

of communication are not great, and schools and churches far apart, or wanting altogether. Those who have made fortunes in mining come to "the Bay" to spend them; those who have lost their all, or become "strapped,"—to use the miner's phrase,—go to the great city to find employment. And San Francisco is not only the metropolis of California, but of the whole Pacific coast. There is not another city or town having one-tenth of its population anywhere from Alaska to Panama. It has the only really good harbour along the entire line of coast from Lower California north to Puget Sound, that of San Diego excepted, and this has a desert region behind it, where settlements cannot be made. The population of San Francisco, by the census of 1870, was 149,473, having increased to that number in the previous decade from 56,802, the gain of the city being relatively considerably greater than that of the State itself. Sacramento city, the capital, is the only other town in California which has as much as one-tenth of this number. It is claimed, indeed, that the present (1876) population of San Francisco is not less than 250,000, the increase having been unusually large during the past year, which has been, on the whole, a very prosperous one for the State. The other large towns are—Sacramento, 16,283; Oakland, 10,500; San Jose, 9089; Grass Valley, 7063; and Los Angeles, 5728,—all these figures being those of the census of 1870. The population of the whole State, according to the same authority, was, in 1870, 582,031, an increase of 53 per cent. since the previous census of 1860. The growth of California has not been in the years from 1860 to 1870 as rapid as in the decade preceding that, when the increase amounted to 310 per cent. Remarkable as has been the development of this State, it does not equal that of some of those of the Mississippi Valley during the same period. Thus Iowa gained more between the years 1860 and 1870 than did California, although having only one-third of the area of that State; and in the decade previous to that her gain was relatively nearly equal to that of the Golden State, and actually twice as great. The actual increase of population in Massachusetts, with its area of only 7800 square miles, was greater in the years 1860-1870 than was that of California.

The brilliant discoveries of metalliferous deposits in Nevada, wholly developed within the past fifteen years, have added much to the wealth and resources of California, for the ties of business are nearly as strong between the two States as if there were no political line of division between them. Nearly all the capital invested in the region at the eastern base of the Sierra came from the Pacific side of the mountains, and most of the machinery used there has been constructed in San Francisco. Nevada takes a large amount of the surplus agricultural products of California, and gives bullion in exchange, that being the only thing she produces for exportation.

The Chinese element in California is a peculiar and

**CALIGULA, CAIUS CÆSAR**, the third of the Roman emperors, was the son of Germanicus and Agrippina, and was born in 12 A.D. He was brought up in his father's camp among the soldiers, and received the name Caligula, from the *caligæ*, or foot-soldiers' shoes, which he used to wear. In 32 he was summoned to Tiberius, who was then living at Caprea, and did all in his power to ingratiate himself with the tyrant. Perhaps about 35 he married his first wife, Junia Claudia, who died in the following year. Caligula seems then to have resolved upon obtaining the succession to the empire. For this purpose he leagued himself with Macro, commander of the prætorian guards,

interesting feature. By the last census there were 49,310 of that race in the State. They are settled in great numbers in San Francisco, where they are house-servants, and operatives in the manufacturing establishments, which could not be successfully carried on with white labour. They also work the abandoned placers, although the amount of their gains in this operation must usually be very small, as they are only allowed to occupy spots supposed by the white men to have been quite worked out. "The white miners have a great dislike to Chinamen, who are frequently driven away from their claims, and expelled from districts by mobs. In such cases the officers of the law do not ordinarily interfere; and, no matter how much the unfortunate yellow men may be beaten or despoiled, the law does not attempt to restore them to their rights or avenge their wrongs" (Hittell, in *Resources of California*, 3d ed. p. 375).

**General Considerations.**—Finally, California has in its favour its immense extent of area, its variety of physical configuration, the fertility of a portion of its soil, and, above all, the mildness and attractiveness of its climate. Its position on the Pacific is one which justifies the confident expectation that the commercial interests of San Francisco will continue to increase in magnitude, since it must always concentrate the trade of an immense area. There are some conditions which may eventually operate powerfully to retard the development of this State. Of these the most important is, perhaps, the wastefulness of the present method of agriculture, by which crops are continually taken from the soil, and nothing restored to it. Another serious matter is the constant wholesale destruction of the forests going on in the Coast Ranges and in the Sierra; there is reason to fear that this will eventually have a disastrous effect on the regimen of the rivers, causing inundations in the spring and excessive droughts in summer. The danger from earthquakes has already been alluded to; and there is no question that it has had and will continue to have an influence in retarding the growth of the State, as there is not the least doubt that it similarly affects the whole South American Pacific coast. The facility with which the legislature can be manipulated, and brought to sanction schemes fraught with injury to the people, is not a circumstance peculiar to California; although, in several instances, heavy blows have in this way been struck at the prosperity of San Francisco. The distrust of the legislature often leads the people to reject that which is good, from the fear that an undertaking which looks well at the start may be so managed as to result in ruin. Thus, it seems impossible to carry out any general system of irrigation, or of forest culture and preservation, desirable as these things may be, because the people have no confidence in anything which has to be managed by the legislature, or which can be interfered with by that body at any time, and diverted to the subservience of private ends, to the injury of the public. (J. D. W.)

whose wife he had seduced, and there can be no doubt that the death of Tiberius was hastened by one or both of them. The senate conferred the imperial power upon Caligula alone, although Tiberius, the grandson of the preceding emperor, had been designated as co-heir, and he entered on his first consulship in July 37. For an account of his reign and character see **ROMAN HISTORY**.

