

Hakem, the fanatical patron of the Druzes, founded in 1003; the Mosque Al Azhar ("The Splendid"), which is principally famous as the seat of a Mahometan university, in which gratuitous instruction is given in the Koran; and the Mosque of Sultan Kalaoun, attached by its founder to the great Morostan or madhouse, which he established in 1287. The Morostan is no longer used for its original purpose, having been superseded by an asylum at Bulak. There is also a large general hospital situated between Bulak and Old Cairo, under the charge of native doctors.

On the east of the city are the splendid structures erroneously known to Europeans as the tombs of the caliphs; they really belong to the Circassian or Borgite Mamelukes, a race extinguished by Mehemet Ali. Their lofty gilt domes and fanciful network of arabesque tracery are falling to ruins, and the mosques attached to them are the haunts of a few solitary sheikhs, and of hordes of Arab beggars.

Among the buildings which owe their existence to modern European influence, the Italian opera, the French theatre, and the hippodrome may be mentioned. In Bulak is situated the Government printing-press, established by Mehemet Ali, from which numerous Oriental works and translations of French originals are issued from time to time; and in a building by the river side is accommodated the unrivalled collection of Egyptian antiquities made by M. Mariette for the khedive. The manuscripts which were formerly scattered among the various mosques and other institutions were recently collected to form a public library in the palace of the Darb Algamâmiz or Sycamore Street. The catalogue already occupies 333 pages, and the collection is especially rich in copies of the Koran and works of grammatical exegesis. In 1875 a geographical society was founded by the khedive for purposes of African discovery. A few periodicals are published in the city, but in this respect Cairo is much behind Alexandria. The scheme of public instruction is mainly that which was organized by Mehemet Ali, and embraces primary, preparatory, and special schools. In 1872 there were 1025 students and 141 teachers in the Government colleges, and the national schools were attended by 4721 pupils, while in the Mosque Al Azhar 6774 were enrolled. The higher scholastic institutions comprise a commercial and a juridical school at the Darb Algamâmiz, a school of arts and industry at Bulak, and military schools at the Abbasseeyah. There are several Christian churches and missionary stations in the city, and most of these maintain some educational machinery, so that there are Armenian, Greek, Coptic, Roman Catholic, and Protestant schools. Of special interest to Englishmen is Miss Whately's institution in the Abbasseeyah road.

The commerce of Cairo is of considerable extent and variety, but consists mainly in the transit of goods. Gum, ivory, hides, and ostrich feathers from the interior, cotton and sugar from Upper Egypt, indigo and shawls from India and Persia, sheep and tobacco from Asiatic Turkey, and European manufactures, such as machinery, hardware, cutlery, glass, and woollen goods, are the more important articles. The traffic in slaves, which was at one time so striking a feature of the place, is still carried on to a certain extent. In Bulak are several factories founded by Mehemet Ali for spinning, weaving, and printing cotton, and a paper-mill established by the khedive in 1870 at a cost of about £80,000. Various kinds of paper are manufactured, and especially a fine quality for use in the Government offices. In the island of Rhoda, or Roudah, there is a sugar-refinery of considerable extent, founded in 1859, and principally managed by Englishmen. Silk goods, saltpetre, gunpowder, leather, &c., are also manufactured. An iron bridge has been erected over the Nile between the Kasr ed Dubbara on the right bank and

Gezirah on the left; and new carriage roads, bordered by acacias and sycamore trees, have been constructed to Heliopolis and the pyramids of Gizeh respectively. The terminus of the railway lines of the delta and isthmus is situated to the north of the city, but the Upper Egypt line stops short on the left bank of the river at Embabah opposite Bulak, and the trains have to be taken across by a ferry.

From the central situation of Cairo, and its proximity to the hot sandy deserts, the temperature is much higher there than near the coast; but the diseases which infest it, such as the plague, ophthalmia, and malignant fevers, seem to originate in its "stifled filth," and other local causes, which advancing civilization will greatly remove, rather than in the unhealthiness of its situation. Its death-rate is greater than that of any European capital, but this is partly to be accounted for by the fact that numbers of natives come to the city in order that their last hours may be spent within its walls. The greatest mortality is during winter, and a larger proportion of deaths is caused by consumption than by any other disease. The average temperature throughout the year is 71°-16 Fahr.; but the mean of the separate months varies from 54° in January to 86° in August. The temperature by night is sometimes 40° below the highest point reached during the day, more especially in March and April, when the south and south-west winds prevail, and the thermometer frequently rises to upwards of 100° in the shade. In 1871 the number of rainy days was only 9, and the total duration of the fall was 9 hours 8 minutes.

The population of Cairo is of a very mingled description, and presents a very picturesque and interesting appearance. About the beginning of this century it was estimated to amount to about 200,000, which was supposed to comprise 121,000 Mahometans, 60,000 Copts, 4,000 Jews, and a number of Franks, Greeks, and Armenians. It now numbers about 350,000, which may be distributed in the following proportions:—285,000 natives, 25,000 Nubians and natives of the Soudan, 10,000 Turks, 30,000 Jews and Levantines, and upwards of 19,000 Europeans. The German and English colonies are both pretty numerous, and possess each its own church.

