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THE ENCYCLOPÆDIA BRITANNICA

A DICTIONARY OF ARTS, SCIENCES, LITERATURE AND GENERAL INFORMATION

ELEVENTH EDITION

VOLUME III SLICE IV

Basso-relievo to Bedfordshire

Articles in This Slice

BASSO-RELIEVO (Ital. for “low relief”), the term applied to sculpture in which the design projects but slightly from the plane of the background. The relief may not project at all from the original surface of the material, as in the sunken reliefs of the Egyptians, and may be nearly flat, as in the Panathenaic procession of the Parthenon. In the early 19th century the term *basso-relievo*, or “low relief,” came to be employed loosely for all forms of relief, the term *mezzo-relievo* having already dropped out of general use owing to the difficulty of accurate application. 497

BASS ROCK, THE, a small island in the Firth of Forth, about 2 m. from Canty Bay, Haddingtonshire, Scotland. It is circular in shape, measuring a mile in circumference, and is 350 ft. high. On three sides the cliffs are precipitous, but they shelve towards the S.W., where landing is effected. The Bass Rock is an intrusive mass of phonolitic trachyte or orthophyre. No nepheline has been detected in the rock, but analcite is present in small quantity together with abundant orthoclase and green soda-augite. It bears a close resemblance to the eruptive masses of North Berwick Law and Traprain Law, but is non-porphyritic. It is regarded by Sir A. Geikie as a plug filling an old volcanic vent, from which lava emanated during the Calciferous Sandstone period. It used to be grazed by sheep, of which the mutton was thought to be unusually good, but its principal denizens are sea-birds, chiefly solan geese, which haunt the rock in vast numbers. A lighthouse with a six-flash 498

lantern of 39,000 candle power was opened in 1002. For a considerable distance E. and W. there runs through the rock a tunnel, about 15 ft. high, accessible at low water. St Baldred, whose name has been given to several of the cliffs on the shore of the mainland, occupied a hermitage on the Bass, where he died in 756. In the 14th century the island became the property of the Lauders, called afterwards Lauders of the Bass, from whom it was purchased in 1671 by government, and a castle with dungeons was erected on it, in which many Covenanters were imprisoned. Among them were Alexander Peden (1626-1686), for four years, and John Blackadder (1615-1686), who died there after five years' detention. At the Revolution four young Jacobites captured the Rock, and having been reinforced by a few others, held it for King James from June 1691 to April 1694, only surrendering when threatened by starvation. Thus the island was the last place in Great Britain to submit to William III. Dismantled of its fortifications in 1701, the Bass passed into the ownership of Sir Hew Dalrymple, to whose family it belongs. It is let on annual rental for the feathers, eggs, oil and young of the sea-birds and for the fees of visitors, who reach it usually from Canty Bay and North Berwick.

BASSUS, AUFIDIUS, a Roman historian, who lived in the reign of Tiberius. His work, which probably began with the civil wars or the death of Caesar, was continued by the elder Pliny, who, as he himself tells us, carried it down at least as far as the end of Nero's reign. The *Bellum Germanicum* of Bassus, which is commended, may have been either a separate work or a section of his general history. The elder Seneca speaks highly of him as an historian, but the fragments preserved in that writer's *Suasoriae* (vi. 23) relating to the death of Cicero, are characterized by an affected style.

Pliny, *Nat. Hist.*, praefatio, 20; Tacitus, *Dialogus de Oratoribus*, 23; Quintilian, *Instit*, x. 1. 103.

BASSUS, CAESIUS, a Roman lyric poet, who lived in the reign of Nero. He was the intimate friend of Persius, who dedicated his sixth satire to him, and whose works he edited (Schol. on Persius, vi. 1). He is said to have lost his life in the eruption of Vesuvius (79). He had a great reputation as a poet; Quintilian (*Instit*, x. 1. 96) goes so far as to say that, with the exception of Horace, he was the only lyric poet worth reading. He is also identified with the author of a treatise *De Metris*, of which considerable fragments, probably of an abbreviated edition, are extant (ed. Keil, 1885). The work was probably originally in verse, and afterwards recast or epitomized in prose form to be used as an instruction book. A worthless and scanty account of some of the metres of Horace (in Keil, *Grammatici Latini*, vi. 305), bearing the title *Ars Caesii Bassi de Metris* is not by him, but chiefly borrowed by its unknown author from the treatise mentioned above.

BASSUS, CASSIANUS, called Scholasticus (lawyer), one of the *geoponici* or writers on agricultural subjects. He lived at the end of the 6th or the beginning of the 7th century A.D. He compiled from earlier writers a collection of agricultural literature (*Geoponica*) which was afterwards revised by an unknown editor and published about the year 950, in the reign of Constantine Porphyrogenitus, to whom the work itself has been ascribed. It contains a full list of the authorities drawn upon, and the subjects treated include agriculture, birds, bees, horses, cattle, sheep, dogs, fishes and the like.

Complete Editions.—Needham (1704), Niclas (1781), Beckh (1895); see also Gemoll in *Berliner Studien*, i. (1884); Oder in *Rheinisches Museum*, xlv. (1890), xlviii. (1893), and De Raynal in *Annuaire de l'Assoc. pour l'Encouragement des Études Grecques*, viii. (1874).

BASSUS, SALEIUS, Roman epic poet, a contemporary of Valerius Flaccus, in the reign of Vespasian. Quintilian credits him with a vigorous and poetical genius (*Instit*, x. 1. 90) and Julius Secundus, one of the speakers in Tacitus *Dialogus de Oratoribus* (5; see also 9) styles him a perfect poet and most illustrious bard. He was apparently overtaken by poverty, but was generously treated by Vespasian, who made him a present of 500,000 sesterces. Nothing from his works has been preserved; the *Laus Pisonis*, which has been attributed to him, is probably by Titus Calpurnius Siculus (J. Held, *De Saleio Basso*. 1834).

BASSVILLE, or BASSEVILLE, **NICOLAS JEAN HUGON DE** (d. 1793), French journalist and diplomatist, was born at Abbeville on the 7th of February 1753. He was trained for the priesthood, taught theology in a provincial seminary and then went to Paris. Here in 1784 he published *Éléments de mythologie* and some poems, which brought him into notice. On the recommendation of the prince of Condé he became tutor to two young Americans travelling in Europe. With them he visited Berlin, made the acquaintance there of Mirabeau, and became a member of the Berlin Academy Royal. At the outbreak of the Revolution he turned to journalism, becoming editor of the *Mercure international*. Then, through the Girondist minister Lebrun-Tondu, he entered the diplomatic service, went in May, 1792, as secretary of legation to Naples and was shortly afterwards sent, without official status, to Rome. Here his conduct was anything but diplomatic. He at once announced himself as the protector of the extreme Jacobins in Rome, demanded the expulsion of the French *émigrés* who had taken refuge there, including the “demoiselles Capet,” and ordered the *fleur-de-lys* on the escutcheon of the French embassy to be replaced by a picture of Liberty painted by a French art student. He talked at large of the “purple geese of the Capitol” and met the remonstrances of Cardinal Zelada, the papal secretary of state, with insults. This enraged the Roman populace; a riot broke out on the 13th of January 1793, and Bassville, who was driving with his family to the Corso, was dragged from his carriage and so roughly handled that he died. The affair was magnified in the Convention into a deliberate murder of the “representative of the Republic” by the pope’s orders. In 1797 by an article of the treaty of Tolentino the papal government agreed to pay compensation to Bassville’s family. Among his writings we may also mention *Mémoires historiques, critiques el politiques sur la Révolution de France* (Paris 1790; English trans. London, 1790).

See F. Masson, *Les Diplomates de la Révolution* (Paris, 1882); Silvagni, *La Carte e la Società romana nei secoli XVIII. e XIX*. (Florence, 1881).

BASTAR, a feudatory state of British India, in the Chattisgarh division of the Central Provinces; area, 13,062 sq. m. In 1901 the population was 306,501, showing a decrease of 1% compared with an apparent increase of 58% in the preceding decade. Estimated revenue £22,000; tribute £1100. The eastern part of Bastar is a flat elevated plateau, from 1800 to 2000 ft. above the level of the sea, the centre and N.W. portions are very mountainous, and the southern parts consist of hills and plains. On the plateau there are but few hills; the streams run slowly and the country is a mixture of plain and undulating ground covered by dense *sál* forests. Principal mountains of the district: (1) a lofty range which separates it from the Sironcha district; (2) a range of equal height called the Bela Dila lying in the centre of the district; (3) a range running N. and S. near Narayanpur; (4) Tangri Dongri range, running E. and W.; (5) Tulsi Dongri, bordering on the Sabari river and the Jaipur state. There is also a small range running from the river Indravati to the Godavari. The Indravati, the Sabari and the Tal or Talper, are the chief rivers of the district; all of them affluents of the Godavari. The soil throughout the greater portion of Bastar consists of light clay, with an admixture of sand, suited for raising rice and wet crops. In the jungles the Marias, who are

among the aboriginal tribes of Gond origin, raise kosra (*Panicum italicum*) and other inferior grains. Aboriginal races generally follow the migratory system of tillage, clearing the jungle on selected patches, and after taking crops for two or three years abandoning them for new ground. They do not use the plough; nor do they possess buffaloes, bullocks or cows; their only agricultural implement is a long-handled iron hoe. They are a timid, quiet, docile race, and although addicted to drinking not quarrelsome. They inhabit the densest jungles and are very shy, avoiding contact with strangers, and flying to the hills on the least alarm; but they bear a good character for honesty and truthfulness. They are very scantily dressed, wear a variety of trinkets, with a knife, hatchet, spear, bow and arrows, the only weapons they use. Their hair is generally shaved, excepting a topknot; and when not shaved it gets into a matted, tangled mass, gathered into a knot behind or on the crown. The Marias and the Jhurias are supposed to be a subdivision of the true Gond family. All the aboriginal tribes of Bastar worship the deities of the Hindu pantheon along with their own national goddess Danteswari.

Bastar is divided into two portions—that held by the Raja or chief himself, and that possessed by feudatory chiefs under him. The climate is unhealthy—fever, smallpox, dysentery and rheumatism being the prevailing diseases. Jagdalpur, Bijapur, Madder and Bhupalpatnam are the only places of any note in the dependency, the first (on the Indravati river) being the residence of the raja and the chief people of the state. The principal products are rice, oil-seeds, lac, tussur silk, horns, hides, wax and a little iron. Teak timber is floated down the rivers to the Madras coast. A good road has brought Jagdalpur into connexion with the railway at Raipur.

BASTARD (O. Fr. *bastard*, mod. *bâtard = fils de bast*, “pack-saddle child,” from *bast*, saddle), a person born out of legal wedlock. Amongst the Romans, bastards were classified as *nothi*, children born in concubinage, and *spurii*, those not so born. Both classes had a right of succession to their mother, and the *nothi*, were entitled to support from their father, but had no rights of inheritance from him. Both, however, had in other respects most of the rights of citizenship. The Germanic law was based upon an entirely different principle. It recognized as legitimate only those whose parents were of the same social rank. All others were regarded as bastards, and took the status of the parent of inferior rank. The aim of all the Germanic codes was to preserve purity of race, not to improve morals, for incestuous unions are not censured. The influence of the Germanic law lasted throughout the early feudal period, and bastards were debarred rights of inheritance. In the 13th century the influence of Roman law tended again to modify this severity. An exception was probably made in the case of those whose fathers were of royal blood, in which case it even seems that no stigma was attached to the accident of their birth, nor did they suffer from the usual disabilities as to inheritance which attended those of illegitimate birth (Gregory of Tours, v. 25). Among the Franks we find Theodoric I., a natural son of Clovis, sharing the kingdom with the legitimate sons; Zwentibold, natural son of Arnulf, was created king of Lorraine by his father in 895; and even William the Conqueror actually assumed the appellation of bastard.

In English law a bastard still retains certain disabilities. His rights are only such as he can acquire; for civilly he can inherit nothing, being looked upon as the son of nobody, and sometimes called *filius nullius*, sometimes *filius populi*. This, however, does not hold as to moral purposes, *e.g.* he cannot marry his mother or bastard sister. Yet he may gain a surname by reputation though he has none by inheritance, and may even be made legitimate and capable of inheriting by the transcendent power of an act of parliament.

For poor-law purposes, all legitimate children take the settlement of their father, but a bastard takes the settlement of its mother. The mother of an illegitimate child is entitled to its custody in preference to the father, and consequently the responsibility of its support falls primarily on her. But the English law has always recognized the principle that to a certain extent the father must share in that responsibility. This, however, was imposed not with the idea of furnishing the woman with a civil remedy, nor to have a penal effect against the man, but solely to prevent the cost of maintenance of the bastard child from falling upon the parish. Indeed, the legislation upon the subject, which dates back to 1576, was until 1845 an intimate part of the poor law. The act of 1576, the basis of English bastardy law, empowered justices to take order for the punishment of the mother and reputed father of

every bastard child left to the care of the parish, and to charge the mother and reputed father with the payment of a weekly sum or other needful sustenance. Other acts were passed in 1609 and 1733, enabling the mother of any child chargeable or likely to become chargeable to the parish to secure the apprehension, and even the imprisonment, of the father until he should indemnify the parish, provisions which were made somewhat more stringent by acts passed in 1809 and 1810. In 1832 a commission was appointed to inquire into the operation of the poor laws, and the commissioners in their report gave great attention to the subject of bastardy. They reviewed the various acts from 1576 downwards and gave examples of their operation. The conclusion to which the commissioners came was that the laws "which respect bastardy appear to be pre-eminently unwise," and that they gave rise to many abuses. For example, the weekly payment recovered by the parish was usually transferred to the mother; even in many cases guaranteed. The commissioners recommended that the mother alone should be responsible for the maintenance of the child. "This," they said, "is now the position of a widow, and there can be no reason for giving to vice privileges which we deny to misfortune." Acting on the recommendation of the commissioners the Poor Law Amendment Act of 1834 endeavoured to discourage the principle of making the putative father contribute by introducing a somewhat cumbersome method of procedure. The trend of public opinion proved against the discouragement of affiliation, and an act of 1839 transferred jurisdiction in affiliation cases from quarter-sessions to petty-sessions. A commission of inquiry on the working of the bastardy acts in 1844 recommended "that affiliation should be facilitated," and, accordingly, by the Bastardy Act of 1845 effect was given to this recommendation by giving the mother an independent civil remedy against the putative father and dissociating the parish altogether from the proceedings. Subsequently, legislation gave the parish the right of attaching, and in some cases suing for, money due from the putative father for the maintenance of the child. The existing law is set out under Affiliation.

The incapacities attaching to a bastard consist principally in this, that he cannot be heir to any one; for being *nullius filius*, he is therefore of kin to nobody, and has no ancestor from whom an inheritable blood can be derived. Therefore, if there be no other claimant upon an inheritance than such illegitimate child, it escheats to the lord. And as bastards cannot be heirs themselves, so neither can they have any heirs but those of their own bodies; for as all collateral kindred consists in being derived from the same common ancestor, and as a bastard has no legal ancestor, he can have no collateral kindred, and consequently no legal heirs, except such as claim by a lineal descent from himself. And hence, if a bastard purchase land, and die seised therefor without issue and intestate, the land escheats to the lord of the fee. Originally a bastard was deemed incapable of holy orders, and disqualified by the fact of his birth from holding any dignity in the church; but this doctrine is now obsolete, and in all other respects there is no distinction between a bastard and another man. By the law of Scotland a bastard is not only excluded from his father's succession, because the law knows no father who is not marked out by marriage; and from all heritable succession, whether by the father or mother, because he cannot be pronounced lawful heir by the inquest in terms of the brief; but also from the movable succession of his mother, because he is not her lawful child, and legitimacy is implied in all succession deferred by the law. But a bastard, although he cannot succeed *jure sanguinis*, may succeed by destination, where he is specially called to the succession by entail or testament. In Scotland, as in England, a bastard can have no legal heirs except those of his own body; and hence, failing his lawful issue, the king succeeds to him as last heir. Formerly bastards in Scotland without issue of their own could not make a will, but this disability was removed by a statute of 1835. If bastards or other persons without kindred die intestate without wife or child, their effects go to the king as *ultimus haeres*; but a grant is usually made of them by letters patent, and the grantee becomes entitled to the administration.

According to the common law, which is the law of England, a bastard cannot be divested of his state of illegitimacy, unless by the supreme power of an act of parliament. But in those countries which have followed the Roman or civil law, a bastard's status may be provisional, and he can be made legitimate by the subsequent marriage of his parents. (See Legitimacy and Legitimation; and, for statistics, Illegitimacy.)

Authorities.—Bacquet, *Traité de la bâtardise* (1608); Du Cange, *Gloss. Lat.*, infra "Bastardus"; L.G. Koenigswater, *Histoire de l'organisation de la famille en France* (1851), and *Essai sur les enfants nés hors mariage* (1842); E.D. Glasson, *Histoire des droits et des institutions de l'Angleterre* (6 vols., 1882-1883), *Histoire du droit et des institutions de la France* (1887); Pollock and Maitland, *History of English Law* (1898); Stephen's *Commentaries*; Nicholls and Mackay, *History of the English Poor Law* (3 vols., 1898).

BASTARNAE, the easternmost people of the Germanic race, the first to come into contact with the ancient world and the Slavs. Originally settled in Galicia and the Bukovina, they appeared on the lower Danube about 200 B.C., and were used by Philip V. of Macedon against his Thracian neighbours. Defeated by these the Bastarnae returned north, leaving some of their number (hence called Peucini) settled on Peuce, an island in the Danube. Their main body occupied the country between the eastern Carpathians and the Danube. As allies of Perseus and of Mithradates the Great, and lastly on their own account, they had hostile relations with the Romans who in the time of Augustus defeated them, and made a peace, which was disturbed by a series of incursions. In these the Bastarnae after a time gave place to the Goths, with whom they seem to have amalgamated, and we last hear of them as transferred by the emperor Probus to the right bank of the Danube. Polybius and the authors who copy him regard the Bastarnae as Galatae; Strabo, having learned of the Romans to distinguish Celts and Germans, first allows a German element; Tacitus expressly declares their German origin but says that the race was degraded by intermarriage with Sarmatians. The descriptions of their bodily appearance, tribal divisions, manner of life and methods of warfare are such as are applied to either race. No doubt they were an outpost of the Germans, and so had absorbed into themselves strong Getic, Celtic and Sarmatian elements.

(E. H. M.)

BASTI, a town and district of British India, in the Gorakhpur division of the United Provinces. The town, a collection of villages, is on the river Kuana, 40 m. from Gorakhpur by railway. The population in 1901 was 14,761. It has no municipality. The district has an area of 2792 sq. m. It stretches out in one vast marshy plain, draining towards the south-east, and traversed by the Rapti, Kuana, Banganga, Masdih, Jamwar, Ami and Katneihia rivers. The tract lying between these streams consists of a rich alluvial deposit, more or less subject to inundations, but producing good crops of rice, wheat and barley. In 1901 the population was 1,846,153, showing an increase of 3% in the decade. A railway from Gorakhpur to Gonda runs through the district, and the river Gogra is navigable. A large transit trade is conducted with Nepal. The export trade of the district itself is chiefly in rice, sugar and other agricultural produce.

BASTIA, a town and seaport on the eastern coast of the island of Corsica, 98 m. N.N.E. of Ajaccio by rail. Pop. (1906) 24,509. Bastia, the chief commercial town in Corsica, consists of the densely-populated quarter of the old port with its labyrinth of steep and narrow streets, and of a more modern quarter to the north, which has grown up round the new port. La Traverse, a fine boulevard, intersects the town from north to south. Rising from the sea-shore like an amphitheatre, Bastia presents an imposing appearance, which is enhanced by the loftiness of its houses; it has, however, little of architectural interest to offer. Its churches, of which the largest is San Giovanni Battista, are florid in decoration, as are the law-court, the theatre and the hôtel-de-ville. The citadel, which dominates the old port, has a keep of the 14th century. As capital of an arrondissement, Bastia is the seat of a tribunal of first instance and a sub-prefect, while it is also the seat of the military governor of Corsica, of a court of appeal for the whole island, of a court of assizes, and of a tribunal and a chamber of commerce, and has a lycée, a branch of the Bank of France, and a library with between 30,000 and 40,000 volumes. The town has active commerce, especially with Italy. The new port has 1100 ft. of quayage, served by a railway, and with a depth alongside of 25 ft. The total number of vessels entered in 1907 was 721 with a tonnage of 337,551, of which 203,950 were French. The chief exports are chestnut extract for tanning, cedrates, citrons, oranges, early vegetables, fish, copper ore and antimony ore. Imports include coal, grain,

flour and wine. Industry consists chiefly in fishing (sardines, &c., and coral), the manufacture of tobacco, oil-distilling, tanning, and the preparation of preserved citrons and of macaroni and similar provisions.

Bastia dates from the building of the Genoese fortress or “bastille” by Lionello Lomellino in 1383. Under the Genoese it was long the principal stronghold in the north of the island, and the residence of the governor; and in 1553 it was the first town attacked by the French. On the division of the island in 1797 into the two departments of Golo and Liamone, Bastia remained the capital of the former; but when the two were again united Ajaccio obtained the superiority. The city was taken by the English in 1745 and again in 1794.

BASTIAN, ADOLF (1826-), German ethnologist, was born at Bremen on the 26th of June 1826. He was educated as a physician, but from his early years devoted himself to travel. Proceeding to Australia in 1851 as surgeon on a vessel, he had visited almost every part of the world before his return in 1859. In 1861 he made an expedition to the Far East which lasted five years. Upon his return he commenced the publication of his great work on *The Peoples of Eastern Asia*, an immense storehouse of facts owing little to arrangement or style. He settled in Berlin, where he was made professor of ethnology at the university and keeper of the ethnological museum. He succeeded R. Virchow as president of the Berlin Anthropological Society, and to him was largely due the formation in 1878 of the German Africa Society of Berlin, which did much to encourage German colonization in Africa. Later he undertook further scientific travels in Africa, South America and India. The results of these explorations were made public in a long series of separate publications comprising several on Buddhism, and on the psychological problems presented by native superstitions. Bastian also edited the *Zeitschrift für Ethnologie* from 1869, in conjunction with Virchow and Robert von Hartmann. On his seventieth birthday, 1896 (during which year he started on an expedition to Malaysia), he was presented with a volume of essays composed by the most distinguished ethnologists in celebration of the event and dedicated to him. Among his more important works may be mentioned:—*Der Mensch in der Geschichte* (Leipzig, 1860); *Die Völker des östlichen Asien* (Jena, 1866-1871); *Ethnologische Forschungen* (Leipzig, 1871-1873); *Die Kulturländer des alten Amerika* (Berlin, 1878); *Der Buddhismus in seiner Psychologie* (Berlin, 1881); *Indonesien* (Leipzig, 1884); *Der Fetisch an der Küste Guineas* (Berlin, 1885); *Die mikronesischen Kolonien* (1899-1900); *Die wechselnden Phasen im geschichtlichen Sehkreis und ihre Rückwirkung auf die Völkerkunde* (1900).

BASTIAT, FRÉDÉRIC (1801-1850), French economist, was the son of a merchant of Bayonne, and was born in that town on the 29th of June 1801. Educated at the colleges of Saint-Sever and of Sorèze, he entered in 1818 the counting-house of his uncle at Bayonne. The practical routine of mercantile life being distasteful to him, in 1825 he retired to a property at Mugron, of which he became the owner on the death of his grandfather. Here Bastiat occupied himself with farming, his leisure being devoted to study and meditation. He welcomed with enthusiasm the Revolution of 1830. In 1831 he became a *juge de paix* of his canton, and in 1832 a member of the *conseil général* of the Landes. In 1834 he published his first pamphlet, and between 1841 and 1844 three others, all on questions of taxation affecting local interests. During this period an accidental circumstance led him to become a subscriber to an English newspaper, the *Globe and Traveller*, through which he was made acquainted with the nature and progress of the crusade of the Anti-Corn-Law League against protection. After studying the movement for two years, he resolved to inaugurate a similar movement in France. To prepare the way, he contributed in 1844 to the *Journal des Économistes* an article “Sur l’influence des tarifs anglais et français,” which attracted great attention, and was followed by others, including the first series of his brilliant *Sophismes Économiques*.

In 1845 Bastiat came to Paris in order to superintend the publication of his *Cobden et la Ligue, ou l’agitation anglaise pour la liberté des échanges*, and was very cordially received

by the economists of the capital. From Paris he went to London and Manchester, and made the personal acquaintance of Cobden, Bright and other leaders of the league. When he returned to France he found that his writings had been exerting a powerful influence; and in 1846 he assisted in organizing at Bordeaux the first French Free-Trade Association (Association pour la Liberté des Échanges). The rapid spread of the movement soon required him to abandon Mugron for Paris.

During the eighteen months which followed this change his labours were prodigious. He acted as secretary of the central committee of the association, organized and corresponded with branch societies, waited on ministers, procured subscriptions, edited a weekly paper, the *Libre-Échange*, contributed to the *Journal des Économistes* and to three other periodicals, addressed meetings in Paris and the provinces, and delivered a course of lectures on the principles of political economy to students of the schools of law and of medicine. The cause to which he thus devoted himself at the expense of his health and life appeared for a time as if it would be successful; but the forces in its favour were much weaker and those opposed to it were much stronger in France than in England, and this became more apparent as the struggle proceeded, until it was brought to an abrupt end by the Revolution of February 1848. This event made the socialistic and communistic principles, which had been gathering and spreading during the previous thirty years, temporarily supreme. (See National Workshops.) In this grave crisis Bastiat nobly performed his duty. Although exhausted by the far too heavy labours in which he had been engaged, although robbed of his voice by the malady which was preying upon him, so that he could do but little to defend the truth from the tribune of the Constituent Assembly, he could still suggest wise counsels in the committee of finance of which he was vice-president, and he could still use his pen with a vigour and dexterity which made him capable of combating single-handed many opponents.

He wrote in rapid succession a series of brilliant and effective pamphlets and essays, showing how socialism was connected with protection, and exposing the delusions on which it rested. Thus within the space of two years there appeared *Propriété et Loi, Justice et Fraternité, Propriété et Spoliation, L'État, Baccalauréat et Socialisme, Protectionisme et Communisme, Capital et Rente, Maudit Argent, Spoliation et Loi, Gratuité du Credit*, and *Ce qu'on voit et ce qu'on ne voit pas*. While thus occupied he was meditating the composition of a great constructive work, meant to renovate economical science by basing it on the principle that "interests, left to themselves, tend to harmonious combinations, and to the progressive preponderance of the general good." The first volume of this work *Les Harmonies économiques* was published in the beginning of 1850. In the autumn of that year, when working on the second volume, the increase of his malady compelled him to go to Italy. After lingering at Pisa and Florence he reached Rome, but only to die there on the 24th of December 1850 in the fiftieth year of his age.

The life-work of Bastiat, in order to be fairly appreciated, requires to be considered in three aspects. (1) He was the advocate of free-trade, the opponent of protection. The general principles of free-trade had, of course, been clearly stated and solidly established before he was born, but he did more than merely restate them. He showed, as no one before him had done, how they were practically applicable to French agriculture, trade and commerce; and in the *Sophismes Économiques* we have the completest and most effective, the wisest and the wittiest exposure of protectionism in its principles, reasonings and consequences which exists in any language. (2) He was the opponent of socialism. In this respect also he had no equal among the economists of France. He alone fought socialism hand to hand, body to body, as it were, not caricaturing it, not denouncing it, not criticizing under its name some merely abstract theory, but taking it as actually presented by its most popular representatives, considering patiently their proposals and arguments, and proving conclusively that they proceeded on false principles, reasoned badly and sought to realize generous aims by foolish and harmful means. Nowhere will reason find a richer armoury of weapons available against socialism than in the pamphlets published by Bastiat between 1848 and 1850. (3) He attempted to expound in an original and independent manner political economy as a science. In combating, first, the Protectionists, and, afterwards, the Socialists, there gradually rose on his mind a conception which seemed to him to shed a flood of light over the whole of economical doctrine, and, indeed, over the whole theory of society, viz. the harmony of the essential tendencies of human nature. The radical error, he became always more convinced, both of protectionism and socialism, was the assumption that human interests, if left to themselves would inevitably prove antagonistic and anti-social, capital robbing labour, manufactures ruining agriculture, the foreigner injuring the native, the consumer the producer, &c.; and the chief weakness of the various schools of political economy, he believed, he had discovered in their imperfect apprehension of the

truth that human interests, when left to themselves, when not arbitrarily and forcibly interfered with, tend to harmonious combination, to the general good.

His *Œuvres complètes* are in 7 vols. The first contains an interesting *Memoir* by M. Paillottet.

BASTIDE, JULES (1800-1879), French publicist, was born at Paris on the 22nd of November 1800. He studied law for a time, and afterwards engaged in business as a timber merchant. In 1821 he became a member of the French Carbonari, and took a prominent part in the Revolution of 1830. After the "July Days" he received an artillery command in the national guard. For his share in the *émeute* in Paris (5th of June 1832) on the occasion of the funeral of General Maximilien Lamarque, Bastide was sentenced to death but escaped to London. On his return to Paris in 1834 he was acquitted, and occupied himself with journalism, contributing to the *National*, a republican journal of which he became editor in 1836. In 1847 he founded the *Revue nationale* with the collaboration of P.J. Buchez (*q.v.*), with whose ideas he had become infected. After the Revolution of February 1848 Bastide's intimate knowledge of foreign affairs gained for him a secretarial post in the provisional government, and, after the creation of the executive commission, he was made minister of foreign affairs. At the close of 1848 he threw up his portfolio, and, after the *coup d'état* of December 1851, retired into private life. He died on the 2nd of March 1879. His writings comprise *De l'éducation publique en France* (1847); *Histoire de l'assemblée législative* (1847); *La République française et l'Italie en 1848* (1858); *Histoire des guerres religieuses en France* (1859).

BASTIDE (Provençal *bastida*, building), a word applied to the fortified towns founded in south-western France in the middle ages, and corresponding to the *villes neuves* of northern France. They were established by the abbeys, the nobles and the crown, frequently by two of these authorities in co-operation, and were intended to serve as defensive posts and centres of population for sparsely-inhabited districts. In addition, they formed a source of revenue and power for their founders, who on their part conceded liberal charters to the new towns. They were built on a rectangular plan, with a large central square and straight thoroughfares running at right angles or parallel to one another, this uniformity of construction being well exemplified in the existing *bastide* of Monpazier (Dordogne) founded by the English in 1284. Mont-de-Marsan, the oldest of the bastides, was founded in 1141, and the movement for founding them lasted during the 12th, 13th and 14th centuries, attaining its height between 1250 and 1350.

See E. Ménault, *Les Villes Neuves, leur origine et leur influence dans le mouvement communal* (Paris, 1868); Curie-Seimbres, *Essai sur les villes fondées dans le sud-ouest de la France sous le nom de bastides* (Toulouse, 1880).

BASTIEN-LEPAGE, JULES (1848-1884), French painter, was born in the village of Damvillers, Meuse, France, on the 1st of November 1848 and spent his childhood there. He first studied at Verdun, and prompted by a love of art went in 1867 to Paris, where he was admitted to the École des Beaux-arts, working under Cabanel. After exhibiting in the Salons of 1870 and 1872 works which attracted no attention, in 1874 he made his mark with his "Song of Spring," a study of rural life, representing a peasant girl sitting on a knoll looking down on a village. His "Portrait of my Grandfather," exhibited in the same year, was not less remarkable for its artless simplicity and received a third-class medal. This success was confirmed in 1875 by the "First Communion," a picture of a little girl minutely worked up as

to colour, and a “Portrait of M. Hayem.” In 1875 he took the second Prix de Rome with his “Angels appearing to the Shepherds,” exhibited again in 1878. His next endeavour to win the Grand Prix de Rome in 1876 with “Priam at the Feet of Achilles” was again unsuccessful (it is in the Lille gallery), and the painter determined to return to country life. To the Salon of 1877 he sent a full-length “Portrait of Lady L.” and “My Parents”; and in 1878 a “Portrait of M. Theuriet” and “The Hayfield.” The last picture, now in the Luxembourg, is regarded as a typical work from its stamp of realistic truth. Thenceforth Bastien-Lepage was recognized in France as the leader of a school, and his “Portrait of Mme Sarah Bernhardt” (1879), painted in a light key, won him the cross of the Legion of Honour. In 1880 he exhibited a small portrait of M. Andrieux and “Joan of Arc listening to the Voices”; and in the same year, at the Royal Academy, the little portrait of the “Prince of Wales.” In 1881 he painted “The Beggar” and the “Portrait of Albert Wolf”; in 1882 “Le Père Jacques”; in 1883 “Love in a Village,” in which we find some trace of Courbet’s influence. His last dated work is “The Forge” (1884). The artist, long ailing, had tried in vain to re-establish his health in Algiers. He died in Paris on the 10th of December 1884, when planning a new series of rural subjects. Among his more important works may also be mentioned the portrait of “Mme J. Drouet” (1883); “Gambetta on his death-bed,” and some landscapes; “The Vintage” (1880), and “The Thames at London” (1882). “The Little Chimney-Sweep” was never finished. An exhibition of his collected works was opened in March and April 1885.

See A. Theuriet, *Bastien-Lepage* (1885—English edition, 1892); L. de Fourcaud, *Bastien-Lepage* (1885).

(H. Fr.)

BASTILLE (from Fr. *bastir*, now *bâtir*, to build), originally any fortified building forming part of a system of defence or attack; the name was especially applied to several of the principal points in the ancient fortifications of Paris. In the reign of King John, or even earlier, the gate of Saint Antoine was flanked by two towers; and about 1369 Hugues Aubriot, at the command of Charles V., changed it into a regular bastille or fort by the addition of six others of massive structure, the whole united by thick walls and surrounded by a ditch 25 ft. wide. Various extensions and alterations were afterwards effected; but the building remained substantially what it was made by the vigorous provost, a strong and gloomy structure, with eight stern towers. As the ancient fortifications of the city were superseded, the use of the word bastille as a general designation gradually died out, and it became restricted to the castle of Saint Antoine, the political importance of which made it practically, long before it was actually, the only bastille of Paris. The building had originally a military purpose, and it appears as a fortress on several occasions in French history. When Charles VII. retook Paris from the English in 1436, his opponents in the city took refuge in the Bastille, which they were prepared to defend with vigour, but the want of provisions obliged them to capitulate. In 1588 the duke of Guise took possession of the Bastille, gave the command of it to Bussy-Leclerc, and soon afterwards shut up the whole parlement within its walls, for having refused their adherence to the League. When Henry IV. became master of Paris he committed the command of the Bastille to Sully, and there he deposited his treasures, which at the time of his death amounted to the sum of 15,870,000 livres. On the 11th of January 1649 the Bastille was invested by the forces of the Fronde, and after a short cannonade capitulated on the 13th of that month. The garrison consisted of only twenty-two men. The Frondeurs concluded a peace with the court on the 11th of March; but it was stipulated by treaty that they should retain possession of the Bastille, which in fact was not restored to the king till the 21st of October 1651.

At a very early period, however, the Bastille was employed for the custody of state prisoners, and it was ultimately much more of a prison than a fortress. According to the usual account, which one is tempted to ascribe to the popular love of poetical justice, the first who was incarcerated within its walls was the builder himself, Hugues Aubriot. Be this as it may, the duke of Nemours spent thirteen years there in one of those iron cages which Louis XI. called his *fillettes*; and Jacques d’Armagnac, Poyet and Chabot were successively prisoners. It was not till the reign of Louis XIII. that it became recognized as a regular place of confinement; but from that time till its destruction it was frequently filled to embarrassment with men and women of every age and condition. Prisoners were detained without trial on *lettres de cachet* for different reasons, to avoid a scandal, either public or private, or to satisfy personal animosities. But the most frequent and most notorious use of

the Bastille was to imprison those writers who attacked the government or persons in power. It was this which made it so hated as an emblem of despotism, and caused its capture and demolition in the Revolution.

Of the treatment of prisoners in the Bastille very various accounts have been given even by those who speak from personal experience, for the simple reason that it varied greatly in different cases. The prisoners were divided into two main classes, those who were detained on grounds of precaution or by way of admonitory correction, and those who lay under presumption or proof of guilt. The former were subject to no investigation or judgment, and the length of their imprisonment depended on the will of the king; the latter were brought to trial in the ordinary courts or before special tribunals, such as that of the Arsenal—though even in their case the interval between their arrest and their trial was determined solely by the royal decree, and it was quite possible for a man to grow old in the prison without having the opportunity of having his fate decided. Until guilt was established, the prisoner was registered in the king's name, and—except in the case of state-prisoners of importance, who were kept with greater strictness and often in absolute isolation—he enjoyed a certain degree of comfort and freedom. Visitors were admitted under restrictions; games were allowed; and, for a long time at least, exercise was permitted in open parts of the interior. Food was both abundant and good, at least for the better class of prisoners; and instances were not unknown of people living below their allowance and, by arrangement with the governor, saving the surplus. When the criminality of the prisoner was established, his name was transferred to the register of the "commission," and he became exposed to numerous hardships and even barbarities, which however belonged not so much to the special organization of the Bastille as to the general system of criminal justice then in force.

Among the more distinguished personages who were confined in this fortress during the reigns of Louis XIV., XV. and XVI., were the famous *Man of the Iron Mask* (see Iron Mask), Foucquet, the marshal Richelieu, Le Maistre de Sacy, De Renneville, Voltaire, Latude, Le Prévôt de Beaumont, Labourdonnais, Lally, Cardinal de Rohan, Linguet and La Chalotais. 503
While no detestation is too great for that system of "royal pantheism" which led to the unjust and often protracted imprisonment of even men of great ability and stainless character, it is unnecessary to give implicit credence to all the tales of horror which found currency during the excitement of the Revolution, and which historical evidence, as well as *a priori* considerations, tends to strip of their more dreadful features, and even in many cases to refute altogether. Much light of an unexpected kind has in modern times been shed on the history of the Bastille from the pages of its own records. These documents had been flung out into the courts of the building by the revolutionary captors, and after suffering grievous diminution and damage were finally stored up and forgotten in the vaults of the library of the (so-called) Arsenal. Here they were discovered in 1840 by François Ravaisson, who devoted himself to their arrangement, elucidation and publication.

At the breaking out of the Revolution the Bastille was attacked by the Parisians; and, after a vigorous resistance, it was taken and razed to the ground on the 14th of July 1789. At the time of its capture only seven prisoners were found in it. A very striking account of the siege will be found in Carlyle's *French Revolution*, vol. i. The site of the building is now marked by a lofty column of bronze, dedicated to the memory of the patriots of July 1789 and 1830. It is crowned by a gilded figure of the genius of liberty.

See the *Memoirs* of Linguet (1783), and Latude (ed. by Thierry, tome iii. 18mo, 1791-1793); also François Ravaisson, *Les Archives de la Bastille* (16 vols. 8vo, 1866-1886); Delort, *Histoire de la détention des philosophes à la Bastille* (3 vols., 1829); F. Bournon, *La Bastille* (1893); Fr. Funck-Brentano, *Les Lettres de cachet à Paris, étude suivie d'une liste des prisonniers de la Bastille* (1904); G. Lecocq, *La Prise de la Bastille* (1881).

BASTINADO (Span. *baston*, Fr. *bâton*, a stick, cudgel), the European name for a form of punishment common in the east, especially in Turkey, Persia and China. It consists in blows with a light stick or lath of bamboo upon the soles of the feet or on the buttocks. The terror of the punishment lies not in the severity of the blows, which are on the contrary scarcely more than tapping, but in its long continuation. A skilful bastinadoist can kill his victim after hours of torture.

BASTION (through the Fr. from late Lat. *bastire*, to build), a work forming part of a line of fortifications. The general trace of a bastion is similar to an irregular pentagon formed by a triangle and a narrow rectangle, the base of the triangle coinciding with the long side of the rectangle. The two sides of the triangle form the “faces” of the bastion, which join at the “salient” angle, the short sides of the rectangle form the “flanks.” Bastions were arranged so that the fire from the flanks of each protected not only the front of the curtain but also the faces of the adjacent bastions. A “tower bastion” is a case-mated tower built in bastion form; a “demi-bastion” is a work formed by half a bastion (bisected through the salient angle) and by a parapet along the line of bisection; a “flat bastion” is a bastion built on a curtain and having a very obtuse salient angle.