**CALIPH, or KHALIF**, the sovereign dignity among the Mahometans, vested with an almost absolute authority in all matters relating to religion and civil polity. In the Arabic it signifies *successor* or *vicar*, the caliph bearing the same relation to Mahomet that the pope, in

the estimation of Roman Catholics, bear to St Peter. It is at this day one of the titles of the grand seignior or sultan, who claims to be successor to Mahomet, through the line including Abu-Bekr, Oman, and Othman (the Sunnite view), and also of the Sophi or Sufi of Persia as claimant through Ali (the Shiite view). The history of the rule of the Sophis may occasionally remind the student of the saying current respecting Russian autocracy some fifty years ago, that it was "despotism tempered by assassination." When Louis XIV. was one day, in the presence of some courtiers, extolling the government of the Sophis as something approaching to an almost ideal excellence, the Marshal d'Estrees replied, "But, sire, I have seen three of them strangled during my lifetime." One of the chief functions of the caliph, in his quality of imam or chief priest of Islamism, was to begin the public prayers every Friday in the chief mosque, and to deliver the *khooteba* or sermon. In after times they had assistants for this latter office; but the former was always performed by the caliph in person. The caliph was also obliged to lead the pilgrims to Mecca in person, and to march at the head of the armies of his empire. He granted investiture to princes and sent swords, standards, gowns, and the like, as presents to princes of the Mahometan religion, who, though they had thrown off the yoke of the caliphate, held of it as vassals. The caliph usually went to the mosque mounted on mules; and the Seljukian sultans, though masters of Baghdad, held their stirrups and led their mules by the bridle some distance on foot, till the caliph gave them the sign to mount on horseback. At a window of the caliph's palace there always hung a piece of black velvet 20 cubits long, which reached to the ground, and was called the *caliph's sleeve*; this the grandees of his court kissed daily with great respect. After the destruction of the caliphate by Hulagu, the Mahometan princes appointed a particular officer in their respective dominions to sustain the sacred authority of caliph. In Turkey this officer is called *mufiti*, and in Persia *sadne*.

The successions of caliph continued from the death of Mahomet till the 655th year of the Hegira, when Baghdad was taken by the Tatars. After this, however, there were persons who claimed the caliphate, as pretending to be of the family of the Abbassides, and to them the sultans of Egypt rendered great honours at Cairo, as the true successors of Mahomet; but this honour was merely titular, and the right allowed them only in matters of religion; and though they bore the sovereign title of *caliph*, they were subjects and dependents of the sultans. In the year of the Hegira 361, a kind of caliphate was erected by the Fatimites in Africa, and lasted till it was suppressed by Saladin. Historians also speak of a third caliphate in Yemen or Arabia Felix, erected by some princes of the family of the Jobites. The emperors of Marocco assume the title of *grand scherifs*, and pretend to be the true caliph, or successors of Mahomet, though under another name. For particulars concerning the caliph and caliphate see works bearing on Mahometan rule, such as Ockley's *History of the Saracens*; Gibbon's *Decline and Fall*, chap. li.; Von Hammer, *Histoire des Ottomans*; and for a brief survey, Freeman's *History and Conquests of the Saracens*, Oxford, 1856. See also articles **ABBASSIDES** and **MAHOMETANISM**.

**CALISTHENICS.** See **GYMNASTICS**.

**CALITRI**, a town of Italy, in the province of Principato Ulteriore and district of Sant' Angelo de' Lombardi, about 40 miles S.E. of Benevento. It is situated on an eminence near the River Ofanto, and is supposed to occupy the site of an ancient town called *Aletrium*. Its principal buildings are the parish church and a Benedictine convent. Population, 6629.

**CALIXTUS**, the name of three different popes or bishops of Rome. Little is known of **CALIXTUS I.**, bishop of Rome from about 220-226 A.D., during the reigns of Heliogabalus and Severus. **CALIXTUS II.**, Guido of Vienne, was elected in 1119, after the death of Gelasius II. In 1122 he concluded with the Emperor Henry the important treaty of Mentz, by which the mutual rights of the church and the empire were definitely settled. He died in December 1124. **CALIXTUS III.**, Alphonse de Borgia, was raised to the Papal chair in 1455 at a very advanced age. He was feeble and incompetent. The great object of his policy was the excitement of a crusade against the Turks, but he did not find the Christian princes responsive to his call. He died in 1458.

