and in 1846 published his *Industrial History of Free Nations.* In 1847 he was elected to parliament for Dundalk, and sat till 1852. In 1857 he was elected as a Liberal for Yarmouth and from 1865 to 1885 he represented Finsbury. Torrens was a well known man in political life, and devoted himself mainly to social questions in parliament. It was an amendment of his to the Education Bill of 1870 which established the London School Board, and his Artisans’ Dwellings Bill in 1868 facilitated the clearing away of slums by local authorities. He published several books, and his *Twenty Years in Parlia­ment* (1893) and *History of Cabinets* (1894) contain useful material. He died in London on the 26th of April 1894.

**TORRES NAHARRO, BARTOLOMÉ DE** (1480-1530), Spanish dramatist, was born towards the end of the 15th century at Torres, near Badajoz. After some years of soldiering and of captivity in Algiers, Torres Naharro took orders, settled in Rome about 1511, and there devoted himself chiefly to writing plays. Though he alludes to the future pope, Clement VII. as his protector, he left Rome to enter the household of Fabrizio Colonna at Naples where his works were printed under the title of *Propaladia* (1517). He is conjectured to have returned to his native place, and to have died there shortly after 1529, His *Diálogo del nacimiento* is written in unavowed, though obvious, imitation of Encina, but in his subsequent plays he shows a much larger conception of dramatic possibilities. He classifies his pieces as *comedias á noticia* and *comedias á fantasia',* the former, of which the *Soldatesca* and *Tinellaria* are examples, present in dramatic form incidents within his personal experience; the latter, which include such plays as *Serafina, Himenea, Calamita* and *Aquilana,* present imaginary episodes with adroithess and persuasiveness. Torres Naharro is much less dexterous in stage­craft than many inferior successors, his humour is rude and boisterous and his diction is unequal; but to a varied knowledge of human nature he adds knowledge of dramatic effect, and his rapid dialogue, his fearless realism and vivacious fancy prepared the way for the romantic drama in Spain.

**TORRES NOVAS,** a town of Portugal, in the district of San­tarem, 19 m. N.N.E. of Santarem on the Lisbon-Entroncamento railway. Pop. (1900), 10,746. It manufactures cottons, linens, jute, paper, leather and spirits. It was probably founded by Greeks, and was held by the Romans, Goths and Moors, from whom it was conquered in 1148 by Alphonso I. of Portugal.

**TORRES VEDRAS,** a town of Portugal, in the district of Lisbon, 43 m. N. by W. of Lisbon, on the Lisbon-Figueira da Foz railway. Pop. (1900), 6900. Torres Vedras is built on the left bank of the river Sizandro; it has a Moorish citadel and hot sulphur baths. Roman inscriptions and other remains have been found here, but the Latin name of the town, *Turres Veteres,* is probably medieval. Here were the noted fortifications known as the “ lines of Torres Vedras,” constructed by Wellington in 1810 (see Peninsular War). Here also in 1846 the troops of General Saldanha defeated those of the count de Bomfin and seized the castle and town (see Portugal: *History).*

**TORRES Y VILLA ROEL, DIEGO DE** (1696-1759?), Spanish miscellaneous writer, was born in 1696 at Salamanca, where his father was bookseller to the university. In his teens Torres escaped to Portugal where he enlisted under a false name; he next moved to Madrid, living from hand to mouth as a hawker; in 1717 he was ordained subdeacon, resumed his studies at Salamanca, and in 1726 became professor of mathematics at the university. A friend of his having stabbed a priest, Torres was suspected of complicity, and once more fled to Portugal, where he remained till his innocence was proved. He then returned to his chair, which he resigned in 1751 to act as steward to two noblemen; he was certainly alive in 1758, but the date of his death is not known. Torres had so slight a smattering of mathematics that his appointment as professor was thought scandalous even in his own scandalous age; yet he quickly acquired a store of knowledge which he displayed with serene assurance. His almanacs, his verses, his farces, his devotional and pseudo-scientific writings show that he possessed the alert adaptiveness of the bom adventurer; but all that remains of his fourteen volumes (1745-1752) is his autobiography, an amusing record of cynical effrontery and successful imposture.