About 2½ miles S.W. of the citadel, and 1½ mile from the S.W. angle of the city, lies the town of Misr-al-Atikah, or Old Cairo, situated on the Nile near the mouth of the canal which now flows through Cairo, and opposite to the famous Nilometer at the south end of the Island of Raudah. It occupies the site of the ancient Roman city or fortress of Babylon, of whose origin various stories of apparently little value are told by Diodorus and others. The place appears in Ptolemy's *Tables*, and Strabo mentions that it was the headquarters of one of the three Roman legions that garrisoned Egypt. Roman masonry survives as part of a convent enclosure, which is known by the name Kasr-es-Shammah ("Palace of Perfume") and Dair-en-Nasarah ("Convent of Christians"). The name Babylon of Egypt, or Babylon simply, is frequently employed in mediæval writings as synonymous with Cairo, or as denoting the successive Mahometan dynasties of Egypt. This use may have been influenced by the association of the other Babylon, as represented by Baghdad, with the power of Islam; but at the same time it was a real survival from the ancient name; for Babylon on the Nile is mentioned by Gregory of Tours (*circa* 580 A.D.), in connection with the *Granaries of Joseph—i.e.*, the Pyramids. Here Amru the famous conqueror of Egypt for the Caliph Omar (638) founded a city to which was given the name of Fostât, it is said from Amru's skin tent (so called in Arabic). This continued to be the capital of Egypt for upwards of 330 years. In 973 it was superseded by a new city founded shortly before by Jauher (Gowher), captain of the first

Fatimite caliph, Al Moez, whose army had conquered Egypt in 969. It is said that the new city was originally the camp of Jauhar whilst besieging Fostât, which gradually grew into a town, and got the name of Al Kâhira ("Victrix"), whence our Cairo. In 1176 the city was attacked by the Franks; and shortly afterwards it was fortified by Saladin. From 1507 to 1798 it remained the capital of the Turkish province of Egypt; but in the latter year it was captured by the French, who kept possession till they were driven out in 1801 by the Turkish and English forces. Mehemet Ali secured his position by the massacre of the Mamelukes in the citadel in 1811, and laid the basis of the present independence of Egypt.

CAISSON, in engineering work, is a chamber of iron or wood which is used in the construction of subaqueous foundations,—such as those required for the piers of bridges, &c. Its object is the same as that of a coffer-dam, viz., to allow the work to be carried on below the water-level,—but it is used in places where either the water or the permeable soil is too deep to allow a dam to be erected. In cases where the bridge piers are hollow cylinders of iron, they not unfrequently form their own caissons,—their own weight, or that of ballast placed upon them, forcing their lower edges into the ground. The material left within them is dredged up or excavated as they descend. Where, however, the soil is not so soft, or is mixed with stones, this self-lowering becomes impossible. The lower part of the caisson is then commonly formed into an air chamber, open at the bottom, and resting upon the bed of the river. Air is pumped into this at a pressure corresponding to its depth below the surface of the water, and the excavation is carried on by men working in the compressed air as in a large diving-bell. In some cases the masonry of the pier is built within the caisson on the top of the chamber as it descends, the chamber itself being eventually filled up with masonry or concrete, and left to form the permanent base of the structure; in others the caisson is lowered (as the excavation goes on) by weights; and when the required depth has been reached, the masonry is commenced within the air-chamber, and the whole caisson raised again as the building proceeds. Probably the largest caissons ever used are those of the East River Suspension Bridge (a structure still unfinished) at New York, of which one was 172 feet long by 102 feet wide. See BRIDGES. For military caissons see FORTIFICATION.

CAITHNESS, the most northern county of the Scottish mainland, bounded W. and S. by Sutherlandshire, and E. and N. by the Northern Ocean, is situated between 58° 8' and 58° 40' N. lat., 3° 0' and 3° 55' W. long., and has an extreme length of 53 miles, an extreme breadth of 33, a coast line of 105 miles, and an area of 455,708 acres or 712 square miles. The form of Caithness resembles an irregular triangle, having as its greatest side the line of coast on the S.E., stretching from the Ord of Caithness to Duncansby Head. The surface of the county generally is flat and tame, consisting for the most part of barren moors, and being almost entirely destitute of trees. It presents a gradual slope from the north and east upwards to the ridge of hills on the west and south, which separates it from Sutherlandshire, and on the southern boundary, where it is bifurcated, attains considerable elevation. The one branch, called the Maiden Paps, contains the peak of Morven, 2334 above the level of the sea; the other, continuing in the line of the main ridge, juts into the sea, and terminates in the huge granitic precipice of the Ord. In the centre of the county, hemmed in by the hills on the western boundary, the ridge of the Maiden Paps, and the sea, is a large undulating plain comprising nearly four-fifths of the whole extent. On its southern side it is broken up by several detached hills, and in the interior contains a con-

siderable number of small lakes. The most depressed part of the county lies in the peninsula formed in the north-east corner by the indentation of Dunnet Bay and Sinclair Bay. The more elevated portion presents a light sandy soil, which admits of considerable cultivation, but the low grounds are covered with extensive morasses, producing only heath and rough grass.