**CALIXTUS, GEORGIUS** (1586-1656), a celebrated Lutheran divine, born at Middleburg in Holstein in 1586. After studying at Helmstadt, Jena, Giessen, Tübingen, and Heidelberg, he had an opportunity of travelling through France and England, where he became acquainted with the leading Reformers, and saw the different forms which the Reformed church had assumed. On his return he was appointed professor of divinity at Helmstadt by the duke of Brunswick, who had admired his abilities in a contest which he had when a young man with the Jesuit Augustine Turrianus. After becoming a master of arts he published a book, *Disputationes de Præcipuis Religionis Christianæ Capitibus*, which provoked the hostile criticism of several learned men; and on his elevation to the professorship he published his *Epitome of Theology*, and soon after his *Epitome of Moral Theology*, which gave so great offence as to induce Statius Buscher to charge him with a secret leaning to Romanism. Scarcely had he refuted the accusation of Buscher, when, on account of his intimacy with the Reformed divines at the conference of Thorn, and his desire to unite them with the Lutherans, a new charge was preferred against him, principally at the instance of Calovius, of a secret attachment to Calvinism. The disputes to which this gave rise, known in the church as the Syncretistic controversy, lasted during the whole lifetime of Calixtus, and distracted the Lutheran Church, till a new controversy arose with Spener and the Pietists of Halle. Calixtus died in 1656. There is a monograph on Calixtus by Henke, 2 vols. 1853-56; see also Dorner, *Gesch. d. Protest. Theol.*, pp. 606-624.

**CALLAO**, the chief port of Peru, lies 8½ miles from Lima, the capital city, in 12° 4' S. lat., 77° 13' W. long. It is built on a flat point of land in the recess of a spacious and well-sheltered bay, which is partly enclosed by the islands of San Lorenzo and Fronton, and affords the best anchorage on the Peruvian coast. The modern town lies half a mile north of the site of an older city, destroyed by an earthquake and invasion of the sea in 1746. It consists mainly of houses built of wicker-work and plastered with mud, stronger buildings being dangerous from the frequency of earthquakes; but a walled quadrangular fortress, built by the Spanish Government between 1770 and 1775, extends over about 15 acres, and is now used for the custom-house offices and stores. There are also several forts mounting cannon, and among the public buildings are the military and naval Government offices and barracks, three Catholic churches and a Protestant chapel, two clubs, a hospital, and four banks. Several newspapers are published in the town. Callao is the headquarters of the Pacific Steam Navigation Company in South America (incorporated in 1840), and the works in connection with their large fleet of steam-vessels—foundries, carpenters' shops, flour-mills, bakeries, and gas-works—occupy a large area near the custom-house. A large steam sugar-refinery is also in operation. Harbour works, consisting of sea walls of concrete blocks, and docks, with



berthing space for thirty large vessels, begun in 1871, were completed in February 1875, superseding the old and inconvenient pier and boat harbour. These works comprise also eighteen steam-cranes for loading goods, a triple line of railway along the dock walls, gas illumination, and supplies of fresh water. A floating dock, 300 feet in length, capable of taking up a vessel of 21 feet draught, and 5000 tons weight, was built in Glasgow and sent out to Callao harbour in 1863. The phenomenon of the bubbling up of sulphuretted hydrogen gas in the harbour, known as "Callao painter," from its action on the paint of ships, has generally been ascribed to volcanic action, the belief having been that Callao is in the crater of an extinct volcano; but the borings for the new works discovered the cause of this to be in strongly impregnated springs forcing their way up through a stratum of clay and mud. Callao communicates with Lima by carriage road, and by a railway, completed in 1852, which is now extended through the capital towards Oroya over the Maritime Andes. The Pacific Company despatches or receives an ocean steamer almost every week to or from Liverpool by Valparaiso, the Strait of Magellan, and Rio de Janeiro; a separate bi-weekly steam line unites the port with Valparaiso, and communication is maintained with Panama by steamers four times a month each way. French and German steam lines have also headquarters at Callao. Trade is carried on mainly with Britain, the United States, France, Italy, Germany, Norway, and Central America, an average of nearly 2000 vessels entering the harbour annually, and frequently clearing in ballast for the Guano Islands, although exportation from the former main source of supply of guano—the Chinchá Islands—ceased in 1872. This substance continues to be the most valuable export; after it come sugar, cotton, wool, hides, silver, and gold. Callao imports timber and railway material, wheat, ice, cattle, coal, and mixed cargoes of manufactures from foreign countries, and considerable quantities of flour from Chili. The whole value of imports and exports exceeds £6,000,000 annually. Since 1850, with the exception of the years between 1856 and 1861, when the immigration was prohibited by Congress, Chinese coolies have been imported in considerable numbers through Callao from the Portuguese possession of Macao in China. Perhaps 100,000 male Chinese have been introduced under contracts to serve for eight years; the passages have too often been attended with great hardships and frightful mortality, but the Chinese prove valuable workers on the great railroads now constructing in Peru.