BASTWICK, JOHN (1593-1654), English physician and religious zealot, was born at Writtle, in Essex, in 1593, and after a brief education at Cambridge, wandered on the continent and graduated in medicine at Padua. On his return he settled in Colchester. His celebrity rests on his strong opposition to the Roman Catholic ceremonial. About 1633 he printed in Holland two Latin treatises, entitled *Elenchus Religionis Papisticae*, and *Flagellum Pontificis et Episcoporum Latialium*; and as Laud and other English prelates thought themselves aimed at, he was fined £1000 in the court of high commission, excommunicated and prohibited from practising physic, while his books were ordered to be burnt and the author himself consigned to prison. Instead of recanting, however, he wrote *Apologeticus ad Praesules Anglicanos*, and another book called *The Litany*, in which he exclaimed vehemently against the proceedings of the court, and charged the bishops with being the enemies of God and “the tail of the beast.” William Prynne and Henry Burton coming under the lash of the star-chamber court at the same time, they were all censured as turbulent and seditious persons, and condemned to pay a fine of £5000 each, to be set in the pillory, to lose their ears, and to undergo imprisonment for life in remote parts of the kingdom, Bastwick being sent to Scilly. The parliament in 1640 reversed these proceedings, and ordered Bastwick a reparation of £5000 out of the estates of the commissioners and lords who had sentenced him. He joined the parliamentary army, but in later years showed bitter opposition to the Independents. He died in the latter part of 1654.

BASUTOLAND (officially “The Territory of Basutoland”), an inland state and British crown colony of S.E. Africa, situated between 28° 35′ and 30° 30′ S. and 27° and 29° 25′ E. It has an area of 10,293 sq. m., being somewhat smaller than Belgium, and is bounded S., S.E., and N.E. by the Drakensberg, N. and N.W. by the Caledon river, S.W. by a range of low hills extending from the Caledon above Wepener to the Orange river, and south of the Orange by the Telle or Tees river to its source in the Drakensberg. Its greatest length S.W. to N.E. is 145 m.; its greatest breadth N. to S. 120 m. On every side it is surrounded by British colonies, north by the Orange River Colony, south-west and south by Cape Colony, and east by Natal.

Basutoland, or Lesuto (Lesotho) as the natives call it, forms the south-eastern edge of the interior tableland of South Africa, and has a rugged and broken surface with a mean elevation of 6000 ft. The Drakensberg (*q.v.*) forming the buttress of the plateau seaward, attain their highest elevation on the Basuto-Natal border. The frontier line follows the crest of the mountains, three peaks some 10,000 or more ft. high—Giant’s Castle, Champagne Castle or Cathkin Peak and Mont aux Sources—towering high above the general level. Mount Hamilton, which lies north of the waterparting, is over 9000 ft. high. From Mont aux Sources, table-shaped, and called by the Basutos *Potong* (Antelope), a second range of mountains, the Maluti, runs S.W. through the entire length of Basutoland. The crest of the Maluti is in few places lower than 7000 ft. whilst Machacha, the culminating point, is about 10,500 ft. From the tableland north of the Maluti several isolated hills rise, the most noted being the almost inaccessible Thaba Bosigo—the rallying place of the Basuto in many of their wars. Shut off from the adjacent Indian Ocean by its mountain barrier, the drainage of the country is westward to the distant Atlantic. As its name implies, the chief rivers rise in

Mont aux Sources. From the inner sides of that mountain descend the Caledon and the Senku, whilst from its seaward face the Tugela flows through Natal to the Indian Ocean. The Caledon runs north of the Maluti, the Senku south of that range. From the slopes of the Maluti descend many streams, the largest being the Kornet Spruit, which joins the Senku and other torrents from the Drakensberg to form the upper Orange (*q.v.*). The Caledon also, sweeping southward, unites with the Orange beyond the frontiers of Basutoland. Ordinarily shallow, the rivers after heavy rain fill with great rapidity, sweeping away everything in their path. In the richer soil they cut deep channels; the denudation thus caused threatens to diminish seriously the area of arable and pasture land. The river beds contain dangerous quicksands.

The aspect of the country is everywhere grand, and often beautiful, fully justifying the title, “The Switzerland of South Africa,” often applied to it. Viewed from a distance the mountains appear as dark perpendicular barriers, quite impenetrable; but narrow paths lead round the precipitous face of the hills, and when the inner side is gained a wonderful panorama opens out. In every direction can be seen luxuriant valleys through which rivers thread their silvery way, wild chasms, magnificent waterfalls—that of Maletsunyane has an unbroken leap of over 600 ft.—and, above all, hill crest after hill crest in seeming endless succession. In winter the effect is heightened by the snow which caps all the higher peaks.

Geology.—Basutoland is entirely occupied by the upper division (Stormberg series) of the Karroo formation. The highest strata (Volcanic group) form the rugged elevated spurs of the Drakensberg mountains which extend along the eastern territorial boundary. It has been suggested that these spurs represent the sites of vents or fissures of eruption. The upper 504 part of the Maluti range consists of flows of melaphyres and diabases belonging to the volcanic beds. Among these lavas is the “pipe” amygdaloid of which many blocks have been transported great distances down the Vaal river. The amygdales are three or four inches long and about three-eighths of an inch in diameter. Heulandite, with thomsonite, stilbite, scolecite, calcite and chalcedony, occur as infilling minerals.

Climate.—The climate is excellent, invigorating alike for Europeans and natives. The mean annual temperature is about 60° F. The four seasons are distinctly marked, a rarity in South Africa, where the transition from summer to winter is generally very rapid. The heat of summer (December-March, which is the rainy season) is tempered by cool breezes; winter (May-September, inclusive) is dry, cold and bracing, and frost prevails for prolonged periods. The average annual rainfall is about 30 in. The general health conditions are good. Malaria is almost unknown and chest complaints are rare. Epidemics of smallpox and typhoid occur; and leprosy, imported from the Orange River and Cape Colonies, has taken firm hold on the Basuto, of whom about 91 per 1000 are sufferers from this disease.

Flora and Fauna.—A few kloofs are wooded, but of forest land there is none. Along the upper courses of the rivers are willows and wild olive trees; round the chief settlements the eucalyptus and the pine have been planted. Heaths, generally somewhat rare in South Africa outside the Cape peninsula, are abundant in Basutoland. The Alpine flora is very beautiful. There are few wild animals; but the eland, hartebeest and smaller antelopes are found, as well as the leopard and the jackal. Mountain hares, partridges and quails afford good sport; baboons and great hawks live in the mountains. The few fish include the barbel. Swarms of locusts occasionally visit the country; the locusts are eaten by the Basuto.

Population and Towns.—Considering the extensive area of uninhabitable mountain land it contains, the Territory supports a large population. The inhabitants increased from 128,206 in 1875 to 348,848 in 1904. The females outnumber the males by about 20,000, which is, however, about the number of adult males away from the country at any given period. The majority live in the district between the Maluti mountains and the Caledon river. The great bulk of the people are Basuto, but there are some thousands of Barolong and other Kaffirs. The Basuto proper are a branch of the Bechuana family of Bantu-Negroids. The white inhabitants in 1904 numbered 895, and there were 222 coloured persons other than natives. The seat of government is Maseru, on the left bank of the Caledon, with a population of about 1000 including some 100 Europeans. Mafeteng, in the N.W. near the Cape frontier, is a thriving agricultural centre, as is Butha Buthe in the N.E. Morija, some 16 m. S.E. of Maseru, is the oldest mission station in the Territory, having been founded by the Paris Society about 1833. Three miles from Morija is Matsieng, the kraal of the paramount chief Lerothodi (who died in August 1905). There are numerous mission stations throughout Basutoland, to several of which Biblical names have been given, such as Shiloh, Hermon, Cana, Bethesda, Berea.

Agriculture and Trade.—Basutoland is one of the greatest grain-growing countries of

South Africa. The richest tract of land is that between the Maluti mountains and the Caledon river. In summer the country appears as one waving field of wheat, millet and mealies; whilst on the mountain slopes and on their flat tops are large flocks of sheep, cattle and goats, and troops of ponies. The Basuto ponies, said to be descended from Shetland ponies which, imported to the Cape in 1840, strayed into the mountains, are short-legged, strong-bodied, sure-footed, and noted for their hardiness. Improvements in the breed have been effected by the introduction of Arab stallions. Nearly every Basuto is an agriculturist; there are no manufactories, and the minerals, in accordance with the desire of the people, are not worked. The land is wholly in the possession of the natives, who hold it on the communal system. Whites and Indians are allowed to establish trading stations on obtaining special permits from the government, and the Indians absorb much of the retail trade. The chief exports are wheat, mealies, Kaffir corn, wool, mohair, horses and cattle. The great bulk of the imports are textiles. The value of the trade depends on regular rains, so that in seasons of drought the exports seriously diminish. The average annual value of trade for the five years ending the 30th of June 1905 was:—Exports £215,668, imports £203,026. Trade is almost entirely with Orange River Colony and Cape Colony. The Territory is a member of the South African Customs Union. Some 60,000 Basuto (annual average) find employment outside the Territory, more than half of whom seek farm and domestic service. A small proportion go to the Johannesburg gold mines, and others obtain employment on the railways.

Communication over the greater part of the Territory is by road; none of the rivers is navigable. A state-owned railway, 16½ m. long, starting from Maseru crosses the Caledon river and joins the line connecting Bloemfontein and Ladysmith. This railway follows, N.E. of Maseru, the right bank of the Caledon, and affords a ready means of transport for the cereals raised on the left or Basuto side of the river. Highroads, maintained by the government, traverse every part of the country, and bridges have been built across the Caledon. The usual mode of conveyance is by ox-waggon or light cart. Several passes through the Drakensberg into Griqualand East and Natal exist, but are little used. There is a complete postal and telegraphic service and a telephone line connects all government stations.

Government and Finance.—Basutoland is a crown colony, of which the high commissioner for South Africa is governor. In him resides the legislative power, exercised by proclamation. The Territory is administered, under the direction of the governor, by a resident commissioner, who is also the chief judicial officer. He is aided by a government secretary and by assistant commissioners. Under the British officials the country is governed by hereditary native chiefs, over whom is a paramount chief. The chiefs have jurisdiction in cases affecting natives, but there is a right of appeal to the courts of the commissioners, who try all cases in which any of the parties are European. A national council (*pitso*), representative of all the native tribes, meets annually for the free discussion of public affairs. For administrative purposes the Territory is divided into the seven districts of Maseru, Leribe, Mohales Hoek, Berea, Mafeteng, Quthing and Qacha’s Nek, each of which is subdivided into wards presided over by Basuto chiefs.

Revenue is obtained from a hut tax of £1 per hut; the sale of licences to trade; customs and post office receipts. Seven-eighths of the revenue comes from the hut tax and customs. The average annual revenue for the five years 1901-1905 was £96,880; the average annual expenditure £69,559. Basutoland has no public debt.

Education and Social Condition.—Education is given in schools founded by missionary societies, of which the chief is the Société des Missions Évangéliques de Paris. A large proportion of the people can read and write Sesuto (as the Basuto language is called) and English, and speak Dutch, whilst a considerable number also receive higher education. Many Basuto at the public examinations take higher honours than competitors of European descent. There are over 200 schools, with an average attendance exceeding 10,000. Nine-tenths of the scholars are in the schools of the French Protestant Mission, which are conducted by English, or English-speaking, missionaries. A government grant is made towards the cost of upkeep. A government industrial school (opened in 1906) is maintained at Maseru, and the Paris Society has an industrial school at Leloaleng. The social condition of the people is higher than that of the majority of South African natives. Many Basuto profess Christianity and have adopted European clothing. Serious crime is rare among them and “deliberate murder is almost unknown.”[1] They are, like mountaineers generally, of a sturdy, independent spirit, and are given to the free expression of their views, generally stated with good sense and moderation. These views found a new medium of publicity in 1904 when an independent native newspaper was started, called *Naledi ea Lesotha* (Star of

Basutoland). The publication of this paper was followed in 1906 by the adoption of a uniform system of Sesuto orthography. A book on national customs, the first work in the vernacular by a South African native, was published in 1893. The brandy-drinking habit, which, when the imperial government assumed control of the administration in 1884, threatened the existence of the nation, has been very largely checked. A strong beer, brewed from Kaffir corn, is a favourite drink.

History.—Until the beginning of the 19th century Basutoland appears to have been uninhabited save by wandering Bushmen, whose rude rock pictures are to be found in several parts of the Drakensberg. About 1800 the country was occupied by various tribes of Bechuana, such as Batau, Basuto, Baputi, who then possessed the greater part of what is now Orange River Colony. They appear to have recognized the paramount authority of a family descended from a chief named Monaheng. By the wars of the Zulu chiefs Chaka, Matiwana and Mosilikatze, these tribes were largely broken up and their power destroyed. One tribe, living in the Maluti mountains, was reduced to cannibalism. From their chief Machacha mountain takes its name. At this period a young man named Moshesh (born about 1790), who was of the family of Monaheng and already noted as hunter and warrior, gathered round him the remnants of several broken clans, out of which he welded the existing Basuto nation. He established himself in 1824 on the rock-fortress of Thaba Bosigo, where, in 1831, he successfully defended himself against Mosilikatze; and thereafter became second only to that chief among the natives north of the Orange River. In 1833 Moshesh invited the missionaries of the Société des Missions Evangéliques of Paris to settle in his country, and from that day until his death proved their firm friend. A few years later, in 1836-1837, large parties of emigrant Boers settled north of the Orange, and before long disputes arose between them and Moshesh, who claimed a great part of the land on which the white farmers had settled. The Basuto acquired an unenviable notoriety as a race of bold cattle lifters and raiders, and the emigrant Boers found them extremely troublesome neighbours. At the same time, if the Basuto were eager for cattle, the Boers were eager for land; and their encroachments on the territories of the Basuto led to a proclamation in 1842 from Sir George Napier, the then governor of Cape Colony, forbidding further encroachments on Basutoland. In 1843 a treaty was signed with Moshesh on the lines of that already arranged with Waterboer, the Griqua chief (see GRIQUALAND), creating Basutoland a native state under British protection.

Moshesh forms the Basuto nation.

To the quarrels between Basuto and Boers were added interminable disputes between the Basuto and other Bechuana tribes, which continued unabated after the proclamation of British sovereignty over the Orange river regions by Sir Harry Smith in 1848. In 1849, however, Moshesh was unwillingly induced by Sir Harry to surrender his claims to part of the territory recognized as his by the Napier treaty. The British continued to intervene in the inter-tribal disputes, and in 1851 Major H.D. Warden led against the Basuto a commando composed of British soldiers, farmers and a native contingent. This commando was defeated at Viervoet, near Thaba Nchu, by the Basuto, who thereafter raided and plundered the natives opposed to them and the farmers who had helped the British. Attempts were made to come to terms with Moshesh and the justice of many of his complaints was admitted. The efforts at accommodation failed, and in 1852 General Sir George Cathcart, who had succeeded Sir Harry Smith as governor of Cape Colony, decided to take strong measures with the tribe, and proceeded with three small divisions of troops against Moshesh. The expedition was by no means a success, but Moshesh, with that peculiar statecraft for which he was famous, saw that he could not hope permanently to hold out against the British troops, and followed up his successful skirmishes with General Cathcart by writing him a letter, in which he said: “As the object for which you have come is to have a compensation for Boers, I beg you will be satisfied with what you have taken. You have shown your power, you have chastised; I will try all I can to keep my people in order in the future.” General Cathcart accepted the offer of Moshesh and peace was proclaimed, the Basuto power being unbroken. Fourteen months later (February 1854) Great Britain renounced sovereignty over the farmers settled beyond the Orange, and Moshesh found himself face to face with the newly constituted Free State. Boundary disputes at once arose but were settled (1858) by the mediation of Sir George Grey, governor of Cape Colony. In 1865 a fresh feud occurred between the Orange Free State Boers and the Basuto. The latter applied to Sir Philip Wodehouse at the Cape for protection, but he declined to interfere. The Boers proved more successful than they had been in the past, and occupied several of the Basuto strongholds. They also annexed a certain fertile portion of Basuto territory, and finally terminated the strife by a treaty at Thaba Bosigo, by which Moshesh gave up the tract of territory taken by the Boers and professed himself a subject of the Free State. Seeing that the struggle against

the Boers was hopeless, no fewer than 2000 Basuto warriors having been killed, Moshesh again appealed for protection to the British authorities, saying: “Let me and my people rest and live under the large folds of the flag of England before I am no more.” In response to this request, the British authorities decided to take over Basutoland, and a proclamation of annexation was issued on the 12th of March 1868. At the same time the Boer commandoes were requested to leave the country. The Free State strongly resented the British annexation of Basutoland, but much negotiation the treaty of Aliwal North was concluded (1869) between the Free State and the high commissioner. This treaty defined the boundary between the Free State and Basutoland, whereby the fertile strip of country west of the Caledon river, known as the Conquered Territory, was finally transferred to the Free State, and the remainder of Basutoland was recognized as a portion of the British dominions.

Annexation to Great Britain.

Moshesh, who for nearly fifty years had led his people so skilfully and well, died in 1870. He was one of the rare instances among the Kaffirs of a leader endowed with intellectual gifts which placed him on a level with Europeans, and his life-work has left a permanent mark on South African history. In diplomacy he proved fully the equal of all—white or black—with whom he had to deal, while he ruled with a rare combination of vigour and moderation over the nation which he had created.

In 1871 Basutoland was annexed to Cape Colony, the area at that time being given as 10,300 sq. m. The turbulent Basuto warriors did not remain quiet for any length of time, and in 1879 Moirosi, a chief residing in the southern portion of Basutoland, openly repudiated colonial rule. An expedition was despatched from Cape Colony and severe fighting followed. Moirosi’s stronghold was captured and the chief himself was killed. Immediately after the war, strife occurred among the Basuto themselves over the question of the partition of Moirosi’s territory, which had been decided on as one of the results of the war. In 1880 the Cape government felt sufficiently strong to extend to Basutoland the Cape Peace Preservation Act of 1878. This act provided for the disarmament of natives, and had already been put in force successfully among some of the Kaffir tribes on the Cape eastern frontier. Its execution in Basutoland, however, proved an extremely difficult task, and was never entirely accomplished. Desultory warfare was carried on between the colonial troops and the Basuto until 1881, when the intervention of the high commissioner, Sir Hercules Robinson (afterward Lord Rosmead), was asked for. Peace in Basutoland was not announced until the end of 1882. In the following year a form of self-government was established, but was once more followed by internal strife among the petty chieftains.

The “gun” war.

The subjection of Basutoland to the control of the Cape government had by this time proved unsatisfactory, both to the Basuto and to Cape Colony. The Cape government therefore offered no opposition to the appeal made by the Basuto themselves to the imperial government to take them over, and, moreover, Cape Colony undertook to pay towards the cost of administration an annual contribution of £18,000. Consequently, in 1884, Basutoland ceased to be a portion of the Cape Colony and became a British crown colony. Native laws and customs were interfered with as little as possible and the authority of the chiefs—all members of the Moshesh family—was maintained. Moshesh had been succeeded as paramount chief by his son, Letsie, and he in turn was succeeded in 1891 by Lerothodi (*c.* 1837-1905). These chieftains acted in concert with the British representative in the country, to whom was given the title of resident commissioner. The first commissioner was Sir Marshall Clarke, to whose tact and ability the country owed much. The period of warfare over, the Basuto turned their attention more and more to agricultural pursuits and also showed themselves very receptive of missionary influence. Trade increased, and in 1891 Basutoland was admitted to the customs union, which already existed between Orange Free State, Cape Colony and British Bechuanaland. When Lord (then Sir Alfred) Milner visited Basutoland in 1898, on his way to Bloemfontein, he was received by 15,000 mounted Basuto. The chiefs also attended a large meeting at Maseru, and gave expression to their gratitude for the beneficent character of Queen Victoria’s rule and protection. On the outbreak of the Boer War in 1899, these same chiefs, at a great meeting held in the presence of the resident commissioner, gave a further protestation of their loyalty to Her Majesty. They remained passive throughout the War and the neutrality of the country was respected by both armies. One chief alone sought to take advantage of the situation by disloyal action, and his offence was met by a year’s imprisonment. The conversion of Basutoland into a crown colony contributed alike to the prosperity of the Basuto, the security of the property of neighbouring colonists and a peaceful condition among the natives of South Africa generally. In pursuance of the policy of encouraging the self-governing powers of the Basuto, a national council was instituted and

A crown colony.

held its first sitting in July 1903. In August 1905 the paramount chief Lerothodi died. In early life he had distinguished himself in the wars with the Boers, and in 1880 he took an active part in the revolt against the Cape government. Since 1884 he had been a loyal supporter of the imperial authorities, being unwavering in his adherence in critical times. Fearless and masterful he also possessed high diplomatic gifts, and though on occasion arbitrary and passionate he was neither revengeful nor cruel. On the 19th of September following Lerothodi's death, the national council, with the concurrence of the imperial government, elected his son Letsie as paramount chief. The completion in October 1905 of a railway putting Maseru in connexion with the South African railway system proved a great boon to the community. During the rebellion of the natives in Natal and Zululand in 1906 the Basuto remained perfectly quiet.

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(F. R. C.; A. P. H.)

1 Report by resident-commissioner H.C. Sloley, for 1902-1903.

BAT,[1] a name for any member of the zoological order Chiroptera (*q.v.*). Bats are insectivorous animals modified for flight, with slight powers of progression on the ground; the patagium or "flying-membrane" of some squirrels and of *Galeopithecus* (*q.v.*) probably indicates the way in which the modification was effected. They are distributed throughout the world, but are most abundant in the tropics and the warmer parts of the temperate zones; within these limits the largest forms occur. There is great variation in size; the Malay "flying-fox" (*Pteropus edulis*) measures about a foot in the head and body, and has a wing-spread of 5 ft.; while in the smaller forms the head and body may be only about 2 in., and the wing-spread no more than a foot. The coloration is generally sombre, but to this there are exceptions; the fruit-bats are brownish yellow or russet on the under surface; two South American species are white; Blainville's chin-leafed bat is bright orange; and the Indian painted bat (*Cerivoula picta*) with its deep orange dress, spotted with black on the wing-membranes, has reminded observers of a large butterfly. In habits bats are social, nocturnal and crepuscular; the insect-eating species feed on the wing, in winter in the temperate regions they migrate to a warmer climate, or hibernate, as do the British bats. The sense-organs are highly developed; the wing-membranes are exceedingly sensitive; the nose-leaf is also an organ of perception, and the external ear is specially modified to receive sound-waves. Most bats are insect-eaters, but the tropical "flying foxes" or fox-bats of the Old World live on fruit; some are blood-suckers, and two feed on small fish. Twelve species are British, among which are the pipistrelle (*Pipistrellus pygmaeus*, or *P. pipistrellus*), the long-eared bat (*Plecotus auritus*), the noctule (*Pipistrellus* [*Pterygistes*] *noctulus*) the greater and lesser horseshoe bats (*Rhinolophus ferrum-equinum* and *R. hipposiderus*), &c. (See FLYING-FOX and VAMPIRE.)

1 M. E. *bakke*, the change to "bat" having apparently been influenced by Lat. *batta*, *blatta*, moth. The word is thus distinct from the other common term "bat," the implement for striking, which is probably connected with Fr. *battre*, though a Celtic or simply onomatopoetic origin has been suggested.

BATAC, a town of the province of Ilocos Norte, Luzon, Philippine Islands, 10 m. S. of Laoag, the capital. Pop. (1903) 19,524; subsequently, in October 1903, the town of Banna (pop. 4015) was annexed. Cacao, tobacco, cotton, rice and indigo are grown in the neighbouring country, and the town has a considerable trade in these and other commodities; it also manufactures sugar, fans and woven fabrics. Batac was founded in 1587. It is the birthplace and home of Archbishop Gregorio Aglipay (b. 1860), the founder of an important sect of Filipino Independent Catholics.

BATALA, a town of British India, in the Gurdaspur district of the Punjab, with a station on a branch of the North-Western railway, 24 m. from Amritsar. Pop. (1901) 27,365. It is an important centre of trade, with manufactures of cotton and silk goods, shawls, brass-ware, soap and leather. There are two mission schools.

BATALHA (*i.e.* battle), a town of Portugal, in the district of Leiria, formerly included in the province of Estremadura; 8 m. S. of Leiria. Pop. (1900) 3858. Batalha, which occupies the site of the medieval Canoeira, is chiefly interesting for its great Dominican monastery of Santa Maria da Victoria ("St Mary of the Victory"), also known as Batalha. Both town and monastery owe their names to the battle fought on the plain between Canoeira and Aljubarrota, 9 m. S. W., in which John I. of Portugal defeated John I. of Castile in 1385 and secured the independence of his kingdom. The monastery is built of golden-brown limestone, resembling marble, and richly sculptured. In size and beauty it excels all the other buildings of Portugal in which Gothic and Moorish architecture are combined. Its ground-plan may be roughly described as a parallelogram, measuring about 500 ft. from north to south, and 445 from east to west; with the circular annexe of the royal mausoleum on the east, and the Founder's chapel at the south-western corner. In the centre is the royal cloister, which is flanked by the refectory, now a museum, on the west; and by the chapter-house, on the east. Two smaller cloisters, named respectively after Alphonso V. and John III., form the northern division of the parallelogram; its southern division is the Gothic church. The Founder's chapel contains the tomb of John I. (d. 1433) and Philippa of Lancaster (d. 1416), his queen, with the tomb of Prince Henry the Navigator (d. 1460). Like the royal mausoleum, where several later monarchs are buried, it is remarkable for the intricacy and exquisite finish of its carved stonework. The monastery was probably founded in 1388. Plans and masons were procured from England by Queen Philippa, and the work was entrusted to A. Domingues, a native architect, and Huetor Houguet, an Irishman. Only the royal cloister, church and Founder's chapel were included in the original design; and all three show signs of English influence. Various additions were made up to 1551, beginning with the royal mausoleum and ending with the cloister of John III. Considerable damage was inflicted by the earthquake of 1755; and in 1810 the monastery was sacked by the French. It was secularized in 1834 and declared a national monument in 1840. Thenceforward it was gradually restored.

BATANGAS, a town, port of entry, and the capital of the province of Batangas, Luzon, Philippine Islands, near the Batangas river, about 1 m. from its mouth on the E. coast of the Gulf of Batangas, and about 65 m. S. by E. of Manila. Pop. (1903) 33,131. The United States government has established a military post here, and the town has numerous fine public

buildings and private residences. It is the most important port of a province noted for the fertility of its soil and the industry of its inhabitants. Its exports, which are large, include rice, coffee of excellent quality, cacao, sugar, Indian corn, horses and cattle. The horses of Batangas are unusually strong and active. Cotton is produced, and is woven into fabrics by the women. The language is Tagalog.

BATARNAY, IMBERT DE (? 1438-1523), French statesman, was born of an old but obscure family in Dauphiné, about the year 1438. In consequence of a chance circumstance he entered into relations with the dauphin Louis, at that time (1455) in arms against the king his father; he attached himself to the prince, and followed him on his retreat into Burgundy. From the beginning of his reign Louis XI. loaded Batarnay with favours: he married him to a rich heiress, Georgette de Montchenu, lady of Le Bouchage; besides making him captain of Mont Saint Michel and giving him valuable estates, with, later, the titles of counsellor and chamberlain to the king. In 1469 Batarnay was sent to keep watch upon the duke of Guienne's intrigues, which began to appear dangerous. As lieutenant-general in Roussillon in 1475 he protected the countryside against the wrath of the king, who wished to repress with cruel severity a rebellion of the inhabitants. He was present at the interview between Louis XI. and Edward IV. of England at Picquigny, and was afterwards employed on negotiations with the duke of Burgundy. In accordance with the recommendations of his father, Charles VIII. kept the lord of Le Bouchage in his confidential service. During the differences that arose in 1485 between the regent, Anne of Beaujeu, and the dukes of Orleans, Brittany and Alençon, Imbert de Batarnay kept the inhabitants of Orleans faithful to the king. He proved his skill in the negotiations concerning the marquisate of Saluzzo and the town of Genoa. During the Naples expedition he was in charge of the dauphin, Charles Orland, who died in 1495. He treated with Maximilian of Austria to prevent him from entering Picardy during the war with Naples, and then proceeded to Castile to claim promised support. Under Louis XII. he took part in the expedition against the Genoese republic in 1507. Francis I. employed him to negotiate the proposed marriage of Charles of Austria with Renée of France, daughter of Louis XII., and appointed him governor to the dauphin Francis in 1518. He died on the 12th of May 1523.

See also B. de Mandrot's *Ymbert de Batarnay* (Paris, 1886).

(M. P.*)

BATAVIA, a residency of the island of Java, Dutch East Indies, bounded E., S. and W. by the residencies of Krawana, Preanger and Bantam, and N. by the Java Sea. It also comprises a number of small islands in the Java Sea, including the Thousand Islands group, with a total area of 24 sq. m. The population in 1898 was 1,313,383, including 12,434 Europeans, 82,510 Chinese, 3426 Arabs and other Asiatic foreigners. The natives belong to a Sundanese group, but in the north contain a large admixture of Malays. The northern half of the province is flat, and even marshy along the coast, and consists of a broad band of alluvium formed by the series of parallel rivers descending from the south. The southern half on the other hand is covered by a mountain range whose chief peaks are situated along the southern border, namely Halimun mountain, the volcanoes Salak, Pangerango and Gede, and the Megamendung. The soil is fertile, and whereas rice is mainly grown on the lowlands the highlands are especially suitable for the cultivation of coffee, tea, tobacco, cinchona and vanilla. Extensive cocoanut plantations are also found in the plains, and market-gardening is practised in the neighbourhood of the towns. Sugar was formerly cultivated. The government of the residency of Batavia differs from that of the other residencies in having no native regencies, the lands being privately owned. The divisions of the residency are Batavia, town and surroundings, Tangerang, Meester Cornelis and Buitenzorg, the first being directly governed by a resident and the remainder by assistant residents. As early as the second half of the 17th century the Dutch East India Company began the practice of selling portions of the land to private persons, and of granting other portions as the reward of good services. A large strip of hill-country, almost corresponding to the present southern

or Buitenzorg division of the residency, was appropriated by the governor-general in 1745 and attached to that office. In 1808, however, Marshal Daendels disposed of this property to various purchasers, including the Dutch government, and thus the whole of the residency gradually passed into private hands. Hence the administration of the residency is largely confined to police duties. The principal towns are Batavia (*q.v.*), which is the capital of the residency, as well as the seat of government of the whole Dutch East Indies, Meester Cornelis, Tangerang, Bekasi and Buitenzorg (*q.v.*). Tangerang and Bekasi are important centres of trade. The Buitenzorg hill-country is much visited on account of its beauty, and cool and healthy climate. Gadok is a health resort 6 m. south-east of Buitenzorg.

BATAVIA, a city and seaport on the north coast of the island of Java, and the capital of all the Dutch settlements in the East. The population in 1880 was 96,957; in 1898, 115,567; including 9423 Europeans, 26,433 Chinese, 2828 Arabs and 132 other Asiatic foreigners. It is situated on both sides of the river Jacatra or Jilivong, in a swampy plain at the head of a capacious bay. The streets are for the most part straight and regular, and many of them have a breadth of from 100 to 200 ft. In several cases there is a canal in the centre lined with stone, and protected by low parapets or banks, while almost every street and square is fringed with trees. The old town has greatly changed from its condition in the 18th century. It was then surrounded by strong fortifications, and contained a number of important buildings, such as the town-house (built in 1652 and restored in 1706), the exchange, the infirmary and orphan asylum, and the European churches. But the ramparts were long ago demolished; only natives, Malays, Arabs and Chinese live here, and the great European houses have either fallen into decay or been converted into magazines and warehouses. The European inhabitants live principally in the new town, which was gradually formed by the integration of Weltevreden (*Well-content*), Molenvliet (*Mill-stream*), Rijswijk (*Rice-town*), Noordwijk (*North-town*), Koningsplein (*King's square*), and other suburban villages or stations. The situation of this modern part is higher and healthier. The imitation of Dutch arrangements has been avoided, and the natural advantages of the situation and climate have been turned to account. The houses, generally of a single storey or two at most, are frequently separated from each other by rows of trees. Batavia contains numerous buildings connected with the civil and military organisation of the government. The governor-general's palace and the government buildings are the most important of these; in the district of Weltevreden are also the barracks, and the artillery school, as well as the military and civil hospital, and not far off is the Frederik-Hendrik citadel built in 1837. Farther inland, at Meester Cornelis, are barracks and a school for under-officers. The Koningsplein 508
is a large open square surrounded by mansions of the wealthier classes. Noordwijk is principally inhabited by lesser merchants and subordinate officials. There is an orphan asylum in the district of Parapatna. Batavia has various educational and scientific institutions of note. In 1851 the government founded a medical school for Javanese, and in 1860 the "Gymnasium William III." in which a comprehensive education is bestowed. A society of arts and sciences (which possesses an excellent museum) was established in 1778, a royal physical society in 1850, and a society for the promotion of industry and agriculture in 1853. In addition to the *Transactions* of these societies—many of which contain valuable contributions to their respective departments in their relation to the East Indies—a considerable number of publications are issued in Batavia. Among miscellaneous buildings of importance may be mentioned the public hall known as the *Harmonie*, the theatre, club-house and several fine hotels.

The population of Batavia is varied, the Dutch residents being a comparatively small class, and greatly intermixed with Portuguese and Malays. Here are found members of the different Indian nations, originally slaves; Arabs, who are principally engaged in navigation, but also trade in gold and precious stones; Javanese, who are cultivators; and Malays, chiefly boatmen and sailors, and adherents of Mahommedanism. The Chinese are both numerous and industrious. They were long greatly oppressed by the Dutch government, and in 1740 they were massacred to the number of 12,000.

Batavia Bay is rendered secure by a number of islands at its mouth, but grows very shallow towards the shore. The construction of the new harbour at Tanjong Priok, to the east of the old one, was therefore of the first importance. The works, begun in 1877 and completed in 1886, connect the town with Tanjong ("cape") Priok by a canal, and include an

outer port formed by two breakwaters, 6072 ft. long, with a width at entrance of 408 ft. and a depth of 27 ft. throughout. The inner port has 3282 ft. of quayage; its length is 3609 ft., breadth 573 ft. and depth 24 ft. There is also a coal dock, and the port has railway and roadway connexion with Batavia. The river Jilivong is navigable 2 m. inland for vessels of 30 or 40 tons, but the entrance is narrow, and requires continual attention to keep it open.

The exports from Batavia to the other islands of the archipelago, and to the ports in the Malay Peninsula, are rice, sago, coffee, sugar, salt, oil, tobacco, teak timber and planks, Java cloths, brass wares, &c., and European, Indian and Chinese goods. The produce of the Eastern Islands is also collected at its ports for re-exportation to India, China and Europe—namely, gold-dust, diamonds, camphor, benzoin and other drugs; edible bird-nests, trepang, rattans, beeswax, tortoise-shell, and dyeing woods from Borneo and Sumatra; tin from Banka; spices from the Moluccas; fine cloths from Celebes and Bali; and pepper from Sumatra. From Bengal are imported opium, drugs and cloths; from China, teas, raw silk, silk piece-goods, coarse China wares, paper, and innumerable smaller articles for the Chinese settlers. The tonnage of vessels clearing from Batavia to countries beyond the archipelago had increased from 879,000 tons in 1887 to nearly 1,500,000 tons by the end of the century. The old and new towns are connected by steam tramways. The Batavia-Buitenzorg railway passes the new town, thus connecting it with the main railway which crosses the island from west to east.

Almost the only manufactures of any importance are the distillation of arrack, which is principally carried on by Chinese, the burning of lime and bricks, and the making of pottery. The principal establishment for monetary transactions is the Java Bank, established in 1828 with a capital of £500,000.

Batavia owes its origin to the Dutch governor-general Pieter Both, who in 1610 established a factory at Jacatra (which had been built on the ruins of the old Javanese town of Sunda Calappa), and to his successor, Jan Pieters Coen, who in 1619 founded in its stead the present city, which soon acquired a flourishing trade and increased in importance. In 1699 Batavia was visited by a terrible earthquake, and the streams were choked by the mud from the volcano of Gunong Salak; they overflowed the surrounding country and made it a swamp, by which the climate was so affected that the city became notorious for its unhealthiness, and was in great danger of being altogether abandoned. In the twenty-two years from 1730 to 1752, 1,100,000 deaths are said to have been recorded. General Daendels, who was governor from 1808 to 1811, caused the ramparts of the town to be demolished, and began to form the nucleus of a new city at Weltevreden. By 1816 nearly all the Europeans had left the old town. In 1811 a British armament was sent against the Dutch settlements in Java, which had been incorporated by France, and to this force Batavia surrendered on the 8th of August. It was restored, however, to the Dutch by the treaty of 1814.

BATAVIA, a village and the county-seat of Genesee county, New York, U.S.A., about 36 m. N.E. of Buffalo, on the Tonawanda Creek. Pop. (1890) 7221; (1900) 9180, of whom 1527 were foreign-born; (1910), 11,613. Batavia is served by the New York Central & Hudson River, the Erie, and the Lehigh Valley railways. It is the seat of the New York State School for the Blind, and of St Joseph’s Academy (Roman Catholic), and has a historical museum, housed in the Old Holland Land Office (1804), containing a large collection of relics of the early days of New York, and a memorial library erected in 1889 in memory of a son by Mary E. Richmond, the widow of Dean Richmond; the building contained in 1908 more than 14,000 volumes. The public schools are excellent; in them in 1898 Superintendent John Kennedy (b. 1846) introduced the method of individual instruction now known as the “Batavia scheme,” under which in rooms of more than fifty pupils there is, besides the class teacher, an “individual” teacher who helps backward children in their studies. Among Batavia’s manufactures are harvesters, ploughs, threshers and other agricultural implements, firearms, rubber tires, shoes, shell goods, paper-boxes and inside woodwork. In 1905 the city’s factory products were valued at $3,589,406, an increase of 39.5% over their value in 1900. Batavia was laid out in 1801 by Joseph Ellicott (1760-1826), the engineer who had been engaged in surveying the land known as the “Holland Purchase,” of which Batavia was a part. The village was incorporated in 1823. Here lived William Morgan, whose supposed murder (1826) by members of the Masonic order led to the organization of the

Anti-Masonic party. Batavia was the home during his last years of Dean Richmond (1804-1866), a capitalist, a successful shipper and wholesaler of farm produce, vice-president (1853-1864) and president (1864-1866) of the New York Central railway, and a prominent leader of the Democratic party in New York state.

See O. Turner, *History of the Holland Purchase* (Buffalo, 1850).

BATEMAN, HEZEKIAH LINTHICUM (1812-1875), American actor and manager, was born in Baltimore, Maryland, on the 6th of December 1812. He was intended for an engineer, but in 1832 became an actor, playing with Ellen Tree (afterwards Mrs Charles Kean) in juvenile leads. In 1855 he was manager of the St Louis theatre for a few years and in 1859 moved to New York. In 1866 he was manager for his daughter Kate, and in 1871 returned to London, where he took the Lyceum theatre. Here he engaged Henry Irving, presenting him first in *The Bells*, with great success. He died on the 22nd of March 1875.

His wife, Sidney Frances (1823-1881), daughter of Joseph Cowell, an English actor who had settled in America, was also an actress and the author of several popular plays, in one of which, *Self* (1857), she and her husband made a great success. After her husband's death Mrs Bateman continued to manage the Lyceum till 1875. She later took the Sadler's Wells theatre, which she managed until her death on the 13th of January 1881. She was the first to bring to England an entire American company with an American play, Joaquin Miller's *The Danites*.

Mr and Mrs Bateman had eight children, three of the four daughters being educated for the stage. The two oldest, Kate Josephine (b. 1842), and Ellen (b. 1845), known as the "Bateman children," began their theatrical career at an early age. In 1862 Kate played in New York as Juliet and Lady Macbeth, and in 1863 had a great success in London as Leah in Augustin Daly's adaptation of Mosenthal's *Deborah*. In 1866 she married George Crowe, but returned to the stage in 1868, playing later as Lady Macbeth with Henry Irving, and in 1875 in the title-part of Tennyson's *Queen Mary*. When her mother opened the Sadler's Wells theatre in 1879 Miss Bateman appeared as Helen Macgregor in *Rob Roy*, and in 1881 as Margaret Field in Henry Arthur Jones' *His Wife*. Her daughter, Sidney Crowe (b. 1871), also became an actress. Virginia Bateman (b. 1854), a younger sister of Kate, born in Cincinnati, Ohio, went on the stage as a child, and first appeared in London in the title-part of her mother's play, *Fanchette*, in 1871. She created a number of important parts during several seasons at the Lyceum and elsewhere. She married Edward Compton the actor. Another sister was Isabel (b. 1854), well known on the London stage.

BATEMENT LIGHTS, in architecture the lights in the upper part of a perpendicular window, abated, or only half the width of those below.