The geological formation consists chiefly of sandstone, sandstone flag, and occasionally limestone; but granite and gneiss are also found in the west. On the east Caithness presents a precipitous coast, with scarcely a creek in which a vessel, even of small size, can find shelter. On the northern coast, where the Pentland Firth separates it from the Orkney islands, stand at the distance of 13 miles from each other the two bold headlands of Duncansby Head on the north-east and Dunnet Head on the north-west. The latter, the most northern point of Scotland, is situated in 58° 40' N. lat. and 3° 21' W. long., and is crowned by a lighthouse, with a fixed light, built on the rock 346 feet above the level of the sea; while the former is marked by the white steeple of Canisby on the west. The navigation of the Pentland Firth is attended with considerable danger, from the strength and eddies of the current. Off the island of Stroma, which is separated from the mainland by a strait three miles broad, is a small vortex called the Swalchie; while nearer the shore are the "Merry Men of Mey," a group of breakers caused by eddies between projecting headlands. On the east coast, in addition to the harbour of Wick, erected in 1831, at a cost of above £40,000, and since improved at further expense, there is a small harbour at Sarclett and another at Staxigoe, a small pier at Clyth and another at Lybster. On the northern coast Scrabster roads in Thurso Bay afford tolerably good anchorage, while at Thurso and Sandside Bay are commodious harbours for larger vessels.

The climate of Caithness is variable, but not unhealthy; and though the winter storms fall with great severity on the unsheltered coast, yet from its proximity to a large expanse of sea the cold is not intense and snow seldom lies many days continuously. In winter and spring the northern shore is subject to frequent and disastrous gales from the N. and N.W. The waters of Fors, Thurso, and Wick, are the principal streams which traverse the county, but none of them are of any particular importance. The largest lochs are those of Watten and Cathel; there are numerous small ones well stocked with trout.

A great change has been effected in the agricultural position of Caithness, chiefly by the late James Traill, Esq. of Ratter. The farms along the coast are still mostly in the hands of small farmers, who cultivate the soil only during the intervals of the fishing-season; but inland, in the more elevated districts, and along the banks of the principal streams, the land is let out into large farms, with leases long enough to encourage the holder to improve the soil and practise a rotation of crops. The average extent of land held by each occupier, in 1874, was 39 acres, much larger than the average in Sutherlandshire, which only amounted to 10 acres in the same year. In the pasturage ground, black cattle and sheep, chiefly of the Leicester and Cheviot breeds, are reared for the southern markets; and, independently of the weekly corn-markets at Thurso and Wick, the rapidity of communication with the south is opening up a valuable market for the produce of the dairy and farmyard.

The principal crops raised are oats, beans, potatoes, and turnips; wheat can be grown only where draining has been carried to considerable perfection. In 1874 there were only 87 acres in wheat, 1895 in barley, 70 in rye, and 27 in peas; while oats occupied 33,071 acres, turnips 14,045, and potatoes 2190. In the same year there were 21,567

acres in permanent pasture, and 6222 in temporary grass, while only 440 were covered with wood. The number of cattle of all kinds in the county was 22,616, sheep 108,829, horses 4969, and pigs 1789. But the great source of profit to the inhabitants is to be found in the fisheries of cod, ling, lobsters, and herring, which abound all around the coast. The most important is the herring-fishery, though it has considerably lessened in value during the last twenty or thirty years. Beginning about the end of July the season lasts for about six weeks, the centre of operations being at Wick and the surrounding districts. The number of fishermen employed in 1874 was 4304; and the value of boats, nets, lines, &c., for the same year, was estimated at £112,270. Besides those more immediately engaged in manning the boats, the fisheries give employment to a large number of coopers, cutters, packers, and others. The salmon-fisheries on the coast and at the mouths of rivers were formerly very productive, and are still let at high prices. At intervals along the coast are valuable quarries of freestone and slate, and of excellent flag for pavements; but the county is far from rich in other minerals. Slight traces of lead and iron have been found in the mountainous districts; and indications of coal, or rather of bituminous shale, have been noticed at Cannisby. The only article of manufacture is woollen cloth. The Highland Railway, opened in 1873, enters the county from Sutherlandshire, and curves through the centre to Wick, passing Altnabreac, Scotsclader, Halkirk, Georgemas, Bower, Watten, and Bilbster; while a branch line runs from the Georgemas junction to Thurso.