Though the climate of Callao is good, having the pure breeze from the Pacific, and a temperature rarely exceeding 77° or falling below 65° Fahr., yet, in the absence of all hygiene, diseases, such as fevers and smallpox, are very prevalent, and the rate of mortality is high. The population, in default of recent exact enumeration, may be taken at from 15,000 to 18,000; the census of 1866, the latest, gave 14,800, a decrease of upwards of 2000 in seven years, and the number was further reduced by the havoc made by yellow fever in 1868. The traffic and business, and with these probably the population, of the port are, however, increasing.

CALLCOTT, SIR AUGUSTUS WALL (1779–1844), Knt., R.A., one of the most distinguished of English landscape painters, was born at Kensington in 1779, and died there in 1844. His first study was music; and he sang for several years in the choir of Westminster Abbey. But at the age of twenty he had determined to give up music, and had exhibited his first painting at the Royal Academy. He gradually rose to distinction, and was elected an associate in 1807 and an academical in 1810. In 1827 he received the honour of knighthood; and, seven years later, was appointed surveyor of the royal pictures. His two prin-

cipal subject pictures—Raphael and the Fornarina, and Milton dictating to his Daughters, are much inferior to his landscapes, which are placed in the highest class by their refined taste and quiet beauty. Callcott always chose to paint nature in her lovely and placid aspect; and has therefore been called the English Claude.

CALLCOTT, JOHN WALL (1766–1821), brother of the preceding, was born at Kensington in 1766, and was the son of a builder. At the age of seven he was sent to a neighbouring day school, where he continued for five years, studying chiefly Latin and Greek. During this time he frequently went to Kensington church, in the repairs of which his father was employed, and the impression he received on hearing the organ of that church seems to have roused his love for music. The organist at that time was Henry Whitney, from whom Callcott received his first musical instruction. He did not, however, choose music as a profession, being desirous to become a surgeon, only when on witnessing a surgical operation he found his nervous system seriously affected by the sight, he determined to devote himself to music. His intimacy with Dr Arnold and other leading musicians of the day procured him access to artistic circles; and his successful competition for the prize offered by a musical society called the "Catch Club" soon spread his reputation as composer of glees, catches, canons, and other pieces of concerted vocal music. On these his reputation as a creative musician is mainly founded. In them he displays considerable skill and talent, and some of his glees retain their popularity at the present day. They are well adapted to the voice, and their melodies are pleasing and not without feeling. As an instrumental composer Callcott never succeeded, not even after he had taken lessons from Haydn. But of far greater importance than his compositions are his theoretical writings, and it is chiefly for the sake of the latter that he is noteworthy beyond other English composers of equal merit. His *Musical Grammar*, published in 1806 (3d edition, 1817), was long considered as the standard work of musical instruction in this country, and has not been superseded up to the present day by any other book produced by an English musician. It is a scholarly and lucid treatment of the rudiments of the art, but at present, of course, antiquated to a great extent, and, indeed, all but useless to the student of modern music. Callcott was a much esteemed teacher of music for many years. He also held the position of organist at various churches. In 1800 he took his degree of Mus. D. at Oxford, and in 1805 he succeeded Dr Crotch as musical lecturer at the Royal Institution. Towards the end of his life his artistic career was frequently interrupted by ill-health. He died, after much suffering, in 1821. A posthumous collection of his most favourite vocal pieces was published with a memoir of his life by his son-in-law, Mr W. Horsley, himself a composer of note. Numerous other works remain in manuscript.

CALLCOTT, MRS MARIA GRAHAM (1786–1844), daughter of Admiral Dundas, became the wife of Sir Augustus Callcott in 1827. With her first husband, Capt. Graham, R.N., she travelled in India South Africa, and South America, where she acted for some time as teacher of Donna Maria, who became queen of Portugal in 1826; and in the company of her second husband she spent much time in the south of Europe. She published accounts of her visits to India (1812), and to the environs of Rome (1820); *Memoirs of Poussin* (1820); a *History of France*; a *History of Spain* (1828); *Essays toward a History of Painting* (1836); *Little Arthur's History of England* (1836); and the *Scripture Herbal* (1842).

CALLIMACHUS, a celebrated Greek poet, was a native of Cyrene, and a descendant of the illustrious house of

the Battiadae, whence by Ovid and others he is called Battiades. He flourished under Ptolemies Philadelphus and Euergetes, and probably succeeded Zenodotus as chief librarian of the famous Alexandrian library, an office he held from about 260 B.C. till his death, which took place about 240 B.C. He was regarded, according to Quintilian, as the prince of Greek elegiac poets. His style is elegant and nervous, yet his excellences are rather the result of excessive elaboration than of genuine poetic power: hence Ovid (*Am.*, i. 15) says of him—*Quamvis ingenio non valet, arte valet*. Perhaps the *Hymn to Apollo* should be excepted from this criticism. Callimachus was a learned critic and grammarian, and the instructor of Eratosthenes, Aristophanes of Byzantium, and Apollonius Rhodius. He wrote in prose and in verse on a great variety of subjects; but his only existing works are six hymns, seventy-three epigrams, and some fragments of elegies. Of the various imitations of Callimachus by the Roman poets, the small poem by Catullus, *De coma Berenices*, is the most celebrated.

