Loubât, revived tramways in New York, and they were soon afterwards laid in other American cities. A short line was also laid in Paris in 1853. The rails used were of wrought-iron, 5 inches wide, having a groove for the flanged wheels of the cars 1¾ to 2¼ inches wide and 1 to 1½ inches deep (fig. 1). To lessen the inconvenience to ordinary traffic occasioned by this rail, the “ step rail ” (fig. 2) was introduced, consisting of a flat surface 3 to 5 inches wide, which can be used by ordinary wheels, and a raised tread on the outer side 1 inch higher and If inch wide, on which the flanged wheels of the cars run.

This form of rail is still very general in America, and is a good one for the tramways, though not for the general public. In 1858-9 Train, an American, endeavoured to obtain an Act of Parliament authorizing tramways in London ; failing in that, he laid tramways, by consent of the road author­ity, first in 1860 at Birkenhead, and soon afterwards in London. The rail laid at Birkenhead had a step of ¾ inch between flat surfaces 3 inches and 1½ inches wide. That laid in London was narrower, with a step of half an inch, but the slippery flat surface and the step of the rail caused serious inconvenience and numerous accidents to carriages, and the tramways were removed in a few months, after one of them had been successfully indicted as a nuisance. In Birkenhead, in spite of complaints of the inconvenience caused to the general traffic, the original rails remained until 1864, when, after a short length had been laid as an experiment with a rail of the grooved section now in general use (fig. 3), the whole of the tram­way, several miles in length, was relaid with it. The tramway was subsequently indicted as a nuisance, but the trial resulted in a verdict in favour of the grooved rail. In 1868 an Act of Parliament authorizing the construction of about 6¾ miles of tramways in Liverpool was obtained ; and in 1869-71 Acts for 61 miles of tramways in London were passed, and were soon followed by other Acts for tramways in Glasgow, Dublin, Edinburgh, and other pro­vincial towns.

In 1870 the Tramways Act was passed, enabling the Board of Trade to make provisional orders authorizing the construction of tramways in Great Britain, with the con­sent of the local authorities, and giving considerable powers for regulating their construction and working. By the Act the gauge, unless otherwise prescribed by special Act, is to be such as will admit of the use of carriages con­structed for use on railways of a gauge of 4 feet 8½ inches. Tramways for which Acts had been previously obtained were of 4 feet 8½ inches gauge, to comply with a standing order intended for railways, and not to make them available for railway rolling stock, which the narrow groove of an ordinary tramway rail will not admit. There is reason to think that a narrower gauge, such as 3 feet 6 inches, is often sufficient and preferable to the 4 feet 8½inches gauge.

Tramways in towns, authorized by provisional order, are to be constructed in the middle of the road, and are not to be so laid that for 30 feet and upwards a less space than 9 feet 6 inches shall be left between the outside of the footpath and the rail, if. one-third of the owners or occupiers of premises abutting upon that part of the road object. Vehicles are thus enabled to stop at the road side without hindrance from the tramcars. To leave 9 feet 6 inches on each side of a single line of tramway of 4 feet 8½ inches gauge a street must be upwards of 24 feet wide. No carriage used on a tramway must extend more than 11 inches beyond the outer edge of the wheels, and there must be a space of at least 15 inches between the sides of the widest carriages or engines to be used, when passing one another. A width of not less than 3 feet 2 inches between double lines and at passing places is thus necessary, and a double line of tramway, leaving 9 feet 6 inches space on each side, requires a street at least 32 feet 6 inches wide between the footways. In nar­row roads there is a convenience in having the tramway at the side, and it is sometimes provided for in special Acts. The space between the rails, and for 18 inches beyond them, is repairable as part of the tramway. Power is given to local authorities to purchase tramways at the expiration of twenty-one years, and they may be removed under certain circumstances.

It appears from a parliamentary return that in 1886 there were 779 miles of street tramways open for traffic in Great Britain, on which a capital of £11,503,438 had been expended, the net receipts for the year being £563,735, and the working expenses 79 per cent. of the gross receipts.

The grooved rail first laid in England was 4½ inches wide and an inch thick, having a tread or rolling surface for the wheel 1¾ inches wide, and a groove ¾ inch deep, ¾ inch wide at the bottom, and 1¼ inches wide at the top (fig. 3). The rail was spiked through to a longitudinal timber laid on cross sleepers, and secured to them by angle brackets and spikes. This rail and method of laying were gene­rally adopted, but it was found that the heads of the spikes wore off, and the rails required re­spiking, and split and worked loose at the joints. A rail known as the box-rail was introduced, having flanges below on each side, through holes in which clips are driven to fasten the rail to the tim-