BATES, HARRY (1850-1899), British sculptor, was born at Stevenage, Herts, on the 26th of April 1850. He began his career as a carver's assistant, and before beginning the regular study of plastic art he passed through a long apprenticeship in architectural decoration. In 1879 he came to London and entered the Lambeth School of Art, studying under Jules Dalou and Rodin, and winning a silver medal in the national competition at South Kensington. In 1881 he was admitted to the Royal Academy schools, where in 1883 he won the gold medal and the travelling scholarship of £200 with his relief of "Socrates teaching the People in the Agora," which showed grace of line and harmony of composition. He then went to Paris and studied under Rodin. A head and three small bronze panels (the "Odyssey,") executed by

Bates in Paris, were exhibited at the Royal Academy, and selected for purchase by the Chantrey trustees; but the selection had to be cancelled because they had not been modelled in England. His “Aeneas” (1885), “Homer” (1886), three “Psyche” panels and “Rhodope” (1887) all showed marked advance in form and dignity; and in 1892, after the exhibition of his vigorously designed “Hounds in Leash,” Bates was elected A.R.A. This and his “Pandora,” in marble and ivory, which was bought in the same year for the Chantrey Bequest, are now in the Tate Gallery. The portrait-busts of Harry Bates are good pieces of realism—strong, yet delicate in technique, and excellent in character. His statues have a picturesqueness in which the refinement of the sculptor is always felt. Among the chief of these are the fanciful “Maharaja of Mysore,” somewhat overladen with ornament, and the colossal equestrian statue of Lord Roberts (1896) upon its important pedestal, girdled with a frieze of figures, now set up in Calcutta, and a statue of Queen Victoria for Dundee. But perhaps his masterpiece, showing the sculptor’s delicate fancy and skill in composition, was an allegorical presentment of “Love and Life”—a winged male figure in bronze, with a female figure in ivory being crowned by the male. Bates died in London on the 30th of January 1899, his premature death robbing English plastic art of its most promising representative at the time. (See Sculpture.)

BATES, HENRY WALTER (1825-1892), English naturalist and explorer, was born at Leicester on the 8th of February 1825. His father, a manufacturing hosier, intended him for business, and for a time the son yielded to his wishes, escaping as often as he could into the neighbouring country to gratify his love of botany and entomology. In 1844 he met a congenial spirit in Alfred Russel Wallace, and the result was discussion and execution of a plan to explore some then little-known region of the globe. The banks of the Amazons was the district chosen, and in April 1848 the two friends sailed in a trader for Pará. They had little or no money, but hoped to meet their expenses by the sale of duplicate specimens. After two years Bates and Wallace agreed to collect independently, Wallace taking the Rio Negro and the upper waters of the Orinoco, while Bates continued his route up the great river for 1400 m. He remained in the country eleven years, during which time he collected no fewer than 8000 species of insects new to science. His long residence in the tropics, with the privations which it entailed, undermined his health. Nor had the exile from home the compensation of freeing him from financial cares, which hung heavy on him till he had the good fortune to be appointed in 1864 assistant-secretary of the Royal Geographical Society, a post which, to the inestimable gain of the society, and the advantage of a succession of explorers, to whom he was alike Nestor and Mentor, he retained till his death on the 16th of February 1892. Bates is best known as the auther of one of the most delightful books of travel in the English language, *The Naturalist on the Amazons* (1863), the writing of which, as the correspondence between the two has shown, was due to Charles Darwin’s persistent urgency. “Bates,” wrote Darwin to Sir Charles Lyell, “is second only to Humboldt in describing a tropical forest.” But his most memorable contribution to biological science, and more especially to that branch of it which deals with the agencies of modification of organisms, was his paper on the “Insect Fauna of the Amazon Valley,” read before the Linnaean Society in 1861. He therein, as Darwin testified, clearly stated and solved the problem of “mimicry,” or the superficial resemblances between totally different species and the likeness between an animal and its surroundings, whereby it evades its foes or conceals itself from its prey. Bates’s other contributions to the literature of science and travel were sparse and fugitive, but he edited for several years a periodical of *Illustrated Travels*. A man of varied tastes, he devoted the larger part of his leisure to entomology, notably to the classification of coleoptera. Of these he left an extensive and unique collection, which, fortunately for science, was purchased intact by René Oberthur of Rennes.

BATES, JOHN. A famous case in English constitutional history, tried before the court of exchequer in November 1606, arose out of the refusal of a merchant of the Levant Company, John Bates, to pay an extra duty of 5s. per cwt. on imported currants levied by the sole

authority of the crown in addition to the 2s. 6d. granted by the Statute of Tonnage and Poundage, on the ground that such an imposition was illegal without the sanction of parliament. The unanimous decision of the four barons of the exchequer in favour of the crown threatened to establish a precedent which, in view of the rapidly increasing foreign trade, would have made the king independent of parliament. The judgments of Chief Baron Fleming and Baron Clark are preserved. The first declares that "the king's power is double, ordinary and absolute, and they have several laws and ends. That of the ordinary is for the profit of particular subjects, for the execution of civil justice ... in the ordinary courts, and by the civilians is nominated *jus privatum*, and with us common law; and these laws cannot be changed without parliament.... The absolute power of the king is not that which is converted or executed to private uses to the benefit of particular persons, but is only that which is applied to the general benefit of the people and is *salus populi*; and this power is not guided by the rules which direct only at the common law, and is most properly named policy or government; and as the constitution of this body varieth with the time, so varieth this absolute law, according to the wisdom of the king, for the common good; and these being general rules, and true as they are, all things done within these rules are lawful. The matter in question is material matter of state, and ought to be ruled by the rules of policy, and if it be so, the king hath done well to execute his extraordinary power. All customs (*i.e.* duties levied at the ports), be they old or new, are no other but the effects and issues of trades and commerce with foreign nations; but all commerce and affairs with foreigners, all wars and peace, all acceptance and admitting for foreign current coin, all parties and treaties whatsoever are made by the absolute power of the king; and he who hath power of causes hath power also of effects." Baron Clark, in his judgment, concurred, declaring that the seaports were the king's ports, and that, since foreign merchants were admitted to them only by leave of the crown, the crown possessed also the right of fixing the conditions under which they should be admitted, including the imposition of a money payment. Incidentally, Baron Clark, in reply to the argument that the king's right to levy impositions was limited by the statute of 1370-1371, advanced a principle still more dangerous to constitutional liberty. "The statute of the 45 Edward III. cap. 4," he said, "which hath been so much urged, that no new imposition shall be imposed upon wool-fells, wool or leather, but only the custom and subsidy granted to the king—this extends only to the king himself and shall not bind his successors, for it is a principal part of the crown of England, which the king cannot diminish."

See *State Trials* (ed. 1779), xi. pp. 30-32; excerpts in G.W. Prothero, *Statutes and Constitutional Documents* (Clarendon Press, 1894); G.B. Adams and H. Morse Stephens, *Select Documents of Eng. Const. Hist.* (New York, 1901); cf. T.P. Taswell-Langmead, *Eng. Const. Hist.* (London, 1905), p. 393.

(W. A. P.)

BATES, JOSHUA (1788-1864), American financier, was born in Weymouth, Massachusetts, on the 10th of October 1788, of an old Massachusetts family prominent in colonial affairs. After several winters' schooling in his native town, he entered the counting-house of William Gray & Son in Boston. In 1809 he began business on his own account, but failed during the War of 1812 and again became associated with the Grays, then the largest shipowners in America, by whom a few years later he was sent to London in charge of their European business. There he came into relations with the Barings, and in 1826 formed a partnership with John, a son of Sir Thomas Baring. Two years later both partners were admitted to the firm of Baring Brothers & Company, of which Bates eventually became senior partner, occupying in consequence an influential position in the British financial world. In 1853-1854 he acted with rare impartiality and justice as umpire of the international commission appointed to settle claims growing out of the War of 1812. In 1852-1855 he contributed $100,000 in books and in cash for a public library in Boston, the money to be invested and the annual income to be applied to the purchase of books. Upon his death the "upper hall," or main reference-room (opened in 1861) in the building erected in 1858 by the order of the library trustees, was named Bates Hall; and upon the opening of the new building in 1895 this name was transferred to its principal reading-room, one of the finest library halls in the world. During the Civil War Bates's sympathies were strongly with the Union, and besides aiding the United States government fiscal agents in various ways, he used his influence to prevent the raising of loans for the Confederacy. He died in London

on the 24th of September 1864.

See *Memorial of Joshua Bates* (Boston, 1865).

BATES, WILLIAM (1625-1699), English nonconformist divine, was born in London in November 1625. He was admitted to Emmanuel College, Cambridge, and removed thence to King's College in 1644. Of Presbyterian belief, he held the rich living of St Dunstan's-in-the-West, London. He was one of the commissioners at the conference in the Savoy, for reviewing the public liturgy, and was concerned in drawing up the exceptions to the Book of Common Prayer. Notwithstanding this he was appointed chaplain to Charles II., and was offered the deanery of Lichfield and Coventry, but he came out in 1662 as one of the 2000 ejected ministers. Bates was of an amiable character, and enjoyed the friendship of the lord-keeper Bridgeman, the lord-chancellor Finch, the earl of Nottingham and Archbishop Tillotson. With other moderate churchmen he made several efforts towards a comprehensive settlement, but the bishops were uncompromising. He addressed William and Mary on their accession in behalf of the dissenters. After some years of pastoral service at Hackney he died there on the 14th of July 1699. Bates published *Select Lives of Illustrious and Pious Persons* in Latin; and after his death all his works, except this, were printed in 1 vol. fol.; again in 1723; and in 4 vols. 8vo in 1815. They treat of practical theology and include *Considerations on the Existence of God and the Immortality of the Soul* (1676), *Four Last Things* (1691), *Spiritual Perfection* (1699).

BATESON (Batson or Betson), **THOMAS,** an English writer of madrigals in the early 17th century. He is said to have been organist of Chester cathedral in 1599, and is believed to have been the first musical graduate of Trinity College, Dublin. He is known to have written church music, but his fame rests on his madrigals, which give him an important place among Elizabethan composers. He published a set of madrigals in 1604 and a second set in 1618, and both collections have been reprinted in recent years. He died in 1630.

BATH, THOMAS THYNNE, 1st Marquess of (1734-1796), English politician, was the elder son of Thomas Thynne, 2nd Viscount Weymouth (1710-1751), and the great-grandnephew of Thomas Thynne (*c.* 1640-1714), the friend of Bishop Ken, who was created Baron Thynne and Viscount Weymouth in 1682. His mother was Louisa (d. 1736), daughter of John Carteret, 1st Earl Granville, and a descendant of the family of Granville who held the earldom of Bath from 1661 to 1711. The Thynnes are descended from Sir John Thynne, the builder of Longleat, the splendid seat of the family in Wiltshire. Sir John, owed his wealth and position to the favour of his master, the protector Somerset; he was comptroller of the household of the princess Elizabeth, and was a person of some importance after the princess became queen. He died in April 1580. Another famous member of this family was Thomas Thynne (1648-1682), called on account of his wealth "Tom of Ten Thousand." He is celebrated by Dryden as Issachar in *Absalom and Achitophel*, and was murdered in London by some Swedes in February 1682.

Born on the 13th of September 1734, Thomas Thynne succeeded, his father as 3rd Viscount Weymouth in January 1751, and was lord-lieutenant of Ireland for a short time during 1765, although he never visited that country. Having, however, become prominent in English politics he was appointed secretary of state for the northern department in January 1768; he acted with great promptitude during the unrest caused by John Wilkes and the Middlesex election of 1768. He was then attacked and libelled by Wilkes, who was consequently expelled from the House of Commons. Before the close of 1768 he was

transferred, from the northern to the southern department, but he resigned in December 1770 in the midst of the dispute with Spain over the possession of the Falkland Islands. In November 1775 Weymouth returned to his former office of secretary for the southern department, undertaking in addition the duties attached to the northern department for a few months in 1779, but he resigned both positions in the autumn of this year. In 1789 he was created marquess of Bath, and he died on the 19th of November 1796. Weymouth was a man of considerable ability especially as a speaker, but according to more modern standards his habits were very coarse, resembling those of his friend and frequent companion, Charles James Fox. Horace Walpole refers frequently to his idleness and his drunkenness, and in early life at least "his great fortune he had damaged by such profuse play, that his house was often full of bailiffs." He married Elizabeth (d. 1825), daughter of William Bentinck, 2nd duke of Portland, by whom he had three sons and ten daughters. His eldest son Thomas (1765-1837) succeeded to his titles, while the two younger ones, George (1770-1838) and John (1772-1849), succeeded in turn to the barony of Carteret of Hawnes, which came to them from their uncle, Henry Frederick Thynne (1735-1826). Weymouth's great-grandson, John Alexander, 4th marquess of Bath (1831-1896), the author of *Observations on Bulgarian affairs* (1880), was succeeded as 5th marquess by his son Thomas Henry (b. 1862).

See B. Botfield, *Stemmata Botevilliana* (1858).

BATH, WILLIAM PULTENEY, 1ST EARL OF (1684-1764), generally known by the surname of PULTENEY, English politician, descended from an ancient family of Leicestershire, was the son of William Pulteney by his first wife, Mary Floyd, and was born in April 1684. The boy was sent to Westminster school, and from it proceeded to Christ Church, Oxford, matriculating the 31st of October 1700. At these institutions he acquired his deep classical knowledge. On leaving Oxford he made the usual tour on the continent. In 1705 he was brought into parliament by Henry Guy (secretary of the treasury, 1679-1688, and June 1691 to February 1695) for the Yorkshire borough of Hedon, and at his death on the 23rd of February 1710 inherited an estate of £500 a year and £40,000 in cash. This seat was held by him without a break until 1734. Throughout the reign of Queen Anne William Pulteney played a prominent part in the struggles of the Whigs, and on the prosecution of Sacheverell he exerted himself with great zeal against that violent divine. When the victorious Tories sent his friend Robert Walpole to the Tower in 1712, Pulteney championed his cause in the House of Commons and with the leading Whigs Visited him in his prison-chamber. He held the post of secretary of war from 1714 to 1717 in the first ministry of George I., and when the committee of secrecy on the Utrecht treaty was formed in April 1715 the list included the flame of William Pulteney. Two years later (6th of July 1716), he became one of the privy council. When Townshend was dismissed, in April 1717, from his post of lord-lieutenant of Ireland, and Walpole resigned his places, they were followed in their retirement by Pulteney. The crash of the South Sea Company restored Walpole to the highest position, but all that he offered to Pulteney was a peerage. The offer was rejected, but in May 1723 Pulteney stooped to accept the lucrative but insignificant post of cofferer of the household. In this obscure position he was content for some time to await the future; but when he found himself neglected he opposed the proposition of Walpole to discharge the debts of the civil list, and in April 1725 was dismissed from his sinecure. From the day of his dismissal to that of his ultimate triumph Pulteney remained in opposition, and, although Sir Robert Walpole attempted in 1730 to conciliate him by the offer of Townshend's place and of a peerage, all his overtures were spurned. Pulteney's resentment was not confined to his speeches in parliament. With Bolingbroke he set on foot in December 1726 the well-known periodical called the *Craftsman*, and in its pages the minister was incessantly denounced for many years. Lord Hervey published an attack on the *Craftsman*, and Pulteney, either openly or behind the person of Amhurst, its editor, replied to the attack. Whether the question at issue was the civil list, the excise, the income of the prince of Wales, or the state of domestic affairs Pulteney was ready with a pamphlet, and the minister or one of his friends came out with a reply. For his "Proper reply to a late scurrilous libel" (*Craftsman*, 1731), an answer to "Sedition and defamation displayed," he was challenged to a duel by Lord Hervey; for another, "An answer to one part of an infamous libel entitled remarks on the *Craftsman's* indication of his two honourable patrons," he was in July 1731 struck off the roll of privy councillors and dismissed from the commission of the peace in several counties. In print Pulteney was inferior to Bolingbroke alone among the antagonists of Walpole, but in

parliament, from which St John was excluded, he excelled all his comrades. When the sinking fund was appropriated in 1733 his voice was the foremost in denunciation; when the excise scheme in the same year was stirring popular feeling to its lowest depths the passion of the multitude broke out in his oratory. Through Walpole's prudent withdrawal of the latter measure the fall, of his ministry was averted. Bolingbroke withdrew to France on the suggestion, it is said, of Pulteney, and the opposition was weakened by the dissensions of the leaders.

From the general election of 1734 until his elevation to the peerage Pulteney sat for Middlesex. For some years after this election the minister's assailants made little progress in their attack, but in 1738 the troubles with Spain supplied them with the opportunity which they desired. Walpole long argued for peace, but he was feebly supported in his own cabinet, and the frenzy of the people for War knew no bounds. In an evil moment for his own reputation he consented to remain in office and to gratify popular passion with a war against Spain. His downfall was not long deferred. War was declared in 1739; a new parliament was summoned in the summer of 1741, and over the divisions on the election petitions the ministry of Walpole fell to pieces. The task of forming the new administration was after some delay entrusted to Pulteney, who weakly offered the post of first lord of the treasury to that harmless politician the earl of Wilmington, and contented himself with a seat in the cabinet and a peerage thinking that by this action he would preserve his reputation for consistency in disdaining office and yet retain his supremacy in the ministry. At this act popular feeling broke out into open indignation, and from the moment of his elevation to the Upper House Pulteney's influence dwindled to nothing. Horace Walpole asserts that when Pulteney wished to recall his desire for a peerage it was forced upon him through the ex-minister's advice by the king, and another chronicler of the times records that when victor and vanquished met in the House of Lords, the one as Lord Orford, the other as the earl of Bath, the remark was made by the exulting Orford: "Here we are, my lord, the two most insignificant fellows in England." On the 14th of July 1742 Pulteney was created Baron Pulteney of Hedon, Co. York, Viscount Pulteney of Wrington, Co. Somerset, and earl of Bath. On the 20th of February he had been restored to his rank in the privy council. At Wilmington's death in 1743 he made application to the king for the post of first lord of the treasury, only to find that it had been conferred on Henry Pelham. For two days, 10th-12th February 1746, he was at the head of a ministry, but in "48 hours, three quarters, seven minutes, and eleven seconds" it collapsed. An occasional pamphlet and an infrequent speech were afterwards the sole fruits of Lord Bath's talents. His praises whilst in retirement have been sung by two bishops, Zachary Pearce and Thomas Newton. He died on the 7th of July 1764, and was buried on the 17th of July in his own vault in Islip chapel, Westminster Abbey. He married on the 27th of December 1714 Anna Maria, daughter and co-heiress of John Gumley of Isleworth, commissary-general to the army who was often satirized by the wits of the day (*Notes and Queries*, 3rd S. ii. 402-403, iii. 490). She died on the 14th of September 1758, and their only son William died unmarried at Madrid on the 12th of February 1763. Pulteney's vast fortune came in 1767 to William Johnstone of Dumfries (third son of Sir James Johnstone), who had married Frances, daughter and co-heiress of his cousin, Daniel Pulteney, a bitter antagonist of Walpole in parliament, and had taken the name of Pulteney.

Pulteney's eloquence was keen and incisive, sparkling with vivacity and with allusions drawn from the literature of his own country and of Rome. Of business he was never fond, and the loss in 1734 of his trusted friend John Merrill, who had supplied the qualities which he lacked, was feelingly lamented by him in a letter to Swift. His chief weakness was a passion for money. Lord Bath has left no trace of the possession of practical statesmanship.

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(W. P. C.)

BATH, a city, municipal, county and parliamentary borough, and health resort of Somersetshire, England, on the Great Western, Midland, and Somerset & Dorset railways, 107½ m. W. by S. of London. Pop. (1901) 49,839. Its terraces and crescents, built mostly of grey freestone, cover the slopes and heights of the abrupt hills which rise like an

amphitheatre above the winding valley of the river Avon. The climate is pleasant, and the city, standing amidst fine scenery, itself possesses a number of beautiful walks and gardens. Jointly with Wells, it is an episcopal see of the Church of England. The abbey church of St Peter and St Paul occupies the site of earlier Saxon and Norman churches, founded in connexion with a 7th-century convent, which was transferred for a time to a body of secular canons, and from about 970 until the Dissolution, to Benedictine monks. The present cruciform building dates from the 15th century, being a singularly pure and ornate example of late Perpendicular work. From the number of its windows, it has been called “The Lantern of the West,” and especially noteworthy is the great west window, with seven lights, and flanking turrets on which are carved figures of the angels ascending and descending on Jacob’s Ladder. Within are the tombs of James Quin, the actor, with an epitaph by Garrick; Richard Nash; Thomas Malthus the economist; William Broome the poet, and many others. Some of the monuments are the work of Bacon, Flaxman and Chantrey. Slight traces of the previous Norman building remain. There are many other churches and chapels in Bath, the oldest being that of St Thomas of Canterbury, and one of the most interesting St Swithin’s, which contains the tombs of Christopher Anstey and Madame d’Arblay. Among educational institutions may be mentioned the free grammar school, founded by Edward VI., the Wesleyan College, originally established at Bristol by John Wesley, and the Roman Catholic College. The hospital of St John was founded in the 12th century. The public buildings include a guild hall, assembly rooms, Jubilee hall, art gallery and library, museum, literary and scientific institute, and theatres. In the populous suburb of Twerton (pop. 11,098), there are lias quarries, and bricks and woollen cloths are manufactured. The parliamentary borough returns two members. The city is governed by a mayor, 14 aldermen and 42 councillors. Area, 3382 acres.

The mineral springs supply several distinct establishments. The temperature varies in the different springs from 117° to 120° F, and the specific gravity of the hot baths is 1.002. The principal substances in solution are calcium and sodium sulphates, and sodium and magnesium chlorides. Traces of radium have been revealed, and the gases contain argon and helium. The waters are very beneficial in cases of rheumatism, gout, neuralgia, sciatica, diseases of the liver, and cutaneous and scrofulous affections. The highest archaeological interest, moreover, attaches to the baths in view of the magnificent Roman remains testifying to the early recognition of the value of the waters. It may here be noted that two distinct legends ascribe the foundation of Bath to a British king Bladud. According to Geoffrey of Monmouth this monarch gave its healing power to the water by his spells. According to a later version, he was banished as a leper, and made the discovery leading to his cure, and to the origin of Bath, whilst wandering as a swineherd in 863 B.C. This, at least, is the date inscribed on a statue of Bladud placed in the Pump Room in 1699. There is, however, no real evidence of a British settlement. By the Romans Bath was named *Aquae Sulis*, the name indicating the dedication to a British goddess Sul or Sulis, whom the Romans considered the counterpart of Minerva. There were a temple of the goddess and a few houses for priests, officials and visitors, besides the large baths, and the place was apparently walled; but it did not contain a large resident population. Many relics have been disinterred, such as altars, inscriptions, fragments of stone carvings and figures, Samian ware, and others. The chief buildings were apparently grouped near the later abbey churchyard, and included, besides two temples, a magnificent bath, discovered when the duke of Kingston pulled down the old priory in 1755 to form the Kingston Baths. Successive excavations have rendered accessible a remarkable series of remains, including several baths, a *sudarium*, and conduits. The main bath still receives its water (now for the purpose of cooling) through the original conduit. The fragmentary colonnade surrounding this magnificent relic still supports the street and buildings beneath which it lies, the Roman foundations having been left untouched. The remains of the bath and of the temple are among the most striking Roman antiquities in western Europe.

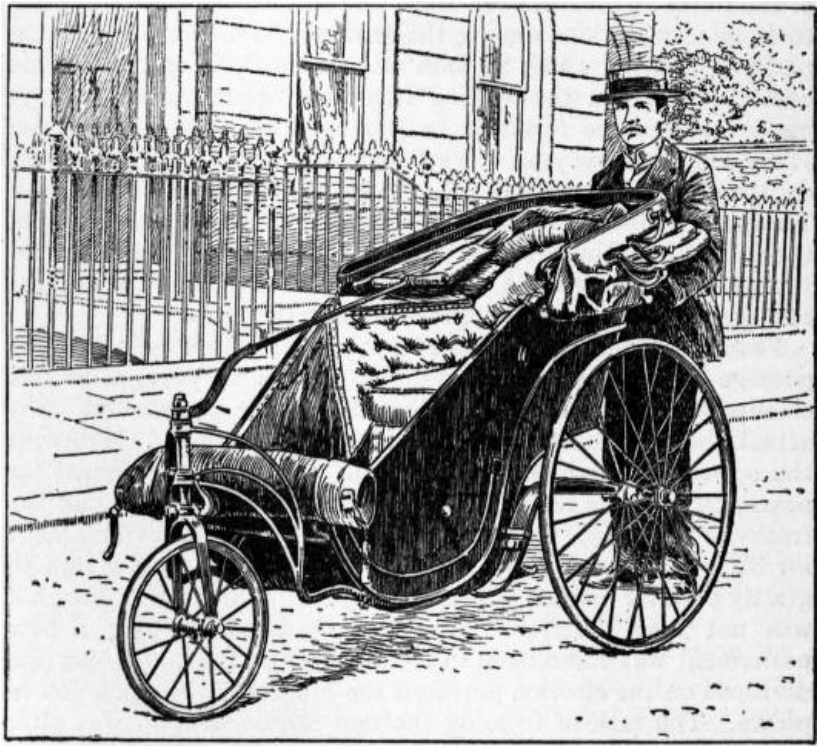
Bath (variously known as Achemann, Hat Bathun, Bathonea, Batha) was a place of note in Saxon times, King Edgar being crowned there in 973. It was a royal borough governed by a reeve, with a burg mote in 907. Richard I. granted the first charter in 1189, which allowed the same privileges as Winchester to the members of the merchant gild. This was confirmed by Henry III. in 1236, 1247 and 1256, by charters giving the burgesses of Bath the right to elect coroners, with freedom from arrest for the debts of others, and from the interference of sheriffs or kings’ bailiffs. Charters were granted by succeeding kings in 1312, 1322, 1341, 1382, 1399, 1414, 1432, 1447, 1466 and 1545. The existence of a corporation being assumed in the earliest royal charter, and a common seal having been used since 1249, there was no formal incorporation of Bath until the charter of 1590, 1794 and 1835. Parliamentary representation began in 1297. Various fairs were granted to Bath, to be held

on the 29th of August, the 9th of August, the 30th of June to the 8th of July (called Cherry Fair), the 1st of February to the 6th of February, in 1275, 1305, 1325 and 1545 respectively. Fairs are now held on the 4th of February and on the Monday after the 9th of December. These fairs were flourishing centres of the cloth trade in the middle ages, but this industry has long departed. Bath "beaver," however, was known throughout England, and Chaucer makes his "Wife of Bath" excel the cloth-weavers "of Ypres and of Gaunt." The golden age of Bath began in the 18th century, and is linked with the work of the two architects Wood (both named John), of Ralph Allen, their patron, and of Richard Nash, master of the ceremonies. Previously the baths had been ill-kept, the lodging poor, the streets beset by footpads. All this was changed by the architectural scheme, including Queen Square, the Royal Crescent and the North and South Parades, which was chiefly designed by the elder Wood, and chiefly executed by his son. Instead of the booth which did duty as a gaming club and chocolate house, Nash provided the assembly rooms which figure largely in the pages of Fielding, Smollett, Burney, Dickens and their contemporaries. Anstey published his *New Bath Guide* to ridicule the laws of taste which "Beau" Nash dictated; but two royal visits, in 1734 and 1738, established Bath as a centre of English fashion. The weekly markets granted on Wednesday and Saturday in 1305 are still held.

See R. Warner, *History and Antiquities of Bath* (1801); C.E. Davis, *Ancient Landmarks of Bath*; *The Mineral Baths of Bath* (1883); *Excavations of Roman Baths* (1895), and *The Saxon Cross* (1898); Sir G. Jackson, *Archives of Bath* (2 vols., 1873); R.E.M. Peach, *Rambles about Bath* (1875), *Bath Old and New* (1888), *Collections of Books belonging to the City* (1893), &c.; H. Scarth, *Aquae Solis, or Notices of Roman Bath* (1864); A. Barbeau, *Life and Letters at Bath in the 18th Century* (from the French *Une Ville d'eaux anglaise au XVIII^e siècle*) (London, 1904); A.H. King, *Charter of Bath Corporation*.

BATH, a city, port of entry, and the county-seat of Sagadahoc county, Maine, U.S.A., on the W. bank of the Kennebec river, 12 m. from its mouth and 36 m. N.E. of Portland. Pop. (1890) 8723; (1900) 10,477, of whom 1759 were foreign-born; (1910, census) 9396. It is served by the Maine Central railway, by steamboat lines to Boston, and by inter-urban electric railway. The city covers an area of about 9 sq. m., and extends along the W. bank of the river for about 5 m.; the business district is only a few feet above sea-level, but most of the residences are on higher ground. The streets are well shaded, chiefly with elms. At Bath are the state military and naval orphan asylum, two homes for the aged, and a soldiers' monument. Bath has a good harbour and its principal industry is the building of ships, both of wood and of iron and steel, several vessels of the United States navy have been built here. In 1905 three-fourths of the city's wage-earners were employed in this industry. Bath also manufactures lumber, iron and brass goods, and has a considerable trade in ice, coal, lumber and iron and steel. First settled about 1660, Bath was a part of Georgetown until 1781, when it was incorporated as a separate town; in 1789 it was made a port of entry, and in 1847 was chartered as a city.

BATH-CHAIR, a vehicle with a folding hood, which can be used open or closed, and a glass front, mounted on three or four wheels and drawn or pushed by hand. If required to be drawn by a donkey or small pony it is then mounted on four wheels, with the usual turning arrangement. James Heath, of Bath, who flourished rather before the middle of the 18th century, was the inventor.



BATHGATE, a municipal and police burgh of Linlithgowshire, Scotland, 19 m. W. by S. of Edinburgh by the North British railway. Pop. (1901) 7549. The district is rich in limestone, coal, ironstone, shale and fireclay, all of which are worked. Silver also was once mined. The manufactures include paraffin, paper, glass, chemicals, flour and whisky, and freestone is quarried. The burgh is a considerable centre for agricultural produce. Bathgate became a burgh of barony in 1824 and a police burgh in 1865. Although it was not until the development of its mineral wealth that it attained to commercial importance, it is a place of some antiquity, and formed the dowry of Marjory, Robert Bruce’s daughter, who married Walter, the hereditary steward of Scotland, in 1315.

BATHOLITE (from Gr. βοθύς, deep, and λιθός, a stone), in geology, a term given to certain intrusive rock masses. Especially in districts which are composed principally of rocks belonging to the older geological systems extensive areas of granite frequently occur. By their relations to the strata around them, it is clear that these granites have been forced into their present positions in a liquid state, and under great pressure. The bedding planes of stratified rocks are wedged apart and tongues of granite have been injected into them, while cracks have been opened up and filled with intrusions in the shape of igneous veins. Great masses of the strata which the granite has invaded are often floated off, and are found lying in the heart of the granite much altered by the heat to which they have been exposed, and traversed by the igneous rock in ramifying threads. Such granite intrusions are generally known as bosses from their rounded surfaces, and the frequency with which they form flattish dome-shaped hills, rising above the older rocks surrounding them. At one time many geologists held that in certain situations the granite had arisen from the complete fusion and transformation of the stratified rocks over a limited area of intense metamorphism. The chemical no less than the structural relations of the two sets of rocks, however, preclude the acceptance of this hypothesis. Obviously the granite is an intruder which has welled up from below, and has cooled gradually, and solidified in its present situation.

Regarding the mechanism of this process there are two theories which hold the field, each having a large number of supporters. One school considers that they are mostly “batholites”

or conical masses rising from great depths and eating up the strata which lie above and around them. The frequency of inclusions of the surrounding rocks, their rounded shapes indicating that they have been partly dissolved by the igneous magma, the intense alteration which they have undergone pointing to a state approaching actual fusion, the extensive changes induced in the rocks which adjoin the granite, the abundance of veins, and the unusual modifications of the granite which occur where it comes in contact with the adjacent strata, are adduced as evidence that there has been absorption and digestion of the country rock by the intrusive mass. These views are in favour especially in France; and instances are cited in which as the margins of the granite are approached diorites and other rocks make their appearance, which are ascribed to the effect which admixture with dissolved sedimentary material has had on the composition of the granite magma; at the same time the schists have been permeated with felspar from the igneous rocks, and are said to have been felspathized.

The opponents of this theory hold these granitic masses to be “laccolites” (Gr. λάκκος, a cistern), or great cake-shaped injections of molten rock, which have been pressed from below into planes of weakness in the upper portions of the earth’s crust, taking the lines of least resistance, and owing their shape to the varying flexibility of the strata they penetrated. The modifications of the granite are ascribed to magmatic segregation (chemical and physical processes which occasioned diffusion of certain components towards the cooling surfaces). Absorption of country rock is held to be unimportant in amount, and insufficient to account for the great spaces in the schists which are occupied by the granite. Those who support this theory leave the question of the ultimate source of the granite unanswered, but consider that it is of deep-seated origin, and the bosses which now appear at the surface are only comparatively superficial manifestations.

The bulk of the evidence is in favour of the laccolitic theory; in fact it has been clearly demonstrated in many important cases. Still it is equally clear that many granites are not merely passive injections, but have assimilated much foreign rock. Possibly much depends on the chemical composition of the respective masses, and on the depths and temperatures at which the intrusion took place. Increase of pressure and of temperature, which we know to take place at great depths, would stimulate resorption of sedimentary material, and by retarding cooling would allow time for dissolved foreign substances to diffuse widely through the magma.

(J. S. F.)

BATHONIAN SERIES, in geology. The typical Bathonian is the Great Oolite series of England, and the name was derived from the “Bath Oolite,” so extensively mined and quarried in the vicinity of that city, where the principal strata were first studied by W. Smith. The term was first used by J. d’Omalius d’Halloy in 1843 (*Precis Geol.*) as a synonym for “Dogger”; but it was limited in 1849 by A. d’Orbigny (*Pal. Franc. Jur.* i. p. 607). In 1864 Mayer-Eymar (*Tabl. Synchron.*) used the word “Bathien” = Bajocian + Bathonian (sen. str.). According to English practice, the Bathonian includes the following formations in descending order: Cornbrash, Forest Marble with Bradford Clay, Great or Bath Oolite, Stonesfield Slate and Fullers’ Earth. (The Fullers’ Earth is sometimes regarded as constituting a separate stage, the “Fullonian.”) The “Bathonien” of some French geologists differs from the English Bathonian in that it includes at the base the zone of the ammonite *Parkinsonia Parkinsoni*, which in England is placed at the summit of the Inferior Oolite. The Bathonian is the equivalent of the upper part of the “Dogger” (Middle Jurassic) of Germany, or to the base of the Upper Brown Jura (substage “E” of Quenstedt).

Rocks of Bathonian age are well developed in Europe: in the N.W. and S.W. oolite limestones are characteristically associated with coral-bearing, crinoidal and other varieties, and with certain beds of clay. In the N. and N.E., Russia, &c., clays, sandstones and ferruginous oolites prevail, some of the last being exploited for iron. They occur also in the extreme north of America and in the Arctic regions, Greenland, Franz Josef Land, &c.; in Africa, Algeria, German East Africa, Madagascar and near the Cape (Enon Beds); in India, Rajputana and Gulf of Cutch, and in South America.

The well-known Caen stone of Normandy and “Hauptrogenstein” of Swabia, as well as the “Eisenkalk” of N.W. Germany, and “Klaus-Schichten” of the Austrian Alps, are of Bathonian

age.

For a general account, see A. de Lapparent, *Traité de géologie* (5th ed., 1906), vol. ii.; see also the article JURASSIC.

(J. A. H.)

BÁTHORY, SIGISMUND (ZSIGMOND), (1572-1613), prince of Transylvania, was the son of Christopher, prince of Transylvania, and Elizabeth Bocskay, and nephew of the great Stephen Báthory. He was elected prince in his father's lifetime, but being quite young at his father's death (1581), the government was entrusted to a regency. In 1588 he attained his majority, and, following the advice of his favourite councillor Alfonso Carillo, departed from 514
the traditional policy of Transylvania in its best days (when friendly relations with the Porte were maintained as a matter of course, in order to counterpoise the ever hostile influence of the house of Habsburg), and joined the league of Christian princes against the Turk. The obvious danger of such a course caused no small anxiety in the principality, and the diet of Torda even went so far as to demand a fresh coronation oath from Sigismund, and, on his refusal to render it, threatened him with deposition. Ultimately Báthory got the better of his opponents, and executed all whom he got into his hands (1595). Nevertheless, if anybody could have successfully carried out an anti-Turkish policy, it was certainly Báthory. He had inherited the military genius of his uncle, and his victories astonished contemporary Europe. In 1595 he subdued Walachia and annihilated the army of Sinan Pasha at Giurgevo (October 28th). The turning-point of his career was his separation from his wife, the archduchess Christina of Austria, in 1599, an event followed by his own abdication the same year, in order that he might take orders. It was on this occasion that he offered the throne of Transylvania to the emperor Rudolph II., in exchange for the duchy of Oppeln. In 1600, however, at the head of an army of Poles and Cossacks, he attempted to recover his throne, but was routed by Michael, voivode of Moldavia, at Suceava. In February 1601 the diet of Klausenburg reinstated him, but again he was driven out by Michael, never to return. He died at Prague in 1613. Báthory's indisputable genius must have been warped by a strain of madness. His incalculableness, his savage cruelty (like most of the princes of his house he was a fanatical Catholic and persecutor) and his perpetual restlessness point plainly enough to a disordered mind.

See Ignaz Acsády, *History of the Hungarian State* (Hung.) vol. ii., (Budapest, 1904).

(R. N. B.)

BATHOS (Gr. βάθος), properly depth, the bottom or lowest part of anything. The current usage for an anticlimax, a descent "from the sublime to the ridiculous," from the elevated to the commonplace in literature or speech, is due to Pope's satire on *Bathos* (*Miscellanies*, 1727-1728), "the art of sinking in poetry." The title was a travesty of Longinus's essay, *On the Sublime*, Περὶ ὕψους.

BATHS. In the ordinary acceptation of the word a bath is the immersion of the body in a medium different from the ordinary one of atmospheric air, which medium is usually common water in some form. In another sense it includes the different media that may be used, and the various arrangements by which they are applied.

Ancient Baths.—Bathing, as serving both for cleanliness and for pleasure, has been almost instinctively practised by nearly every people. The most ancient records mention bathing in the rivers Nile and Ganges. From an early period the Jews bathed in running water, used both hot and cold baths, and employed oils and ointments. So also did the Greeks; their

earliest and commonest form of bathing was swimming in rivers, and bathing in them was practised by both sexes. Warm baths were, according to Homer, used after fatigue or exercise. The Athenians appear for a long time to have had only private baths, but afterwards they had public ones: the latter seem to have originated among the Lacedaemonians, who invented the hot-air bath, at least the form of it called after them the *laconicum*. Although the baths of the Greeks were not so luxurious as those of some other nations, yet effeminate people were accused among them of using warm baths in excess; and the bath servants appear to have been rogues and thieves, as in later and larger establishments. The Persians must have had handsomely equipped baths, for Alexander the Great admired the luxury of the bath of Darius.

But the baths of the Greeks, and probably of all Eastern nations, were on a small scale as compared with those which eventually sprang up among the Romans. In early times the Romans used after exercise to throw themselves into the Tiber. Next, when ample supplies of water were brought into the city, large *piscinae*, or cold swimming baths, were constructed, the earliest of which appear to have been the *piscina publica* (312 B.C.), near the Circus Maximus, supplied by the Appian aqueduct, the *lavacrum* of Agrippina, and a bath at the end of the Clivus Capitolinus. Next, small public as well as private baths were built; and with the empire more luxurious forms of bathing were introduced, and warm became far more popular than cold baths.

Public baths (*balneae*) were first built in Rome after Clodius brought in the supply of water from Praeneste, After that date baths began to be common both in Rome and in other Italian cities; and private baths, which gradually came into use, were attached to the villas of the wealthy citizens. Maecenas was one of the first who built public baths at his own expense. After his time each emperor, as he wished to ingratiate himself with the people, lavished the revenues of the state in the construction of enormous buildings, which not only contained suites of bathing apartments, but included gymnasia, and sometimes even theatres and libraries. Such enormous establishments went by the name of *thermae*. The principal thermae were those of Agrippa 21 B.C., of Nero 65 A.D., of Titus 81, of Domitian 95, of Commodus 185, of Caracalla 217, and still later those of Diocletian 302, and of Constantine. The technical skill displayed by the Romans in rendering their walls and the sides of reservoirs impervious to moisture, in conveying and heating water, and in constructing flues for the conveyance of hot air through the walls, was of the highest order.