The early history of Caithness may, to some extent, be traced in the various character of the remains and the diversity of its local nomenclature. Picts' houses, Norwegian names, and Danish mounds attest that the Celts were successively displaced by these different tribes; and the number and strength of its fortified keeps leave us to infer that its annals present the usual record of feuds, assaults, and reprisals. Circles of erect stones, as at Steinster Loch and Bower, and the ruins of Romanist chapels and places of pilgrimage in almost every district, illustrate the changes which have come over its ecclesiastical condition. The most important remains are those of Bucholie Castle, Girnigo Castle, and the tower of Keiss; and on the S.E. coast the castles of Clyth, Swiney, Forss, Latheron, Knockinnan, Berridale, Achastle, and Dunbeath,—of which the last is romantically situated on one of the detached pillars of sandstone rock that are frequent along the Caithness coast. About six miles from Thurso stand the ruins of Braal Castle, the residence of the ancient bishops of Caithness, and on the shores of the Pentland is situated the mythical site of John o' Groats' House. The total number of landowners in 1872-3 was 1030,—among the most important being the duke of Portland, with 81,605 acres; Sir John Sinclair of Tollemache, with 78,053; Mrs Thomson Sinclair of Fenswick, with 57,757; Sir Robert Anstruther of Balcaskie in Fife, with 36,597; and the earl of Caithness, with 14,460.

Caithness is divided into ten civil and twelve *quoad sacra* parishes, and contains twelve churches and two chapels of ease belonging to the Establishment (in four of which there is service in Gaelic); seventeen belonging to the Free Church (in seven of which there is service in Gaelic); one United Presbyterian, and one Roman Catholic at Wick.

The county returns one member to the imperial parliament. The parliamentary constituency in 1875-76 was 1172. The principal towns are Wick and Thurso; the most important villages are Broadhaven, Castletown, Louisburgh, Sarclett, and Staxigoe. The population in 1831 was 34,529; in 1841, 36,343; in 1851, 38,709; and in 1871,

39,992. In the last year the males numbered 18,937, and the females 21,055; and there were in the county at the same date 7474 inhabited houses, 203 vacant, and 431 building.

CAIUS, KAYE, or KEYE, Dr JOHN (1510-1573), the founder of Caius College in Cambridge, was born at Norwich in 1510. He was admitted while very young a student at Gonville Hall, Cambridge. From his exercises performed there it seems probable that he intended to prosecute the study of divinity. He visited Italy, where he studied under the celebrated Montanus at Padua; and in 1541 he took his degree in physic at Bologna. In 1543 he visited several parts of Italy, Germany, and France; and returning to England, he began to practise first at Cambridge, then at Shrewsbury, and afterwards at Norwich. He removed to London in 1547, and was admitted fellow of the College of Physicians, of which he was for many years president. In 1557, being then physician to Queen Mary, he obtained a licence to advance Gonville Hall into a college, and he endowed it with several considerable estates, adding an entire new square at the expense of £1834. Of this college he accepted the mastership, which he held till within a short period of his death. He was physician to Edward VI., Queen Mary, and Queen Elizabeth. Towards the end of his life he retired to his own college at Cambridge, where having resigned the mastership to Dr Leggie of Norwich, he spent the remainder of his life as a fellow commoner. He died in July 1573, and was buried in the college chapel. Dr Caius was a learned, active, and benevolent man. In 1557 he erected a monument in St Paul's to the memory of Linacre. In 1563 he obtained a grant for the College of Physicians to take the bodies of two malefactors annually for dissection; and he was the inventor of the *insignia* which distinguish the president from the rest of the fellows.

His works are—1. *Annals of the College from 1555 to 1572*. 2. Translation of several of Galen's works, printed at different times abroad. 3. *Hippocrates de Medicamentis*, first discovered and published by Dr Caius; also *De Ratione Victoris*, Lov. 1556, 8vo. 4. *De Menditi Methodo*, Basel, 1554; Lond. 1556, 8vo. 5. *Account of the Sweating Sickness in England*, Lond. 1556, 1721. It is entitled *De Ephemera Britannica*. 6. *History of the University of Cambridge*, Lond. 1568, 8vo; 1574, 4to, in Latin. 7. *De Theriis Britannicis*; but it is doubtful whether this work was ever printed. 8. *Of some Rare Plants and Animals*, Lond. 1570. 9. *De Canibus Britannicis*, 1570, 1729. 10. *De Pronunciatione Græcæ et Latine Linguae*, Lond. 1574. 11. *De Libris propriis*, Lond. 1570. He also wrote numerous other works which were never printed.

CAJAZZO, or CAIAZZO, a town of Italy, in the province of Terra di Lavoro, and district of Piedimonte, situated on a height on the north bank of the Volturno, about 11 miles from Capua. It possesses a fine cathedral, and is defended by a castle of Lombard origin; but is principally interesting for the ruins of the Roman *Calatia*, which are still found in the town and neighbourhood. These consist chiefly of remains of the outer walls, and a cistern, which still affords a good supply of water. Various inscriptions are also extant, and the inhabitants point out a tomb which they maintain to be that of A. Atilius Calatinus. *Calatia* was originally a Samnite town, and is frequently mentioned in the earlier wars of the Romans. At a later date it became a municipal city of some importance, but makes no appearance in history. The population of the present town is 5892.

