pany, and a branch of the national refuge for the homeless and destitute. The population of the urban sanitary dis­trict (area 2415 acres) in 1871 was 10,533, and in 1881 it was 12,479.

Twickenham at Domesday was included in Isleworth. Anciently it was called Twittenham or Twicanham. The manor was given in 941 by King Edmund to the monks of Christ Church, Canter­bury, from whom it had been previously taken, but it was again alienated, for it was restored to the same monks by Edred in 948. In the reign of Henry VIII. it came into the possession of the crown, and by Charles I. was assigned to Henrietta Maria as part of her jointure. It was sold during the Protectorate, but after the Restoration the queen mother resumed possession of it. In 1670 it was settled for life on Catherine of Braganza, queen of Charles II. It still remains in possession of the crown, but since the death of Catherine has been let on leases. In the neighbour­hood are many residences of literary or historical interest. Pope’s villa, where he lived from 1717 till his death in 1744, has been removed. Among old mansions of interest still remaining are Strawberry Hill, the residence of Horace Walpole, now much altered ; Marble Hill, built by George III. for the countess of Suffolk, and subsequently resided in by the marquis of Wellesley ; Orleans House, built in the reign of Queen Anne by Johnstone, occupied for some time by the duke of Orleans, and from 1879 to 1883 as a club house ; York House, said to have been the residence of James II. when duke of York, bestowed by Charles II. on Lord Clarendon when he married the duke of York’s daughter, and in modern times resided in by the Comte de Paris ; and Twickenham House, formerly the residence of Sir John Hawkins, author of the *History of Music,* and the meeting place of the “ Literary Club.” Of the old manor house of Twickenham, to which Catherine of Aragon is said to have retired after her divorce from Henry VIII., and which was subsequently the residence of Catherine of Braganza, queen of Charles II., the only remains are a ruin called the Aragon tower. Twickenham Park House, for some time the residence of Lord Chancellor Bacon, has been demolished.

TWILIGHT. The light of what is called the “sky” depends upon the scattering or reflexion of direct sunlight in the earth’s atmosphere, mainly if not entirely due to those fine dust particles which (as we have recently learned) form the necessary nuclei for condensation of aqueous vapour. Were it not for these particles the sky would appear by day as it does in a clear winter night, and the stars would be always visible. Alpine climbers and aeronauts, when they have left the grosser strata of the atmosphere below them, find this state of things approxi­mated to ; and even at the sea-level the blue of the sky is darker when the air contains but few motes. After the sun has set, its rays continue for a time to pass through parts of the atmosphere above the spectator’s horizon, and the scattered light from these is called twilight. It is, of course, most brilliant in the quarter where the sun has set. Before sunrise we have essentially the same phenomenon, but it goes by the name of “ dawn.” The brilliancy of either depends upon several conditions, of which the chief is, of course, the degree by which the sun has sunk below the horizon. But the amount of dust in the air affects the phenomenon in two antagonistic ways: it diminishes the amount of sunlight which reaches the upper air after pass­ing close to the earth and it increases the fraction of this light which is scattered to form twilight. Hence no general law can be laid down as to the duration of twilight ; but it is usual to state (roughly) that it lasts until the sun is about 18° under the horizon. If we make this assumption, it is a simple matter of calculation to solve questions as to the duration of twilight at a given place at a given time of year, the maximum duration of twilight at a given place, &c. In the older works on astronomy such questions were common enough, but they have now little beyond anti­quarian interest. The more complex phenomena of twi­light, such as the “ after-glow,” &c., probably depend upon the precipitation of moisture on the dust particles as the air becomes gradually colder. This will of course alter the amount of scattering ; but it may also lead (by reflexion from strata of such particles) to an increase in the amount of light to be scattered.

TYCHO BRAHE. See Brahe.

TYLDESLEY with SHAKERLEY, a town of Lan­cashire, England, is situated on a considerable eminence, 11 miles west-north-west of Manchester and 199 north-west of London (by the London and North-Western Railway). The church of St George, a handsome building in the Early Pointed style, erected in 1827, has lately undergone restoration. Public baths were built in 1876. A public cemetery was formed in 1878. The town is the growth of the 19th century and depends upon its cotton-mills and the large collieries in the neighbourhood. It is governed by a local board of health of sixteen members. The population of the urban sanitary district (area 2490 acres) in 1871 was 6408 and in 1881 it was 9954.

At Domesday Tyldesley formed part of the manor of Warrington. One of its proprietors, Sir Thomas Tyldesley, was a distinguished Royalist. His son Edward in 1672 sold the manor to Ralph Astley, and from the Astleys it passed in 1728 to Thomas Johnson of Bolton. In 1823 it became the property of George Ormerod, author of the *History of Cheshire.*

TYLER, John (1790-1862), tenth president of the United States, was accustomed with pride, but with the support of conjecture rather than evidence, to claim re­lationship with Wat Tyler of the reign of Richard II. The earliest of his American ancestors was Henry Tyler, a reputed native of Shropshire, England, who in 1652 settled at Middle Plantation, Va., on the outskirts of what is now the city of Williamsburg. John Tyler was the son of Judge John Tyler, some time governor of Virginia, and was born at Greenway in that State, 29th March 1790. In 1802 he entered the grammar school of William and Mary, where, though fond of fun and frolic and cultivating an inherited taste for the violin, he made good progress in his studies. After graduating in 1806 he entered on the study of law, and in 1809 was called to the bar, where his progress from the first was rapid. He became a member of the State legislature in December 1811. In 1813 he raised a company in defence of Rich­mond, in command of which he subsequently served with the fifty-second regiment at Williamsburg and Providence Forge. In December 1816 he was elected to the house of representatives at Washington, where he displayed much readiness and skill in debate as an uncompromising advocate of popular rights. In 1825 he was elected governor of Virginia by a large majority, and the follow­ing year was re-elected unanimously. In 1827 he was chosen a senator. He opposed Clay on the tariff question in 1832, delivering a speech against the protective duties which lasted three days ; but he voted for Clay’s Com­promise Bill of 1833. He was the only senator who voted against the Force Bill on 20th February of this year, a singularity of conduct which somewhat damaged his repu­tation in Virginia. Although opposed to the establish­ment of the United States Bank, he supported the resolu­tions in 1835 censuring President Jackson for the removal of the deposits, on the ground that the procedure was un­constitutional. In consequence of a vote of the Virginia legislature instructing him to vote for the expurgation of these resolutions from the senate journal he resigned, 21st February 1836. His action led the Whigs to bring him forward as a candidate for the vice-presidency, but he only received forty-seven votes. For some time after this he ceased to take an active part in politics ; removing in the end of the year from Gloucester to Williamsburg, where he had better opportunities for legal practice, he devoted his chief attention to his professional duties. At the Whig convention which met at Harrisburg, Penn­sylvania, 4th December 1839, he was nominated again for the vice-presidency on the Harrison ticket, and elected in November 1840. On the death of Harrison, soon after his inauguration in 1841, Tyler succeeded him. His ele-