The Roman baths contained swimming baths, warm baths, baths of hot air, and vapour baths. The chief rooms (which in the largest baths appear to have been mostly distinct, whereas in smaller baths one chamber was made to do duty for more than a single purpose) were the following:—(1) The *apodyterium* or *spoliatorium*, where the bathers undressed; (2) the *alipterium* or *unctuarium*, where oils and ointments were kept (although the bathers often brought their own pomades), and where the *aliptae,* anointed the bathers; (3) the *frigidarium*, or cool room, *cella frigida*, in which usually was the cold bath, the *piscina* or *baptisterium*; (4) the *tepidarium*, a room moderately heated, in which the bathers rested for a time, but which was not meant for bathing; (5) the *calidarium* or heating room, over the *hypocaustum* or furnace; this in its commonest arrangement had at one end a warm bath, the *alveus* or *calida lavatio*; at the other end in a sort of alcove was (6) the *sudatorium* or *laconicum*, which usually had a *labrum* or large vessel containing water, with which bathers sprinkled themselves to help in rubbing off the perspiration. In the largest baths the laconicum was probably a separate chamber, a circular domical room with recesses in the sides, and a large opening in the top; but there is no well-preserved specimen, unless that at Pisa may be so regarded. In the drawing of baths from the thermae of Titus (fig. 1), the laconicum is represented as a small cupola rising in a corner of the calidarium. It is known that the temperature of the laconicum was regulated by drawing up or down a metallic plate or *clypeus*. Some think that this clypeus was directly over the flames of the hypocaustum, and that when it was withdrawn, the flames must have sprung into the laconicum. Others, and apparently they have Vitruvius on their side, think that the clypeus was drawn up or down only from the aperture in the roof, and that it regulated the temperature simply by giving more or less free exit to the hot air. If the laconicum was only one end of the calidarium, it is difficult to see how that end of the room was kept so much hotter than the rest of it; on the other hand, to have had flames actually issuing from the laconicum must have caused smoke and soot, and have been very unpleasant. The most usual order in which the rooms were employed seems to have been the following, but there does not appear to have been any absolute uniformity of practice then, any more than in modern Egyptian and Turkish baths. Celsus recommends the bather first to sweat a little in the tepidarium with his clothes on, to be anointed there, and then to pass into the calidarium; after he has sweated freely there he is not to descend into the solium or cold bath, but to have plenty of

water poured over him from his head,—first warm, then tepid, and then cold water—the water being poured longer over his head than on the rest of the body; next to be scraped with the strigil, and lastly to be rubbed and anointed.

The warmest of the heated rooms, *i.e.* the calidarium and laconicum, were heated directly from the hypocaustum, over which they were built or suspended (*suspensura*); while from the hypocaustum tubes of brass, or lead, or pottery carried the hot air or vapour to the walls of the other rooms. The walls were usually hollow, so that the hot air could readily circulate.

The water was heated ingeniously. Close to the furnace, about 4 in. off, was placed the *calidarium*, the copper (*ahenum*) for boiling water, near which, with the same interval between them, was the copper for warm water, the *tepidarium*, and at the distance of 2 ft. from this was the receptacle for cold water, or the *frigidarium*, often a plastered reservoir. A constant communication was kept up between these vessels, so that as fast as hot water was drawn off from the calidarium a supply was obtained from the tepidarium, which, being already heated, but slightly reduced the temperature of the hotter boiler. The tepidarium, again, was supplied from the frigidarium, and that from an aqueduct. In this way the heat which was not taken up by the first boiler passed on to the second, and instead of being wasted, helped to heat the second—a principle which has only lately been introduced into modern furnaces. In the case of the large thermae the water of an aqueduct was brought to the *castellum* or top of the building and was allowed to descend into chambers over the hypocaustum, where it was heated and transmitted in pipes to the central buildings. Remains of this arrangement are to be seen in the baths of Caracalla. The general plan of such buildings may be more clearly understood by the accompanying illustrations. In the well-known drawing (fig. 1) found in the baths of Titus, the name of each part of the building is inscribed on it. The small dome inscribed laconicum directly over the furnace, and having the clypeus over it, will be observed in the corner of the chamber named concamerata sudatio. The vessels for water are inscribed, according to their temperature, with the same names as some of the chambers, frigidarium, tepidarium and calidarium.

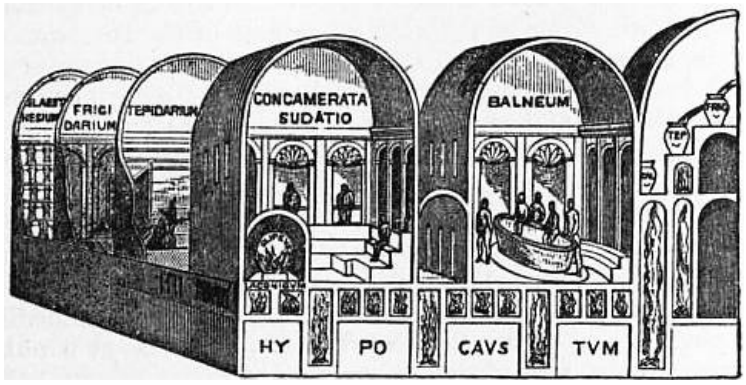


FIG. 1.—Roman baths.

The baths of Pompeii (as shown in fig. 2) were a double set, and were surrounded with tabernae or shops, which are marked by a lighter shade. There were streets on four sides; and the reservoir supplying water was across the street in the building on the left hand of the cut. There were three public entrances—21*a*, 21*b*, 21c—to the men's baths and one to the women's. The furnaces (9) heated water, which was conveyed on one side to the larger baths of the men, on the other to the women's. Entering from the street at 21c there was a latrina on the left hand (22). From this entrance it was usual to proceed to a court (20) surrounded by pillars, where servants were in attendance. There is some doubt as to the purpose to which the room (19) was devoted. Leaving the hall a passage conducted to the apodyterium or dressing-room (17), at one end of it is the frigidarium, baptisterium or cold plunge bath (18). Entering out of the apodyterium is the tepidarium or warming-room (15), which most probably was also used as the alipterium or anointing-room. From it bathers passed into the hot room or calidarium (12), which had at one end the alveus or calida lavatio (13), at the other end the labrum (14). This end of the calidarium served as the laconicum. The arrangements of the women's baths were similar, but on a smaller scale. The calidarium (5) had the labrum (7) at one end, and the alveus (6) was in one side of the room. The general arrangements of a calidarium are well illustrated by the accompanying section (fig. 3) of a bath discovered at Tusculum. The disposition of the parts is the same as at Pompeii. We here have the calidarium supported on the pillars of the fornax, the suspensura. The alveus (3) is at one end, and the labrum (4) at the other. (1) and (2) are the vessels for water over the fornax; and the passages in the roof and walls for the escape of heated air

will be observed.

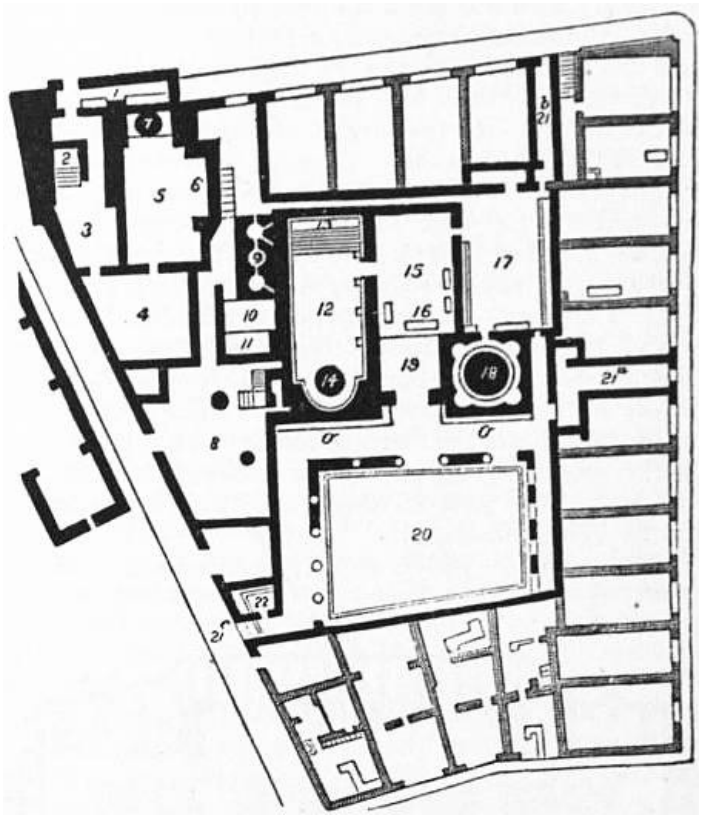


FIG. 2.—Ground plan of the baths of Pompeii.

A clear idea of the relative position of the different rooms, and some slight indication of their ornamentation, will be obtained from fig. 4. The flues under the calidarium and the labrum (1) may be observed, as also the opening in the roof above. (2), (3) and (4) mark the vessels for water which are placed between the men's baths on the left and the women's on the right.

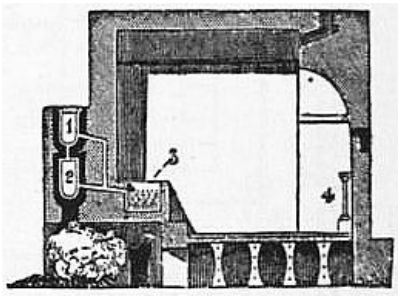
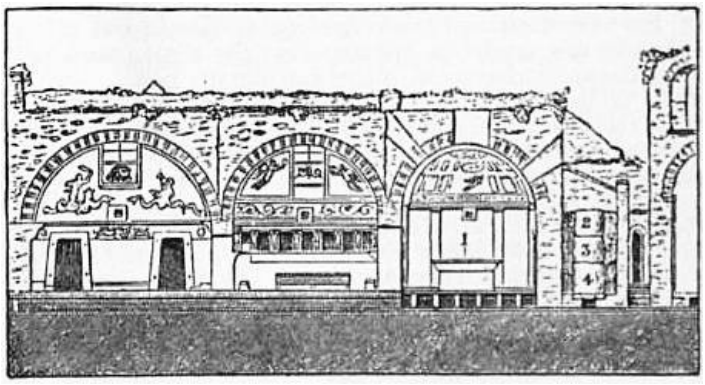


FIG. 3.—Section of bath discovered at Tusculum, showing the calidarium (hot room).

The arrangements of the *thermae* were mainly those of the balneae on a larger scale. Some idea of their size may be gathered from such facts as these, that in the baths of Diocletian one room has been transmuted into a church of most imposing proportions, and that the outside walls of the baths of 516
Caracalla extend about a quarter of a mile on each of the four sides. A visit to the remains of the baths of Titus, of Diocletian, or of Caracalla impresses the mind strongly with a sense of the vast scale on which they were erected, and Ammianus's designation of them as provinces appears scarcely exaggerated. It is said that the baths of Caracalla contained 1600, and those of Diocletian 3200 marble seats for the use of the bathers. In the largest of the thermae there was a stadium for the games of the young men, with raised seats for the spectators. There were open colonnades and seats for philosophers and literary men to sit and discourse or read their productions aloud or for others to discuss the latest news. Near the porticoes, in the interior open space, rows of trees were planted. There was a *sphaeristerium* or place for playing ball, which was often over the apodyterium; but it must be confessed that the purposes of many portions of these large edifices have not been made out in as satisfactory a way as those of smaller baths. A more definite idea of the thermae can be best got by an examination of the accompanying plan of the baths of Caracalla (fig. 5). A good deal of the plan is conjectural, the restorations being marked by lighter shading.



FRIGIDARIUM TEPIDARIUM CALIDARIUM

FIG. 4.—Section of baths of Pompeii.

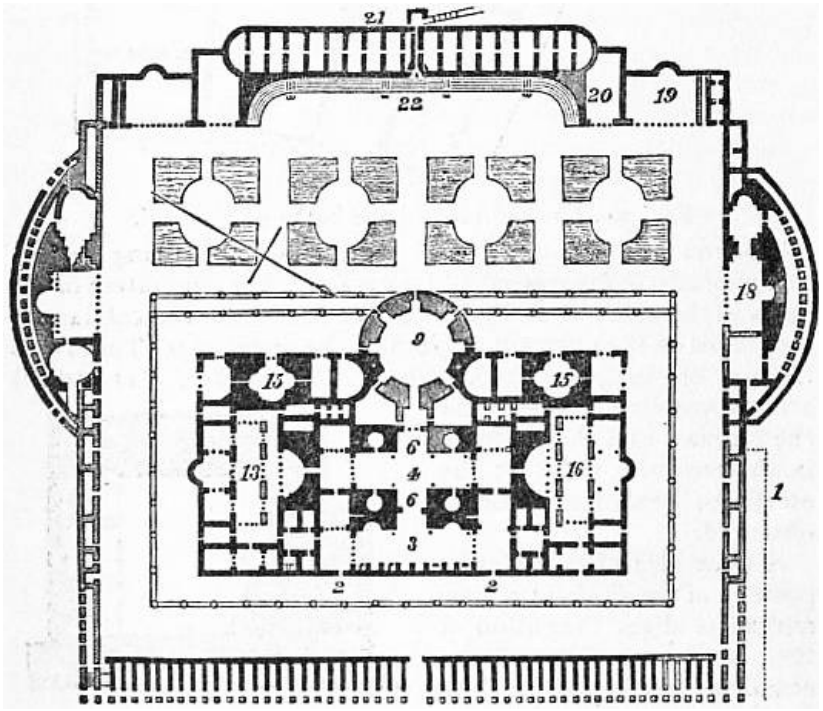


FIG. 5.—Ground plan of the baths of Caracalla.

At the bottom of the plan is shown a long colonnade, which faces the street, behind which was a series of chambers, supposed to have been separate bathing-rooms. Entering by the opening in its centre, the visitor passes what was probably an inner colonnade round the main building. Passing in by either of the gates (2, 2), he reaches the large chamber (3), which has been variously called the natatio or large swimming-bath, or the tepidarium. The great central room (4) in all probability was the calidarium, with two labra (6, 6) on opposite sides, and with four alvei, one in each corner, represented by small circular dots. (9) has been regarded by some as the laconicuim, although it appears very large for that purpose. The rooms (15, 15) have been variously described as baptisteria and as laconica. Most authors are agreed in thinking that the large rooms (13) and (16) were the sphaeristeria or places for playing ball.

Returning to the outside, (1) and (18) and the corresponding places on the other side are supposed to have been the exedrae for philosophers, and places corresponding to the Greek xysti. (20) and (19) have been considered to be servants' rooms. (22) was the stadium, with raised seats for the spectators. The space between this and the large central hall (9) was planted with trees, and at (21) the aqueduct brought water into the castellum or reservoir, which was on an upper storey. There were upper storeys in most portions of the building, and in these probably were the libraries and small theatres.

The piscinae were often of immense size—that of Diocletian being 200 ft. long—and were adorned with beautiful marbles. The halls were crowded with magnificent columns and were ornamented with the finest pieces of statuary. The walls, it has been said, were covered with exquisite mosaics that imitated the art of the painter in their elegance of design and variety of colour. The Egyptian syenite was encrusted with the precious green marbles of Numidia. The rooms contained the works of Phidias and Praxiteles. A perpetual stream of water was poured into capacious basins through the wide mouths of lions of bright and polished silver, water issued from silver, and was received on silver. "To such a pitch of luxury have we

reached," says Seneca, "that we are dissatisfied if we do not tread on gems in our baths."

The richer Romans used every variety of oils and pomades (*smegmata*); they scarcely had true soaps. The poorer class had to be content with the flour of lentils, an article used at this day for the same purpose by Orientals. The most important bath utensil was the strigillus, a curved instrument made of metal, with which the skin was scraped and all sordes removed.

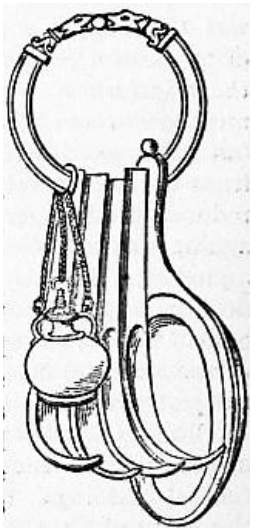


FIG. 6.[1] Ring on which are suspended some of the articles in use in the Alipterium.

The bath servants assisted in anointing, in using the strigillus and in various other menial offices. The poorer classes had to use their strigils themselves. The various processes of the aliptae seem to have been carried on very systematically.

The hot baths appear to have been open from 1 P.M. till dark. It was only one of the later emperors that had them lighted up at night. When the hot baths were ready (for, doubtless, the plunge baths were available at an earlier hour), a bell or *aes* was rung for the information of the people. Among the Greeks and Romans the eighth hour, or 1 o'clock, before their dinner, was the commonest hour for bathing. The bath was supposed to promote appetite, and some voluptuaries had one or more baths after dinner, to enable them to begin eating again; but such excesses, as Juvenal tells us, occasionally proved fatal. Some of the most effeminate of the emperors are said to have bathed seven or eight times in the course of the day. In early times there was delicacy of feeling about the sexes bathing together—even a father could not bathe with his sons; but latterly, under most of the emperors, men and women often used the same baths. There frequently were separate baths for the women, as we see at Pompeii or at Badenweiler; but although respectable matrons would not go to public baths, promiscuous bathing was common during the Empire.

The public baths and thermae were under the more immediate superintendence of the aediles. The charge made at a public bath was only a quadrans or quarter of an as, about half a farthing. Yet cheap though this was, the emperors used to ingratiate themselves with the populace, by making the baths at times gratuitous.

Wherever the Romans settled, they built public baths; and wherever they found hot springs or natural stufae, they made use of them, thus saving the expense of heating, as at the *myrteta* of Baiae or the *Aquae Sulis* of Bath. In the cities there appear to have been private baths for hire, as well as the public baths; and every rich citizen had a set of baths attached to his villa, the fullest account of which is given in the *Letters* of Pliny, or in Ausonius's *Account of a Villa on the Moselle*, or in Statius's *De Balneo Etrusco*. Although the Romans never wholly gave up cold bathing, and that practice was revived under Augustus by Antonius Musa, and again under Nero by Charmis (at which later time bathing in the open sea became common), yet they chiefly practised warm bathing (*calida lavatio*). This is the most luxurious kind of bathing, and when indulged in to excess is enervating. The women were particularly fond of these baths, and were accused, at all events in some provincial cities, of drunkenness in them.

The unbounded license of the public baths, and their connexion with modes of amusement that were condemned, led to their being to a considerable extent proscribed by the early Christians. The early Fathers wrote that bathing might be practised for the sake of cleanliness or of health, but not of pleasure; and Gregory the Great saw no objection to baths being used on Sunday. About the 5th century many of the large thermae in Rome fell into decay. The cutting off of the aqueducts by the Huns, and the gradual decrease of the population, contributed to this. Still it is doubtful whether bathing was ever disused to the extent that is usually represented. It was certainly kept up in the East in full vigour at Alexandria and at Brusa. Hot bathing, and especially hot air and vapour baths, were adopted by the Mahommedans; and the Arabs brought them with them into Spain. The Turks, at a later time, carried them high up the Danube, and the Mahommedans spread or, it may be more correct to say, revived their use in Persia and in Hindustan. The Crusaders also contributed to the spread of baths in Europe, and hot vapour baths were specially recommended for the leprosy so prevalent in those days. After the commencement of the 13th century there were few large cities in Europe without hot vapour baths. We have full accounts of their regulations—how the Jews were only allowed to visit them once a week, and how there were separate baths for lepers. In England they were called hothouses. Erasmus, at the date of the Reformation, spoke of them as common in France, Germany and

Belgium; he gives a lively account of the mixture of all classes of people to be found in them, and would imply that they were a common adjunct to inns. They seem after a time to have become less common, though Montaigne mentions them as being still in Rome in his day. In England the next revival of baths was at the close of the 17th century, under the Eastern name of *Hummums* or the Italian name of Bagnios. These were avowedly on the principle of the Turkish baths described below. But there were several considerable epochs in the history of baths, one in the commencement of the 18th century, when Floyer and others recalled attention to cold bathing, of which the virtues had long been overlooked. In the middle of the century also, Russell and others revived sea-bathing in England, and were followed by others on the continent, until the value of sea-bathing became fully appreciated. Later in the same century the experiments of James Currie on the action of complete or of partial baths on the system in disease attracted attention; and though forgotten for a while, they bore abundant fruit in more recent times.

Modern Baths.—It is uncertain how far the Turkish and Egyptian and even the Russian baths are to be regarded merely as successors of the Roman baths, because the principle of vapour baths has been known to many nations in a very early period of civilization. Thus the Mexicans and Indians were found using small vapour baths. The ancient inhabitants of Ireland and of Scotland had some notion of their use, and the large vapour baths of Japan, now so extensively employed, are probably of independent origin.

The following accounts of Turkish and Russian baths illustrate the practices of the ancient Roman and also of modern Turkish baths. In Lane's *On the Modern Egyptians* we read: "The building consists of several apartments, all of which are paved with marble, chiefly white. The inner apartments are covered with domes, which have a number of small glazed apertures for the admission of light. The bather, on entering, if he has a watch or purse, gives them in charge to the keeper of the bath. The servant of the bath takes off his shoes and supplies him with a pair of wooden clogs. The first apartment has generally three or four *leewans* (raised parts of the floor used as couches) cased with marble, and a fountain of cold water, which rises from an octagonal basement in the centre. One of the leewans, which is meant for the higher classes, is furnished with cushions or mats. In warm weather bathers usually undress in this room; in winter they undress in an inner room, called the *beytowwal* or first chamber, between which and the last apartment there is a passage often with two or three latrines off it. This is the first of the heated chambers. It generally has two raised seats. The bather receives a napkin in which to put his clothes and another to put round his waist—this reaches to the knees; a third, if he requires it, is brought him to wind round his head, leaving the top of it bare; a fourth to put over his chest; and a fifth to cover his back. When the bather has undressed, the attendant opens to him the door of the inner and principal apartment. This in general has four leewans, which gives it the form of a cross, and in the centre a fountain of hot water rises from a small shallow basin. The centre room, with the adjoining ones, forms almost a square. The beytowwal already mentioned is one of them. Two small chambers which adjoin each other, one containing a tank of hot water, the other containing a trough, over which are two taps, one of hot and one of cold water, occupy the two other angles; while the fourth angle of the square is occupied by the chamber which contains the fire, over which is the boiler. The bather having entered this apartment soon perspires profusely from the humid heat which is produced by the hot water of tanks and fountains, and by the steam of the boiler. The bather sits on one of the marble seats, or lies on the leewan or near one of the tanks, and the operator then commences his work. The operator first cracks aloud every joint in the body. He makes the vertebrae of the back and even of the neck crack. The limbs are twisted with apparent violence, but so skilfully, that no harm is ever done. The operator next kneads the patient's flesh. After this he rubs the soles of the feet with a kind of rasp of baked clay. There are two kinds of rasps, one porous and rough, one of fine smooth clay. Those used by ladies are usually encased in thin embossed silver. The next operation is rubbing the bather's flesh with a small coarse woollen bag, after which the bather dips himself in one of the tanks. He is next taken to one of the chambers in the corner, and the operator lathers the bather with fibres of the palm tree, soap and water. The soap is then washed off with water, when the bather having finished washing, and enveloped himself in dry towels, returns to the beytowwal and reclines. Here he generally remains an hour to an hour and a half, sipping coffee and smoking, while an attendant rubs the soles of the feet and kneads the body and limbs. The bather then dresses and goes out."

The following description of a Russian bath is from Kohl's *Russia* (1842): "The passage from the door is divided into two behind the check-taker's post, one for the male, one for the female guests. We first enter an open space, in which a set of men are sitting in a state of nudity on benches, those who have already bathed dressing, while those who are going to undergo the process take off their clothes. Round this space or apartment are the doors

leading to the vapour-rooms. The bather is ushered into them, and finds himself in a room full of vapour, which is surrounded by a wooden platform rising in steps to near the roof of the room. The bather is made to lie down on one of the lower benches, and gradually to ascend to the higher and hotter ones. The first sensation on entering the room amounts almost to a feeling of suffocation. After you have been subjected for some time to a temperature which may rise to 145° the transpiration reaches its full activity, and the sensation is very pleasant. The bath attendants come and flog you with birchen twigs, cover you with the lather of soap, afterwards rub it off, and then hold you over a jet of ice-cold water. The shock is great, but is followed by a pleasant feeling of great comfort and of alleviation of any rheumatic pains you may have had. In regular establishments you go after this and lie down on a bed for a time before issuing forth. But the Russians often dress in the open air, and instead of using the jet of cold water, go and roll themselves at once in the snow."

Turkish baths have, with various modifications, become popular in Europe. The Russian baths were introduced into German towns about 1825. They had a certain limited amount of popularity, but did not take firm root. Another class practically owes its origin to Dr Barter and David Urquhart. It professed to be founded on the Turkish bath, but in reality it was much more of a hot air bath, *i.e.* more devoid of vapour than either Roman or Turkish baths ever were, for it is doubtful whether in any case the air of the laconicum was free from 518
vapour. These baths, with their various modifications, have become extremely popular in Great Britain, in Germany and in northern Europe, but have, curiously enough, never been used extensively in France, notwithstanding the familiarity of the French with Turkish baths in Algiers.

In England hot air baths are now employed very extensively. They are often associated with Turkish and electric baths.

Bathing among the ancients was practised in various forms. It was sometimes a simple bath in cold or in tepid water; but at least, in the case of the higher orders, it usually included a hot air or vapour bath, and was followed by affusion of cold or warm water, and generally by a plunge into the piscina. In like manner the order varies in which the different processes are gone through in Turkish baths in modern Europe. Thus in the baths in Vienna, the process begins by immersion in a large basin of warm water. Sudation is repeatedly interrupted by cold douches at the will of the bathers, and after the bath they are satisfied with a short stay in the cooling-room, where they have only a simple sheet rolled round them. In Copenhagen and in Stockholm the Oriental baths have been considerably modified by their association with hydropathic practices.

This leads us to notice the introduction of the curiously misnamed system known as hydropathy (*q.v.*). Although cold baths were in vogue for a time in Rome, warm baths were always more popular. Floyer, as we have seen, did something to revive their use in England; but it was nearly a century and a half afterwards that a Silesian peasant, Priessnitz, introduced, with wonderful success, a variety of operations with cold water, the most important of which was the packing the patient in a wet sheet, a process which after a time is followed by profuse sudation. Large establishments for carrying out this mode of bathing and its modifications were erected in many places on the continent and in Great Britain, and enjoyed at one time a large share of popularity. The name "hydropathic" is still retained for these establishments, though hydropathy so-called is no longer practised within them to any extent.

But the greatest and most important development of ordinary baths in modern times was in England, though it has extended gradually to some parts of the continent. The English had long used affusion and swimming-baths freely in India. Cold and hot baths and shower baths have been introduced into private houses to an extent never known before; and, since 1842, public swimming-baths, besides separate baths, have been supplied to the public at very moderate rates, in some cases associated with wash-houses for the poorer classes. Their number has increased rapidly in London and in the principal continental cities. Floating-baths in rivers, always known in some German towns, have become common wherever there are flowing streams. The better supply of most European cities with water has aided in this movement. Ample enclosed swimming-baths have been erected at many seaside places. When required, the water, if not heated in a boiler, is raised to a sufficient temperature by the aid of hot water pipes or of steam. Separate baths used to be of wood, painted; they are now most frequently of metal, painted or lined with porcelain enamel. The swimming-baths are lined with cement, tiles or marble and porcelain slabs; and a good deal of ornamentation and painting of the walls and ceiling of the apartments, in imitation of the ancients, has been attempted.

We have thus traced in outline the history of baths through successive ages. The medium of the baths spoken of thus far has been water, vapour or dry hot air. But baths of more complex nature, and of the greatest variety, have been in use from the earliest ages. The best known media are the various mineral waters and sea-water. Of baths of *mineral* substances, those of sand are the oldest and best known; the practice of *arenation* or of burying the body in the sand of the sea-shore, or in heated sand near some hot spring, is very ancient, as also that of applying heated sand to various parts of the body. Baths of *peat* earth are of comparatively recent origin. The peat earth is carefully prepared and pulverized, and then worked up with water into a pasty consistence, of which the temperature can be regulated before the patient immerses himself in it.

There are various terms that may be termed *chemical*, in which chlorine or hydrochloric acid is added to the water of the bath, or where fumes of sulphur are made to rise and envelop the body.

Of *vegetable* baths the number is very large. Lees of wine, in a state of fermentation, have been employed. An immense variety of aromatic herbs have been used to impregnate water with. At one time fuci or sea-weed were added to baths, under the idea of conveying into the system the iodine which they contain; but by far the most popular of all vegetable baths are those made with an extract got by distilling certain varieties of pine leaves.

The strangeness of the baths of *animal* substances, that have been at various times in use, is such that their employment seems scarcely credible. That baths of milk or of whey might be not unpopular is not surprising, but baths of blood, in some cases even of human blood, have been used; and baths of horse dung were for many ages in high favour, and were even succeeded for a short time by baths of guano.

Electrical baths are now largely used, a current being passed through the water; and electrical *massage*, by the d'Arsonval or other system, is colloquially termed a "bath."

Baths also of *compressed air*, in which the patient is subjected to the pressure of two or three atmospheres, were formerly employed in some places.

A *sun* bath (*insolatio* or *heliosis*), exposing the body to the sun, the head being covered, was a favourite practice among the Greeks and Romans.

Some special devices require a few words of explanation.

Douches were used by the ancients, and have always been an important mode of applying water to a circumscribed portion of the body. They are, in fact, spouts of water, varying in size and temperature, applied by a hose-pipe with more or less force for a longer or shorter time against particular parts. A douche exercises a certain amount of friction, and a continued impulse on the spot to which it is applied, which stimulate the skin and the parts beneath it, quickening the capillary circulation. The effects of the douche are so powerful that it cannot be applied for more than a few minutes continuously. The alternation of hot and cold douches, which for some unknown reason has got the name of *Écossaise*, is a very potent type of bath from the strong action and reaction which it produces. The *shower* bath may be regarded as a union of an immense number of fine douches projected on the head and shoulders. It produces a strong effect on the nervous system. An ingenious contrivance for giving circular *spray* baths, by which water is propelled laterally in fine streams against every portion of the surface of the body, is now common.

To all these modes of acting on the cutaneous surface and circulation must be added dry rubbing, as practised by the patient with the flesh glove, but much more thoroughly by the bath attendants, if properly instructed (see also Massage).

Action of Baths on the Human System.—The primary operation of baths is the action of heat and cold on the cutaneous surfaces through the medium of water.

The first purpose of baths is simply that of abstersion and cleanliness, to remove any foreign impurity from the surface, and to prevent the pores from being clogged by their own secretions or by desquamations of cuticle. It need scarcely be said that such objects are greatly promoted by the action of the alkali of soaps and by friction; that the use of warm water, owing to its immediate stimulation of the skin, promotes the separation of sordes, and that the vapour of water is still more efficient than water itself.

It has been supposed that water acts on the system by being absorbed through the skin, but, under ordinary circumstances, no water is absorbed, or, if any, so minute a quantity as not to be worth considering. No dissolved substances, under the ordinary circumstances of a bath, are actually absorbed into the system; although when a portion of skin has been

entirely cleared of its sebaceous secretion, it is possible that a strong solution of salts may be partially absorbed. In the case of medicated baths we therefore only look (in addition to the action of heat and cold, or more properly to the abstraction or communication and retention of heat) to any stimulant action on the skin that the ingredients of the bath may possess.

The powerful influence of water on the capillaries of the skin, and the mode and extent of that operation, depend primarily on the temperature of the fluid. The human system bears changes of temperature of the air much better than changes of the temperature of water. While the temperature of the air at 75° may be too warm for the feelings of many people, a continued bath at that temperature is felt to be cold and depressing. Again, a bath of 98° to 102° acts far more excitingly than air of the same temperature, both because, being a better conductor, water brings more heat to the body and because it suppresses the perspiration which is greatly augmented by air of that temperature. Further, a temperature a few degrees below blood heat is that of indifferent baths, which can be borne longest without natural disturbance of the system.

Cold baths act by refrigeration, and their effects vary according to the degree of temperature. The effects of a cold bath, the temperature not being below 50°, are these:—there is a diminution of the temperature of the skin and of the subjacent tissues; there is a certain feeling of shock diffused over the whole surface, and if the cold is intense it induces a slight feeling of numbness in the skin. It becomes pale and its capillaries contract. The further action of a cold bath reaches the central nervous system, the heart and the lungs, as manifested by the tremor of the limbs it produces, along with a certain degree of oppression of the chest and a gasping for air, while the pulse becomes small and sinks. After a time reaction takes place, and brings redness to the skin and an increase of temperature.

The colder the water is, and the more powerful and depressing its effects, the quicker and more active is the reaction. Very cold baths, anything below 50°, cannot be borne long. Lowering of the temperature of the skin may be borne down to 9°, but a further reduction may prove fatal. The diminution of temperature is much more rapid when the water is in motion, or when the bather moves about; because, if the water is still, the layer of it in immediate contact with the body is warmed to a certain degree.

A great deal depends on the form of the cold bath; thus one may have—(1) Its depressing operation,—with a loss of heat, retardation of the circulation, and feeling of weariness, when the same water remains in contact with the skin, and there is continuous withdrawal of heat without fresh stimulation. This occurs with full or sitz baths, with partial or complete wrapping up the body in a wet sheet which remains unchanged, and with frictions practised without removing the wet sheets. (2) Its exciting operation,—with quickening of the action of the heart and lungs, and feeling of glow and of nervous excitement and of increased muscular power. These sensations are produced when the layer of water next the body and heated by it is removed, and fresh cold water causes fresh stimulus. These effects are produced by full baths with the water in motion used only for a short time, by frictions when the wet sheet is removed from the body, by douches, shower baths, bathing in rivers, &c. The depressing operation comes on much earlier in very cold water than in warmer; and in the same way the exciting operation comes on faster with the colder than with the warmer water. The short duration of the bath makes both its depressing and its exciting action less; its longer duration increases them; and if the baths be continued too long, the protracted abstraction of animal heat may prove very depressing.

Tepid baths, 85° to 95°.—The effects of a bath of this temperature are confined to the peripheral extremities of the nerves, and are so slight that they do not reach the central system. There is no reaction, and the body temperature remains unchanged. Baths of this kind can be borne for hours with impunity.

Warm baths from 96° to 104°.—In these the action of the heat on the peripheral surface is propagated to the central system, and causes reaction, which manifests itself in moderately increased flow of the blood to the surface, and in an increased frequency of pulse.

With a *hot bath* from 102° up to 110° the central nervous and circulating systems are more affected. The frequency of the pulse increases rapidly, the respiration becomes quickened, and is interrupted by deep inspirations. The skin is congested, and there is profuse perspiration.

Very hot baths.—Everything above 110° feels very hot; anything above 120° almost scalding. Baths of from 119° to 126° have caused a rise of 2° to 4½° in the temperature of the blood. Such a bath can be borne for only a few minutes. It causes great rapidity of the

pulse, extreme lowering of the blood-pressure, excessive congestion of the skin, and violent perspiration.

In the use of hot baths a certain amount of vapour reaches the parts of the body not covered by the water, and is also inhaled.

Vapour baths produce profuse perspiration and act in cleansing the skin, as powerful hot water baths do. Vapour, owing to its smaller specific heat, does not act so fast as water on the body. A vapour bath can be borne for a much longer time when the vapour is not inhaled. Vapour baths can be borne hotter than water baths, but cannot be continued too long, as vapour, being a bad conductor, prevents radiation of heat from the body. A higher heat than 122° is not borne comfortably. The vapour bath though falling considerably short of the temperature of the hot air bath, raises the temperature much more.

Hot air baths differ from vapour baths in not impeding the respiration as the latter do, by depositing moisture in the bronchial tubes. The lungs, instead of having to heat the inspired air, are subjected to a temperature above their own. Hot air baths, say of 135°, produce more profuse perspiration than vapour baths. If very hot, they raise the temperature of the body by several degrees. Vapour baths, hot air baths, and hot water baths agree in producing violent perspiration. As perspiration eliminates water and effete matter from the system, it is obvious that its regulation must have an important effect on the economy.

In comparing the general effects of cold and hot baths, it may be said that while the former tend to check perspiration, the latter favour it.

The warm bath causes swelling and congestion of the capillaries of the surface in the first instance; when the stimulus of heat is withdrawn their contraction ensues. A cold bath, again, first causes a contraction of the capillaries of the surface, which is followed by their expansion when reaction sets in. A warm bath elevates the temperature of the body, both by bringing a supply of heat to it and by preventing the radiation of heat from it. It can be borne longer than a cold bath. It draws blood to the surface, while a cold bath favours internal congestions.

But baths often produce injurious effects when used injudiciously. Long continued warm baths are soporific, and have, owing to this action, often caused death by drowning. The effects of very hot baths are swimming in the head, vomiting, fainting, congestion of the brain, and, in some instances, apoplexy.

The symptoms seem to point to paralysis of the action of the heart. It is therefore very evident how cautious those should be, in the use of hot baths, who have weak hearts or any obstruction to the circulation. Fat men, and those in whom the heart or blood-vessels are unsound, should avoid them. Protracted indulgence in warm baths is relaxing, and has been esteemed a sign of effeminacy in all ages. Sleepiness, though it will not follow the first immersion in a cold bath, is one of the effects of protracted cold baths; depression of the temperature of the surface becomes dangerous. The risk in cold baths is congestion of the internal organs, as often indicated by the lips getting blue. Extremely cold baths are always dangerous.

For the medical use of baths see Balneotherapeutics.

Public Baths.—It was not till 1846 that it was deemed advisable in England, for the "health, comfort, and welfare" of the inhabitants of towns and populous districts, to encourage the establishment therein of baths by the local authority acting through commissioners. A series of statutes, known collectively as "The Baths and Wash-houses Acts 1846 to 1896," followed. By the Public Health Act 1875, the urban authority was declared to be the authority having power to adopt and proceed under the previous acts, and in 1878 provision was for the first time expressly made for the establishment of swimming baths, which might be used during the winter as gymnasia, and by an amending act of 1899, for music or dancing, provided a licence is obtained. By the Local Government Act 1894, it was provided that the parish meeting should be the authority having exclusive power of adopting the Baths and Wash-houses Acts in rural districts, which should, if adopted, be carried into effect by the parish council. Up to 1865 it seems as if only twenty-five boroughs had cared to provide bathing accommodation for their inhabitants. There is no complete information as to the number of authorities who have adopted the acts since 1865, but a return of reproductive undertakings presented to the House of Commons in 1899 shows that no local authorities outside the metropolis applied for power to raise loans to provide baths, of whom 48 applied before 1875 and 62 after 1875. In the year 1907 the loans sanctioned for the purpose amounted to £53,026. The revenues of parish councils are so limited that it has not

been possible for them to take much advantage of the acts. In the metropolis, by the Local Government Act of 1894, the power of working the act was given to vestries, and by the act of 1899 this power was transferred to the borough councils. There are 35 parishes in London in which the acts have been adopted, all of which except 11 have taken action since 1875. These establishments, according to the return made in 1908, provided 3502 private baths and 104 swimming baths. The maximum charge for a second-class cold bath is 1d., for a hot bath 2d. In 1904-1905 the number of bathers was 6,342,158, of whom 3,064,998 were bathers in private baths and 3,277,160 bathers in swimming baths. In 1896-1897 the gross total had been only 2,000,000. In cases where the proportion between the sexes has been worked out, it is found that only 18% of the users of private baths, and 10% of the users of swimming baths, are females. In 1898 the School Board was authorized to pay the fees for children using the baths if instruction in swimming were provided, and in 1907-1908 the privilege was used by 1,556,542 children. The cost of this public provision in London—water being supplied by measure—is over £80,000 a year. No account can be given of the numbers using the ponds and lakes in the parks and open spaces, but it is computed that on a hot Sunday 25,000 people bathe in Victoria Park, London, some of the bathers starting as early as four o'clock in the morning. These returns show how great is the increase of the habit of bathing, but they also show how even now the habit is limited to a comparatively small part of the population. People require to be tempted to the use of water, at any rate at the beginning. There are still authorities in London responsible for 800,000 persons who have provided no baths, and those who have made provision have not always done so in a sufficiently liberal and tempting way. The comparison between English great towns and those of the continent is not in favour of the former.

For the literature of baths in earlier periods we may refer to the *Architecture* of Vitruvius, and to Lucian's *Hippias*; see art. "Bäder" in Pauly-Wissowa, *Realencyclopadie* (1896), by A. Mau; "Balneum" in Daremberg and Saglio, *Dict. des antiquités* J. Marquardt *Das Privalleben der Römer* (1886), pp. 269-297; Backer's *Gallus*, and the article "Balneae" by Rich, in Dr Smith's *Dictionary of Greek and Roman Antiquities* (rev. ed. 1890); also the bibliography to HYDROPATHY.