**TORREVIEJA,** a seaport of south-eastern Spain, in the pro­vince of Alicante, 3 m. S.W. of Cape Cervera, and at the terminus of a railway to Albatera on the Alicante-Murcia line. Pop. (1900), 7706. The district is famous for its salt beds, which are owned and worked by the state, the Laguna Grande alone yielding more than 100,000 tons a year. The other industries are chiefly fishing, shipbuilding and the manufacture of ropes and sails. The roadstead affords safe anchorage. There is an active trade in fruit and agricultural products.

**TORREY, JOHN** (1796-1873), American botanist, was bom at New York on the 15th of August 1796. When he was 15 or 16 years of age his father received a prison appointment at Greenwich, and there he made the acquaintance of Amos Eaton (1776-1842), a pioneer of natural history studies in America. He thus learned the elements of botany, as well as something of mineralogy and chemistry. In 1815 he began the study of medicine, qualifying in 1818. In the following year he issued his *Catalogue of Plants growing spontaneously within Thirty Miles of the City of New York,* and in 1824 he issued the first and only volume of his *Flora of the Northern and Middle States.* In the same year he obtained the chair of chemistry and geology at West Point military academy, and three years later the pro- fessorship of chemistry and botany in the College of Physicians and Surgeons, New York. In 1836 he was appointed botanist to the state of New York and produced his *Flora* of that state in 1843; while from 1838 to 1843 he carried on the publication of the earlier portions of *Flora of North America,* with the assistance of his pupil, Asa Gray. From 1853 he was chief assayer to the United States assay office, but he continued to take an interest in botanical teaching until his death at New York on the 10th of March 1873. He made over his valuable herbarium and botanical library to Columbia College in i860, and he was the first president of the Torrey Botanical Club in 1873. His name is commemorated in the small coniferous genus *Torrey a,* found in North America and in China and Japan. *T. taxifolia,* a native of Florida, is known as the Torrey tree or savin, and also as the stinking cedar.

**TORREY, REUBEN ARCHER** (1856- ), American evange­

list, was bom in Hoboken, New Jersey, on the 28th of January 1856. He graduated at Yale University in 1875 and at the Yale Divinity School in 1878. He became a Congregational minister in 1878, studied theology at Leipzig and Erlanger in 1882-1883, joined D. L. Moody in his evangelistic work in Chicago in 1889, and became pastor of the Chicago Avenue Church in 1894 and afterwards superintendent of the Moody Bible Institute of Chicago. In 1902-1903 he preached in nearly every part of the English-speaking world, and with Charles McCallon Alexander (b. 1867) conducted revival services in Great Britain in 1903-1905; Torrey conducted a similar campaign in American and Canadian cities in 1906-1907.

**TORRICELLI, EVANGELISTA** (1608-1647), Italian physicist and mathematician, was born at Faenza on the 15th of October 1608. Left fatherless at an early age, he was educated under the care of his uncle, a Camaldolese monk, who in 1627 sent him to Rome to study science under the Benedictine Benedetto Castelli (1577-1644), professor of mathematics at the Collegio di Sapienza. The perusal of Galileo’s *Dialoghi delle nuoυe scienze* (1638) inspired him with many developments of the mechanical principles there set forth, which he embodied in a treatise *De motu* (printed amongst his *Opera geometrica,* 1644). Its communication by Castelli to Galileo in 1641, with a proposal that Torricelli should reside with him, led to Torricelli repairing to Florence, where he met Galileo, and acted as his amanuensis during the three remaining months of his life. After Galileo’s death Torricelli was nominated grand-ducal mathematician and professor of mathematics in the Florentine academy. The discovery of the principle of the barometer *(q.υ.)* which has perpetuated his fame (“ Torricellian tube ” “ Torricellian vacuum ”) was made in 1643.