CAJEPUT OIL, a volatile oil obtained by distillation from the leaves of *Melaleuca leucadodendron*, and probably other species. The trees yielding the oil are found throughout the Indian Archipelago, the Malay peninsula, and over the hotter parts of the Australian continent; but the greater portion of the oil is procured from Celebes Island. The name Cajeput is derived from the native *Kayu-puti* or white wood. The oil is prepared from leaves

collected in a hot dry day, which are macerated in water, and distilled after fermenting for a night. As imported into Europe it has a greenish colour owing to the presence of a minute proportion of copper, which can be separated, leaving the oil perfectly colourless. This oil is extremely pungent to the taste, and has the odour of a mixture of turpentine and camphor. When dropped in water, it diffuses itself over the surface, and then entirely evaporates. Chemically, the oil consists in large part of the bihydrate of cajputene, from which cajputene having a hyacinthine odour can be obtained by distillation from anhydrous phosphoric acid. Like other volatile oils, the cajeput is a powerful stimulant, and is used medicinally where such medicines are required. Some practitioners have given it a high character as a remedy for cholera; but it does not appear to have any claim as a specific in the treatment of that disease. The dose taken internally as a stimulant, antispasmodic, and diaphoretic, is about five drops. It is used externally as a rubefacient, and is also resorted to occasionally with advantage in toothache. The oil from some species of *Eucalyptus* bears a close resemblance in odour and properties to cajeput.

CAJETAN, CARDINAL (1469-1534), was born at Cajeta in the kingdom of Naples in 1469. His proper name was Thomas de Vio, but he adopted that of Cajetan from his birthplace. He entered the order of the Dominicans at the age of sixteen, was for some time professor of divinity, and in 1508 became general of the order. For his zeal in defending the Papal pretensions, in a work entitled *Of the Power of the Pope*, he obtained the bishopric of Cajeta. He was afterwards raised to the archiepiscopal see of Palermo, and in 1517 was made a cardinal by Leo X. The year following he went as legate into Germany, to quiet the commotions raised by Luther against indulgences; but the Reformer, under protection of Frederick elector of Saxony, set him at defiance; for though he obeyed the cardinal's summons in repairing to Augsburg, yet he rendered all his proceedings ineffectual. Cajetan was employed in several other negotiations and transactions, being as able in business as in letters. He died in 1534. He wrote commentaries upon portions of Aristotle, and upon the *Summa* of Aquinas, and made a careful translation of the Old and New Testaments, excepting Solomon's Song, the Prophets, and the Revelation of St John.

CALABAR is a district of somewhat indefinite boundaries, situated on the West Coast of Africa, in the Bight of Biafra, between 4° 20' and 6° N. lat., and between 6° 30' and 9° E. long. The name corresponds to no geographical or political unity, but is convenient as provisionally comprehending a stretch of country of considerable commercial importance. The coast line is frequently regarded as extending from the Nun mouth of the Niger, to the neighbourhood of the Cameroon Mountains, and thus includes the estuaries of the Brass River or Tuwon-Toro, the San Nicholas or Kola Toro, the New Calabar, and the Bonny, which are all deltaic branches of the Niger, as well as the San Pedro or Kan Toro, and the important embouchure of the united streams of the Cross River, the Old Calabar, and the Great Qua River. The interior of the country is still unexplored, and the inland boundary is left completely vague. The soil of the whole country, for 150 miles or further from the sea, is purely alluvial; and the surface is literally covered with bush except in the very limited areas under cultivation. Further inland, especially in the direction of the Cameroon Mountains, the elevation increases, the soil becomes more varied and decidedly rocky, and the forest grows clearer of underwood. This higher region is rich in natural productions, furnishing—besides the palm-oil which forms the main article of foreign trade on the coast—ebony, bamboos, sugar, pepper, yams, Indian corn, plantains, and a variety of woods.

Leaving the western portion which belongs to the delta of the Niger for treatment in the article on that river, we will confine our attention here to the district watered by the Old Calabar, the Cross River, and the Qua, which more particularly deserves the name of Calabar. The common estuary of these three rivers enters the ocean about 5° N. lat. and 20° E. long. It is about 10 or 12 miles wide at its mouth, and maintains nearly the same width for about thirty miles above the bar. At the junction with the Cross River the Old Calabar forms quite a labyrinth of channels and islands, and it is also united with the Qua by a number of creeks.

The exact position of the sources of these rivers has never been ascertained, but, according to native report, that of the Old Calabar is situated in the neighbourhood of Iko, which is not very far beyond Uyanga, the furthest point inland reached by Captain Hopkins and the Rev. Samuel Edgerley in their journey of exploration in 1872. The truth of this report is rendered almost certain by the diminished size of the stream in the vicinity of Uyanga; and it is thus probable that the mountains in which both it and its sister streams take their rise are the Rimsby range, forming a western extension of the Cameroons. The Qua River is comparatively small, and navigation is impeded, at no great distance up, by sand-banks and fallen trees. Further inland its course is also broken by rapids and several cataracts.

