5th century, and in the beginning of the 6th an episcopal see by St Jarlath. The new Protestant cathedral of St Mary occupies the site of the original cathedral, built in 1130, and includes the chancel arch of the ancient building, now forming the great doorway,—a very fine specimen of the old Romanesque. The Roman Catholic cathedral in the later Early English style is one of the finest modern Catholic churches in Ireland. Adjoining it is the Roman Catholic college of St Jarlath, usually called the “New College,” founded in 1814 for the education of candidates for the priesthood. To the west are the archbishop’s palace and a convent of Presentation nuns. The other public buildings are the workhouse, the dispensary, and the market-house. The town has a considerable retail trade, and is a centre for the disposal of agricultural pro­duce. From 4223 in 1871 the population decreased to 3567 in 1881.

The see of Tuam was raised to an archbishopric about 1152. Under the Church Temporalities Act of 1839 it was reduced to a bishopric, but is still the seat of a Roman Catholic archbishop. It received its first charter in the 11th year of James I. It formerly returned two members to parliament, but was disfranchised at the Union.

TUAMOTU ARCHIPELAGO,@@1 a broad belt of seventy coral islands lying between 14° 5' and 23° 22' S. lat. and 134° 25' and 148° 40' W. long., and now under the pro­tection of France. They trend in irregular lines in a north­west and south-east direction, and cover 1500 miles of the Pacific, the easternmost Tuamotus being 3600 miles from Peru.@@2 With the exception of a few insignificant islands the archipelago consists of atolls (see Corals and Pacific Ocean), mostly chains of low islets that crown the reefs and sometimes also obstruct the deep lagoons which they encircle. The largest island, Nairsa (Dean’s Island), with a lagoon 45 miles long by 15 wide, is made up of twenty islets. Fakarava, the next in size, consists of fifteen islets, and its oblong lagoon affords the best anchorage in the group. Hao has fifty islets, and its lagoon is dangerously studded with coral. The symmetrically placed eleven islets of Anao suggested to Captain Cook the name of Chain Island. Matahiva, Niau, and Mururoa are good specimens of the horse-shoe-shaped atoll. Nengonen- gone, Fangataufa, and Marutea, true lagoon islands, form unbroken rings round their lake-like lagoons. In a few of the smaller atolls the lagoons have been completely silted up. To the south-east lie the Gambier Islands, a cluster of four larger and many smaller volcanic islets, enclosed in one wide reef. The wooded crags of Mangareva, the largest islet, 5 miles in length, rise to a height of 1300 feet and are covered with a rich vegetation, quite Tahitian in character ; but, as in the other Tuamotus, there is a dearth of animal life. This group was discovered by Captain Wilson of the London Missionary Society in 1797. Tahitian teachers were sent thither in 1834 ; but Catholic missionaries followed in 1836, and converted the entire population. The natives, once very numerous, now number less than a thousand, and are still decreasing. Cannibal­ism was formerly prevalent. In physique, language, re­ligion, and custom the Gambier Islanders closely resemble the Rarotongans. Beechey surveyed the group in 1826, and D’Urville in 1838. Pitcairn Island and a few unin­habited rocks lie still farther to the south-east. The Tuamotus are healthy and as a rule have a lower mean temperature than Tahiti. The easterly trade winds prevail. Rain and fogs occur even during the dry season. The stormy season lasts from November to March, when de­vastating hurricanes are not uncommon and a south­westerly swell renders the western shores dangerous. Plants and animals are very meagrely represented, even more so than in the atolls of Micronesia. Cocoa-palms and the pandanus thrive on many of the islets, and the bread-fruit, banana, pine-apple, and arum have been intro­duced from Tahiti into the western islands. Mammals are represented by a rat ; among land-birds a parakeet, a thrush, and a dove are noticeable ; and of reptiles there is only one lizard. Insects are scarce. But the sea and lagoons teem with turtle, fish, mollusks, crustaceans, and zoophytes. Coral grows luxuriantly everywhere. From the abundance of pearl-oysters the archipelago gets its name of Pearl Islands ; pearl-fishing indeed is the only remunerative industry. Under French control the newest appliances for obtaining shells have now mostly superseded the laborious diving of the natives. The Tuamotus are very thinly inhabited by a fine strong Polynesian race, more muscular and mostly darker-skinned than that inhabit­ing Tahiti. In the west considerable intermixture with other races has taken place. Of the habits of the people little is known, and many of the islands are still marked “hostile inhabitants” on the English Admiralty charts. In the eastern islands cannibalism existed. Tattooing is not universal. Clothing and ornaments are very scanty. The huts are mean square buildings, often mere shelters of leaves. Good outrigger and single and double canoes are built, the larger ingeniously stitched together of small pieces of drift wood. Fishing with net and hook is much practised. Food besides fish consists almost exclusively of cocoa-nuts and pandanus fruit. Water is scarce.

@@@1 There is no collective name for the archipelago among the Tuamotuans themselves, but the Tahitians call it Paumotu (*i.e.*, Cloud of Islands). The group is Bougainville’s Dangerous Archipelago, Fleurieu’s Bad Sea, Krusenstern’s Low Islands, and the Pearl Islands of traders.

@@@2 Distinct names have been given to eight clusters of the archi­pelago,— Disappointment Islands, King George’s Islands, Palliser Islands, Raeffsky Islands, Two Groups, Duke of Gloucester Islands, Actaeon or Amphitrite group, and Gambier Islands.

Magellan’s first discovery of land after reaching the Pacific in 1520 was one of the Tuamotus. Various portions of the archipelago were in turn crossed by Queiros (1605), Lemaire and Schonten (1616), Roggeween (1722), Byron (1765), Wallis (1767), Bougain­ville (1768), Cook (1769), the “Duff” (1797), Krusenstern (1803), Kotzebue (1816), Fitzroy (1835), D’Urville (1838), and Belcher (1840). The first systematic survey was instituted in 1818 by Bellinghausen, and was continued in 1823 by Duperry, in 1826 by Beechey, and in 1839 by Wilkes. Thanks to these many explorers, the islands have been christened and rechristened with a chaos of Spanish, Dutch, English, French, German, and Russian names.

See the narratives of the various explorers cited above, and Meinicke, *Inseln des stillen oceans* (Leipsic, 1876) ; for general statistics and an account of the pearl-fisheries, see *Notices Coloniales,* Paris, 1S86.

TUBERCLE. See Pathology, vol. xviii. p. 405, and Phthisis.

TUBEROSE. The cultivated tuberose *(Polianthes tuber­osa)* is allied to the Mexican agaves and is a native of the same country. The tuberous root-stock sends up a stem 3 feet in height, with numerous lanceolate leaves and terminal racemes of white funnel-shaped, very fragrant flowers. Each flower is about 1½ inches long, with a long tube and a six-parted limb. The stamens are six in number, emerging from the upper part of the tube, and bear linear anthers. The ovary is three-celled ; but the mature fruit and seed are not botanically known. The plant is largely grown in the United States and at the Cape of Good Hope for export to England, as it is found that imported bulbs succeed better than those grown in the United Kingdom. The cultivated plants have double flowers and require a rich soil, considerable heat, and, at first, abundance of water.

TÜBINGEN, the university town of Würtemberg, is picturesquely situated on the hilly and well-wooded banks of the Neckar, at the junction of the Ammer and Stein- lach, 18 miles south of Stuttgart, and on the S.E. border of the Black Forest. The older town is irregularly built and unattractive, but the newer suburbs, the chief of which is the Wilhelmsstrasse. are handsome. The most