Among the numerous editions of his works the following may be noticed:—By Grævius with Spanheim's Commentary, Utrecht, 1697; by Ernesti, Leyden, 1761; by Bloomfield, Lond., 1815; by Volzer, Lips. 1817; *Fragmenta*, by Næke, 1844; *Hymni et Epigrammata*, by Meineke, 1861; *Callimachea*, by Schneider,—i. (*Hymni*), 1870, ii., 1847.

CALLIMACHUS, an architect and statuary, the inventor of the Corinthian column, was probably a native of Corinth. He is said to have derived the idea of the Corinthian capital from observing an acanthus plant surrounding a tile-covered basket which had been placed over a tomb. His era is uncertain; but as the Corinthian column was used in 396 B.C., by Scopas, the architect of the temple of Athena Alea at Tegea, he must have lived before that time. Though Callimachus worked admirably in marble he is said to have spoiled his original conceptions by excessive elaboration, which rendered his style artificial. (*Plin.*, *N. H.*, xxxiv. 8, s. 19.)

CALLIOPE, the muse of epic poetry. She was so named from the sweetness of her voice, and was the last of the nine sisters. Her distinguishing office was to record heroic actions; and she is represented with a tablet and style, or a roll of paper in her hand. See *Muses*.

CALLIRHOE, in Greek legend, was a daughter of the river god Achelous, and became the wife of Alcmaeon, who had wandered from Argos to be purified in the water of the Achelous from the crime of having killed his mother Eriphyle. He had taken with him from Argos the ill-omened necklace and *peplos* of Harmonia, with which his mother had been misled by Polynices, but he had left them in Arcadia. Callirhoe pressed so hard to obtain them that he was compelled to go for that purpose to Phegeus, the king of Psophis in Arcadia, with whom he had left them. While returning he was waylaid by Phegeus and killed. Callirhoe now implored the gods to cause her two young sons to grow at once to manhood to avenge their father's death. This was granted, and her sons slew Phegeus with his two sons, and returning with the necklace and *peplos*, dedicated them at Delphi.

CALLISTHENES, a philosopher of Olynthus, and a relation and pupil of Aristotle, through whose recommendation he was appointed to attend Alexander in his Asiatic expedition, 334 B.C. He had the imprudence to censure the conqueror's adoption of Oriental customs, inveighing especially against the servile ceremony of adoration. Having by the boldness of his censures rendered himself highly obnoxious to the king, he was accused of being privy to a treasonable conspiracy; and after being kept in chains for seven months he died, either by torture, or of a disease arising from excessive obesity. Callisthenes wrote an

account of Alexander's expedition, a history of Greece, and other works, all of which have perished.

CALLISTO, in Greek Mythology, an Arcadian nymph, who was transformed into a bear as a penalty for having born to Zeus a son, Arcas, from whom the Arcadians, or bear-people, derived their name (Ovid, *Metam.*, ii. 468, *fol.*) Arcas, when hunting, encountered the bear Callisto, and would have shot her, had not Zeus with swift wind carried up both to the skies, where he placed them as a constellation. Artemis, as goddess of hunting, was styled Callisto in Arcadia, and had the symbol of a bear.

CALLISTRATUS, an Athenian orator, whose eloquence made such an impression on Demosthenes that he resolved to devote himself to oratory. On account of the surrender of Oropus to the Thebans Callistratus, despite his magnificent defence, was condemned to death, 361 B.C. He fled to Methone in Macedonia, where it is said he founded the city of Datum, afterwards Philippi. Having returned to Athens, he was put to death.

CALLISTRATUS, an Athenian poet, whose works have nearly all perished. He is now only known as the author of the hymn in honour of Harmodius and Aristogiton, who fell in their attempt to put down the dynasty of the Pisistratidæ at Athens. This ode, which is contained in Athenæus, has been beautifully translated by Thomas Moore.