The country watered by these rivers is occupied by a great number of separate tribes, such as the Efik, the Ekoï, the Ibami, the Oköyong, and the Aqua, who are politically independent of each other and speak separate languages. Of these the most important are the Efik, or people of Calabar in the strictest sense of that word, which was originally applied by the Portuguese discoverers to the tribes on the coast at the time of their arrival, when as yet the present inhabitants were unknown in the district. It was not till the early part of the 18th century that the Efik, owing to civil war with their kindred the Ibibio, migrated from the neighbourhood of the Niger to the shores of the Old Calabar, and established themselves at Ikoritungko or Creek Town. In order to get a better share in the European trade at the mouth of the river a body of colonists from this city migrated further down and built Obutöng or Old Town, and shortly afterwards a rival colony established itself at Aqua Akpa or Duke Town.

For a time it seemed as if Creek Town would disappear before its younger competitors, but it was again raised to power by King Eyo Eyo, who defied the interference of his rivals. The only political bond of union between the various towns is the Egbo, a kind of secret society into which admittance is obtained on the payment of a certain fee to each of the existing members. The power of this association is almost unlimited, and is used principally for the benefit of its members. Formerly it was one of the greatest curses of the country, from the barbarous customs mingled with its rites; but it is, under European direction, being turned into a means of promulgating a more civilized code of laws through the various towns, and it forms a kind of constitutional defence against the despotism of individual kings. However unsatisfactory the condition of the country still is, there is no doubt European influence of a beneficial kind is gradually making itself felt. The universal belief in the most terrible kinds of witchcraft is slowly being shaken; the use of the esere or Calabar bean as an ordeal, and for purposes of religious purgation, is becoming much less frequent; the murder of twin children is no longer a national custom; and the massacre of his slaves on the death of a king has been abolished. The present king of Creek Town is at least nominally a Christian; and, according to Consul Livingstone, "hundreds

of decently-dressed natives of both sexes regularly attend divine service" at the mission stations. These number five or six, and are supported by the United Presbyterian Church of Scotland, which began its labours here in 1846.

The predominant language, not only among the people of Calabar proper, but also of the various tribes on both sides of the Cross River, is Efik, which bids fair to be the common commercial speech of the whole district. It is really a modified Ibibio, and presents traces of what is known as alliterative concord, though this is by no means a universal characteristic. It has been reduced to writing by the missionaries, who have employed the ordinary English alphabet. Considerable progress has been made in the formation of an initiatory literature; no fewer than 65 volumes having proceeded from the mission press. Most important of these are the Efik translation of the New Testament by H. Goldie (1862), the translation of the Old Testament by Dr A. Robb (1868), and a Dictionary of the Efik by H. Goldie, published in 1862. Captain James Broom Walker of Duke Town, who has explored various parts of the country, presented several charts to the Royal Geographical Society, which are reproduced in the *United Presbyterian Missionary Record* for 1872 and 1875.

See Hope M. Waddell, *Twenty-nine Years in the West Indies and Central Africa*, 1866; "Details of Explorations of the Old Calabar River," by Captain Becroft in *Journ. Roy. Geogr. Soc.*, 1844; W. Nicholas Thomas in *Proceed. of Roy. Geogr. Soc.* on "The Oil Rivers of West Africa," 1873.

CALABAR BEAN, the seed of a leguminous plant, *Physostigma venenosum*, a native of tropical Africa. The plant has a climbing habit like the scarlet runner, and attains a height of about 50 feet, with a stem an inch or two in thickness. The seed pods, which contain two or three seeds or beans, are 6 or 7 inches in length; and the beans are about the size of an ordinary horse bean but much thicker, with a deep chocolate brown colour. They constitute the E-ser-e or ordeal beans of the negroes of Old Calabar, being administered to persons accused of witchcraft or other crimes. In cases where the poisonous material did its deadly work it was held at once to indicate and rightly to punish guilt; but when it was rejected by the stomach of the accused, innocence was held to be satisfactorily established. A form of duelling with the seeds is also known among the natives, in which the two opponents divide a bean, each eating one-half; that quantity has been known to kill both adversaries. Although thus highly poisonous, the bean has nothing in external aspect, taste, or smell to distinguish it from any harmless leguminous seed, and very disastrous effects have resulted from its being incautiously left in the way of children. The beans were first introduced into England in the year 1840; but the plant was not accurately described till 1861, and its physiological effects were investigated in 1863 by Dr Thomas K. Fraser. In that year an alkaloid was isolated from the seeds to which the name physostigmine was applied; and under the name eserine another alkaloid was prepared from them; but it is not yet quite certain that the two substances are essentially different. Dr Fraser's investigations, which were conducted with an alcoholic extract of the seeds, showed that the active principles exerted a remarkable influence in contracting the pupil of the eye, and in counteracting the influence of atropine. The antagonism of physostigmine and atropine and its relations to many other alkaloids have subsequently been the subject of very numerous investigations. A committee of the British Medical Association under Professor Hughes Bennett found that the antagonism between sulphate of atropine and extract of Calabar bean exists only within narrow limits, so that for practical purposes atropine is useless as an antidote to Calabar bean. The investigation of the same committee into the relations

of hydrate of chloral and Calabar bean, however, proves that they are mutually antagonistic, but as the toxic influence of the Calabar bean is very rapid, it is necessary to administer the chloral as soon as possible after the Calabar bean is taken. Calabar bean in the form of powder and extract is used in medical practice. It has been chiefly employed by ophthalmists to produce contraction of the pupil, but it is also used in tetanus, neuralgia, and rheumatic diseases.