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1 The figure represents four strigils, in which the hollow for collecting the oil or perspiration from the body may be observed. There is also a small ampulla or vessel containing oil, meant to keep the strigils smooth, and a small flat patera or drinking vessel out of which it was customary to drink after the bathing was finished.

BATHURST, EARLS. ALLEN BATHURST, 1st Earl Bathurst (1684-1775), was the eldest son of Sir Benjamin Bathurst (d. 1704), by his wife, Frances (d. 1727), daughter of Sir Allen Apsley of Apsley, Sussex, and belonged to a family which is said to have settled in Sussex before the Norman Conquest. He was educated at Trinity College, Oxford, and became member of parliament for Cirencester in May 1705, retaining his seat until December 1711, when he was created Baron Bathurst of Battlesden, Bedfordshire. As a zealous Tory he defended Atterbury, bishop of Rochester, and in the House of Lords was an opponent of Sir Robert Walpole. After Walpole left office in 1742 he was made a privy councillor, and in August 1772 was created Earl Bathurst, having previously received a pension of £2000 a year chargeable upon the Irish revenues. He died on the 16th of September 1775, and was buried in Cirencester church. In July 1704 Bathurst married his cousin, Catherine (d. 1768), daughter of Sir Peter Apsley, by whom he had four sons and five daughters. The earl associated with the poets and scholars of the time. Pope, Swift, Prior, Sterne, and Congreve were among his friends. He is described in Sterne's *Letters to Eliza*; was the subject of a graceful reference on the part of Burke speaking in the House of Commons; and the letters which passed between him and Pope are published in Pope's *Works*, vol. viii. (London, 1872).

HENRY, 2nd Earl Bathurst (1714-1794), was the eldest surviving son of the 1st earl. Educated at Balliol College, Oxford, he was called to the bar, and became a K.C. in 1745. In April 1735 he had been elected member of parliament for Cirencester, and was rewarded for his opposition to the government by being made solicitor-general and then attorney-general to Frederick, prince of Wales. Resigning his seat in parliament in April 1754 he was made a judge of the court of common pleas in the following month, and became lord high chancellor in January 1771, when he was raised to the peerage as Baron Apsley. Having become Earl

Bathurst by his father's death in September 1775, he resigned his office somewhat unwillingly in July 1778 to enable Thurlow to join the cabinet of Lord North. In November 1779 he was appointed lord president of the council, and left office with North in March 1782. He died at Oakley Grove near Cirencester on the 6th of August 1794. Bathurst was twice married, and left two sons and four daughters. He was a weak lord chancellor, but appears to have been just and fair in his distribution of patronage.

Henry, 3rd Earl Bathurst (1762-1834), the elder son of the second earl, was born on the 22nd of May 1762. In April 1789 he married Georgiana (d. 1841), daughter of Lord George Henry Lennox, and was member of parliament for Cirencester from 1783 until he succeeded to the earldom in August 1794. Owing mainly to his friendship with William Pitt, he was a lord of the admiralty from 1783 to 1789; a lord of the treasury from 1789 to 1791; and commissioner of the board of control from 1793 to 1802. Returning to office with Pitt in May 1804 he became master of the mint, and was president of the Board of Trade and master of the mint during the ministries of the duke of Portland and Spencer Perceval, only vacating these posts in June 1812 to become secretary for war and the colonies under the earl of Liverpool. For two months during the year 1809 he was in charge of the foreign office. He was secretary for war and the colonies until Liverpool resigned in April 1827; and deserves some credit for improving the conduct of the Peninsular War, while it was his duty to defend the government concerning its treatment of Napoleon Bonaparte. Bathurst's official position caused his name to be mentioned frequently during the agitation for the abolition of slavery, and with regard to this traffic he seems to have been animated by a humane spirit. He was lord president of the council in the government of the duke of Wellington from 1828 to 1830, and favoured the removal of the disabilities of Roman Catholics, but was a sturdy opponent of the reform bill of 1832. The earl, who had four sons and two daughters, died on the 27th of July 1834. Bathurst was made a knight of the Garter in 1817, and held several lucrative sinecures.

His eldest son, Henry George, 4th Earl Bathurst (1790-1866), was member of parliament for Cirencester from 1812 to 1834. He died unmarried on the 25th of May 1866, and was succeeded in the title by his brother, William Lennox, 5th Earl Bathurst (1791-1878), member of parliament for Weobley from 1812 to 1816, and clerk of the privy council from 1827 to 1860, who died unmarried on the 24th of February 1878.

Allen Alexander. 6th Earl Bathurst (1832-1892), was the son of Thomas Seymour Bathurst, and grandson of the 3rd earl. He was member of parliament for Cirencester from 1857 until he became Earl Bathurst in February 1878, and died on the 2nd of August 1892, when his eldest son, Seymour Henry (b. 1864), became 7th Earl Bathurst.

BATHURST, a city of Bathurst county, New South Wales, Australia, 144 m. by rail W.N.W. of Sydney on the Great Western railway. Pop. (1901) 9223. It is situated on the south bank of the Macquarie river, at an elevation of 2153 ft., in a fertile undulating plain on the west side of the Blue Mountains. Bathurst has broad streets,, crossing one another at right angles, with a handsome park in the centre of the town, while many of the public buildings, specially the town hall, government buildings, and Anglican and Roman Catholic cathedrals, are noteworthy. Bathurst is the centre of the chief wheat-growing district of New South Wales, while gold, copper and silver are extensively mined in its vicinity. There are railway works, coach factories, tanneries, breweries, flour-mills and manufactures of boots and shoes and other commodities. The town was founded in 1815 by Governor Macquarie, taking its name from the 3rd Earl Bathurst, then secretary of state for the colonies, and it has been a municipality since 1862.

BATHVILLITE, a naturally occurring organic substance. It is an amorphous, opaque, and very friable material of fawn-brown colour, filling cavities in the torbanite or Boghead coal of Bathville, Scotland. It has a specific gravity of 1.01, and is insoluble in benzene.

BATHYBIUS (βαθύς, deep, and βίος, life), a slimy substance at one time supposed to exist in great masses in the depths of the ocean and to consist of undifferentiated protoplasm. Regarding it as an organism which represented the simplest form of life, Huxley about 1868 named it *Bathybius Haeckelii*. But investigations carried out in connexion with the "Challenger" expedition indicated that it was an artificial product, composed of a flocculent precipitate of gypsum thrown down from sea-water by alcohol, and the hypothesis of its organic character was abandoned by most biologists, Huxley included.

BATHYCLES, an Ionian sculptor of Magnesia, was commissioned by the Spartans to make a marble throne for the statue of Apollo at Amyclae, about 550 B.C. Pausanias (iii. 18) gives us a detailed description of this monument, which is of the greatest value to us, showing the character of Ionic art at the time. It was adorned with scenes from mythology in relief and supporting figures in the round.

For a reconstruction, see Furtwängler, *Meisterwerke der griech Plastik*, p. 706.

BATLEY, a municipal borough in the West Riding of Yorkshire, England, within the parliamentary borough of Dewsbury, 8 m. S.S.W. of Leeds, on the Great Northern, London & North Western, and Lancashire & Yorkshire railways. Pop. (1900) 30,321. Area 2039 acres. The church of All Saints is mainly Perpendicular, and contains some fine woodwork, mostly of the 17th century, and some good memorial tombs. The market square contains an excellent group of modern buildings, including the town hall, public library, post office and others. The town is a centre of the heavy woollen trade, and has extensive manufactures of army cloths, pilot cloths, druggets, flushings, &c. The working up of old material as "shoddy" is largely carried on. There are also iron foundries, manufactures of machinery, and stone quarries. The town lies on the south-west Yorkshire coalfield, and there are a number of collieries in the district. The borough is governed by a mayor, six aldermen, and eighteen councillors.

BATON (Fr. *bâton, baston*, from Late Lat. *basto*, a stick or staff), the truncheon carried by a field marshal as a sign of authority, by a police constable, &c.; in music, the stick with which the conductor of an orchestra beats time; in heraldry, the fourth part of a bend, frequently broken off short at the ends so as to be shaped like a rod; in English coats of arms, only as a mark of illegitimacy, the "baton sinister."

BATONI, POMPEO GIROLAMO (1708-1787), Italian painter, was born at Lucca. He was regarded in Italy as a great painter in the 18th century, and unquestionably did much to rescue the art from the intense mannerism into which it had fallen during the preceding century. His paintings, however, are not of the highest order of merit, though they are generally graceful, well designed, and harmoniously coloured. His best production is

thought to be his group of “Peace and War.” Batoni painted an unusual number of pictures, and was also celebrated for his portraits.

BATON ROUGE, the capital of Louisiana, U.S.A., and of East Baton Rouge parish, on the E. bank of the Mississippi river, about 70 m. N.W. of New Orleans. Pop. (1890) 10,478; (1900) 11,269, of whom 6596 were of negro descent; (1910 census) 14,897. It is served by the Yazoo & Mississippi Valley railway and by the Louisiana Railway & Navigation Company; and the Texas & Pacific enters Port Alien, just across the river. The city lies on the river bluff, secure against the highest floods. Old houses in the Spanish style give quaintness to its appearance. The state capitol was built in 1880-1882, replacing another burned in 1862. At Baton Rouge is the State University and Agricultural and Mechanical College (1860), of which the Audubon Sugar School, “for the highest scientific training in the growing of sugar cane and in the technology of sugar manufacture,” is an important and distinctive feature. The university grew out of the Louisiana State Seminary of Learning and Military Academy, founded in 1855 near Alexandria and opened in 1860 under the charge of W.T. Sherman. In 1869 the institution was removed to Baton Rouge, and in 1877 it was united with the Agricultural and Mechanical College, established in 1873 and in 1874 opened at New Orleans. The campus of the university is the former barracks of the Baton Rouge garrison, occupied by the college since 1886 and transferred to it by the Federal government in 1902. The enrolment of the university in 1907-1908 was 636. Other important institutions at Baton Rouge are a State Agricultural Experiment Station, asylums and schools for the deaf and dumb, for the blind, and for orphans, and the state penitentiary. The surrounding bluff and alluvial country is very rich. Sugar and cotton plantations and sub-tropic fruit orchards occupy the front-lands on the river. The manufactures include lumber and cotton seed products, and sugar. The value of the city’s factory products increased from $717,368 in 1900 to $1,383,061 in 1905 or 92.8%. The city is governed under a charter granted by the legislature in 1898. This charter is peculiar in that it gives to the city council the power to elect various administrative boards—of police, finance, &c.—from which the legislative council of most cities is separated.

Baton Rouge was one of the earliest French settlements in the state. As a part of West Florida, it passed into the hands of the British in 1763, and in 1779 was captured by Bernardo Galvez, the Spanish governor of Louisiana. The town was incorporated in 1817. In 1849 it was made the state capital, remaining so until 1862, when Shreveport became the Confederate state capital. In 1864 the Unionists made New Orleans the seat of government. The Secession Ordinance of Louisiana was passed on the 26th of January 1861 by a convention that met at Baton Rouge. On the and of May 1862 the city was captured by the forces of the United States under Col. Benjamin H. Grierson (b. 1826), who had led raiders thither from Tennessee; on the 12th of May it was formally occupied by troops from New Orleans, and was successfully defended by Brig.-Gen. Thomas Williams (1815-1862) against an attack by Confederate forces under General John C. Breckinridge on the 5th of August 1862; Gen. Williams, however, was killed during the attack. Baton Rouge was soon abandoned for a month, was then reoccupied, and was held throughout the rest of the war. It became the state capital again in 1882, in accordance with the state constitution of 1879. For several years after 1840 Zachary Taylor made his home on a plantation near Baton Rouge.

BATRACHIA. The arguments adduced by T.H. Huxley, in his article on this subject in the ninth edition of the *Encyclopaedia Britannica*, for applying the name *Amphibia* to those lung-breathing, pentadactyle vertebrates which had been first severed from the Linnaean Amphibia by Alexandre Brongniart, under the name of *Batrachia*, have not met with universal acceptance. Although much used in text-books and anatomical works in Great Britain and in Germany, the former name has been discarded in favour of the latter by the principal authors on systematic herpetology, such as W. Peters, A. Günther and E.D. Cope, and their lead is followed in the present article. Bearing in mind that Linnaeus, in his use of

the name Amphibia, was not alluding to the gill-breathing and air-breathing periods through which most frogs and newts pass in the course of their existence, but only wished to convey the fact that many of the constituents of the group resort to both land and water (*e.g.* crocodiles), it seems hard to admit that the term may be thus diverted from its original signification, especially when such a change results in discarding the name expressly proposed by Brongniart to denote the association which has ever since been universally adopted either as an order, a sub-class or a class. Many authors who have devoted special attention to questions of nomenclature therefore think *Reptilia* and *Batrachia* the correct names of the two great classes into which the Linnaean *Amphibia* have been divided, and consider that the latter term should be reserved for the use of those who, like that great authority, the late Professor Peters, down to the time of his death in 1883, would persist in regarding reptiles and batrachians as mere sub-classes (1). However extraordinary it may appear, especially to those who bring the living forms only into focus, that opposition should still be made to Huxley's primary division of the vertebrates other than mammals into *Sauropsida* (birds and reptiles) and *Ichthyopsida* (batrachians and fishes), it is certain that recent discoveries in palaeontology have reduced the gap between batrachians and reptiles to such a minimum as to cause the greatest embarrassment in the attempt to draw a satisfactory line of separation between the two; on the other hand the hiatus between fishes and batrachians remains as wide as it was at the time Huxley's article Amphibia (*Encyclopaedia Britannica*, 9th ed.) was written.

The chief character which distinguishes the Batrachians from the reptiles, leaving aside the metamorphoses, lies in the arrangement of the bones of the palate, where a large parasphenoid extends forwards as far or nearly as far as the vomers and widely separates the pterygoids. The bones which bear the two occipital condyles have given rise to much discussion, and the definition given by Huxley in the previous edition—"two occipital condyles, the basi-occipital region of the skull either very incompletely or not at all ossified"—requires revision. Some authors have held that the bone on which the occipital condyles have been found most developed in some labyrinthodonts (**2**) represents a large basi-occipital bearing two knobs for the articulation with the first vertebra, whilst the skull of the batrachians of the present day has lost the basi-occipital, and the condyles are furnished by the exoccipitals. On the other hand, some reptiles have the occipital condyle divided into two and produced either by the basi-occipital or by the exoccipitals. But the recent find of a well preserved skull of a labyrinthodont (*Capitosaurus stantonensis*) from the Trias of Staffordshire has enabled A.S. Woodward (**3**) to show that, in that form at any rate, the condyles are really exoccipital, although they are separated by a narrow basi-occipital. It is therefore very probable that the authors quoted in (**2**) were mistaken in their identification of the elements at the base of the foramen magnum. The fact remains, however, that some if not all of the stegocephalous batrachians have an ossified basi-occipital.

As a result of his researches on the anomodont reptiles and the Stegocephalia (**4**), as the extinct order that includes the well known labyrinthodonts is now called, we have had the proposal by H.G. Seeley (**5**) to place the latter with the reptiles instead of with the batrachians, and H. Gadow, in his most recent classification (**6**), places some of them among the reptiles, others being left with the batrachians; whilst H. Credner, basing his views on the discovery by him of various annectent forms between the Stegocephalia and the Rhynchocephalian reptiles, has proposed a class, *Eotetrapoda*, to include these forms, ancestors of the batrachians proper on the one hand, of the reptiles proper on the other. Yet, that the Stegocephalia, notwithstanding their great affinity to the reptiles, ought to be included in the batrachians as commonly understood, seems sufficiently obvious from the mere fact of their passing through a branchiate condition, *i.e.* undergoing metamorphosis (**7**). The outcome of our present knowledge points to the Stegocephalia, probably themselves derived from the Crossopterygian fishes (**8**), having yielded on the one hand the true batrachians (retrogressive series), with which they are to a certain extent connected through the *Caudata* and the *Apoda*, on the other hand the reptiles (progressive series), through the Rhynchocephalians and the Anomodonts, the latter being believed, on very suggestive evidence, to lead to the mammals (**9**).

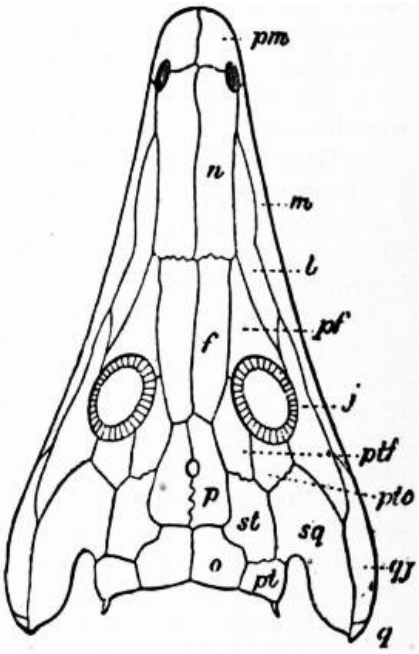

FIG. 1.—Upper view of *Archegosaurus Decheni*.

(Outlines after Gredner.)

pm, Praemaxilla.
n, Nasal.
m, Maxilla.
l, Lachrymal.
pf, Praefrontal.
f, Frontal.
j, Jugal
ptf, Postfrontal.
p, Parietal.
st, Supratemporal.
sq, Squamosal.
pto, Postorbital.
qj, Quadrato-jugal.
o, Occipital.
pt, Post-temporal.
q, Quadrate.

The division of the class Amphibia or Batrachia into four orders, as carried out by Huxley, is maintained, with, however, a change of names: *Stegocephalia*, for the assemblage of minor groups that cluster round the *Labyrinthodonta* of R. Owen, which name is restricted to the forms for which it was originally intended; *Peromela*, *Urodela*, *Anura*, are changed to *Apoda*, *Caudata*, *Ecaudata*, for the reason that (unless obviously misleading, which is not the case in the present instance) the first proposed name should supersede all others for higher groups as well as for genera and species, and the latter set have the benefit of the law of priority. In the first subdivision of the batrachians into two families by C. Duméril in 1806 (*Zool. Anal*. pp. 90-94) these are termed “Anoures” and “Urodeles” in French, *Ecaudati* and *Caudati* in Latin. When Duméril’s pupil, M. Oppel, in 1811 (*Ordn. Rept*. p. 72), added the Caecilians, he named the three groups *Apoda*, *Ecaudata* and *Caudata*. The Latin form being the only one entitled to recognition in zoological nomenclature, it follows that the last-mentioned names should be adopted for the three orders into which recent batrachians are divided.

I. STEGOCEPHALIA (**10**).—Tailed, lacertiform or serpentiform batrachians, with the temporal region of the skull roofed over by postorbital, squamosal, and supratemporal plates similar to the same bones in Crossopterygian fishes, and likewise with paired dermal bones (occipitals and post-temporals) behind the parietals and supratemporals. A parietal foramen; scales or bony scutes frequently present, especially on the ventral region, which is further protected by three large bony plates—interclavicle and clavicles, the latter in addition to cleithra.

Extinct, ranging from the Upper Devonian to the Trias. Our knowledge of Devonian forms is still extremely meagre, the only certain proof of the existence of pentadactyle vertebrates at that period resting on the footprints discovered in Pennsylvania and described by O.C. Marsh (**11**) as *Tinopus antiquus*. Sundry remains from Belgium, as to the identification of which doubts are still entertained, have been regarded by M. Lohest (**12**) as evidence of these batrachians in the Devonian. Over 200 species are now distinguished, from the Carboniferous of Europe and North America, the Permian of Spitsbergen, Europe, North America and South Africa, and the Trias of Europe, America, South Africa, India and Australia. The forms of batrachians with which we are acquainted show the vertebral column to have been evolved in the course of time from a notochordal condition with segmented

centra similar to that of early bony ganoid fishes (*e.g. Caturus*, *Eurycormus*), to biconcave centra, and finally to the socket-and-ball condition that prevails at the present day. However, owing to the evolution of the vertebral column in various directions, and to the inconstant state of things in certain annectent groups, it is not possible, it seems, to apply the vertebral characters to taxonomy with that rigidity which E.D. Cope and some other recent authors have attempted to enforce. This is particularly evident in the case of the Stegocephalians; and recent batrachians, tailed and tailless, show the mode of articulation of the vertebrae, whether amphicoelous, opisthocoelous or procoelous, to be of but secondary systematic importance in dealing with these lowly vertebrates. The following division of the Stegocephalians into five sub-orders is therefore open to serious criticism; but it seems on the whole the most natural to adopt in the light of our present knowledge.

A. Rhachitomi, (figs. 1, 2), in which the spinal cord rests on the notochord, which persists uninterrupted and is surrounded by three bony elements in addition to the neural arch: a so-called pleurocentrum on each side, which appears to represent the centrum proper of reptiles and mammals, and an intercentrum or hypocentrum below, which may extend to the neural arch, and probably answers to the hypapophysis, as it is produced into chevrons in the caudal region. Mostly large forms, of Carboniferous and Permian age, with a more or less complex infolding of the walls of the teeth. Families: ARCHEGOSAURIDAE, ERYOPIDAE, TRIMERORHACHIDAE, DISSORHOPHIDAE. The last is remarkable for an extraordinary endo- and exo-skeletal carapace, *Dissorhophus* being described by Cope (**13**) as a "batrachian armadillo."

B. Embolomeri, with the centra and intercentra equally developed disks, of which there are thus two to each neural arch; these disks perforated in the middle for the passage of the notochord. This type may be directly derived from the preceding, with which it appears to be connected by the genus *Diplospondylus*. Fam.: CRICOTIDAE, Permian.

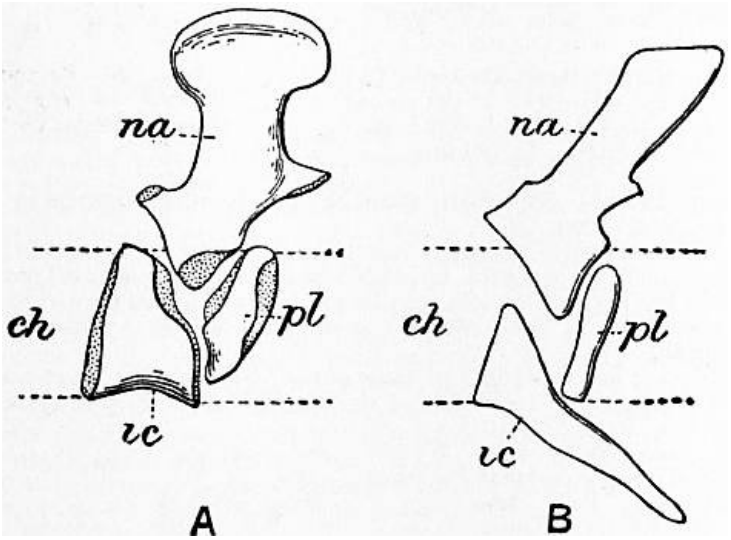

FIG. 2.—A, Dorsal vertebrae. B, Caudal vertebra of *Archegosaurus*. *na*, Neural arch; *ch*, chorda; *pl*, pleurocentrum; *ic*, intercentrum.

(Outline after Jaekel.)

C. Labyrinthodonta, with simple biconcave vertebral disks, very slightly pierced by a remnant of the notochord and supporting the loosely articulated neural arch. This condition is derived from that of the *Rhachitomi*, as shown by the structure of the vertebral column in young specimens. Mostly large forms from the Trias (a few Permian), with true labyrinthic dentition. Families: LABYRINTHODONTIDAE, ANTHRACOSAURIDAE, DENDRERPETIDAE, NYRANIIDAE.

D. Microsauria, nearest the reptiles, with persistent notochord completely surrounded by constricted cylinders on which the neural arch rests. Teeth hollow, with simple or only slightly folded walls. Mostly of small size and abundant in the Carboniferous and Lower Permian. Families: UROCORDYLIDAE, LIMNERPETIDAE, HYLONOMIDAE (fig. 3), MICROBRACHIDAE, DOLICHOSOMATIDAE, the latter serpentiform, apodal.

E. Branchiosauria, nearest to the true batrachians; with persistent non-constricted notochord, surrounded by barrel-shaped, bony cylinders formed by the neural arch above and a pair of intercentra below, both these elements taking an equal share in the formation of a transverse process on each side for the support of the rib. This plan of structure, apparently evolved out of the rhachitomous type by suppression of the pleurocentra and the downward extension of the neural arch, leads to that characteristic of frogs in which, as development shows, the vertebra is formed wholly or for the greater part by the neural arch (**14**). Small forms from the Upper Carboniferous and Permian formations. A single family:

BRANCHIOSAURIDAE.

II. APODA (**15**).—No limbs. Tail vestigial or absent. Frontal bones distinct from parietals; palatines fused with maxillaries. Male with an intromittent copulatory organ. Degraded, worm-like batrachians of still obscure affinities, inhabiting tropical Africa, south-eastern Asia and tropical America. Thirty-three species are known. No fossils have yet been discovered. It has been attempted of late to do away with this order altogether and to make the Caecilians merely a family of the Urodeles. This view has originated out of the very remarkable superficial resemblance between the *Ichthyophis*-larva and the *Amphiuma*. Cope (**16**) regarded the Apoda as the extremes of a line of degeneration from the Salamanders, with *Amphiuma* as one of the annectent forms. In the opinion of P. and F. Sarasin (**17**), whose great work on the development of *Ichthyophis* is one of the most important recent contributions to our knowledge of the batrachians, *Amphiuma* is a sort of neotenic Caecilian, a larval form become sexually mature while retaining the branchial respiration. If the absence of limbs and the reduction of the tail were the only characteristic of the group, there would be, of course, no objection to unite the Caecilians with the Urodeles; but, to say nothing of the scales, present in many genera of Apodals and absent in all Caudates, which have been shown by H. Credner to be identical in structure with those of Stegocephalians, the Caecilian skull presents features which are not shared by any of the tailed batrachians. G.M. Winslow (**18**), who has made a study of the chondrocranium of *Ichthyophis*, concludes that its condition could not have been derived from a Urodele form, but points to some more primitive ancestor. That this ancestor was nearly related to, if not one of, the Stegocephalians, future discovery will in all probability show.

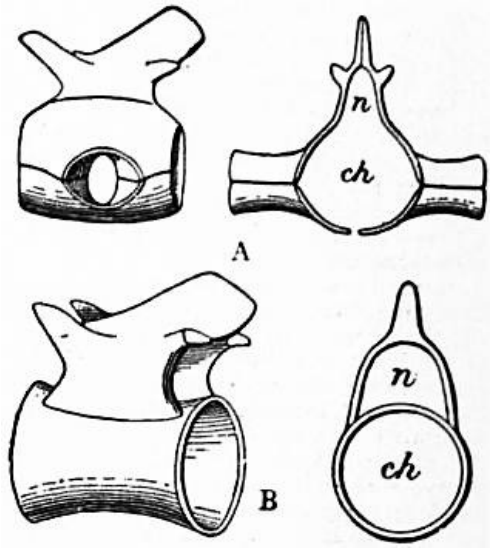

FIG. 3.—A, Dorsal vertebra of *Hylonomus* (side view and front view). B, Dorsal vertebra of *Branchiosaurus* (side view and front view). *n*, Neural canal; *ch*, chorda.

(After Credner.)

III. CAUDATA (**19**).—Tailed batrachians, with the frontals distinct from the parietals and the palatines from the maxillary. Some of the forms breathe by gills throughout their existence, and were formerly regarded as establishing a passage from the fishes to the air-breathing batrachians. They are now considered as arrested larvae descended from the latter. One of the most startling discoveries of the decade 1890-1900 was the fact that a number of forms are devoid of both gills and lungs, and breathe merely by the skin and the buccal mucose membrane (**20**). Three blind cave-forms are known: one terrestrial—*Typhlotriton*, from North America, and two perennibranchiate—*Proteus* in Europe and *Typhlomolge* in North America.

This order contains about 150 species, referred to five families: HYLAEOBATRACHIDAE, SALAMANDRIDAE, AMPHIUMIDAE, PROTEIDAE, SIRENIDAE.

Fossil remains are few in the Upper Eocene and Miocene of Europe and the Upper Cretaceous of North America. The oldest Urodele known is *Hylaeobatrachus* Dollo (**21**) from the Lower Wealden of Belgium. At present this order is confined to the northern hemisphere, with the exception of two *Spelerpes* from the Andes of Ecuador and Peru, and a *Plethodon* from Argentina.

IV. ECAUDATA (**22**).—Frogs and toads. Four limbs and no tail. Radius confluent with ulna, and tibia with fibula; tarsus (astragalus and calcaneum) elongate, forming an additional segment in the hind limb. Caudal vertebrae fused into a urostyle or coccyx. Frontal bones confluent with parietals.

This order embraces about 1300 species, of which some 40 are fossil, divided into two sub-orders and sixteen families:—

A. Aglossa,—Eustachian tubes united into a single ostium pharyngeum; no tongue. DACTYLETHRIDAE, PIPIDAE.

B. Phaneroglossa,—Eustachian tubes separated; tongue present. DISCOGLOSSIDAE, PELOBATIDAE, HEMIPHRACTIDAE, AMPHIGNATHODONTIDAE, HYLIDAE, BUFONIDAE, DENDROPHRYNISCIDAE, CYSTIGNATHIDAE, DYSCOPHIDAE, GENYOPHRYNIDAE, ENGYSTOMATIDAE, CERATOBATRACHIDAE, RANIDAE, DENDROBATIDAE.

The Phaneroglossa are divided into two groups; *Arcifera* and *Firmisternia*, representing two stages of evolution. The family characters are mainly derived from the dilatation or non-dilatation of the sacral diapophyses, and the presence of teeth in one or both jaws, or their absence. The *Discoglossidae* are noteworthy for the presence of short ribs to some of the vertebrae, and in some other points also they approach the tailed batrachians; they may be safely regarded as, on the whole, the most generalized of known Ecaudata. Distinct ribs are present at an early age in the Aglossa, as discovered by W.G. Ridewood (**23**). The recent addition of a third genus of Aglossa, *Hymenochirus* (**24**) from tropical Africa, combining characters of *Pipa* and *Xenopus*, has removed every doubt as to the real affinity which connects these genera. *Hymenochirus* is further remarkable for the presence of only six distinct pieces in the vertebral column, which is thus the most abbreviated among all the vertebrata.

Frogs and toads occur wherever insect food is procurable, and their distribution is a world-wide one, with the exception of many islands. Thus New Caledonia, which has a rich and quite special lizard-fauna, has no batrachians of its own, although the Australian *Hyla aurea* has been introduced with success. New Zealand possesses only one species (*Liopelma hochstetteri*), which appears to be rare and restricted to the North Island. The forest regions of southern Asia, Africa and South America are particularly rich in species.

According to our present knowledge, the Ecaudata can be traced about as far back in time as the Caudata. An unmistakable batrachian of this order, referred by its describer to *Palaeobatrachus*, a determination which is only provisional, has been discovered in the Kimmeridgian of the Sierra del Montsech, Catalonia (**25**), in a therefore somewhat older formation than the Wealden Caudata *Hylaeobatrachus*.

Apart from a few unsatisfactory remains from the Eocene of Wyoming, fossil tailless batrachians are otherwise only known from the Oligocene, Miocene and Pliocene of Europe and India. These forms differ very little from those that live at the present day in the same part of the world, and some of the genera (*Discoglossus, Bufo, Oxyglossus, Rana*) are even identical. *Palaeobatrachus* (**26**), of which a number of species represented by skeletons of the perfect form and of the tadpole have been described from Miocene beds in Germany, Bohemia and France, seems to be referable to the *Pelobatidae*; this genus has been considered as possibly one of the Aglossa, but the absence of ribs in the larvae speaks against such an association.

Numerous additions have been made to our knowledge of the development and nursing habits, which are extremely varied, some forms dispensing with or hurrying through the metamorphoses and hopping out of the egg in the perfect condition (**27**).

Skeleton.—In the earliest forms of this order, the Stegocephalia, we meet with considerable variety in the constitution of the vertebrae, and these modifications have been used for their classification. All agree, however, in having each vertebra formed of at least two pieces, the suture between which persists throughout life. In this they differ from the three orders which have living representatives. Even the inferior arches or chevrons of the tail of salamanders are continuously ossified with the centra. As a matter of fact, these vertebrae have no centra proper, that part which should correspond with the centrum being formed, as a study of the development has shown (H. Gadow, **14**), by the meeting and subsequent complete co-ossification of the two chief dorsal and ventral pairs of elements (tail-vertebrae of Caudata), or entirely by the pair of dorsal elements. In the Ecaudata, the vertebrae of the trunk are formed on two different plans. In some the notochord remains for a long time exposed along the ventral surface, and, owing to the absence of cartilaginous formation around it, disappears without ever becoming invested otherwise than by a thin elastic membrane; it can be easily stripped off below the vertebrae in larval specimens on the point of metamorphosing. This has been termed the *epichordal* type. In others, which represent the *perichordal* type, the greater share of the formation of the whole vertebra falls to the (paired) dorsal cartilage, but there is in addition a narrow ventral or hypochordal cartilage which fuses with the dorsal or becomes connected with it by calcified tissue; the notochord is thus completely surrounded by a thick sheath in tadpoles with imperfectly developed limbs. This mode of formation of both the arch and the greater part or whole of the so-called centrum from the same cartilage explains why there is never a neuro-central suture in these batrachians.

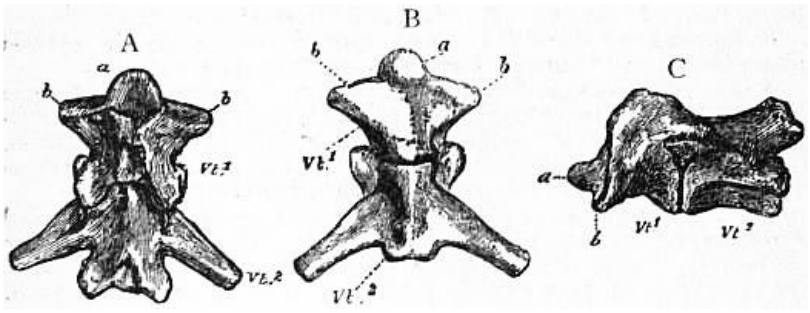

FIG. 4.—The first two vertebrae of *Necturus*. Vt^1, Atlas; Vt^2, second vertebrae; *a*, intercondyloid process of the atlas; *b*, the articular surfaces for the occipital condyles. The ribs of the second vertebra are not represented. A, Dorsal; B, ventral; C, lateral view.

During segmentation of the dorsal cartilages mentioned above, which send out the transverse processes of diapophyses, there appears between each two centra an intervertebral cartilage, out of which the articulating condyle of the centrum is formed, and becomes attached either to the vertebra anterior (precoelous type) or posterior (opisthocoelous type) to it, if not remaining as an independent, intervertebral, ossified sphere, as we sometimes find in specimens of *Pelobatidae*.

In the Caudata and Apoda, cartilage often persists between the vertebrae; this cartilage may become imperfectly separated into a cup-and-ball portion, the cup belonging to the posterior end of the vertebra. In such cases the distinction between amphicoelous and opisthocoelous vertebrae rests merely on a question of ossification, and has occasionally given rise to misunderstandings in the use of these terms.

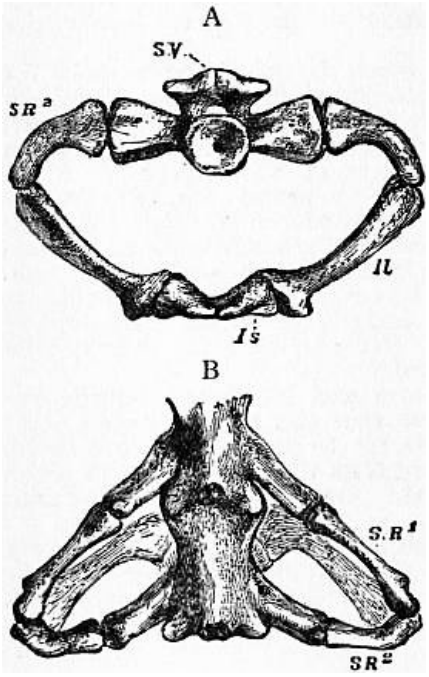

FIG. 5.—*Necturus*. Posterior (A) and ventral (B) views of the sacral vertebrae (*S.V.*); $S.R.^1$, $S.R.^2$, sacral ribs; *Il*, ilium; *Is*, ischium.

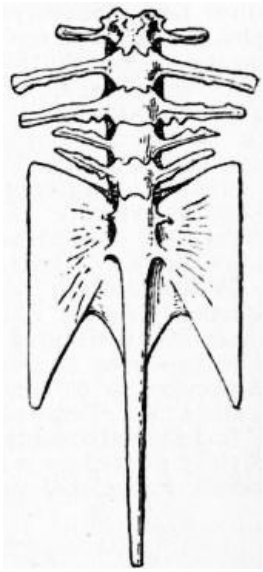

FIG. 6.-Vertebral column of *Hymenochtrus* (ventral view).

Amphicoelous (bi-concave) vertebrae are found in the Apoda and in some of the Caudata; opisthocoelous (convexo-concave) vertebrae in the higher Caudata and in the lower Ecaudata; whilst the great majority of the Ecaudata have procoelous (concavo-convex) vertebrae.

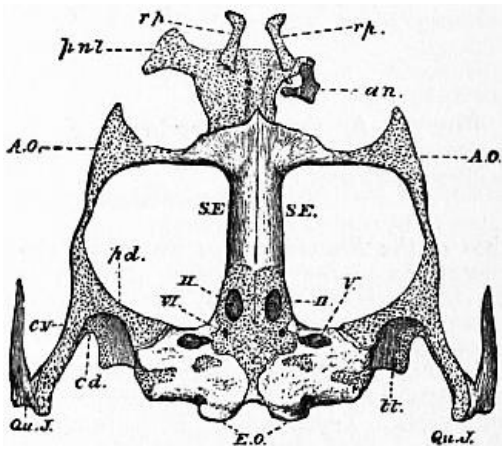

FIG. 7.—Chondrocranium of *Rana esculenta*—ventral aspect.

rp, The rhinal process.
pnl, The praenasal processes.
an, The alinasal processes, shown by the removal of part of the floor of the left nasal chamber.
AO., The antorbital process.
pd, The pedicle of the suspensorium continued into *cv*, the ventral crus of the suspensorium.
cd, Its dorsal crus.
tt, The tegmen tympani.
SE, The sphen-ethmoid.
EO., The exoccipitals.
Qu.J., The quadratojugal.
II. V. VI. Foramina by which the optic, trigeminal and abortio dura, and abducens nerves leave the skull.

All living batrachians, and some of the Stegocephalia, have transverse processes on the vertebrae that succeed the atlas (fig. 4), some of which, in the Caudata, are divided into a dorsal and a ventral portion. Ribs are present in the lower Ecaudata (*Discoglossidae* and larval Aglossa), but they are never connected with a sternum. It is in fact doubtful whether the so-called sternum of batrachians, in most cases a mere plate of cartilage, has been correctly identified as such. When limbs are present, one vertebra, rarely two (fig. 5) or three, are distinguished as sacral, giving attachment to the ilia. In the Ecaudata, the form of the transverse processes of the sacral vertebra varies very considerably, and has afforded important characters to the systematist. In accordance with the saltatorial habits of the members of this order, the vertebrae, which number from 40 to 60 in the Caudata, to upwards of 200 in the Apoda, have become reduced to 10 as the normal number, viz., eight praecaudal, one sacral and an elongate coccyx or urostyle, formed by coalescence of at least two vertebrae. In some genera this coccyx is fused with the ninth vertebra, and contributes to the sacrum, whilst in a few others the number of segments is still further reduced by the co-ossification of one or two vertebrae preceding that corresponding to the normal sacral and by the fusion of the two first vertebrae, the extreme of reduction being found in the genus *Hymenochirus*, the vertebral column of which is figured here (fig 6.)

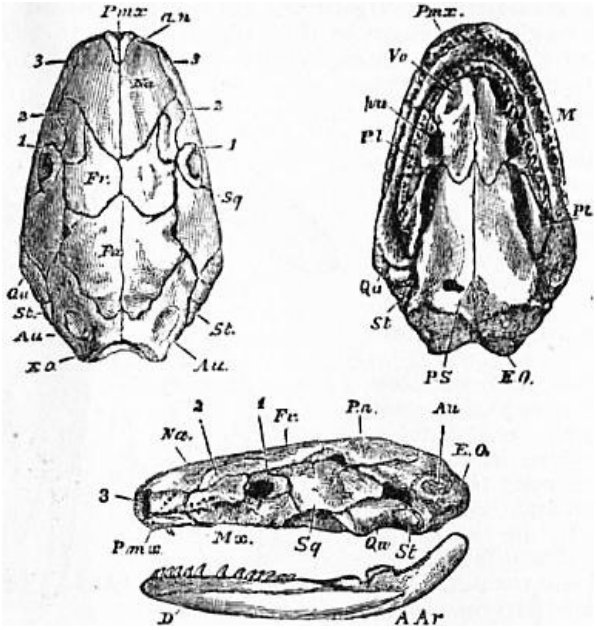

FIG. 8.—The skull of *Ichthyophis glutinosus* A, Dorsal; B, ventral; C, lateral view. The letters

have the same signification as below.