CALLOT, JACQUES (1593–1635), a French engraver, was born in 1593 at Nancy in Lorraine, where his father was a herald at arms. He early discovered a very strong predilection for art, and at the age of twelve quitted home without his father's consent, and set out for Rome, where he intended to prosecute his studies. Being utterly destitute of funds he joined a troop of Bohemians, and arrived in their company at Florence. In this city he had the good fortune to attract the notice of a gentleman of the court, who supplied him with the means of study; but he removed in a short time to Rome, where, however, he was recognized by some relatives, who immediately compelled him to return home. Two years after this, and when only fourteen years old, he again left France contrary to the wishes of his friends, and reached Turin before he was overtaken by his elder brother, who had been despatched in quest of him. As his enthusiasm for art remained undiminished after these disappointments, he was at last allowed to accompany the duke of Lorraine's envoy to the Papal court. His first care was to study the art of design, of which in a short time he became a perfect master. Philip Thomasin instructed him in the use of the graver, which, however, he ultimately abandoned, substituting the point as better adapted for his purposes. From Rome he went to Florence, where he remained till the death of Cosmo II., the Mæcenas of these times. On returning to his native country he was warmly received by the then duke of Lorraine, who admired and encouraged him. As his fame was now spread abroad in various countries of Europe, many distinguished persons gave him commissions to execute. By the Infanta Isabella, sovereign of the Low Countries, he was commissioned to engrave a design of the siege of Breda; and at the request of Louis XIII. he designed the siege of Rochelle, and the attack on the Isle of Ré. When, however, in 1631, he was desired by that monarch to execute an engraving of the siege of Nancy, which he had just taken, Callot refused, saying, "I would rather cut off my thumb than do anything against the honour of my prince and of my country;" to which Louis replied—that the duke of Lorraine was happy in possessing such subjects as Callot. Shortly after this he returned to his native place, from which the king failed to allure him with the offer of a handsome pension. He died in 1635 at the age of forty-two. He engraved in all about 1600 pieces,



the best of which are those executed in aquafortis. No one ever possessed in a higher degree the talent for grouping a large number of figures in a small space, and of representing with two or three bold strokes the expression, action, and peculiar features of each individual. Freedom, variety, and *naïveté* characterize all his pieces. His Fairs, his Miseries of War, his Sieges, his Temptation of St Anthony, and his Conversion of St Paul will be sought after and admired as long as there are artists to learn and a public to appreciate.

CALMAR, or KALMAR, the capital of a province of the same name in Sweden, on Calmar Sound opposite the island of Öland, about 190 miles from Stockholm, in 56° 40' N. lat., 16° 20' E. long. It is built on the island of Quarnholm, and communicates with the suburbs on the mainland by a bridge of boats. Most of the houses are built of wood; but the cathedral, erected in the 17th century by Nicodemus Tessin the younger, the castle, the town-house, and other public edifices are of stone, of which there are good quarries in the island of Öland. It has a gymnasium, and several smaller educational establishments. The harbour is safe and commodious, but a large part of the trade has been transferred to Stockholm. Besides its manufactures of woollen stuffs, leather, tobacco, and potash, the town carries on shipbuilding and an export trade in flax, timber, iron, alum, pitch, &c. Calmar was once a flourishing and strongly-fortified town; and, previous to the conflagration of 1647, was built on the mainland. It is frequently mentioned both in the military and political annals of Sweden, and especially gives name to the treaty by which Sweden, Denmark, and Norway were, in 1397, erected into one kingdom under Queen Margaret. Population in 1868, 9420.

CALMET, DOM AUGUSTINE (1672–1757), a scholar and Biblical critic, born at Mesnil-la-Horgue in Lorraine, in 1672. In his fifteenth year he went to the university of Pont-a-Mousson, which he attended for a single session. In 1688 he joined the Benedictines at the abbey of St Mansin, into whose order he was publicly received in the following year. His theological and philosophical studies he completed at the abbey of Munster, to which he was sent in 1704 with the rank of sub-prior. He here organized an academy of eight or ten monks, the sole business of whose life was to assist him in preparing his *Commentary on the Bible*. The publication of this voluminous work, begun in 1707, was not completed till 1716. Two years after this latter date he was rewarded for his services with a presentation to the abbey of St Leopold at Nancy, and ten years after to that of Sénonès, where he died in 1757. His attachment to his country and congregation was such, that he refused a bishopric *in partibus* offered to him by Pope Benedict XIII. Besides his *Commentary*, he wrote many other works, of which the most important are his *Histoire de l'Ancien et du Nouveau Testament*, an introduction to the *Ecclesiastical History of Fleury*; *Dictionnaire historique, critique, et chronologique de la Bible*, an extremely learned, but by no means judicious work; and *Histoire universelle sacrée et profane*, 15 vols. 4to. The *Dictionary of the Bible* has been translated into English, and is a well-known work.