CALABOZO, or **CALABOSO**, a town of Venezuela, formerly capital of the province of Caracas, but now of that of Guarico, is situated 120 miles S.S.W. of the city of Caracas on the left bank of the River Guarico. It lies so low that during the rainy season it is frequently surrounded by the floods; and in the summer it is exposed to extreme heat, the average temperature being 88° Fahr. It is well built, with streets running at right angles, and it has several fine churches, a college, and public schools. Its situation on the main road from Aragua to Apure makes it the seat of a considerable trade; and the surrounding country affords extensive pasture for cattle. There are thermal springs in the neighbourhood. Originally a small Indian village, Calabozo owes its existence as a town to the Compania Guipuzcoana, who made it the seat of one of their mercantile stations in the beginning of the 18th century. In 1820 it was the scene of a battle in which Bolivar and Paez beat the Spanish general Morales. Population in 1873, 5618.

CALABRIA, the name given by the Romans to the peninsula at the south-eastern extremity of Italy, and now given to the peninsula at the south-western extremity. The former district was called by the Greeks Iapygia and Messapia, though these terms were variously used, and sometimes also included all the south-east of Italy, from Lucania to the Garganian promontory. In the time of Augustus, Calabria was the district south and east of a line drawn from the neighbourhood of Tarentum to that of Brundisium, corresponding to the modern Terra d'Otranto. The principal cities were Tarentum (Taranto), Brundisium (Brindisi), and Hydruntum (Otranto), all of which are ports. The inhabitants were Sallentines and Calabrians or Messapians, both probably of Pre-Hellenic or Pelagic race; Niebuhr, however, considered the Calabrians to be Oscan intruders distinct from the other tribes.

Ancient Calabria was a country of low hills with very gentle ascents, having a soil of Tertiary limestone formation, no rivers, and scarcely any small streams, and, during summer, a climate of intolerable heat, but exceedingly fertile, producing the olive and vine.

Owing to its position Calabria was long defended by the Greeks against the Goths, Lombards, and Saracens, and was the last portion of Italy lost by the Byzantine emperors. In the time of the Norman monarchy, in the 11th century, there took place a curious change in the application of the name, the cause and exact date of which are not known with any certainty. An explanation possessing some probability is, however, given. The Byzantines, it is likely, extended the name Calabria to all their possessions in Southern Italy; and when their possessions in the south-eastern peninsula became greatly inferior in importance to that in the south-western (Bruttium) they applied the name to the latter instead of the former. It was not, however, till after the Norman Conquest that the name was universally employed in this the modern sense.

In modern times Calabria, until the consolidation of the Italian kingdom, was the name of one of the four provinces into which the continental part of the kingdom of Naples, or of the Two Sicilies, was formerly divided; and it is now the name given to three out of the sixty-nine provinces of the present division of Italy. It is the most southern part

of Italy, being bounded on the N. by the province of Basilicata, on the E. by the Gulf of Taranto, on the W. by the Tyrrhenian Sea, and on the S. by the Ionian. It extends from Cape Spartivento (37° 56' N. lat.) to Monte Pollino on the southern border of Basilicata (40° 0' N. lat.)

The territory is well watered, and exceedingly rugged and mountainous; but the summits of the hills are covered with extensive forests of oak, beech, elm, and pine, and towards the coast the branches of the Apennines open up into fertile valleys. Earthquakes and violent storms are very common; and there is extreme heat during the summer season, on the approach of which the wealthier inhabitants migrate annually to the lofty table-land of La Sila, where their flocks are fattened in the extensive pastures. The agriculture of Calabria is in a very rude and barbarous condition, a circumstance which is partly attributable to the extreme fertility of the soil. The principal productions are corn, wine, raw silk, olive oil of an inferior quality, cotton, rice, liquorice, and saffron. Manna, collected from the manna-ash (*Ornus rotundifolia*), was at one time a somewhat important article of commerce; but very little is now collected. Oranges, lemons, figs, mulberries, honey, and tobacco are also produced. The horses of Calabria are remarkable for their high spirit and compact form. There are considerable fisheries of the tunny, the swordfish, the anchovy, and mullet.

The three provinces into which Calabria is now divided are Calabria Citeriore, Calabria Ulteriore Seconda, and Calabria Ulteriore Prima.

Calabria Citeriore, or Cosenza, is the most northern of the three provinces, and has an area of 2613 square miles, with a population in 1871 of 440,468. The southern and central districts are covered by the vast forests of La Sila, which furnished timber for the navies of antiquity. The principal rivers are the Crati, which after a course of 60 miles falls into the Gulf of Taranto, and the Neto, which rises in the heart of La Sila, and falls into the Adriatic. The principal towns are Cosenza, Rossano, Paola, and Castrovillari.