As stated above in the definition of the order, the Stegocephalia have retained most of the cranial bones which are to be found in the Crossopterygian fishes, and it is worthy of note that the bones termed post-temporals may give attachment to a further bone so prolonged backwards as to suggest the probability of the skull being connected with the shoulder-girdle, as in most teleostome fishes. This supposition is supported by a specimen from the Lower Permian of Autun, determined as *Actinodon frossardi*, acquired in 1902 by the British Museum, which shows a bone, similar to the so-called "epiotic cornu" of the microsaurians, *Ceraterpeton* and *Scincosaurus*, to have the relations of the supra-cleithrum of fishes, thus confirming a suggestion made by C.W. Andrews (**28**). As in fishes also, the sensory canal system must have been highly developed on the skulls of many labyrinthodonts, and the impressions left by these canals have been utilized by morphologists for homologizing the various elements of the cranial roof with those of Crossopterygians. The pineal foramen, in the parietal bones, is as constantly present as it is absent in the other orders. Although not strictly forming part of the skull, allusion should be made here to the ring of sclerotic plates which has been found in many of the Stegocephalia, and which is only found elsewhere in a few Crossopterygian fishes as well as in many reptiles and birds.

In the orders which are still represented at the present day, the bones of the skull are reduced in number and the "primordial skull," or chondrocranium (fig. 7), remains to a greater or less extent unossified, even in the adult. Huxley's figures of the skull of a caccilian (*Ichthyophis glutinosus*), fig. 8, of a perennibranchiate urodele (*Necturus maculosus = Menobranchus lateralis*), fig. 9, and of a frog (*Rana esculenta*), fig. 10, are here given for comparison.

The skull, in the *Apoda*, is remarkably solid and compact, and it possesses a postorbital or postfrontal bone (marked 1 in the figure) which does not exist in any of the other living batrachians. The squamosal bone is large and either in contact with the frontals and parietals or separated from them by a vacuity; the orbit is sometimes roofed over by bone. The presence, in some genera, of a second row of mandibular teeth seems to indicate the former existence of a splenial element, such as exists in *Siren* among the Caudata and apparently in the labyrinthodonts.

In the Caudata, the frontals remain likewise distinct from the parietals, whilst in the Ecaudata the two elements are fused into one, and in a few forms (Aglossa, some *Pelobalidae*) the paired condition of these bones has disappeared in the adult. Prefrontal bones are present in the *Salamandridae* and *Amphiumidae*, but absent (or fused with the nasals) in the other Caudata and in the Ecaudata. In most of the former the palatines fuse with the vomers, whilst they remain distinct, unless entirely lost, in the latter. The vomer is single, or absent, in the Aglossa. In the lower jaw of most of the Ecaudata the symphysial cartilages ossify separately from the dentary bones, forming the so-called mento-meckelian bones; but these symphysial bones, so distinct in the frog, are less so in the *Hylidae* and *Bufonidae*, almost indistinguishable in the *Pelobatidae* and *Discoglossidae*, whilst in the Aglossa they do not exist any more than in the other orders of batrachians.

No batrachian is known to possess an ossified azygous supra-occipital.

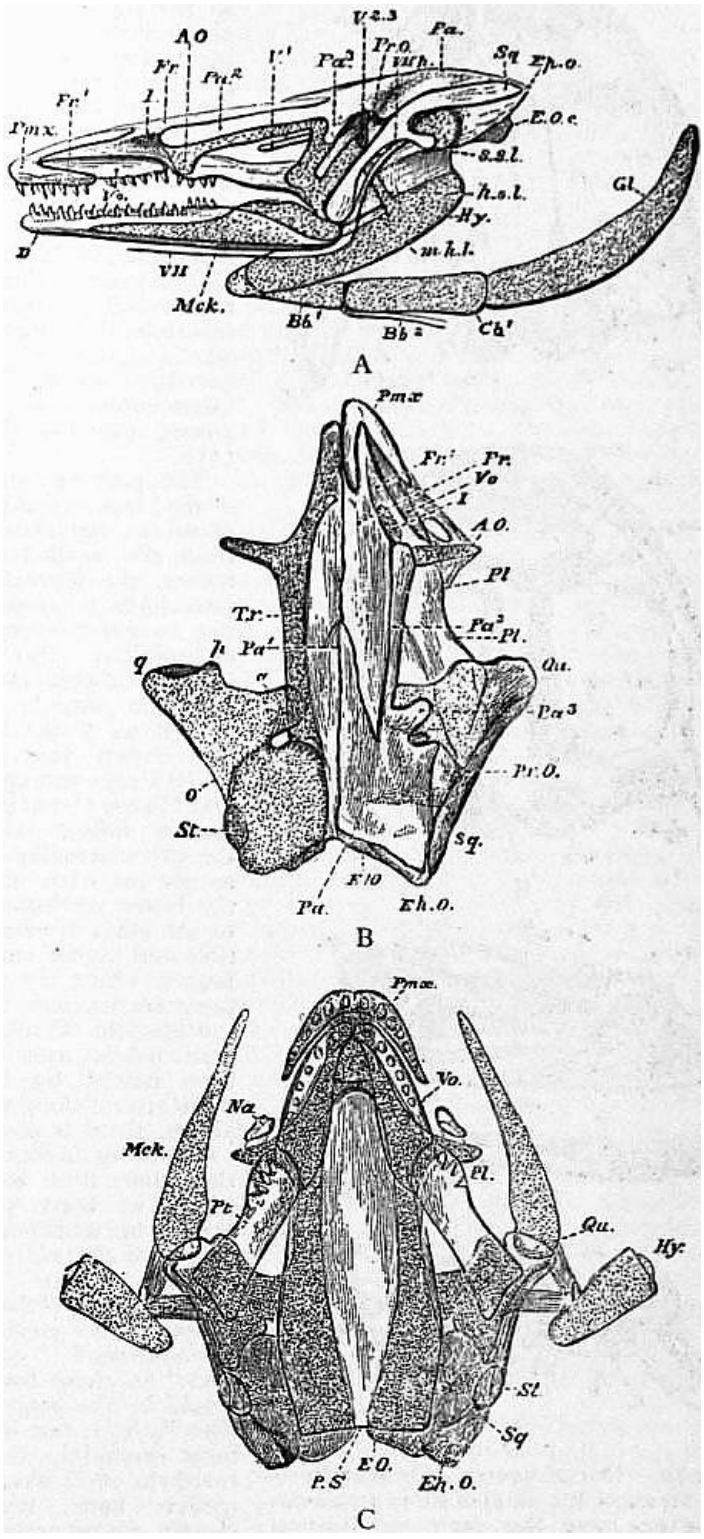

FIG. 9.—Lateral, dorsal and ventral views of the cranium of *Necturus maculosus*. In the dorsal view, the bones are removed from the left half of the skull, in the ventral view, the parasphenoid, palato-pterygoid, and vomers are given in outline. The letters have, for the most part, the same signification as before.

VII.*p*, Posterior division of the seventh nerve.
VII. Chorda tympani
V^1, V^2, V^3, First, second and third divisions of the trigeminal.
s.s.l, Stapedio-suspensorial ligament.
h.s.l, Hyo-suspensorial ligament.
m.h.l, Mandibulo-hyoid ligament.
a, Ascending process of the suspensorium.
p, Pterygo-palatine process.
o, Otic process.
Na, Posterior nares.
Mck, Meckel's cartilage.
Gl (fig. 10), The position of the glottis.
Bb^1, Bb^2, Basilbranchials.

Although there are four branchial arches in all the larval forms of the three orders, and

throughout life in the *Sirenidae*, the perennibranchiate *Proteidae* have only three (see fig. 11). In the adult Apoda these arches and the hyoid fuse into three transverse, curved or angular bones (see fig. 13), the two posterior disconnected from the hyoid. In the Ecaudata, as shown by F. Gaupp (**29**) and by W.G. Ridewood (**30**), the whole hyobranchial apparatus forms a cartilaginous continuum, and during metamorphosis the branchialia disappear without a trace. The hyoid of the adult frog (fig. 12) consists of a plate of cartilage with two slender cornua, three processes on each side, and two long bony rods behind, termed the thyro-hyals, which embrace the larynx. In the Aglossa, which are remarkable for the large size and complexity of the larynx, the thyro-hyal bones are incorporated into the laryngeal apparatus, whilst the recently discovered *Hymenochirus* is further remarkable for the large size and ossification of the hyoidean cornua (ceratohyals), a feature which, though not uncommon among the salamanders, is unique among the Ecaudata (**31**).

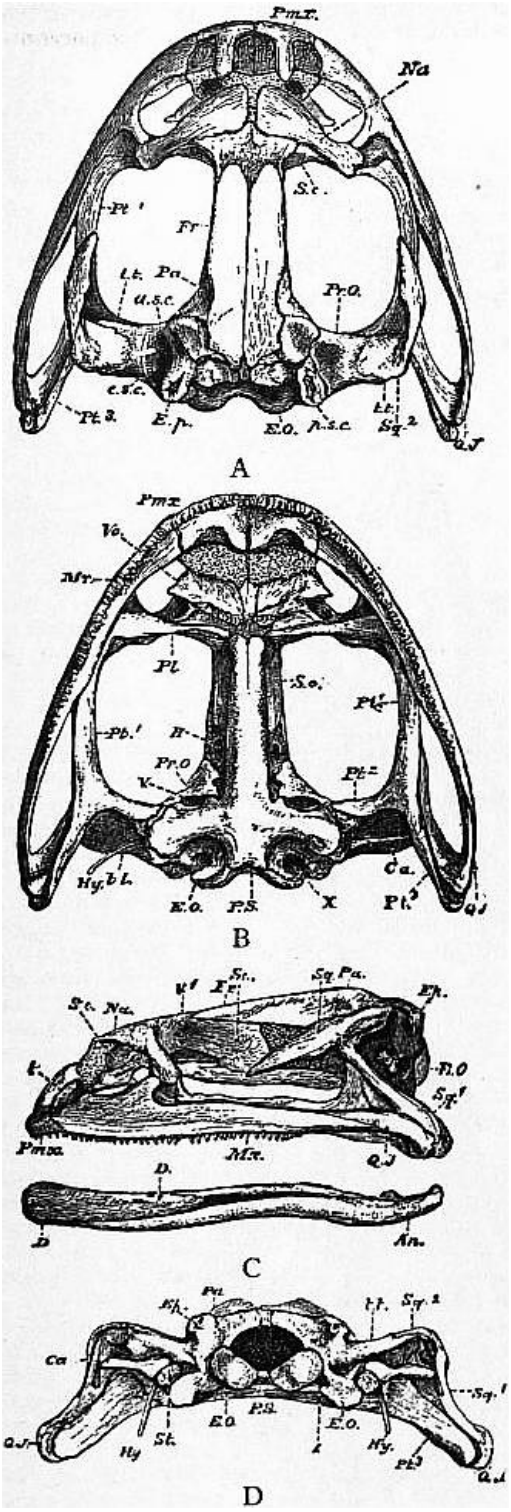

FIG. 10—Dorsal, ventral, lateral, and posterior views of the skull of *Rana esculenta*. The letters have the same signification throughout.

Pmx, Premaxilla.
Mx, Maxilla.
Vo, Vomer.
Pt^1, Pterygoid, anterior process.
Pt^2, Internal process.

Na, Nasal.
S.e, Sphen-ethmoid.
Fr, Frontal.
Pa, Parietal.
E.O, Exoccipital.
Ep, Epiotic process.
Pr.O, Pro-otic.
t.t, Tegmentympani.
Sq, Squamosal.
Q.J, Quadrato-jugal.
Pt^3, Posterior or external process.
Ca, Columella auris.
St, Stapes.
Hy, Hyoidean cornu.
P.S, Parasphenoid.
An, Angulate.
D, Dentale.
V, Foramen of exit of the trigeminal.
H, Of the optic.
X, Of the pneumogastric and glosso-pharyngeal nerves.
V^1. Foramen by which the orbito-nasal or first division of the fifth passes to the nasal cavity.

The pectoral girdle of the Stegocephalia is, of course, only known from the ossified elements, the identification of which has given rise to some diversity of opinion. But C. Gegenbaur's (**32**) interpretation may be regarded as final. He has shown that, as in the Crossopterygian and Chondrostean ganoid fishes, there are two clavicular elements on each side; the lower corresponds to the clavicle of reptiles and higher vertebrates, whilst the upper corresponds to the clavicle of teleostean fishes, and has been named by him "cleithrum." As stated above, there is strong evidence in favour of the view that some forms at least possessed in addition a "supracleithrum," corresponding to the supra-clavicle of bony fishes. The element often termed "coracoid" in these fossils would be the scapula. The clavicles rest on a large discoidal, rhomboidal, or T-shaped median bone, which clearly corresponds to the interclavicle of reptiles.

The pectoral girdle of the living types of batrachians is distinguishable into a scapular, a coracoidal, and a praecoracoidal region. In most of the Caudata the scapular region alone ossifies, but in the Ecaudata the coracoid is bony and a clavicle is frequently developed over the praecoracoid cartilage. In these batrachians the pectoral arch falls into two distinct types—the *arciferous*, in which the precoracoid (+ clavicle) and coracoid are widely separated from each other distally and connected by an arched cartilage (the epicoracoid), the right usually overlapping the left; and the *firmisternal*, in which both precoracoid and coracoid nearly abut on the median line, and are only narrowly separated by the more or less fused epicoracoids. The former type is exemplified by the toads and the lower Ecaudata, whilst the latter is characteristic of the true frogs (*Ranidae*), although when quite young these batrachians present a condition similar to that which persists throughout life in their lower relatives. A cartilage in the median line in front of the precoracoids, sometimes supported by a bony style, is the so-called Omosternum; a large one behind the coracoids, also sometimes provided with a bony style, has been called the sternum. But these names will probably have to be changed when the homologies of these parts are better understood.

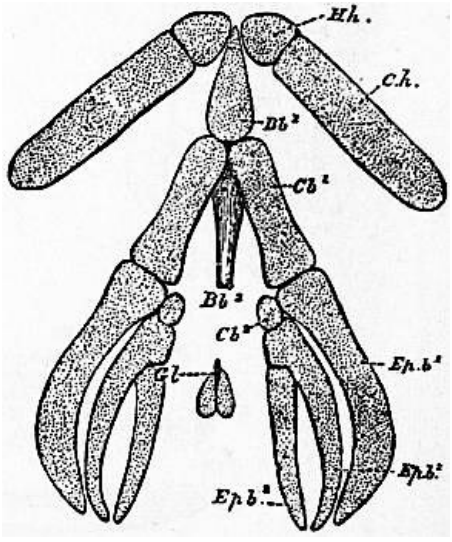

FIG. 11.—Hyoid and branchial apparatus of *Necturus maculosus*.

Hh, Hypo-hyal.
Ch, Cerato-hyal.
Bb^1, First basibranchial.
Bb^2, Ossified second basibranchial.
$Ep.b^1$, *$Ep.b^2$*, *$Ep.b^3$*, First, second and third epibranchials.
Gl, Glottis.

The pelvic arch of some of the Stegocephalia contained a well ossified pubic element, whilst in all other batrachians only the ilium, or the ilium and the ischium are ossified. In the Ecaudata the ilium is greatly elongated and the pubis and ischium are flattened, discoidal,

and closely applied to their fellows by their inner surfaces; the pelvic girdle looks like a pair of tongs.

The long bones of the limbs consist of an axis of cartilage; the extremities of the cartilages frequently undergo calcification and are thus converted into epiphyses. In the Ecaudata the radius and ulna coalesce into one bone. The carpus, which remains cartilaginous in many of the Stegocephalia and Caudata, contains six to eight elements when the manus is fully developed, whilst the number is reduced in those forms which have only two or three digits. Except in some of the Stegocephalia, there are only four functional digits in the manus, but the Ecaudata have a more or less distinct rudiment of pollex; in the Caudata it seems to be the outer digit which has been suppressed, as atavistic reappearance of a fifth digit takes place on the outer side of the manus, as it does on the pes in those forms in which the toes are reduced to four. The usual number of phalanges is 2, 2, 3, 2 in the Stegocephalia and Caudata, 2, 2, 3, 3 in the Ecaudata. In the foot the digits usually number five, and the phalanges 2, 2, 3, 3, 2 in the Caudata, 2, 2, 3, 4, 3 in the Stegocephalia and Ecaudata. There are occasionally intercalary ossifications between the two distal phalanges (**33**). There are usually nine tarsal elements in the Caudata; this number is reduced in the Ecaudata, in which the two bones of the proximal row (sometimes coalesced) are much elongated and form an additional segment to the greatly lengthened hind-limb, a sort of *crus secundarium*. In the Ecaudata also, the tibia and fibula coalesce into one bone, and two or three small bones on the inner side of the tarsus form what has been regarded as a rudimentary digit or "prehallux."

Integument.—In all recent batrachians, the skin is naked, or if small scales are present, as in many of the Apoda, they are concealed in the skin. The extinct Stegocephalia, on the other hand, were mostly protected, on the ventral surface at least, by an armour of overlapping round, oval, or rhomboidal scales, often very similar to those of Crossopterygian or ganoid fishes, and likewise disposed in transverse oblique lines converging forwards on the middle line of the belly. Sometimes these scales assumed the importance of scutes and formed a carapace, as in the "batrachian armadillo" discovered by E.D. Cope. A few frogs have the skin of the back studded with stellate bony deposits (*Phyllomedusa, Nototrema*), whilst two genera are remarkable for possessing a bony dorsal shield, free from the vertebrae (*Ceratorphrys*) or ankylosed to them (*Brachycephalus*). None of the Stegocephalia appears to have been provided with claws, but some living batrachians (*Onychodactylus, Xenopus, Hymenochirus*) have the tips of some or all of the digits protected by a claw-like horny sheath.

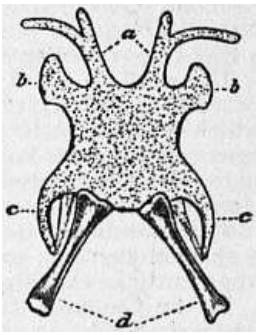

FIG. 12.—Ventral view of the hyoid of *Rana esculenta*. *a*, Anterior; *b*, lateral; *c*, posterior processes; *d*, thyro-hyals.

The integument of tailed and tailless batrachians is remarkable for the great abundance of follicular glands, of which there may be two kinds, each having a special secretion, which is always more or less acrid and irritating, and affords a means of defence against the attacks of many carnivorous animals. A great deal has been published on the poisonous secretion of batrachians (**34**), which is utilized by the Indians of South America for poisoning their arrows. Some of the poison-secreting glands attain a greater complication of structure and are remarkable for their large size, such as the so-called "parotoid" glands on the back of the head in toads and salamanders.

In all larval forms, in the Caudata, and in a few of the Ecaudata (*Xenopus*, for instance), the epidermis becomes modified in relation with the termination of sensory nerves, and gives rise to organs of the same nature as those of the lateral line of fishes. In addition to diffuse pigment (mostly in the epidermis), the skin contains granular pigment stored up in cells, the chromatophores, restricted to the cutis, which are highly mobile and send out branches which, by contraction and expansion, may rapidly alter the coloration, most batrachians being in this respect quite comparable to the famous chameleons. Besides white (guanine) cells, the pigment includes black, brown, yellow and red. The green and blue, so frequent in frogs and newts, are merely subjective colours, due to interference. On the mechanism of the change of colour, cf. W. Biedermann (**35**).

One of the interesting recent discoveries is that of the "hairy" frog (*Trichobatrachus*), in which the sides of the body and limbs are covered with long villosities, the function of which is still

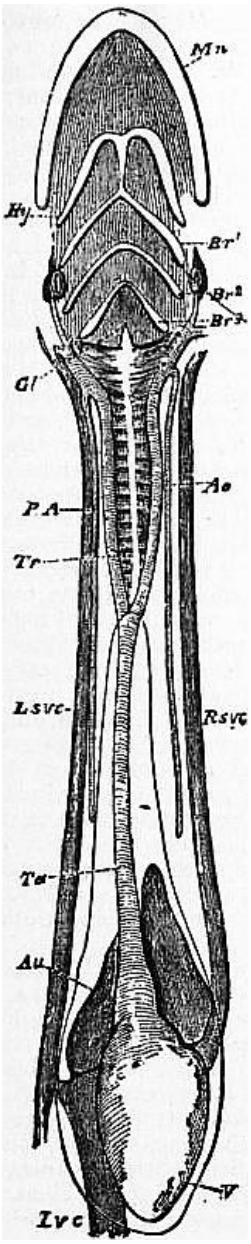

FIG. 13.—Ventral view of the head and trunk of *Ichthyophis glutinosus*.

Mn, Mandible.
Hy, Hyoid.
Br^1 *Br*^{2}, *Br*^{3}, Branchial arches.
Gl, Glottis.
Tr, Trachea.
Ivc, Inferior vena cava.
V, Ventricle.
Au, Auricles.
Rsvc, Lsvc, right and left superior cavae.
Ta, Truncus arteriosus.
Ao, Left aortic arch.
P.A. Right pulmonary artery.
The pericardium (lightly shaded) extends as far as the bifurcation of the synangium.

unknown (**36**).

The nuptial horny asperities with which the males of many batrachians are provided, for the purpose of clinging to the females, will be noticed below, under the heading *Pairing and Oviposition*.

Dentition.—In the Microsauria and Branchiosauria among the Stegocephalia, as in the other orders, the hollow, conical or slightly curved teeth exhibit simple or only slightly folded walls. But in the Labyrinthodonta, grooves are more or less marked along the teeth and give rise to folds of the wall which, extending inwards and ramifying, produce the complicated structure, exhibited by transverse sections, whence these batrachians derive their name; a somewhat similar complexity of structure is known in some holoptychian (dendrodont) Crossopterygian fishes. In the remarkable salamander *Autodax*, the teeth in the jaws are compressed, sharp-edged, lancet shaped. The teeth are not implanted in sockets, but become ankylosed with the bones that bear them, and are replaced by others developed at their bases. Teeth are present in the jaws of all known Stegocephalia and Apoda and of nearly all Caudata, *Siren* alone presenting plates of horn upon the gingival surfaces of the premaxillae and of the dentary elements of the mandible. But they are nearly always absent in the lower jaw of the Ecaudata (exceptions in *Hemiphractus, Amphignathodon, Amphodus, Ceratobatrachus*, the male of *Dimorphognathus*), many of which (toads, for instance) are entirely edentulous.

There is great variety in the distribution of the teeth on the palate. They may occur simultaneously on the vomers, the palatines, the pterygoids and the parasphenoid in some of the Stegocephalia (*Dawsonia, Seeleya, Acanthostoma*), on the vomers, palatines and parasphenoid in many salamandrids (*Plethodontinae* and *Desmognathinae*), on the vomers, pterygoids and parasphenoid (some *Pelobates*), on the vomers and parasphenoid (*Triprion, Amphodus*), whilst in the majority or other batrachians they are confined to the vomers and palatines or to the vomers alone (**37**).

As regards the alimentary organs, it will suffice to state, in this very brief sketch, that all batrachians being carnivorous in their perfect condition, the intestine is never very long and its convolutions are few and simple. But the larvae of the Ecaudata are mainly herbivorous and the digestive tract is accordingly extremely elongate and coiled up like the spring of a watch. The gullet is short, except in the Apoda. The tongue is rudimentary in the perennibranchiatea Caudata, well developed, and often protrusile, in the *Salamandridae* and most of the Ecaudata, totally absent in the Aglossa.

The organs of circulation cannot be dealt with here; the most important addition made to our knowledge in recent years being found in the contributions of F. Hochstetter (**38**) and of G.B. Howes (**39**), dealing with the azygous (posterior) cardinal veins in salamanders and some of the Ecaudata. The heart is situated quite forward, in the gular or pectoral region, even in those tailed batrachians which have a serpentiform body, whilst in the Apoda (fig. 13) it is moved back to a distance which is comparable to that it occupies in most of the snakes.

The Respiratory Organs.—The larynx, which is rudimentary in most of the Caudata and in the Apoda, is highly developed in the Ecaudata, and becomes the instrument of the powerful voice with which many of the frogs and toads are provided. The lungs are long simple tubes in some of the perennibranchiate Caudata; they generally shorten or become cellular in the salamandrids, and attain their highest development in the Ecaudata, especially in such forms as the burrowing *Pelobates*. Although the lungs are present in such forms as preserve the gills throughout life, it is highly remarkable that quite a number of abranchiate salamanders,

belonging mostly to the subfamilies *Desmognathinae* and *Plethodontinae*, are devoid of lungs and breathe entirely by the skin and by the bucco-pharyngeal mucose membrane (**20**). Some of the *Salamandrinae* show the intermediate conditions which have led to the suppression of the trachea and lungs. In the Apoda, as in many serpentiform reptiles, one of the lungs, either the right or the left, is much less developed than the other, often very short.

Urino-genital Organs.—The genital glands, ovaries and testes, are attached to the dorsal wall of the body-cavity, in the immediate vicinity of the kidneys, with which the male glands are intimately connected. The oviducts are long, usually more or less convoluted tubes which open posteriorly into the cloaca, while their anterior aperture is situated far forward, sometimes close to the root of the lung; their walls secrete a gelatinous substance which invests the ova as they descend. In most male batrachians the testes are drained by transverse canals which open into a longitudinal duct, which also receives the canals of the kidneys, so that this common duct conveys both sperma and urine. In some of the discogloesid frogs, however, the seminal duct is quite independent of the kidney, which has its own canal, or true ureter. Many of the Ecaudata have remnants of oviducts, or Müllerian ducts, most developed in *Bufo*, which genus is also remarkable as possessing a problematic organ, Bidder's organ, situated between the testis and the adipose or fat-bodies that surmount it. This has been regarded by some anatomists as a rudimentary ovary. Female salamandrids are provided with a *receptaculum seminis*. Copulatory organs are absent, except in the Apoda, in which a portion of the cloaca can be everted and acts as a penis. The urinary bladder is always large.

The spermatozoa have received a great share of attention, on the part not only of anatomists and physiologists, but even of systematic workers (**40**). This is due to the great amount of difference in structure and size between these elements in the various genera, and also to the fact that otherwise closely allied species may differ very considerably in this respect. The failure to obtain hybrids between certain species of *Rana* has been attributed principally to these differences. The spermatozoa of *Discoglossus* are remarkable for their great size, measuring three millimetres in length.

Pairing and Oviposition—Batrachians may be divided into four categories under this head: —(1) no amplexation; (2) amplexation without internal fecundation; (3) amplexation with internal fecundation; (4) copulation proper. The first category embraces many aquatic newts, the second nearly all the Ecaudata, the third the rest of the Caudata, and the fourth the Apoda.

In the typical newts (*Molge*) of Europe, the males are adorned during the breeding season with bright colours and crests or other ornamental dermal appendages, and, resorting to the water, they engage in a lengthy courtship accompanied by lively evolutions around the females, near which they deposit their spermatozoa in bundles on a gelatinous mass, the spermatophore, probably secreted by the cloacal gland. This arrangement facilitates the internal fecundation of the female without copulation, the female absorbs the spermatozoa by squeezing them out of the spermatophore between the cloacal lips. Other newts, and many salamanders, whether terrestrial or aquatic, pair, the male embracing the female about the fore limbs or in the pelvic region, and the males of such forms are invariably devoid of ornamental secondary sexual characters; but in spite of this amplexation the same mode of fecundation by means of a spermatophore is resorted to, although it may happen that the contents of the spermatophore are absorbed direct from the cloaca of the male. The spermatozoa thus reach the eggs in the oviducts, where they may develop entirely, some of the salamanders being viviparous.

In all the tailless batrachians (with the exception of a single known viviparous toad), the male clings to the female round the breast, at the arm-pits, or round the waist, and awaits, often for hours or days, the deposition of the ova, which are immediately fecundated by several seminal emissions.

The fourth category is represented by the Apoda or Caecilians in which, as we have stated above, the male is provided with an intromittent organ. Some of these batrachians are viviparous.

In those species in which the embrace is of long duration the limbs of the male, usually the fore limbs (pleurodele newt, Ecaudata), rarely the hind limbs (a few American and European newts), according to the mode of amplexation, acquire a greater development, and are often armed with temporary horny excrescences which drop off after the pairing season. These asperities usually form brush-like patches on the inner side of one or more of the digits, but may extend over the inner surface of the limbs and on the breast and chin; the use of them on these parts is sufficiently obvious, but they are sometimes also present, without apparent function, on various parts of the foot, as in *Discoglossus, Bombinator,* and *Pelodytes*. In some species of the South American frogs of the genus *Leptodactylus* the breast and hands are armed with very large spines, which inflict deep wounds on the female held in embrace.

In most of the Caudata, the eggs are deposited singly in the axils of water plants or on leaves which the female folds over the egg with her hind limbs. The eggs are also deposited singly in some of the lower Ecaudata. In many of the Ecaudata, and in a few of the Caudata and Apoda, the eggs are laid in strings or bands which are twined round aquatic plants or carried by the parent; whilst in other Ecaudata they form large masses which either float on the surface of the water or sink to the bottom.

A few batrachians retain the ova within the oviducts until the young have undergone part or the whole of the metamorphosis. Viviparous parturition is known among the Caudata (*Salamandra, Spelerpes fuscus*), and the Apoda (*Dermophis thomensis, Typhlonectes compressicauda*); also in a little toad (*Pseudophryne vivipara*) recently discovered in German East Africa (**41**).

Development and Metamorphosis.—In a great number of batrachians, including most of the European species, the egg is small and the food-yolk is in insufficient quantity to form an external appendage of the embryo. But in a few European and North American species, and in a great many inhabitants of the tropics, the egg is large and a considerable portion of it persists for a long time as a yolk-sac. Although the segmentation is always complete, it is very irregular in these types, some of which make a distinct approach to the meroblastic egg.

With the exception of a number of forms in which the whole development takes place within the egg or in the body of the mother, batrachians undergo metamorphoses, the young passing through a free-swimming, gill-breathing period of considerable duration, during which their appearance, structure, and often their *régime*, are essentially different from those of the mature form. Even the fossil Stegocephalia underwent metamorphosis, as we know from various larval remains first described as *Branchiosaurus*. They are less marked or more gradual in the Apoda and Caudata than in Ecaudata, in which the stage known as tadpole is very unlike the frog or toad into which it rather suddenly passes (see TADPOLE). In the Caudata, external gills (three on each side) persist until the close of the metamorphosis, whilst in the Apoda and Ecaudata they exist only during the earlier periods, being afterwards replaced by internal gills.

Many cases are known in which the young batrachian enters the world in the perfect condition, as in the black salamander of the Alps (*Salamandra atra*), the cave salamander (*Spelerpes fuscus*), the caecinan *Typhlonectes*, and a number of frogs, such as *Pipa, Rhinoderma, Hylodes,* some *Nototrema, Rana opisthodon,* &c. A fairly complete bibliographical index to these cases and the most remarkable instances of parental care in tailless batrachians will be found in the interesting articles by Lilian V. Sampson (**42**), and by G. Brandes and W. Schoenichen (**43**). It will suffice to indicate here in a synoptic form, as was done by the present writer many years ago, when our knowledge of these wonders of batrachian life was far less advanced than it is now, the principal modes of protection which are resorted to:—

1. Protection by means of nests or nurseries.

   A. In enclosures in the water.—*Hylafaber*.

   B. In nests in holes near the water.—*Rhacophorus, Leptodactylus*.

   C. In nests overhanging the water.—*Rhacophorus, Chiromantis, Phyllpmedusa*.

   D. On trees or in moss away from the water.—*Rana opisthodon, Hylodes, Hylelia platycephala*.

   E. In a gelatinous bag in the water.—*Phrynixalus, Salamandrella*.

2. Direct nursing by the parents.

   A Tadpoles transported from one place to another.—*Dendrebates, Phyllobates, Sooglossus*.

   B. Eggs protected by the parents who coil themselves round or “sit” on them. —*Mantophryne, Desmognathus, Autodax, Plethodon, Cryptobranchus, Amphiuma, Ichthyophis, Hypogeophis, Siphonops*.

   C. Eggs carried by the parents.

      (a) Round the legs, by the male.—*Alytes*.

      (b) On the back, by the female.

         (1) Exposed.—*Hyla goeldii, H. evansii, Ceratohyla*.

         (2) In cell-like pouches.—*Pipa*.

         (3) In a common pouch.—*Nototrema, Amphignathodon*.

      (c) On the belly.

         (1) Exposed, by the female.—*Rhacophorus reticulatus*.

(2) In a pouch (the produced vocal sac), by the male.—*Rhinoderma*.

(d) In the mouth, by the female.—*Hylambates brevirostris*.

Geographical Distribution.—If a division of the world according to its batrachian faunae were to be attempted, it would differ very considerably from that which would answer for the principal groups of reptiles, the lizards especially. We should have four great realms:—(1) Europe and Northern and Temperate Asia, Africa north of the Sahara (palaearctic region) and North and Central America (nearctic region); (2) Africa and South-Eastern Asia (Ethiopian and Indian region); (3) South America (neotropical region); and (4) Australia (Australian region). The first would be characterized by the Caudata, which are almost confined to it (although a few species penetrate into the Indian and neotropical regions), the *Discoglossidae*, mostly Europaeo-Asiatic, but one genus in California, and the numerous *Pelobatidae*; the second by the presence of Apoda, the prevalence of firmisternal Ecaudata and the absence of *Hylidae*; the third by the presence of Apoda, the prevalence of arciferous Ecaudata and the scarcity of *Ranidae*, the fourth by the prevalence of arciferous Ecaudata and the absence of *Ranidae*, as well as by the absence of either Caudata or Apoda. Madagascar might almost stand as a fifth division of the world, characterized by the total absence of Caudata, Apoda, and arciferous Ecaudata. But the close relation of its very rich frog-fauna to that of the Ethiopian and Indian regions speaks against attaching too great importance to these negative features. It may be noted here that no two parts of the world differ so considerably in their Ecaudata as do Madagascar and Australia, the former having only Firmisternia, the latter only Arcifera. Although there is much similarity between the Apoda of Africa and of South America, one genus being even common to both parts of the world, the frogs are extremely different, apart from the numerous representatives of the widely distributed genus *Bufo*. It may be said that, on the whole, the distribution of the batrachians agrees to some extent with that of fresh-water fishes, except for the much less marked affinity between South America and Africa, although even among the former we have the striking example of the distribution of the very natural group of the aglossal batrachians, represented by *Pipa* in South America and by *Xenopus* and *Hymenochirus* in Africa.

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(G. A. B.)

BATRACHOMYOMACHIA (Gr. βάτραχος, "frog," μῦς, "mouse," and μάχη, "battle"), the

“Battle of Frogs and Mice,” a comic epic or parody on the *Iliad*, definitely attributed to Homer by the Romans, but according to Plutarch (*De Herodoti Malignitate*, 43) the work of Pigres of Halicarnassus, the brother (or son) of Artemisia, queen of Caria and ally of Xerxes. Some modern scholars, however, assign it to an anonymous poet of the time of Alexander the Great.

Edition by A. Ludwich (1896).

BATTA, an Anglo-Indian military term, probably derived from the Canarese *bhatta* (rice in the husk), meaning a special allowance made to officers, soldiers, or other public servants in the field.

BATTAGLIA, a town of Venetia, Italy, in the province of Padua, 11 m. S.S.W. by rail from Padua. Pop. (1901) 4456. It lies at the edge of the volcanic Euganean Hills, and is noted for its warm saline springs and natural vapour grotto. A fine palace was erected in the Palladian style in the 17th century by Marchese Benedetto Selvatico-Estense, then owner of the springs.

BATTAKHIN, African “Arabs” of Semitic stock. They occupy the banks of the Blue Nile near Khartum, and it was against them that General Gordon fought most of his battles near the town. Their sheikh, El Obeid, routed Gordon’s troops on the 4th of September 1884, a defeat which led to the close investment of Khartum. In the 18th century James Bruce described them as “a thieving, pilfering lot.”

BATTALION, a unit of military organization consisting of four or more companies of infantry. The term is used in nearly every army, and is derived through Fr. from It. *battaglione*, Med. Lat. *battalia* (see Battle). “Battalion” in the 16th and 17th centuries implied a unit of infantry forming part of the line of battle, but at first meant an unusually large *battalia* or a single large body of men formed of several *battalias*. In the British regular service the infantry battalion is commanded by a lieut.-colonel, who is assisted by an adjutant, and consists at war strength of about 1000 bayonets in eight companies. Engineers, train, certain kinds of artillery, and more rarely cavalry are also organized in battalions in some countries.

BATTAMBANG, or Battambong (locally *Phralabong*), the chief town of the north-western division of Cambodia, formerly capital of Monton Kmer, *i.e.* “The Cambodian Division,” one of the eastern provinces of Siam, now included in the French protectorate of Cambodia. It is situated in 103° 6′ E., 13° 6′ N., in the midst of a fertile plain and on the river Sang Ke, which flows eastwards and falls into the Tonle or Talé Sap, the great lake of Cambodia. The

town is a collection of bamboo houses of no importance, but there is a walled enceinte of some historical interest. Trade is small and is carried on by Chinese settlers, chiefly overland with Bangkok, but to a small extent also by water with Saigon. The population is about 5000, two-thirds Cambodian and the remainder Chinese and Siamese. The language is Cambodian.

Battambang was taken by the Siamese when they overran the kingdom of Cambodia towards the end of the 18th century, and was recognized by the French as belonging to Siam when the frontier of Cambodia was adjusted by treaty in 1867-1872. In another treaty in 1893, Siam bound herself to maintain no armed forces there other than police, but this arrangement was annulled by the treaty of 1904, by which Battambang was definitely admitted to lie within the French sphere of influence. Under a further treaty in March 1907 (see SIAM), the district of Battambang was finally ceded to the French.

BATTANNI, or BHITANI, a small tribe on the Waziri border of the North-West Frontier Province of India. The Battannis hold the hills on the borders of Tank and Bannu in the Dera Ismail Khan district, from the Gabar mountain on the north to the Gomal valley on the south. They are only 3000 fighting men strong, and are generally regarded as the jackals of the Waziris. Their chief importance arises from the fact that no raids can be carried into British districts by the Mahsud Waziris without passing through Battanni territory. A small British expedition against the Battannis was led by Lt.-Col. Rynd in 1880. Under the excitement caused by the preaching of a fanatical mullah the Mahsud Waziris had attacked the town of Gomal. The Battannis failed to supply information as to their movements, and gave them a passage through their lands. The British troops accordingly stormed the Hinis Tangi defile in face of opposition, and burned the village of Jandola.

BATTAS (Dutch *Battaks*), the inhabitants of the formerly independent Batta country, in the central highlands of Sumatra, now for the most part subjugated to the Dutch government. The still independent area extends from 98°-99° 35′ E., and 2°-3° 25′ S. North-east of Toba Lake dwell the Timor Battas, and west of it the Pakpak, but on its north (in the mountains which border on the east coast residency) the Karo Battas form a special group, which, by its dialects and ethnological character, appears to be allied to the Gajus and Allas occupying the interior of Achin. The origin of the Battas is doubtful. It is not known whether they were settled in Sumatra before the Hindu period. Their language contains words of Sanskrit origin and others referable to Javanese, Malay and Tagal influence. Their domain has been doubtless much curtailed, and their absorption into the Achin and Malay population seems to have been long going on. The Battas are undoubtedly of Malayan stock, and by most authorities are affiliated to that Indonesian pre-Malayan race which peopled the Indian Archipelago, expelling the aboriginal negritos, and in turn themselves submitting to the civilized Malays. In many points the Battas are physically quite different from the Malay type. The average height of the men is 5 ft. 4 in.; of the women 4 ft. 8 in. In general build they are rather thickset, with broad shoulders and fairly muscular limbs. The colour of the skin ranges from dark brown to a yellowish tint, the darkness apparently quite independent of climatic influences or distinction of race. The skull is rather oval than round. In marked contrast to the Malay type are the large, black, long-shaped eyes, beneath heavy, black or dark brown eyebrows. The cheek-bones are somewhat prominent, but less so than among the Malays. The Battas are dirty in their dress and dwellings and eat any kind of food, though they live chiefly on rice. They are remarkable as a people who in many ways are cultured and possess a written language of their own, and yet are cannibals. The more civilized of them around Lake Toba are good agriculturists and stock-breeders, and understand iron-smelting. They weave and dye cotton, make jewellery and krisses which are often of exquisite workmanship, bake pottery, and build picturesque chalet-like houses of two storeys. They have an organized government, hereditary chiefs, popular assemblies, and a written civil and penal code. There is even an antiquated postal system, the letter-boxes being the hollow tree trunks at crossroads. Yet in spite of this comparative culture the

Battas have long been notorious for the most revolting forms of cannibalism. (See *Memoirs of the Life, &c., of Sir T.S. Raffles*, 1830.)