CALMUCKS, KALMUCKS, or KALMUKS, a people of Mongolian race who inhabit various parts of the Russian and Chinese empires, as well as other portions of Central Asia. They are of the middle height, fairly proportioned, and of considerable strength; their cheek-bones are prominent, the chin short, the nose turned up, the beard thin, and the hair scrubby. For the most part still in the nomadic stage, they inhabit conical felt tents, which they set up in regular lines like the streets of a town. Their wealth consists entirely in small but high-spirited

horses, excellent cattle, and broad-tailed, rough-fleeced sheep. They are so much addicted to gaming that they not unfrequently stake everything they possess. In religion they are adherents of Lamaism, and their conduct is greatly under the control of their priests. Their language is closely connected with Mongolian proper, and is written with a similar alphabet; its grammar and vocabulary have been made known to Europeans more especially by A. H. Zwick about 1853. Of their literature the great proportion is religious, and is derived from Indian originals. The *Siddhi Kūr*, a collection of stories, which is one of their most famous productions, was published with a German translation, a glossary, and notes, by B. Jülg, at Leipsic in 1866. As early as the 16th century the Calmucks possessed an extensive district of Central Asia between the Altai mountains and the Thian Shan, and between the desert of Gobi and the Balkash or Tengis Lake; and they were also settled in what is now the southern part of the Yeniseisk government, where indeed they were first met by Russian emigrants. At that time they bore the name of Derben Oirat, or Four Confederates, being divided into the four tribes of Jungars, Turguts, Khoshots, and Durbots. In the 17th century the Calmucks grew extremely strong, and after violent feuds united themselves, under the leadership of Batur and his son Galdan, into the powerful Jungarian kingdom. The strife which preceded the unification occasioned important movements of some Calmuck bands towards the E. and S.E. of Russia. Under Kourliuk, the great mass of the Turguts appeared for the first time within the Russian territory on the eastern side of the Volga in 1630. They conquered the nomadic Nogais of the district, but on this first occasion turned back to the Kirghiz steppes. In 1636 as many as 50,000 *kibitkas*, or more than 200,000 men and women crossed the Emba, and took possession of the Trans-Volga steppes of the present Astrakhan government; and plundering incursions began to be made on the Russian settlements, in Saratoff, Penza, and Tamboff, while Tobolsk, in Siberia, had to defend itself with arms in 1646. After the fall of Kourliuk, in an attack on Astrakhan itself, the Calmucks became less aggressive, and in 1655 passed of their own accord under Russian authority. Down to the middle of the 18th century bands, however, continued to arrive, and the depredations on Russian ground did not cease during all the long reign of the Khan Ayuka (1670–1724). This chief more than once broke his oath to the Russian Government; but he also on several occasions supplied very important contingents to the imperial army. His power is shown by the fact that his court was visited in 1713 by an ambassador from China. In the reign of the Empress Catharine the Russian Government created great discontent among the Calmucks by their general treatment, and still more by refusing to confirm Ubashi, the grandson of Ayuka, in his dignities. A Calmuck chieftain from Jungaria skillfully took advantage of this condition of affairs to persuade Ubashi and his subjects to return to Jungaria, and attempt its conquest. The result was the wonderful and disastrous flight of the Calmucks from Russia in 1771, so graphically described by De Quincey. The number of the fugitives amounted, according to some authorities, to 120,000. Harassed on all sides by savage troops of Cossacks and Kirghises, the wretched Calmucks pursued their way across the barren steppes, and their main body was routed in a terrible battle on the shores of the Balkash. The remnants were settled on the banks of the Ili by the Chinese emperor Kien Long, and there their descendants are still to be found. There still remained in Russia the Durbots, who were living in the Don territory, and those of the Astrakhan Calmucks who at the time of the flight happened to be on the right bank of the Volga.

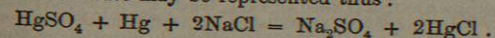
The total number now in the Russian empire may be estimated at 120,000. In the Chinese territory, where they are known as Eliots, or Oliuts, their numbers are considerable, but are not precisely known.

See Pallas, *Mongolische Völkerschaften*, 1776–1802; Bergmann, *Nomadische Streifereien unter den Kalmücken*; Helmersen, *Der Teleukische See und die Teleuten in östl. Altai*, 1838; Quatremère, "Observ. géogr. et hist. sur les Calmouks," in *Journ. des Savants*, 1839; Houmaire de Hell, *Les steppes de la mer Caspienne*, 1843; Tchihatcheff, *Voyage d'Altai*, 1846; Semenoff, *Slovar Ross. Imp.*

CALNE, a town of England, in the county of Wiltshire, connected with the Great Western railway system by a branch line opened in 1863, and situated about 16 miles directly east of Bath. It stands in a valley intersected by the little brook of Calne, and is surrounded by the high table-land of Marlborough Downs and Salisbury Plain. The town is clean and well paved, and contains an ancient church (St Mark's) with a tower by Inigo Jones, and a town-house considerably enlarged by the marquis of Lansdowne, whose seat of Bowood is about two miles distant. The educational establishments include Bentley's grammar school founded in 1660, national and infant schools, and an institution for training female servants, which was endowed by Mrs Guthrie, to whom the town is also indebted for a children's hospital. The principal trade of Calne is the curing of bacon; and there are also flax-mills, paper-mills, and flour-mills in operation. The manufacture of broad cloth, at one time of great importance, is almost extinct. Calne formerly returned two members to parliament, but the number is now reduced to one. Population of the municipal borough in 1871, 2468, and of the parliamentary, 5315. From the remains found in the vicinity, Calne seems to have been an important Roman station. It was the occasional residence of the West Saxon kings; and is celebrated in legendary ecclesiastical history for the escape of Dunstan at the synod held there in 997.