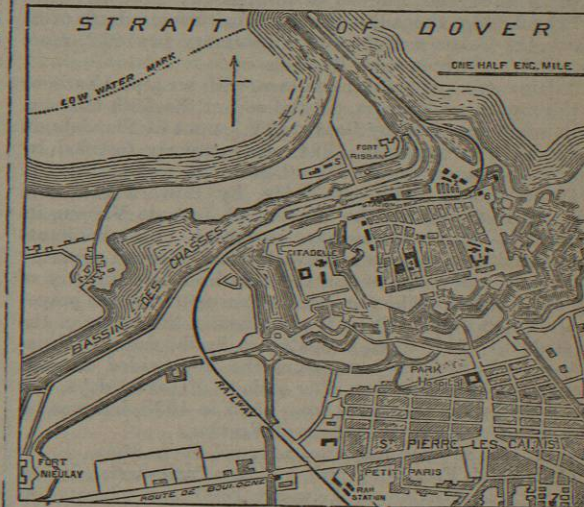
Calabria Ulteriore Seconda, or Catanzaro, on the south of Calabria Citeriore, having a coast line from the Punta dell' Alice to the Callipari on the east, and from the Savuto to the mouth of the Messina on the west, has an area of 2100 square miles. Population (1871) 412,226. At Catanzaro is a manufactory of silk; at Maida there are some seams of coal, antimony, and alabaster, which might be made available for exports. The principal towns are Catanzaro, Cotrone, Nicastro, and Monteleone.

Calabria Ulteriore Prima, or Reggio, the most southerly province of Italy, contains an area of 1250 square miles, with a population (1871) of 353,608. On the northern frontier are the mines of Lo Stilo, from which the iron is obtained for the Government foundries. The principal towns are Reggio, Gerace, and Palmi. A railway line now runs from Reggio to Taranto, along the coast of the Ionian Sea and the Gulf of Taranto.

CALAHORRA, the capital of the judicial district and diocese of the same name, in the province of Logroño, Spain, 24 miles S.E. of Logroño, in 42° 12' N. lat., 2° 0' W. long. It occupies an elevated site on the left bank of the River Cidacos, near its junction with the Ebro, and contains a cathedral in the mixed Gothic style, dating mainly from the 15th century, an episcopal palace, and several conventual and other schools. The climate is cold and damp, but the soil in the neighbourhood produces in abundance grain, pulse, flax, wine, and oil. Population in 1860, 7106. Calahorra is the ancient *Calagurris Nassica*, celebrated for its extraordinary fidelity to Sertorius in his war with Pompey and Metellus; and in the suburbs may still be traced the remains of an ancient Roman circus, an aqueduct, and a

naumachia. Under the empire it was a municipium, and enjoyed the rights of Roman citizenship. It was the birthplace of Quintilian.

CALAIS, a town of France, capital of a canton of the same name, in the arrondissement of Boulogne and the department of Pas de Calais, 26 miles E.S.E. of Dover, and 185 miles by rail from Paris, in 50° 57' 45" N. lat., 1° 51' E. long. Calais is a fortress of the first class, and was formerly a place of great strength, but it would now probably not be able to defend itself long against modern artillery. It is built in a rectangular form, having one of its longer sides towards the sea, while on the E. and S. it is surrounded by low and marshy ground which can be flooded to strengthen its defences. Overlooking the town on the W. is the citadel, erected in 1641 by Cardinal



1. Church of Notre-Dame. 2. Church of the Courgain. 3. Hotel de Ville and Place de l'Armée. 4. Museum and Theatre. 5. Bathing establishment. 6. Lighthouse. 7. Hotel de Ville de St Pierre les Calais.

Richelieu. In the centre of the town is the great market-place, in which stands the Hôtel de Ville (rebuilt in 1740, restored in 1867), with busts of Eustache de St Pierre, the Duc de Guise, and Cardinal Richelieu. Near the Hôtel de Ville is the *Tour du guet*, or watch-tower, used as a lighthouse until 1848. The Church of Notre Dame was almost entirely rebuilt at the end of the 15th century, during the English occupancy of Calais; its lofty tower serves as a landmark for sailors. At the end of the Rue de la Prison is the Hôtel de Guise, built as a guildhall for the English woolstaplers. It was given to the Duc de Guise as a reward for the recapture of Calais, and hence its name. The building which was formerly the Hôtel Dessin, immortalized by Sterne in the *Sentimental Journey*, is now used as a museum. The harbour of Calais is shallow, admitting vessels of from 400 to 500 tons only at high water. The French Government contemplates the construction of a large harbour of refuge near Calais. There are two lighthouses at the entrance to the harbour, and a still larger one on the fortifications, with a revolving light visible 20 miles off. The principal institutions are the schools of design, hydrography, and artillery, a public library with 10,000 volumes, and public baths. The imports are chiefly from Great Britain, and consist of coal, iron, woollen and cotton fabrics, linen, skins, machinery, and colonial produce. Of late years the importation of timber