The Battas are the only lettered people of the Indian Archipelago who are not Mahommedans. Their religion is mainly confined to a belief in evil spirits; but they recognize three gods, a Creator, a Preserver and a Destroyer, a trinity suggestive of Hindu influence.

Up to the publication of Dr H.N. van der Tuuk's essay, *Over schrift en uitspraak der Tobasche taal* (1855), our knowledge of the Batta language was confined to lists of words more or less complete, chiefly to be found in W. Marsden's *Miscellaneous Works*, in F.W. Junghuhn's *Battalander*, and in the *Tijdschrift van het Bataviaasch Genootschap*, vol. iii. (1855). By his exhaustive works (*Bataksch Leesboek*, in 4 vols., 1861-1862; *Bataksch-nederduitsch Woordenboek*, 1861; *Tobasche Spraakkunst,* 1864-1867) van der Tuuk made the Batta language the most accessible of the various tongues spoken in Sumatra. According to him, it is nearest akin to the old Javanese and Tagal, but A. Schreiber (*Die Battas in ihrem Verhältnis zu den Malaien von Sumatra*, 1874) endeavoured to prove its closer affinity with the Malay proper. Like most languages spoken by less civilized tribes, Batta is poor in general terms, but abounds in terms for special objects. The number of dialects is three, viz. the Toba, the Mandailing and the Dairi dialects; the first and second have again two subdivisions each. The Battas further possess six peculiar or recondite modes of speech, such as the *hata andung*, or language of the wakes, and the *hata poda* or the soothsayer's language. A fair acquaintance with reading and writing is very general among them. Their alphabet is said, with the Rejang and Lampong alphabets, to be of Indian origin. The language is written on bark or bamboo staves from bottom to top, the lines being arranged from left to right. The literature consists chiefly in books on witchcraft, in stories, riddles, incantations, &c., and is mostly in prose, occasionally varied by verse.[1]

See also "Reisen nach dem Toba See," *Petermanns Mitteil*. (1883); Modigliani, *Fra i Batacchi indipendenti* (Rome, 1892); Neumann, "Het Pane- en Bilastroomgebied," *Tydschr. Aardr. Gen.*, 1885-1887; Van Dijk in the same periodical (1890-1895); Wing Easton in the *Jaarboek voor het Mynwezen*, 1894; Niemann in the *Encyclopaedia van Nederlandsch-Indie*, under the heading *Bataks,* with very detailed bibliography; Baron J. v. Brenner, *Besuch bei den Kannibalen Sumatras* (Würzburg, 1893); H. Breitenstein, *21 Jahre in Indien, Java, Sumatra* (Leipzig, 1899-1900); G.P. Rouffaer, *Die Batik-Kunst in niederlandisch-Indien und ihre Geschichte* (Haarlem, 1899).

1 Mr C.A. van Ophuijsen has published (in *Bijd. tot Land-, Taalen Volken-Kunde*, 1886) an interesting collection of Battak poetry. He describes a curious leaf language used by Battak lovers, in which the name of some leaf or plant is substituted for the word with which it has greatest phonetic similarity.

BATTEL, or Battels (of uncertain origin, possibly connected with "battle," a northern English word meaning to feed, or "batten"), a word used at Oxford University for the food ordered by members of the college as distinct from the usual "commons"; and hence college accounts for board and provisions supplied from kitchen and buttery, and, generally, the whole of a man's college accounts. "Batteler," now a resident in a college, was originally a rank of students between commoners and servitors who, as the name implies, were not supplied with "commons," but only such provisions as they ordered for themselves.

BATTEN, SIR WILLIAM (*floruit* 1626-1667), British sailor, son of Andrew Batten, master in the royal navy, first appears as taking out letters of marque in 1626, and in 1638 he obtained the post of surveyor to the navy, probably by purchase. In March 1642 he was appointed second-in-command under the earl of Warwick, the parliamentary admiral who took the fleet out of the king's hands. It was Vice-Admiral Batten's squadron which bombarded Scarborough when Henrietta Maria landed there. He was accused (it appears unjustly) by the Royalists of directing his fire particularly on the house occupied by the

queen, and up to the end of the First Civil War showed himself a steady partisan of the parliament. To the end of the First Civil War, Batten continued to patrol the English seas, and his action in 1647 in bringing into Portsmouth a number of Swedish ships of war and merchantmen, which had refused the customary salute to the flag, was approved by parliament. When the Second Civil War began he was distrusted by the Independents and removed from his command, though he confessed his continued willingness to serve the state. When part of the fleet revolted against the parliament, and joined the prince of Wales in Holland, May 1648, Batten went with them. He was knighted by the prince, but being suspected by the Royalists, was put ashore mutinously in Holland and returned to England. He lived in retirement during the Commonwealth period. At the Restoration Sir William Batten became once more surveyor of the navy. In this office he was in constant intercourse with Pepys, whose diary frequently mentions him; but the insinuations of Pepys against him must not be taken too seriously, as there is no evidence to show that Batten in making a profit from his office fell below the standards of the time. In 1661 he became M.P. for Rochester, and in 1663 he was made master of the Trinity House. He died in 1667.

There is no separate life of Batten, but many notices of him will be found in Penn's *Life of Sir W. Penn*, and in Pepys' *Diary*.

BATTEN, (1) A term (a form of "baton") used in joinery (*q.v.*) for a board not more than 4 to 7 in. broad or 3 in. thick, used for various purposes, such as for strengthening or holding together laths and other wood-work; and specially, on board ship, a strip of wood nailed to a mast to prevent rubbing, or fixing down a tarpaulin over a hatchway, in rough weather, to keep out water. (2) A verb (the root is found in words of several Teutonic languages meaning profit or improvement, and also in the English "better" and "boot") meaning to improve in condition, especially in the case of animals by feeding; so, to feed gluttonously; the word is used figuratively of prospering at the expense of another.

BATTENBERG, the name of a family of German counts which died out about 1314, whose seat was the castle of Kellerburg, near Battenberg, a small place now in the Prussian province of Hesse-Nassau. The title was revived in 1851, when Alexander (1823-1888), a younger son of Louis II., grand-duke of Hesse, contracted a morganatic marriage with a Polish lady, Countess Julia Theresa von Haucke (1825-1895), who was then created countess of Battenberg. Raised to the rank of a princess in 1858, the countess and her children were allowed to style themselves princes and princesses of Battenberg, with the addition of *Durchlaucht* or Serene Highness. The eldest son of this union, Louis Alexander (b. 1854), married in 1884 Victoria, daughter of Louis IV., grand-duke of Hesse, and became an admiral in the British navy. The second son, Alexander Joseph (*q.v.*), was prince of Bulgaria from 1879 to 1886. The third son, Henry Maurice, was born in 1858, and married on the 23rd of July 1885 Beatrice, youngest daughter of Victoria, queen of England. He died at sea on the 20th of January 1896 when returning from active service with the British troops during the Ashanti War, and left three sons and a daughter, Victoria Eugénie, who was married in 1906 to Alphonso XIII., king of Spain. The fourth son, Francis Joseph, born in 1861, married in 1897 Anna, daughter of Nicholas I., prince of Montenegro, and is the author of *Die volkswirtschaftliche Entwickelung Bulgariens von 1879 bis zur Gegenwart* (Leipzig, 1891). The only daughter of the princess of Battenberg, Marie Caroline, born in 1852, was married in 1871 to Gustavus Ernest, prince and count of Erbach-Schönberg.

BATTER, an architectural term of unknown origin, used of the face of a wall which is slightly inclined to the perpendicular. It is most commonly employed in retaining walls, the

lower courses of which are laid at right angles to the batter, so as to resist the thrust of the earth inside. For aesthetic reasons it is often adopted in the lowest or basement porticos of a great building. From a historical point of view it is the most ancient system employed, as throughout Egypt and Chaldaea all the temples built in unburnt brick were perforce obliged to be thicker at the bottom, and this gave rise to the batter or raking side which was afterwards in Egypt copied in stone. For defensive purposes the walls of the lower portions of a fortress were built with a batter as in the case of the tower of David and some of the walls built by Herod at Jerusalem. The Crusaders also largely adopted the principle, which was followed in some of the castles of the middle ages throughout Europe.

BATTERING RAM (Lat. *aries*, ram), a military engine used before the invention of cannon, for beating down the walls of besieged fortresses. It consisted of a long heavy beam of timber, armed at the extremity with iron fashioned something like the head of a ram. In its simplest form the beam was carried in the hands of the soldiers, who assailed the walls with it by main force. The improved ram was composed of a longer beam, in some cases extending to 120 ft., shod with iron at one end, and suspended, either by the middle or from two points, from another beam laid across two posts. This is the kind described by Josephus as having been used at the siege of Jerusalem (*B.J.* iii. 7. 19). The ram was shielded from the missiles of the besieged by a penthouse (*vinea*) or other overhead protection. It was often mounted on wheels, which greatly facilitated its operations. A hundred soldiers at a time, and sometimes even a greater number, were employed to work it, and the parties were relieved in constant succession. No wall could resist the continued application of the ram, and the greatest efforts were always made to destroy it by various means, such as dropping heavy stones on the head of the ram and on the roof of the penthouse; another method being to seize the ram head with grapnels and then haul it up to a vertical position by suitable windlasses on the wall of the fortress. Sometimes the besieged ran countermines under the ram penthouse; this if successful would cause the whole engine to fall into the excavation. In medieval warfare the low penthouse, called *cat*, was generally employed with some form of ram.

BATTERSEA, a south-western metropolitan borough of London, England, bounded N. by the Thames, N.E. by Lambeth, and S.E., S., and W. by Wandsworth. Pop. (1901) 168,907. The principal thoroughfares are Wandsworth Road and Battersea Park and York Roads from east to west, connected north and south with the Victoria or Chelsea, Albert and Battersea bridges over the Thames. The two first of these three are handsome suspension bridges; the third, an iron structure, replaced a wooden bridge of many arches which was closed in 1881, after standing a little over a century. Battersea is a district mainly consisting of artisans' houses, and there are several large factories by the river. The parish church of St Mary, Church Road (1776), preserves from an earlier building stained glass and monuments, including one to Henry St John, Viscount Bolingbroke (d. 1751), and his second wife, who had a mansion close by. Of this a portion remains on the riverside, containing a room associated with Pope, who is said to have worked here upon the "Essay on Man." Wandsworth Common and Clapham Common (220 acres) lie partly within the borough, but the principal public recreation ground is Battersea Park, bordering the Thames between Albert and Victoria Bridges, beautifully laid out, containing a lake and subtropical garden, and having an area of nearly 200 acres. It was constructed with difficulty by embanking the river and raising the level of the formerly marshy ground, and was opened in 1858. Among institutions are the Battersea Polytechnic, the Royal Masonic Institution for girls, founded in 1788, and Church of England and Wesleyan Training Colleges. Battersea is in the parliamentary borough of Battersea and Clapham, including the whole of the Battersea division and part of the Clapham division. The borough council consists of a mayor, 9 aldermen and 54 councillors. Area, 2160.3 acres.

An early form of the name is *Patricsey* or Peter's Island; the manor at the time of the Domesday survey, and until the suppression of the monasteries, belonging to the abbey of St

Peter, Westminster. It next passed to the crown, and subsequently to the family of St John and to the earls Spencer. York Road recalls the existence of a palace of the archbishops of York, occasionally occupied by them between the reigns of Edward IV. and Mary. Battersea Fields, bordering the river, were formerly a favourite resort, so that the park also perpetuates a memory. The art of enamelling was introduced, *c.* 1750, at works in Battersea, examples from which are highly valued.

BATTERY (Fr. *batterie*, from *battre*, to beat), the action of beating, especially in law the unlawful wounding of another (see Assault). The term is applied to the apparatus used in battering, hence its use in military organization for the unit of mobile artillery of all kinds. This consists of from four to eight guns with their *personnel*, wagons and train. In the British service the term is applied to field, horse, field-howitzer, heavy and mountain artillery units. "Battery" is also used to imply a mass of guns in action, especially in connexion with the military history of the 18th and early 19th centuries. In siegecraft, a battery is simply an emplacement for guns, howitzers or mortars, constructed for the purposes of the siege, and protected as a rule by a parapet. In fortification the term is applied similarly to permanent or semi-permanent emplacements for the artillery of the defence. In all these senses the presence of artillery is implied in the use of the word (see Artillery, and Fortification and Siegecraft). The word is also used for the "pitcher" and "catcher" in baseball; for a collection of utensils, primarily of hammered copper or brass, especially in the French term *batterie de cuisine*; and for the instruments of percussion in an orchestra.

Electric Battery—This term was applied by the old electricians to a collection of Leyden jars, but is now used of a device for generating electricity by chemical action, or more exactly, of a number of such devices joined up together. There are two main classes of electric battery. In *primary* batteries, composed of a number of galvanic or voltaic "cells," "couples" or "elements," on the completion of the interactions between the substances on which the production of electricity depends, the activity of the cells comes to an end, and can only be restored with the aid of a fresh supply of those substances; in *secondary* batteries, also called storage batteries or accumulators (*q.v.*), the substances after the exhaustion of the cells can be brought back to a condition in which they will again yield an electric current, by means of an electric current passed through them in the reverse direction. The first primary battery was constructed about 1799 by Alessandro Volta. In one form, the "voltaic pile," he placed a series of pairs of copper and zinc disks one above the other, separating each pair from the one above it by a piece of cloth moistened with a solution of common salt. In another form, the "couronne de tasses," he took a number of vessels or cells containing brine or dilute acid, and placed in each a zinc plate and a copper plate; these plates were not allowed to touch each other within the vessels, but each zinc plate was connected to the copper plate of the adjoining vessel. In both these arrangements an electric current passes through a wire which is connected to the terminal plates at the two ends of the series. The direction of this current is from copper to zinc; within each cell itself it is from zinc to copper. The plate to which the current flows within the cell is the *negative plate*, and that from which it flows the *positive plate*; but the point on the negative plate at which the current enters the external wire is the *positive pole*, and the point on the positive plate at which it leaves the external circuit the *negative pole*. During the time that the external connexion is maintained between the two poles and the current passes in the wire, the zinc or positive plates are gradually dissolved, and hydrogen gas is liberated at the surface of the copper or negative plates; but when the external connexion is broken this action ceases. If the materials used in the cells were perfectly pure, probably the cessation would be complete. In practice, however, only impure commercial zinc is available, and with this corrosion continues to some extent, even though the external circuit is not closed, thus entailing waste of material. This "local action" is explained as due to the fact that the impurities in the zinc plate form miniature voltaic couples with the zinc itself, thus causing its corrosion by voltaic action; and an early improvement in the voltaic cell was the discovery, applied by W. Sturgeon in 1830, that the evil was greatly reduced if the surface of the zinc plates was amalgamated, by being rubbed with mercury under dilute sulphuric acid. Another disadvantage of the simple cell composed of copper and zinc in dilute acid is that the current it yields rapidly falls off. The hydrogen formed by the operation of the cell does not all escape, but some adheres as a film to the negative plate, and the result is the establishment of a counter or reverse electromotive force which opposes the main current

flowing from the zinc plate and diminishes its force. This phenomenon is known as “polarization,” and various remedies have been tried for the evils it introduces in the practical use of primary batteries. Alfred Smee in 1839 modified the simple copper-zinc couple excited by dilute sulphuric acid by substituting for the copper thin leaves of platinum or platinized silver, whereby the elimination of the hydrogen is facilitated; and attempts have also been made to keep the plates free from the gas by mechanical agitation. The plan usually adopted, however, is either to prevent the formation of the film, or to introduce into the cell some “depolarizer” which will destroy it as it is formed by oxidizing the hydrogen to water (see also Electrolysis).

The former method is exemplified in the cell invented by J.F. Daniell in 1836. Here the zinc stands in dilute sulphuric acid (or in a solution of zinc sulphate), and the copper in a saturated solution of copper sulphate, the two liquids being separated by a porous partition. The hydrogen formed by the action of the cell replaces copper in the copper sulphate, and the displaced copper, instead of the hydrogen, being deposited on the copper plate polarization is avoided. The electromotive force is about one volt. This cell has been constructed in a variety of forms to suit different purposes. In a portable form, designed by Lord Kelvin in 1858, the copper plate, soldered to a gutta-percha covered wire, is placed at the bottom of a glass vessel and covered with crystals of copper sulphate; over these wet sawdust is sprinkled, and then mere sawdust, moistened with solution of zinc sulphate, upon which is placed the zinc plate. The Minotto cell is similar, except that sand is substituted for sawdust. In these batteries the sawdust or sand takes the place of the porous diaphragm. In another class of batteries the diaphragm is dispensed with altogether, and the action of gravity alone is relied upon to retard the interdiffusion of the liquids. The cell of J.H. Meidinger, invented in 1859, may be taken as a type of this class. The zinc is formed into a ring which fits the upper part of a glass beaker filled with zinc sulphate solution. At the bottom of the beaker is placed a smaller beaker, in which stands a ring of copper with an insulated connecting wire. The mouth of the beaker is closed by a lid with a hole in the centre, through which passes the long tapering neck of a glass balloon filled with crystals of copper sulphate; the narrow end of this neck dips into the smaller beaker, the copper sulphate slowly runs out, and being specifically heavier than the zinc sulphate it collects at the bottom about the copper ring. In Lord Kelvin’s tray-cell a large wooden tray is lined with lead, and is covered at the bottom with copper by electrotyping. The zinc plate is enveloped in a piece of parchment paper bent into a tray shape, the whole resting on little pieces of wood placed on the bottom of the leaden tray. Copper sulphate is fed in at the edge of the tray and zinc sulphate is poured upon the parchment. A battery is formed by arranging the trays in a stack one above the other.

Various combinations have been devised in which the hydrogen is got rid of more or less completely by oxidation. Sir W.R. Grove in 1839 employed nitric acid as the oxidizing agent, his cell consisting of a zinc positive plate in dilute sulphuric acid, separated by a porous diaphragm of unglazed earthenware from a platinum negative immersed in concentrated nitric acid. Its electromotive force is nearly two volts, but it has the objection of giving off disagreeable nitrous fumes. R.W. von Bunsen modified Grove’s cell by replacing the platinum with the much cheaper material, gas carbon. Chromic acid is much used as a depolarizer, and cells in which it is employed are about as powerful as, and more convenient than, either of the preceding. In its two-fluid form the chromic acid cell consists of a porous pot containing amalgamated zinc in dilute sulphuric acid, and a carbon plate surrounded with sulphuric acid and a solution of potassium or sodium bichromate or of chromic acid. But it is commonly used in a one-fluid form, the porous pot being dispensed with, and both zinc and carbon immersed in the chromic acid solution. Since the zinc is dissolved even when the circuit is not closed, arrangements are frequently provided by which either the zinc plate alone or both plates can be lifted out of the solution when the cell is not in use. In preparing the solution the sodium salt is preferable to the potassium, and chromic acid to either. In the cell devised by Georges Leclanché in 1868 a solid depolarizer is employed, in the shape of manganese dioxide packed with fragments of carbon into a porous pot round a carbon plate. A zinc rod constitutes the positive plate, and the exciting fluid is a solution of sal-ammoniac. Sometimes no porous pot is employed, and the manganese dioxide and granulated carbon are agglomerated into a solid block round the carbon plate. The electromotive force is about one and a half volt. The cell is widely used for such purposes as ringing electric bells, where current is required intermittently, and for such service it will remain effective for months or years, only needing water to be added to the outer jar occasionally to replace loss by evaporation. On a closed circuit the current rapidly falls off, because the manganese dioxide is unable to oxidize all the hydrogen formed, but the cell quickly recovers after polarization. The so-called “dry cells,” which came into considerable

use towards the end of the 19th century, are essentially Leclanché cells in which the solution is present, not as a liquid, but as a paste formed with some absorbent material or gelatinized. Black oxide of copper is another solid depolarizer, employed in the Lalande cell. In the Edison-Lalande form the copper oxide is suspended in a light copper frame. The exciting solution consists of one part of caustic soda dissolved in three parts by weight of water, and to prevent it from being acted on by the carbonic acid of the air it is covered with a layer of petroleum oil. Sodium zincate, which is soluble, is formed by the action of the cell, and the hydrogen produced is oxidized by oxygen from the copper oxide. The electromotive force may be about one volt initially, but in practice only about three-quarters of a volt can be relied on.

Primary cells form a convenient means of obtaining electricity for laboratory experiments, and for such light services as working telegraphs, bells, &c.; but as a source of the heavy currents required for electric lighting and traction they are far too expensive in operation, apart from other considerations, to compete with dynamoelectric machinery driven by steam or water power. Certain forms, known as “standard cells,” are also used in electrical measurements as standards of electromotive force (see POTENTIOMETER).

See W.R. Cooper, *Primary Batteries* (London, 1901); Park Benjamin, *The Voltaic Cell* (New York, 1893); W.E. Ayrton, *Practical Electricity* (London, 1896).

BATTEUX, CHARLES (1713-1780), French philosopher and writer on aesthetics, was born near Vouziers (Ardennes), and studied theology at Reims. In 1739 he came to Paris, and after teaching in the colleges of Lisieux and Navarre, was appointed to the chair of Greek and Roman philosophy in the Collège de France. In 1746 he published his treatise *Les Beaux-Arts réduits à un même principe*, an attempt to find a unity among the various theories of beauty and taste, and his views were widely accepted. The reputation thus gained, confirmed by his translation of Horace (1750), led to his becoming a member of the Académie des Inscriptions (1754) and of the French Academy (1761). His *Cours de belles lettres* (1765) was afterwards included with some minor writings in the large treatise, *Principes de la liltérature* (1774). The rules for composition there laid down are, perhaps, somewhat pedantic. His philosophical writings were *La Morale d’Épicure tirée de ses propres écrits* (1758), and the *Histoire des causes premières* (1769). In consequence of the freedom with which in this work he attacked the abuse of authority in philosophy, he lost his professorial chair. His last and most extensive work was a *Cours d’études à l’usage des élèves de l’école militaire* (45 vols.). In the *Beaux-Arts*, Batteux developed a theory which is derived from Locke through Voltaire’s sceptical sensualism. He held that Art consists in the faithful imitation of the beautiful in nature. Applying this principle to the art of poetry, and analysing, line by line and even word by word, the works of great poets, he deduced the law that the beauty of poetry consists in the accuracy, beauty and harmony of individual expression. This narrow and pedantic theory had at least the merit of insisting on propriety of expression. His *Histoire des causes premières* was among the first attempts at a history of philosophy, and in his work on Epicurus, following on Gassendi, he defended Epicureanism against the general attacks made against it.

See Dacier et Dupuy, “Éloges,” in *Mémoires de l’Académie des Inscriptions*.

BATTHYANY, LOUIS (LAJOS), COUNT (1806-1849), Hungarian statesman, was born at Pressburg in 1806. He supplied the defects of an indifferent education while serving in garrison in Italy as a lieutenant of hussars, and thenceforward adopted all the new ideas, economical and political. According to Széchenyi, he learnt much from a German tutor of the radical school, but it was not till after his marriage with the noble-minded and highly-gifted countess Antonia Zichy that he began working earnestly for the national cause. When Széchenyi drew nearer to the court in 1839-1840, Batthyány became the leader of the opposition in the Upper House, where his social rank and resolute character won for him great influence. Despite his “sardanapalian inclinations,” he associated himself unreservedly

with the extremists, and spent large sums for the development of trade and industry. In 1847 he fiercely opposed the government, procured the election of Kossuth as the representative of Pest, took part in the Great Deputation of the 15th of March, and on the 31st of March 1848 became the first constitutional prime-minister of Hungary. His position became extremely difficult when Jellachich and the Croats took up arms. Convinced that the rigid maintenance of the constitution was the sole panacea, he did his utmost, in his frequent journeys to Innsbruck, to persuade the court to condemn Jellachich and establish a strong national government at Pest. Unfortunately, however, he was persuaded to consent to the despatch of Magyar troops to quell the Italian rising, before the Croat difficulty had been adjusted, and thenceforth, despite his perfect loyalty, and his admirable services as Honvéd minister in organizing the national forces, his authority in Hungary declined before the rising star of Kossuth. When Jellachich invaded Hungary, Batthyány resigned with the intention of forming a new ministry excluding Kossuth, but this had now become impossible. Then Batthyány attempted to mediate between the two extreme parties, and subsequently raised a regiment from among his peasantry and led them against the Croats. On the 11th of October he was incapacitated for active service by a fall from his horse which broke his arm. On his recovery he returned to Pest, laboured hard to bring about peace, and was a member of the deputation from the Hungarian diet to Prince Windischgrätz, whom the Austrian commander refused to receive. A few days later (8th of January 1849) he was arrested at Pest. As a magnate he was only indictable by the grand justiciary, as a minister he was responsible to the diet alone. At Laibach, whither he was taken, he asked that Deák might be his advocate, but this being refused he wrote his own defence. Sentence of hanging was finally pronounced upon him at Olmtitz for violating the Pragmatic Sanction, overthrowing the constitution, and aiding and abetting the rebellion. To escape this fate he Stabbed himself with a small concealed dagger, and bled to death in the night of the 5th of October 1849.

See Bertalan Szemere, *Batthyány, Kossuth, Gorgei* (Ger.), (Hamburg, 1853).

(R. N. B.)

BATTICALOA, the provincial capital of the eastern province of Ceylon, on the E. coast, 69 m. S.S.E. of Trincomalee, situated on an island in lat. 7° 44′ N. and long. 81° 52′ E. It is of importance for its haven and the adjacent salt lagoons. The population of the town in 1901 was 9969; of the district (2872 sq. m.) 143,161. The old Dutch fort dates from 1682. Batticaloa is the seat of a government agent and district judge; criminal sessions of the supreme court are also held. Rice and cocoanuts are the two staples of the district, and steamers trading round the island call regularly at the port. The lagoon is famous for its “singing fish,” supposed to be shell-fish which give forth musical notes. The district has a remnant of Veddahs or wild men of the wood. The average annual rainfall is 55½ in.; the average temperature 80.4° F.

BATTISHILL, JONATHAN (1738-1801), one of the best 18th century English composers of church music. Until 1764 he wrote chiefly for the theatre (incidental songs, pantomime music, and an opera in collaboration with Michael Arne, the son of Thomas Arne), but his later compositions are chiefly glees, part-songs and church music. In 1763 he had married a singer at Covent Garden theatre where he was harpsichordist. She retired from her profession when she married; and her death in 1777 so crushed him that he composed no more.

BATTLE, a market-town in the Rye parliamentary division of Sussex, England, 54½ m.

S.E. by S. from London by the South Eastern & Chatham railway. Pop. of urban district (1901) 2996. It is pleasantly situated in an undulating well-wooded district, 7 m. from the sea at Hastings. Its name is derived from the conflict in 1066, which insured to William the Norman the crown of England (see also Battle Abbey Roll). Before the battle, in which King Harold fell, William vowed to build an abbey on the spot if he should prove victorious, and in 1094 the consecration took place with great pomp. The gatehouse, forming a picturesque termination to the main street of the town, is Decorated; and there also remain parts of the foundations of the Norman church, of the Perpendicular cloisters, and of the Early English refectory. A mansion occupies part of the site, and incorporates some of the ancient building. The church of St Mary is of various dates, the earliest portions being transitional Norman.

See *Chronicles of Battle Abbey*. 1066-1176, translated, &c., by M.A. Lower (London, 1851).

BATTLE, a general engagement between the armed forces, naval or military, of enemies. The word is derived from the Fr. *bataille*, and this, like the Ital. *battaglia*, and Span. *batalla*, comes from the popular Lat. *battalia* for *battualia*. Cassiodorus Senator (480-?575) says: *Battualia quae vulgo Batalia dicuntur ... exercitationes militum vel gladiatorum significant* (see Du Cange, *Glossarium*, s.v. *Batalia*). The verb *battuere*, cognate with "beat," is a rare word, found in Pliny, used of beating in a mortar or of meat before cooking. Suetonius (*Caligula*, 54-32) uses it of fencing, *battuebat pugnatoriis armis, i.e.* not with blunted weapons or foils. *Battalia* or *batalia* was used for the array of troops for battle, and hence was applied to the body of troops so arranged, or to a division of an army, whence the use of the word "battalion" (*q.v.*).

A "pitched battle," loosely used as meaning almost a decisive engagement, is strictly, as the words imply, one that is fought on ground previously selected ("pitched" meaning arranged in a fixed order) and in accordance with the intentions of the commanders of both sides; the French equivalent is *bataille arrangée*, opposed to *bataille manœuvrée*, which is prearranged but may come off on any ground. With "battle," in its usual meaning of a general engagement of hostile forces, are contrasted "skirmish,"[1] a fight between small bodies ("skirmishing" technically means fighting by troops in extended or irregular order), and "action," a more or less similar engagement between large bodies of troops. (See also Tactics and Strategy.)

1 This is the same word as "scrimmage," and is derived from the Anglo-French *eskrimir*, modern *escrimer*, properly to fight behind cover, now to fence. The origin of this is the Old High German *scirman*, to fight behind a shield, *scirm*. Modern German *Schirm*.

BATTLE ABBEY ROLL. This is popularly supposed to have been a list of William the Conqueror's companions preserved at Battle Abbey, on the site of his great victory over Harold. It is known to us only from 16th century versions of it published by Leland, Holinshed and Duchesne, all more or less imperfect and corrupt. Holinshed's is much the fullest, but of its 629 names several are duplicates. The versions of Leland and Duchesne, though much shorter, each contain many names found in neither of the other lists. It was so obvious that several of the names had no right to figure on the roll, that Camden, as did Dugdale after him, held them to have been interpolated at various times by the monks, "not without their own advantage." Modern writers have gone further, Sir Egerton Brydges denouncing the roll as "a disgusting forgery," and E.A. Freeman dismissing it as "a transparent fiction." An attempt to vindicate the roll was made by the last duchess of Cleveland, whose *Battle Abbey Roll* (3 vols., 1889) is the best guide to its contents.

It is probable that the character of the roll has been quite misunderstood. It is not a list of individuals, but only of family surnames, and it seems to have been intended to show which families had "come over with the Conqueror," and to have been compiled about the 14th century. The compiler appears to have been influenced by the French sound of names, and

to have included many families of later settlement, such as that of Grandson, which did not come to England from Savoy till two centuries after the Conquest. The roll itself appears to be unheard of before and after the 16th century, but other lists were current at least as early as the 15th century, as the duchess of Cleveland has shown. In 1866 a list of the Conqueror's followers, compiled from Domesday and other authentic records, was set up in Dives church by M. Leopold Delisle, and is printed in the duchess' work. Its contents are naturally sufficient to show that the Battle Roll is worthless.

See Leland, *Collectanea*; Holinshed, *Chronicles of England*; Duchesne, *Historia Norm. Scriptores*; Brydges, *Censura Literaria*; Thierry, *Conquête de l'Angleterre*, vol. ii. (1829); Burke, *The Roll of Battle Abbey* (annotated, 1848); Planché, *The Conqueror and His Companions* (1874); duchess of Cleveland, *The Battle Abbey Roll* (1889); Round, "The Companions of the Conqueror" (*Monthly Review*, 1901, iii. pp. 91-111).

(J. H. R.)

BATTLE CREEK, a city of Calhoun county, Michigan, U.S.A., at the confluence of the Kalamazoo river with Battle Creek, about 48 m. S. of Grand Rapids. Pop. (1890) 13,197; (1900) 18,563, of whom 1844 were foreign-born; (1910, census) 25,267. It is served by the Michigan Central and the Grand Trunk railways, and by interurban electric lines. Here are the hospital and laboratories of the American Medical Missionary College (of Chicago) and the Battle Creek Sanitarium, established in 1866, which was a pioneer in dietetic reform, and did much to make Battle Creek important in the manufacture of health foods, and in the publication of diet-reform literature. Among the principal buildings, besides the hospital and the sanitarium, are several fine churches, the central high school, the Post tavern and the Post theatre. The city is a trading centre for the rich agricultural and fruit-growing district by which it is surrounded, has good water-power, and is an important manufacturing centre, its chief manufactured products being cereal health foods, for which it has a wide reputation, and the manufacture of which grew out of the dietetic experiments made in the laboratories of the sanitarium; and threshing machines and other agricultural implements, paper cartons and boxes, flour, boilers, engines and pumps. Extensive locomotive and car shops of the Grand Trunk railway are here. In 1904 the total factory product of Battle Creek was valued at $12,298,244, an increase of 95% over that for 1900; and of the total in 1904 $5,191,655 was the value of food preparations, which was 8.5% of the value of food preparations manufactured in the United States, Battle Creek thus ranking first among American cities in this industry. The water-works are owned and operated by the municipality, the water being obtained from Lake Goguac, a summer pleasure resort about 2 m. from the city. Battle Creek, said to have been named from hostilities here between some surveyors and Indians, was settled in 1831, incorporated as a village in 1850, and chartered as a city in 1859, the charter of that year being revised in 1900.

BATTLEDORE AND SHUTTLECOCK, a game played by two persons with small rackets, called battledores, made of parchment or rows of gut stretched across wooden frames, and shuttlecocks, made of a base of some light material, like cork, with trimmed feathers fixed round the top. The object of the players is to bat the shuttlecock from one to the other as many times as possible without allowing it to fall to the ground. There are Greek drawings extant representing a game almost identical with battledore and shuttlecock, and it has been popular in China, Japan, India and Siam for at least 2000 years. In Europe it has been played by children for centuries. A further development is Badminton.

BATTLEMENT (probably from a lost Fr. form *bastillement*, cf. mod. Fr. *bastille*, from

Med. Lat. *bastilia*, towers, which is derived from Ital. *bastire*, to build, cf. Fr. *bâtir*; the English word was, however, early connected with “battle”), a term given to a parapet of a wall, in which portions have been cut out at intervals to allow the discharge of arrows or other missiles; these cut-out portions are known as “crenels”; the solid widths between the “crenels” are called “merlons.” The earliest example in the palace at Medinet-Abu at Thebes in Egypt is of the inverted form, and is said to have been derived from Syrian fortresses. Through Assyria they formed the termination of all the walls surrounding the towns, as shown on bas reliefs from Nimrud and elsewhere. Traces of them have been found at Mycenae, and they are suggested on Greek vases. In the battlements of Pompeii, additional protection was given by small internal buttresses or spur walls against which the defender might place himself so as to be protected completely on one side. In the battlements of the middle ages the crenel was about one-third of the width of the merlon, and the latter was in addition pierced with a small slit. The same is also found in Italian battlements, where the merlon is of much greater height and is capped in a peculiar fashion. The battlements of the Mahommedans had a more decorative and varied character, and were retained from the 13th century onwards not so much for defensive purposes as for a crowning feature to their walls. They may be regarded therefore in the same light as the cresting found in the Spanish renaissance. The same retention of the battlement as a purely decorative feature is found throughout the Decorated and Perpendicular periods, and not only occurs on parapets but on the transoms of windows and on the tie-beams of roofs and on screens. A further decorative treatment was given in the elaborate panelling of the merlons and that portion of the parapet walls rising above the cornice, by the introduction of quatrefoils and other conventional forms filled with foliage and shields.

BATTUE (from Fr. *battre*, to beat), the beating of game from cover under the sportsmen’s fire; by analogy the word is used to describe any slaughter of defenceless crowds.

BATTUS, the legendary founder of the Greek colony of Cyrene in Libya (about 630 B.C.). The Greeks who accompanied him were, like himself, natives of Thera, and descended partly from the race of the Minyae. Various accounts are given both of the founding of Cyrene and of the origin of the founder’s name. According to the Cyrenaeans (Herod, iv. 150-156), Battus, having an impediment in his speech, consulted the oracle at Delphi, and was told to found a colony in Libya; according to the Theraeans, Battus was entrusted with this mission by their aged king Grinus. In another version, there was civil war in Thera; Battus, leader of one party, was banished, and, on applying to the oracle, was recommended to take out a colony to “the continent” (Schol. Pindar, *Pyth.* iv. 10). In any case the foundation is attributed to the direct instructions of Apollo. The name was connected by some with βατταρίζω, (“stammer”), but Herodotus (iv. 155) says that it was the Libyan word for “king,” that Battus was not called by the name until after his arrival at Libya, and that the oracle addressed him as “Battus” by anticipation. This, however, would imply on the part of the oracle a knowledge of Libya, which was not shared by the rest of Greece (Herod. *l.c.*), and it is noteworthy that the name occurs in Arcadian and Messenian legends. Herodotus does not know his real name, but Pindar (*Pyth.* v. 116), no doubt rightly, calls the founder of the colony Aristoteles, while Justin (xiii. 7) gives his name as Aristaeus who was worshipped at Cyrene. Four kings named Battus, alternating with four named Arcesilaus, ruled in Cyrene (*q.v.*) till the fall of the dynasty about 450 B.C.

See R.W. Macan’s *Herodotus IV.-VI.* (1895), vol. i. pp. 104 seq. and notes.

BATU, or Rock Islands (Dutch *Batoe*), a group of three greater and forty-eight lesser

islands in the Dutch East Indies, W. of Sumatra, between 0° 10′ N. to 0° 45′ S. and 97° 50′-98° 35′ E., belonging to the Ayerbangi district of the lowlands of Padang (Sumatra). They are separated by the strait of Sibirut from the Mentawi group. The three chief islands, from N. to S., are Pini or Mintao, Masa, and Bala. The total land area of the group is 445 sq. m. The islands are generally low, and covered with forest, in which the cocoanut palm is conspicuous. There is trade in cocoanuts, oil, and other forest produce. The natives, about 3000 in number, are of Malayan or pre-Malayan stock, akin to those of the island of Nias to the north-west. Only about twenty of the smaller islands are inhabited.

BATUM, a seaport of Russian Transcaucasia, in the government of and 90 m. by rail S.W. of the city of Kutais, on the S.E. shore of the Black Sea, in 41° 39′ N. and 41° 38′ E. Pop. (1875) 2000; (1900) 28,512, very mixed. The bay is being filled up by the sand carried into it by several small rivers. The town is protected by strong forts, and the anchorage has been greatly improved by artificial works. Batum possesses a cathedral, finished in 1903, and the Alexander Park, with sub-tropical vegetation. The climate is very warm, lemon and orange trees, magnolias and palms growing in the open air; but it is at the same time extremely wet and changeable. The annual rainfall (90 in.) is higher than anywhere in Caucasia, but it is very unequally distributed (23 in. in August and September, sometimes 16 in. in a couple of days), and the place is still most unhealthy. The town is connected by rail with the main Transcaucasian railway to Tiflis, and is the chief port for the export of naphtha and paraffin oil, carried hither in great part through pipes laid down from Baku, but partly also in tank railway-cars; other exports are wheat, manganese, wool, silkworm-cocoons, liquorice, maize and timber (total value of exports nearly 5½ millions sterling annually). The imports, chiefly tin plates and machinery, amount to less than half that total. Known as Bathys in antiquity, as Vati in the middle ages, and as Bathumi since the beginning of the 17th century, Batum belonged to the Turks, who strongly fortified it, down to 1878, when it was transferred to Russia. In the winter of 1905-1906 Batum was in the hands of the revolutionists, and a “reign of terror” lasted for several weeks.

BATWA, a tribe of African pygmies living in the mountainous country around Wissmann Falls in the Kasai district of the Belgian Congo. They were discovered in 1880 by Paul Pogge and Hermann von Wissmann, and have been identified with Sir H.M. Stanley’s Vouatouas. They are typical of the negrito family south of the Congo. They are well made, with limbs perfectly proportioned, and are seldom more than 4 ft. high. Their complexion is a yellow-brown, much lighter than their Bantu-Negroid neighbours. They have short woolly hair and no beard. They are feared rather than despised by the Baluba and Bakuba tribes, among whom they live. They are nomads, cultivating nothing, and keeping no animals but a small type of hunting-dog. Their weapon is a tiny bow, the arrows for which are usually poisoned. They build themselves temporary huts of a bee-hive shape. As hunters they are famous, bounding through the jungle growth “like grasshoppers” and fearlessly attacking elephants and buffalo with their tiny weapons. Their only occupation apart from hunting is the preparation of palm-wine which they barter for grain with the Baluba. They are monogamous and display much family affection. See further Pygmy; Akka; Wochua; Bambute.