CALOMEL, mercurous chloride, or subchloride of mercury (HgCl), is a compound of mercury of great value in medicine. It occurs native as horn quicksilver in the mercury mines of Idria, at Obermoschel, in Bavaria, Horowitz in Bohemia, and Almaden in Spain, in the form of translucent tetragonal crystals, with an adamantine lustre, and a dirty white grey or brownish colour.

A great number of processes are available for the preparation of calomel for pharmaceutical purposes. The directions of the *British Pharmacopœia* are as follows:— Sulphate of mercury 10 oz., mercury 7 oz., common salt 5 oz., and boiling distilled water. The sulphate of mercury is to be moistened with part of the water, and it and the mercury rubbed up together until all metallic globules disappear. The salt is then added, and the whole thoroughly triturated, after which it is sublimed in a vessel of such capacity that the calomel, instead of forming a crystalline crust on the sides as it would do in a vessel of small dimensions, shall fall in the form of a fine impalpable powder on the floor of the receiver. The sublimate is to be washed until the washings cease to be darkened on the addition of a drop of sulphide of ammonium. The reaction in the above case may be represented thus:



After thorough washing the calomel has to be dried at a temperature not exceeding 212° Fahr., and preserved in a jar away from the light, exposure to which darkens it by partial decomposition into corrosive sublimate HgCl<sub>2</sub> and metallic mercury. Calomel when so prepared is a dull, heavy, white, nearly tasteless powder, which is rendered yellowish by trituration in a mortar or when heated. It is entirely insoluble in water, alcohol, or ether, and volatilizes, below a red heat, without fusion. When sublimed in a confined chamber it forms a crust or cake,

the inner surface of which is covered with crystals in fine quadrangular prisms, having a transparent dirty-white appearance.

Calomel is one of the mildest and most frequently employed of all mercurial preparations, producing its effects with little local irritation. It exercises a powerful influence on the secreting organs, stimulating the liver and intestinal glands to increased activity, on which account it is much relied on in cases of functional derangement of the liver. It is usually combined with other remedial agents, each exercising an influence in modifying the effect or increasing the activity of the other. Thus as a purgative it is combined with jalap, scammony, colocynth, and other similar substances. The much used Plummer's pill, which is essentially the same as the compound calomel pill of the *British Pharmacopœia*, contains in addition to calomel an equal weight of oxysulphide of antimony, with gusiacum and castor oil. It is employed both in Europe and America as an alterative in chronic skin diseases, in liver affections, and in disorders of the digestive system. On account of its tastelessness calomel is a convenient aperient for children, who however appear to be less susceptible to its effects than adults. It has been used in very large doses in the treatment of cholera; and it is a convenient medium for producing salivation. Suspended in gum or glycerine water it has been used for hypodermic injection; and in the form of an ointment it is one of the most useful of external applications in the case of obstinate skin diseases.

CALONNE, CHARLES ALEXANDRE DE (1734–1802), a French statesman, was born at Douai in 1734. He was descended from a good family and entered the profession of the law, in which he rapidly attained success. He became in succession advocate to the general council of Artois, *procureur* to the parliament of Douai, and finally master of requests, a dignity which gave him the right of sitting in the general council. He seems to have been a man of great business capacity, gay and careless in temperament, and thoroughly unscrupulous in political action. In the terrible crisis of affairs preceding the French Revolution, when minister after minister tried in vain to replenish the exhausted royal treasury and was dismissed for want of success, Calonne was summoned to take the general control of affairs. He assumed office in 1783, and at first everything seemed to prosper. Money flowed in readily, and the gaiety of the minister gave courage to the court. But his prosperity was hollow and rested on no secure foundation. Calonne had levied taxes until it was impossible to extract more from the impoverished people. He had borrowed till his credit was entirely gone, and he at last found himself compelled to disclose to the king the true state of affairs, and to lay before him what in his opinion was the only measure that could restore France. The first step in this proposed plan was the convocation of the notables, and the writs summoning them were issued in December 1786. On the 22d February of the following year Calonne disclosed to the notables his anxiously expected scheme for reconstituting the finances. The main provisions of this plan were the redistribution of the taxes, so that the whole might not fall on the unprivileged classes, the imposition of a land tax on the revenues of the nobles, and of a similar tax on the incomes of the clergy, and the abolition of *corvées* and the *gabelle*. All Calonne's eloquence could not succeed in rendering this scheme palatable either to the notables or to the people. The nobles and clergy strenuously resisted any attempt to infringe upon their privileges, and the people were beginning to feel that in a convocation assembled to settle the affairs of France the nation itself had no part. Calonne had opened the floodgates, and was powerless to resist the torrent. His fall, however, was primarily due to the