See A. de Quatrefages, *The Pygmies* (Eng. ed., 1895); Sir H.H. Johnston, *Uganda Protectorate* (1902); Hermann von Wissmann, *My Second Journey through Equatorial Africa* (London, 1891).

BATYPHONE (Ger. and Fr. *Batyphon*), a contrabass clarinet which was the outcome of F.W. Wieprecht’s endeavour to obtain a contrabass for the reed instruments. The batyphone

was made to a scale twice the size of the clarinet in C, the divisions of the chromatic scale being arranged according to acoustic principles. For convenience in stopping holes too far apart to be covered by the fingers, crank or swivel keys were used. The instrument was constructed of maple-wood, had a clarinet mouthpiece of suitable size connected by means of a cylindrical brass crook with the upper part of the tube, and a brass bell. The pitch was two octaves below the clarinet in C, the compass being the same, and thus corresponding to the modern bass tuba. The tone was pleasant and full, but not powerful enough for the contrabass register in a military band. The batyphone had besides one serious disadvantage: it could be played with facility only in its nearly related keys, G and F major. The batyphone was invented and patented in 1839 by F.W. Wieprecht, director general of all the Prussian military bands, and E. Skorra, the court instrument manufacturer of Berlin. In practice the instrument was found to be of little use, and was superseded by the bass tuba. A similar attempt was made in 1843 by Adolphe Sax, and met with a similar fate.

A batyphone bearing the name of its inventors formed part of the Snoeck collection which was acquired for Berlin's collection of ancient musical instruments at the Technische Hochschule für Musik. The description of the batyphone given above is mainly derived from a MS. treatise on instrumentation by Wieprecht, in 1909 in the possession of Herr Otto Lessmann (Berlin), and reproduced by Capt. C.R. Day, in *Descriptive Catalogue of the Musical Instruments of the Royal Military Exhibition, London, 1890* (London, 1891), p. 124.

(K. S.)

BAUAN (or BAUN), a town of the province of Batangas, Luzon, Philippine Islands, at the head of Batangas Bay, about 54 m. S. of Manila. Pop. (1903) 39,094. A railway to connect the town with Manila was under construction in 1908. Bauan has a fine church and is known as a market for "sinamay" or hemp cloth, the hemp and cotton being imported and dyed and woven by the women in their homes. Palm-fibre mats and hats, fans, bamboo baskets and cotton fish-nets are woven here. There is excellent fishing in the bay. Hogs and horses are raised for the Manila market. The surrounding country is fertile and grows cacao, indigo, oranges, sugar-cane, corn and rice. The language is Tagalog.

BAUBLE (probably a blend of two different words, an old French *baubel*, a child's plaything, and an old English *babyll*, something swinging to and fro), a word applied to a stick with a weight attached, used in weighing, to a child's toy, and especially to the mock symbol of office carried by a court jester, a baton terminating in a figure of Folly with cap and bells, and sometimes having a bladder fastened to the other end; hence a term for any triviality or childish folly.

BAUCHI, a province in the highlands of the British protectorate of Northern Nigeria. It lies approximately between 11° 15′ and 9° 15′ N. and 11° 15′ and 8° 30′ E. Bauchi is bounded N. by the provinces of Kano, Katagum and Bornu; E. by Bornu, S. by Yola and Muri, and W. by the provinces of Zaria and Nassarawa. The province has an area of about 21,000 sq. m. The altitude rises from 1000 ft. above the sea in its north-eastern corner to 4000 ft. and 6000 ft. in the south-west. The province is traversed diagonally from N.E. to S.W. by a belt of mountain ranges alternating with fertile plateaus. Towards the south the country is very rugged and a series of extinct volcanic craters occur.

Amongst the more important plateaus are the Assab or Kibyen country, having a general level of upwards of 4000 ft., and the Sura country, also reaching to elevations of from 3000 to 5000 ft. Both these extensive plateaus are situated in the south-west portion of the

province. Their soil is fertile, they possess an abundance of pure water, the air is keen and bracing, and the climate is described as resembling in many respects that of the Transvaal. They form the principal watershed not only of the province of Bauchi, but of the protectorate of Northern Nigeria. The Gongola, flowing east and south to the Benue, rises in the Sura district, and from the Kibyen plateau streams flow north to Lake Chad, west to the Kaduna, and south to the Benue. The soil is generally fertile between the hills, and in the volcanic districts the slopes are cultivated half-way up the extinct craters. The climate in the western parts is temperate and healthy. In the winter months of November and December the thermometer frequently falls to freezing-point, and in the hottest months the maximum on the Kibyen plateau has been found to be rarely over 85°.

The population of Bauchi is estimated at about 1,000,000 and is of a very various description. The upper classes are Fula, and there are some Hausa and Kanuri (Bornuese), but the bulk of the people are pagan tribes in a very low state of civilization. Sixty-four tribes sufficiently differentiated from each other to speak different languages have been reported upon. Hausa is the *lingua franca* of the whole. The pagan population has been classified for practical purposes as Hill pagans and Plains pagans, Mounted pagans and Foot pagans. The Foot pagans of the plains were brought under the Fula yoke in the beginning of the 19th century and have never cast it off. The Hill pagans were partly conquered, but many remained independent or have since succeeded in asserting their freedom. The Mounted pagans are confined to the healthy plateaus of the south-west corner of the province. They are independent and there is considerable variety in the characteristics of the different tribes. The better types are hardy, orderly and agriculturally industrious. They are intelligent and have shown themselves peaceful and friendly to Europeans. Others are, on the contrary, disposed to be turbulent and warlike. Amongst the different tribes many are cannibals. They all go practically naked. They are essentially horsemen, and have a cruel habit of gashing the backs of their ponies that they may get a good seat in the blood. They are armed with bows and arrows, but depend almost entirely in battle on the charges of their mounted spearmen.

The native name “Bauchi,” which is of great antiquity, Signifies the “Land of Slaves,” and from the earliest times the uplands which now form the principal portion of the province been the hunting ground of the slave raider, while the hill fastnesses have offered defensible refuge to the population. So entirely was slavery a habit of the people, that as late as 1905, after the slave-trade had been abolished for three years, it was found that, in consequence of a famine which rendered food difficult to obtain, a whole tribe (the Tangali) were selling themselves as slaves to their neighbours. Children are readily sold by their parents at a price varying from the equivalent of one shilling to one and sixpence.

The province of Bauchi was conquered by the Fula at the beginning of the 19th century, and furnished them with a valuable slave preserve. But the more civilized portion had already, under enlightened native rulers, attained to a certain degree of prosperity and order. Mahommedanism was partly adopted by the upper classes in the 18th century, if not earlier, and the son of a Mahommedan native ruler, educated at Sokoto, accepted the flag of Dan Fodio and conquered the country for the Fula. The name of this remarkable soldier and leader was Yakoba (Jacob). His father’s name was Daouad (David), and his grandfather was Abdullah, all names which indicate Arab or Mahommedan influence. The town of Bauchi and capital of the province was founded by Yakoba in the year 1809, and the emirate remained under Fula rule until the year 1902. In that year, in consequence of determined slave-raiding and the defiant misrule of the emir, a British expedition was sent against the capital, which submitted without fighting. The emir was deposed, and the country was brought under British control. A new emir was appointed, but he died within a few months. The slave-trade was immediately abolished, and the slave-market which was held at Bauchi, as in all Fula centres, was closed. The Kano-Sokoto campaign in 1903 rendered necessary a temporary withdrawal of the British resident from Bauchi, and comparatively little progress was made until the following year. In 1904 the province was organized for administration on the same system as the rest of Northern Nigeria, and the reigning emir took the oath of allegiance to the British crown. The province has been subdivided into thirteen administrative districts, which again have been grouped into their principal divisions, with their respective British headquarters at Bauchi, Kanan and Bukuru. The Fula portion of this province, held like the other Hausa states under a feudal system of large landowners or fief-holders, has been organized and assessed for taxation on the system accepted by the emirs throughout the protectorate, and the populations are working harmoniously under British rule. Roads and telegraphs are in process of construction, and the province is being gradually opened to trade. Valuable indications of tin have been found to the north of the Kibyen plateau, and have attracted the attention of the Niger Company.

Bauchi is a province of special importance from the European point of view because, with free communication from the Benue assured, it is probable that on the Kibyen and Sura plateaus, which are the healthiest known in the protectorate, a sanatorium and station for a large civil population might be established under conditions in which Europeans could live free from the evil effects of a West African climate.

The emirate of Gombe, which is included in the first division of the Bauchi province, is a Fula emirate independent of the emirs of Bauchi. It forms a rich and important district, and its chiefs held themselves in a somewhat sullen attitude of hostility to the British. It was at Burmi in this district that the last stand was made by the religious following of the defeated sultan of Sokoto, and here the sultan was finally overthrown and killed in July 1903. Gombe has now frankly accepted British rule.

(F. L. L.)

BAUDELAIRE, CHARLES PIERRE (1821-1867), French poet, was born in Paris on the 9th of April 1821. His father, who was a civil servant in good position and an amateur artist, died in 1827, and in the following year his mother married a lieutenant-colonel named Aupick, who was afterwards ambassador of France at various courts. Baudelaire was educated at Lyons and at the Collège Louis-le Grand in Paris. On taking his degree in 1839 he determined to enter on a literary career, and during the next two years pursued a very irregular way of life, which led his guardians, in 1841, to send him on a voyage to India. 537 When he returned to Paris, after less than a year's absence, he was of age; but in a year or two his extravagance threatened to exhaust his small patrimony, and his family obtained a decree to place his property in trust. His *salons* of 1845 and 1846 attracted immediate attention by the boldness with which he propounded many views then novel, but since generally accepted. He took part with the revolutionaries in 1848, and for some years interested himself in republican politics but his permanent convictions were aristocratic and Catholic. Baudelaire was a slow and fastidious worker, and it was not until 1857 that he produced his first and famous volume of poems, *Fleurs du mal*. Some of these had already appeared in the *Revue des deux mondes* when they were published by Baudelaire's friend Auguste Poulet Malassis, who had inherited a printing business at Alençon. The consummate art displayed in these verses was appreciated by a limited public, but general attention was caught by the perverse selection of morbid subjects, and the book became a by-word for unwholesomeness among conventional critics. Victor Hugo, writing to the poet, said, "Vous dotez le ciel de l'art d'un rayon macabre, vous créez un frisson nouveau." Baudelaire, the publisher, and the printer were successfully prosecuted for offending against public morals. The obnoxious pieces were suppressed, but printed later as *Les Épaves* (Brussels, 1866). Another edition of the *Fleurs du mal*, without these poems, but with considerable additions, appeared in 1861.

Baudelaire had learnt English in his childhood, and had found some of his favourite reading in the English "Satanic" romances, such as Lewis's *Monk*. In 1846-1847 he became acquainted with the works of Edgar Allan Poe, in which he discovered romances and poems which had, he said, long existed in his own brain, but had never taken shape. From this time till 1865 he was largely occupied with his version of Poe's works, producing masterpieces of the art of translation in *Histoires extraordinaires* (1852), *Nouvelles Histoires extraordinaires* (1857), *Adventures d'Arthur Gordon Pym, Eureka*, and *Histoires grotesques et sérieuses* (1865). Two essays on Poe are to be found in his *Œuvres complètes* (vols. v. and vi.). Meanwhile his financial difficulties grew upon him. He was involved in the failure of Poulet Malassis in 1861, and in 1864 he left Paris for Belgium, partly in the vain hope of disposing of his copyrights. He had for many years a *liaison* with a coloured woman, whom he helped to the end of his life in spite of her gross conduct. He had recourse to opium, and in Brussels he began to drink to excess. Paralysis followed, and the last two years of his life were spent in *maisons de santé* in Brussels and in Paris, where he died on the 31st of August 1867.

His other works include:—*Petits Poèmes en prose*; a series of art criticisms published in the *Pays, Exposition universelle*; studies on Gustave Flaubert (in *L'artiste*, 18th of October 1857); on Théophile Gautier (*Revue contemporaine*, September 1858); valuable notices contributed to Eugène Crépet's *Poètes français*; *Les Paradis artificiels opium et haschisch* (1860); *Richard Wagner et Tannhäuser à Paris* (1861); *Un Dernier Chapitre de l'histoire des œuvres de Balzac* (1880), originally an article entitled "Comment on paye ses dettes quand

on a du génie," in which his criticism is turned against his friends H. de Balzac, Théophile Gautier, and Gérard de Nerval.

BIBLIOGRAPHY.—An edition of his *Lettres* (1841-1866) was issued by the Soc. du Mercure de France in 1906. His *Œuvres complètes* were edited (1868-1870) by his friend Charles Asselineau, with a preface by Théophile Gautier. Asselineau also undertook a vindication of his character from the attacks made upon it in his *Charles Baudelaire, sa vie, son œuvre* (1869). He left some material of more private interest in a MS. entitled *Baudelaire*. See *Charles Baudelaire, souvenirs, correspondance, bibliographie* (1872), by Charles Cousin and Spoelberch de Lovenjoul; *Charles Baudelaire, œuvres posthumes et correspondances inédites* (1887), containing a journal entitled *Mon cœur mis à nu*, and a biographical study by Eugène Crépet; also *Le Tombeau de Charles Baudelaire* (1896), a collection of pieces unpublished or prohibited during the author's lifetime, edited by S. Mallarmé and others, with a study of the text of the *Fleurs du mal* by Prince A. Ourousof; Féli Gautier, *Charles Baudelaire* (Brussels, 1904), with facsimiles of drawings by Baudelaire himself; A. de la Fitzelière and C. Decaux, *Charles Baudelaire* (1868) in the series of *Essais de bibliographie contemporaine*; essays by Paul Bourget, *Essais de psychologie conlemporaine* (1883), and Maurice Spronck, *Les Artistes littéraires* (1889). Among English translations from Baudelaire are *Poems in Prose*, by A. Symons (1905), and a selection for the *Canterbury Poets* (1904), by F.P. Sturm.

BAUDIER, MICHEL (*c.* 1589-1645), French historian, was born in Languedoc. During the reign of Louis XIII. he was historiographer to the Court of France. He contributed to French history by writing *Histoire de la guerre de Flandre 1559-1609* (Paris, 1615); *Histoire de l'administration du cardinal d'Amboise, grand ministre d'état en France* (Paris, 1634), a defence of the cardinal; and *Histoire de l'administration de l'abbé Suger* (Paris, 1645). Taking an especial interest in the Turks he wrote *Inventaire général de l'histoire des Turcs* (Paris, 1619); *Histoire générale de la religion des Turcs avec la vie de leur prophète Mahomet* (Paris, 1626); and *Histoire générale du sérail et de la cour du grand Turc* (Paris, 1626; English trans. by E. Grimeston, London, 1635). Having heard the narrative of a Jesuit who had returned from China, Baudier wrote *Histoire de la cour du roi de Chine* (Paris, 1626; English trans. in vol. viii. of the *Collection of Voyages and Travels* of A. and J. Churchill, London, 1707-1747). He also wrote *Vie du cardinal Ximénès* (Paris, 1635), which was again published with a notice of the author by E. Baudier (Paris, 1851), and a curious romance entitled *Histoire de l'incomparable administration de Romieu, grand ministre d'état de Raymond Bérenger, comte de Provence* (Paris, 1635).

See J. Lelong, *Bibliothèque historique de la France* (Paris, 1768-1778); L. Moréri, *Le Grand Dictionnaire historique* (Amsterdam, 1740).

BAUDRILLART, HENRI JOSEPH LÉON (1821-1892), French economist, was born in Paris on the 28th of November 1821. His father, Jacques Joseph (1774-1832), was a distinguished writer on forestry, and was for many years in the service of the French government, eventually becoming the head of that branch of the department of agriculture which had charge of the state forests. Henri was educated at the Collège Bourbon, where he had a distinguished career, and in 1852 he was appointed assistant lecturer in political economy to M. Chevalier at the Collège de France. In 1866, on the creation of a new chair of economic history, Baudrillart was appointed to fill it. His first work was an *Éloge de Turgot* (1846), which at once won him notice among the economists. In 1853 he published an erudite work on *Jean Bodin et son temps*; then in 1857 a *Manuel d'économie politique*; in 1860, *Des rapports de la morale et de l'économie politique*; in 1865, *La Liberté du travail*; and from 1878 to 1880, *L'Histoire du luxe ... depuis l'antiquité jusqu'à nos jours*, in four volumes. At the instance of the Académie des Sciences Morales et Politiques he investigated the condition of the farming classes of France, and published the results in four volumes (1885, *et seq.*). From 1855 to 1864 he directed the *Journal des économistes*, and contributed many articles to the *Journal des débats* and to the *Revue des deux mondes*. His writings are

distinguished by their style, as well as by their profound erudition. In 1863 he was elected member of the Académie des Sciences Morales et Politiques; in 1870 he was appointed inspector-general of public libraries, and in 1881 he succeeded J. Garnier as professor of political economy at the École des Ponts et Chaussées. Baudrillart was made an officer of the Legion of Honour in 1889. He died in Paris on the 24th of January 1892.

BAUDRY, or BALDERICH, **OF BOURGUEIL** (1046 or 1047-1130), archbishop of Dol, historian and poet, was born at Meung-sur-Loire, where he passed his early days. Educated at Meung and at Angers, he entered the Benedictine abbey of Bourgueil, and in 1079 became abbot of this place, but his time was devoted to literary pursuits rather than to his official duties. Having failed to secure the bishopric of Orleans in 1097, he became archbishop of Dol in 1107, and went to Rome for his pallium in 1108. The bishopric of Dol had been raised to the rank of an archbishopric during the 10th century by Nomenoé, king of Brittany, but this step had been objected to by the archbishops of Tours. Consequently the position of the see was somewhat ambiguous, and Baudry is referred to both as archbishop and as bishop of Dol. He appears to have striven earnestly to do something for the education of the ignorant inhabitants of Brittany but his efforts were not very successful, and he soon abandoned the task. In 1116 he attended the Lateran council, and in 1119 the council of Reims, after which he paid a visit of two years' duration to England. Returning to France he neglected the affairs of his diocese, and passed his time mainly at St Samson-sur-Risle in Normandy. He died on the 5th or 7th of January 1130.

Baudry wrote a number of Latin poems of very indifferent quality. The most important of these, from the historical point of view, have been published in the *Historiae Francorum Scriptores*, tome iv., edited by A. Duchesne (Paris 1639-1649). Baudry's prose works are more important. The best known of these is his *Historiae Hierosolymitance*, a history of the first crusade from 1095 to 1099. This is a history in four books, the material for which was mainly drawn from the anonymous *Gesta Francorum*, but some valuable information has been added by Baudry. It was very popular during the middle ages, and was used by Ordericus Vitalis for his *Historiae ecclesiasticae*; by William, archbishop of Tyre, for his *Belli sacri historia*; and by Vincent of Beauvais for his *Speculum historiale*. The best edition is that by C. Thurot, which appears in the *Recueil des historiens des croisades*, tome iv. (Paris, 1841-1887), Other works probably by Baudry are *Epistola ad Fiscannenses monachos*, a description of the monastery of Fécamp; *Vita Roberti de Arbrissello; Vita S. Hugonis archiepiscopi Rothomagensis; Translatio capitis Gemeticum et miracula S. Valentini martyris; Relatio de scuto et gladio*, a history of the arms of St. Michael; and *Vita S. Samsonis Dolensis episcopi*. Other writings which on very doubtful authority have been attributed to Baudry are *Acta S. Valeriani martyris Trenorchii; De visitatione infirmorum; Vita S. Maglorii Dolensis episcopi et Vita S. Maclovii, Alectensis episcopi; De revelatione abbatum Fiscannensium*; and *Confirmatio bonorum monasterii S. Florentii*. Many of these are published by J.P. Migne in the *Patrologia Latina*, tomes 160, 162 and 166 (Paris 1844).

See *Histoire littéraire de la France*, tome xi. (Paris, 1865-1869); H. von Sybel, *Geschichte des ersten Kreuzzuges* (Leipzig, 1881); A. Thurot, "Études critiques sur les historiens de la première croisade; Baudri de Bourgueil" in the *Revue historique* (Paris, 1876).

BAUDRY, PAUL JACQUES AIMÉ (1828-1886), French painter, was born at La Roche-sur-Yonne (Vendée). He studied under Drolling, a sound but second-rate artist, and carried off the Prix de Rome in 1850 by his picture of "Zenobia found on the banks of the Araxes." His talent from the first revealed itself as strictly academical, full of elegance and grace, but somewhat lacking originality. In the course of his residence in Italy Baudry derived strong inspiration from Italian art with the mannerism of Coreggio, as was very evident in the two works he exhibited in the Salon of 1857, which were purchased for the Luxembourg: "The Martyrdom of a Vestal Virgin" and "The Child." His "Leda," "St John the Baptist," and a "Portrait of Beulé," exhibited at the same time, took a first prize that year. Throughout this

early period Baudry commonly selected mythological or fanciful subjects, one of the most noteworthy being “The Pearl and the Wave.” Once only did he attempt an historical picture, “Charlotte Corday after the murder of Marat” (1861), and returned by preference to the former class of subjects or to painting portraits of illustrious men of his day—Guizot, Charles Garnier, Edmond About. The works that crowned Baudry’s reputation were his mural decorations, which show much imagination and a high artistic gift for colour, as may be seen in the frescoes in the Paris Cour de Cassation, at the château of Chantilly, and some private residences—the hôtel Fould and hôtel Paiva—but, above all, in the decorations of the *foyer* of the Paris opera house. These, more than thirty paintings in all, and among them compositions figurative of dancing and music, occupied the painter, for ten years. Baudry died in Paris in 1886. He was a member of the Institut de France, succeeding Jean Victor Schnetz. Two of his colleagues, Dubois and Marius Jean Mercie, co-operating with his brother, Baudry the architect, erected a monument to him in Paris (1890). The statue of Baudry at La Roche-sur-Yonne (1897) is by Gérôme.

See H. Delaborde, *Notice sur la vie et les ouvrages de Baudry* (1886); Ch. Ephrussi, *Baudry, sa vie et son œuvre* (1887).

(H. Fr.)

BAUER, BRUNO (1809-1882), German theologian and historian, was born on the 6th of September 1809, the son of a painter in a porcelain factory, at Eisenberg in Saxe-Altenburg. He studied at Berlin, where he attached himself to the “Right” of the Hegelian school under P. Marheineke. In 1834 he began to teach in Berlin as a licentiate of theology, and in 1839 was transferred to Bonn. In 1838 he published his *Kritische Darstellung der Religion des Alten Testaments* (2 vols.), which shows that at that date he was still faithful to the Hegelian Right. Soon afterwards his opinions underwent a change, and in two works, one on the Fourth Gospel, *Kritik der evangelischen Geschichte des Johannes* (1840), and the other on the Synoptics, *Kritik der evangelischen Geschichte der Synoptiker* (1841), as well as in his *Herr Hengstenberg, kritische Briefe über den Gegensatz des Gesetzes und des Evangeliums*, he announced his complete rejection of his earlier orthodoxy. In 1842 the government revoked his license and he retired for the rest of his life to Rixdorf, near Berlin. Henceforward he took a deep interest in modern history and politics, as well as in theology, and published *Geschichte der Politik, Kultur und Aufklärung des 18ten Jahrhunderts* (4 vols. 1843-1845), Geschichte der französischen Revolution (3 vols. 1847), and *Disraelis romantischer und Bismarcks socialistischer Imperialismus* (1882). Other critical works are: a criticism of the gospels and a history of their origin, *Kritik der Evangelien und Geschichte ihres Ursprungs* (1850-1852), a book on the Acts of the Apostles, *Apostelgeschichte* (1850), and a criticism of the Pauline epistles, *Kritik der paulinischen Briefe* (1850-1852). He died at Rixdorf on the 13th of April 1882. His criticism of the New Testament was of a highly destructive type. David Strauss in his *Life of Jesus* had accounted for the Gospel narratives as half-conscious products of the mythic instinct in the early Christian communities. Bauer ridiculed Strauss’s notion that a community could produce a connected narrative. His own contention, embodying a theory of C.G. Wilke (*Der Urevangelist*, 1838), was that the original narrative was the Gospel of Mark; that this was composed in the reign of Hadrian; and that after this the other narratives were modelled by other writers. He, however, “regarded Mark not only as the first narrator, but even as the creator of the gospel history, thus making the latter a fiction and Christianity the invention of a single original evangelist” (Pfleiderer). On the same principle the four principal Pauline epistles were regarded as forgeries of the 2nd century. He argued further for the preponderance of the Graeco-Roman element, as opposed to the Jewish, in the Christian writings. The writer of Mark’s gospel was “an Italian, at home both in Rome and Alexandria”; that of Matthew’s gospel “a Roman, nourished by the spirit of Seneca”; the Pauline epistles were written in the West in antagonism to the Paul of the Acts, and so on. Christianity is essentially “Stoicism triumphant in a Jewish garb.” This line of criticism has found few supporters, mostly in the Netherlands. It certainly had its value in emphasizing the importance of studying the influence of environment in the formation of the Christian Scriptures. Bauer was a man of restless, impetuous activity and independent, if ill-balanced, judgment, one who, as he himself perceived, was more in place as a free-lance of criticism than as an official teacher. He came in the end to be regarded kindly even by opponents, and he was not afraid of taking a line displeasing to his liberal friends on the Jewish question (*Die Judenfrage*, 1843).

His attitude towards the Jews is dealt with in the article in the *Jewish Encyclopedia*. See generally Herzog-Hauck, *Realencyklopadie*; and cf. Otto Pfleiderer, *Development of Theology*, p. 226; Carl Schwarz, *Zur Geschichte der neuesten Theologie*, pp. 142 ff.; and F. Lichtenberger, *History of German Theology in the 19th Century* (1889), pp. 374-378.

BAUERNFELD, EDUARD VON (1802-1890), Austrian dramatist, was born at Vienna on the 13th of January 1802. Having studied jurisprudence at the university of Vienna, he entered the government service in a legal capacity, and after holding various minor offices was transferred in 1843 to a responsible post on the Lottery Commission. He had already embarked upon politics, and severely criticized the government in a pamphlet, *Pia Desideria eines österreichischen Schriftstellers* (1842); and in 1845 he made a journey to England, after which his political opinions became more pronounced. After the Revolution, in 1848, he quitted the government service in order to devote himself entirely to letters. He lived in Vienna until his death on the 9th of August 1890, and was ennobled for his work. As a writer of comedies and farces, Bauernfeld takes high rank among the German playwrights of the century; his plots are clever, the situations witty and natural and the diction elegant. His earliest essays, the comedies *Leichtsinn aus Liebe* (1831); *Das Liebes-Protokoll* (1831) and *Die ewige Liebe* (1834); *Bürgerlich und Romantisch*, (1835) enjoyed great popularity. Later he turned his attention to so-called *Salonstücke* (drawing-room pieces), notably *Aus der Gesellschaft* (1866); *Moderne Jugend* (1869), and *Der Landfrieden* (1869), in which he portrays in fresh, bright and happy sallies the social conditions of the capital in which he lived.

A complete edition of Bauernfeld's works, *Gesammelte Schriften*, appeared in 12 vols. (Vienna, 1871-1873); *Dramatischer Nachlass*, ed. by F. von Saar (1893); selected works, ed. by E. Horner (4 vols., 1905). See A. Stern, *Bauernfeld, Ein Dichterportrat* (1890), R. von Gottschall, "E. von Bauernfeld" (in *Unsere Zeit*, 1890), and E. Horner, *Bauernfeld* (1900).

BAUFFREMONT, a French family which derives its name from a village in the Vosges, spelt nowadays Beaufremont. In consequence of an alliance with the house of Vergy the Bauffremonts established themselves in Burgundy and Franche-Comté. In 1448 Pierre de Bauffremont, lord of Charny, married Maríe, a legitimatized daughter of Philip the Good, duke of Burgundy. Nicolas de Bauffremont, his son Claude, and his grandson Henri, all played important parts in the states-general of 1576, 1588 and 1614, and their speeches have been published. Alexandre Emmanuel Louis de Bauffremont (1773-1833), a prince of the Holy Roman Empire, was created a peer of France in 1817, and duke in 1818. After having served in the army of the princes he returned to France under the Empire, and had been made a count by Napoleon.

(M. P.*)

BAUHIN, GASPARD (1560-1624), Swiss botanist and anatomist, was the son of a French physician, Jean Bauhin (1511-1582), who had to leave his native country on becoming a convert to Protestantism. He was born at Basel on the 17th of January 1560, and devoting himself to medicine, he pursued his studies at Padua, Montpellier, and some of the celebrated schools in Germany. Returning to Basel in 1580, he was admitted to the degree of doctor, and gave private lectures in botany and anatomy. In 1582 he was appointed to the Greek professorship in that university, and in 1588 to the chair of anatomy and botany. He was afterwards made city physician, professor of the practice of medicine, rector of the university, and dean of his faculty. He died at Basel on the 5th of December 1624. He published several works relative to botany, of which the most valuable was his *Pinax Theatri*

Botanici, seu Index in Theophrasti, Dioscoridis, Plinii, et botanicorum qui a seculo scripserunt opera (1596). Another great work which he planned was a *Theatrum Botanicum*, meant to be comprised in twelve parts folio, of which he finished three; only one, however, was published (1658). He also gave a copious catalogue of the plants growing in the environs of Basel, and edited the works of P.A. Mattioli (1500-1577) with considerable additions. He likewise wrote on anatomy, his principal work on this subject being *Theatrum Anatomicum infinitis locis auctum* (1592).

His son, Jean Gaspard Bauhin (1606-1685), was professor of botany at Basel for thirty years. His elder brother, Jean Bauhin (1541-1613), after studying botany at Tübingen under Leonard Fuchs (1501-1566), and travelling with Conrad Gesner, began to practise medicine at Basel, where he was elected professor of rhetoric in 1766. Four years later he was invited to become physician to the duke of Württemberg at Montbéliard, where he remained till his death in 1613. He devoted himself chiefly to botany. His great work, *Historia plantarum nova et absolutissima*, a compilation of all that was then known about botany, was not complete at his death, but was published at Yverdon in 1650-1651, the *Prodromus* having appeared at the same place in 1619. He also wrote a book *De aquis medicatis* (1605).

BAULK, or Balk (a word common to Teutonic languages, meaning a ridge, partition, or beam), the ridge left unploughed between furrows or ploughed fields; also the uncultivated strip of land used as a boundary in the "open-field" system of agriculture. From the meaning of something left untouched comes that of a hindrance or check, so of a horse stopping short of an obstacle, of the "baulk-line" in billiards, or of the deceptive motion of the pitcher in baseball. From the other original meaning, *i.e.* "beam," comes the use of the word for the cross or tie-beam of a roof, or for a large log of timber sawn to a one or one and a half foot square section (see Joinery).

BAUMBACH, RUDOLF (1840-1905), German poet, was born at Kranichfeld on the Ilm in Thuringia, on the 28th of September 1840, the son of a local medical practitioner, and received his early schooling at the gymnasium of Meiningen, to which place his father had removed. After studying natural science in various universities, he engaged in private tuition, both independently and in families, in the Austrian towns of Graz, Brünn, Görz and Triest respectively. In Triest he caught the popular taste with an Alpine legend, *Zlatorog* (1877), and songs of a journeyman apprentice, *Lieder eines fahrenden Gesellen* (1878), both of which have run into many editions. Their success decided him to embark upon a literary career. In 1885 he returned to Meiningen, where he received the title of *Hofrat*, and was appointed ducal librarian. His death occurred on the 14th of September 1905.

Baumbach was a poet of the breezy, vagabond school, and wrote, in imitation of his greater compatriot, Victor Scheffel, many excellent drinking songs, among which *Die Lindenwirtin* has endeared him to the German student world. But his real strength lay in narrative verse, especially when he had the opportunity of describing the scenery and life of his native Thuringia. Special mention may be made of *Frau Holde* (1881), *Spielmannslieder* (1882), *Von der Landstrasse* (1882), *Thüringer Lieder* (1891), and his prose, *Sommermärchen* (1881).

BAUMÉ, ANTOINE (1728-1804), French chemist, was born at Senlis on the 26th of February 1728. He was apprenticed to the chemist Claude Joseph Geoffroy, and in 1752 was admitted a member of the École de Pharmacie, where in the same year he was appointed professor of chemistry. The money he made in a business he carried on in Paris for dealing

in chemical products enabled him to retire in 1780 in order to devote himself to applied chemistry, but, ruined in the Revolution, he was obliged to return to a commercial career. He devised many improvements in technical processes, *e.g.* for bleaching silk, dyeing, gilding, purifying saltpetre, &c., but he is best known as the inventor of the hydrometer associated with his name (often in this connexion improperly spelt Beaumé). Of the numerous books and papers he wrote the most important is his *Élémens de pharmacie théorique et pratique* (9 editions, 1762-1818). He became a member of the Academy of Sciences in 1772, and an associate of the Institute in 1796. He died in Paris on the 15th of October 1804.

BAUMGARTEN, ALEXANDER GOTTLIEB (1714-1762), German philosopher, born at Berlin. He studied at Halle, and became professor of philosophy at Halle and at Frankfort on the Oder, where he died in 1762. He was a disciple of Leibnitz and Wolff, and was particularly distinguished as having been the first to establish the *Theory of the Beautiful* as an independent science. Baumgarten did good service in severing aesthetics (*q.v.*) from the other philosophic disciplines, and in marking out a definite object for its researches. The very name (*Aesthetics*), which Baumgarten was the first to use, indicates the imperfect and partial nature of his analysis, pointing as it does to an element so variable as *feeling* or *sensation* as the ultimate ground of judgment in questions pertaining to beauty. It is important to notice that Baumgarten's first work preceded those of Burke, Diderot, and P. André, and that Kant had a great admiration for him. The principal works of Baumgarten are the following: *Dispulationes de nonnullis ad poema pertinentibus* (1735); *Aesthetics; Metaphysica* (1739; 7th ed. 1779); *Ethica philosophica* (1751, 2nd ed. 1763); *Initia philosophiae practicae primae* (1760). After his death, his pupils published a *Philosophia Generalis* (1770) and a *Jus Naturae* (1765), which he had left in manuscript.

See Meyer, *Baumgarten's Leben* (1763); Abbt, *Baumgarten's Leben und Charakler* (1765); H.G. Meyer, *Leibnitz und Baumgarten* (1874); J. Schmidt, *Leibnitz und Baumgarten* (Halle, 1875); and article AESTHETICS.

His brother, SIEGMUND JACOB BAUMGARTEN (1706-1757), was professor of theology at Halle, and applied the methods of Wolff to theology. His chief pupil, Johann Salomo Semler (*q.v.*), is sometimes called, the father of German rationalism. Baumgarten, though he did not renounce the Pietistic doctrine, began the process which Semler completed. His works include *Evangelische Glaubenslehre* (1759); *Auszug der Kirchengeschichte* (1743-1762); *Primae lineae breviarii anliquitatum Christianarum* (1747); *Geschichte der Religionsparteien* (1760); *Nachricht van merkwürdigen Buchern* (1752-1757); *Nachrichten van einer hallischen Bibliothek* (1748-1751).

See life by Semler (Halle, 1758).

BAUMGARTEN, MICHAEL (1812-1889), German Protestant theologian, was born at Haseldorf in Schleswig-Holstein on the 25th of March 1812. He studied at Kiel University (1832), and became professor ordinarius of theology at Rostock (1850). A liberal scholar, he became widely known in 1854 through a work, *Die Nachtgesichte Sacharjas. Eine Prophetenstimme aus der Gegenwart*, in which, starting from texts in the Old Testament and assuming the tone of a prophet, he discussed topics of every kind. At a pastoral conference in 1856 he boldly defended evangelical freedom as regards the legal sanctity of Sunday. This, with other attempts to liberalize religion, brought him into conflict with the ecclesiastical authorities of Mecklenburg, and in 1858 he was deprived of his professorship. He then travelled throughout Germany, demanding justice, telling the story of his life (*Christliche Selbstgespräche*, 1861), and lecturing on the life of Jesus (*Die Geschichte Jesu. Für das Verständniss der Gegenwart*, 1859). In 1865 he helped to found the *Deutsche Protestantenverein*, but withdrew from it in 1877. On several occasions (1874, 1877 and 1878) he sat in the Reichstag as a member of the progressive party. He died on the 21st of July 1889. Other works: *Apostelgeschichte oder Entwicklungsgang der Kirche van Jerusalem*

bis Rom (2 vols. 2nd ed., 1859), and *Doktor Martin Luther, ein Volksbuch* (1883).

H.H. Studt published his autobiography in 1891 (2 vols.); see also C. Schwartz, *Neueste Theologie* (1869); Lichtenberger, *Hist. Germ. Theol.*, 1889; Calwer-Zeller, *Kirchen-Lexikon*.

BAUMGARTEN-CRUSIUS, LUDWIG FRIEDRICH OTTO (1788-1842), German Protestant divine, was born at Merseburg. In 1805 he entered the university of Leipzig and studied theology and philology. After acting as *Privatdocent* at Leipzig, he was, in 1812, appointed professor extraordinarius of theology at Jena, where he remained to the end of his life, rising gradually to the head of the theological faculty. He died on the 31st of May 1842. With the exception of Church history, he lectured on all branches of so-called theoretical theology, especially on New Testament exegesis, biblical theology, dogmatic ethics, and the history of dogma, and his comprehensive knowledge, accurate scholarship and wide sympathies gave peculiar value to his lectures and treatises, especially those on the development of church doctrine. His published works are many, the most important being: —*Lehrbuch der christtichen Sittenlehre* (1826); *Grundzuge der biblischen Theologie* (1828); *Lehrbuch der Dogmengeschichte* (1832); *Compendium der Dogmengeschichte* (1840). The last, perhaps his best work, was left unfinished, but was completed from his notes in 1846 by Karl Hase.

BAUR, FERDINAND CHRISTIAN (1792-1860), leader of the Tübingen school of theology, was born at Schmiden, near Canstatt, on the 21st of June 1792. After receiving an early training in the theological seminary at Blaubeuren, he went in 1809 to the university of Tübingen. Here he studied for a time under Ernst Bengel, grandson of the eminent New Testament critic, Johann Albrecht Bengel, and at this early stage in his career he seems to have been under the influence of the old Tübingen school. But at the same time the philosophers Immanuel Fichte and Friedrich Schelling were creating a wide and deep impression. In 1817 Baur returned to the theological seminary at Blaubeuren as professor. This move marked a turning-point in his life, for he was now able to set to work upon those investigations on which his reputation rests. He had already, in 1817, written a review of G. Kaiser's *Biblische Theologie* for Bengel's *Archiv für Theologie* (ii. 656); its tone was moderate and conservative. When, a few years after his appointment at Blaubeuren, he published his first important, work, *Symbolik und Mythologie oder die Naturreligion des Altertums* (1824-1825), it became evident that he had made a deeper study of philosophy, and had come under the influence of Schelling and more particularly of Friedrich Schleiermacher. The learning of the work was fully recognized, and in 1826 the author was called to Tübingen as professor of theology. It is with Tübingen that his greatest literary achievements are associated. His earlier publications here treated of mythology and the history of dogma. *Das manichäische Religionssystem* appeared in 1831, *Apollonius von Tyana* in 1832, *Die christliche Gnosis* in 1835, and *Über das Christliche im Platonismus oder Socrates und Christus* in 1837. As Otto Pfleiderer (*Development of Theology*, p. 285) observes, "the choice not less than the treatment of these subjects is indicative of the large breadth of view and the insight of the historian into the comparative history of religion." Meantime Baur had exchanged one master in philosophy for another, Schleiermacher for Hegel. In doing so, he had adopted completely the Hegelian philosophy of history. "Without philosophy," he has said, "history is always for me dead and dumb." The change of view is illustrated clearly in the essay, published in the *Tubinger Zeitschrift* for 1831, on the Christ-party in the Corinthian Church, *Die Chrislusparlei in der korinthischen Gemeinde, der Gegensatz des paulinischen und petrinischen in der älsten Kirche, der Apostel Petrus in Rom*, the trend of which is suggested by the title. Baur contends that St Paul was opposed in Corinth by a Jewish-Christian party which wished to set up its own form of Christian religion instead of his universal Christianity. He finds traces of a keen conflict of parties in the post-apostolic age. The theory is further developed in a later work (1835, the year in which David Strauss' *Leben Jesu* was published), *Über die sogenannten Pastoralbriefe*. In this Baur attempts to prove that the false teachers mentioned in the Epistles to Timothy and Titus are

the Gnostics, particularly the Marcionites, of the second century, and consequently that the Epistles were produced in the middle of this century in opposition to Gnosticism. He next proceeded to investigate the Pauline Epistles and the Acts of the Apostles in the same manner, publishing his results in 1845 under the title *Paulus, der Apostel Jesu Christi, sein Leben und Wirken, seine Briefe und seine Lehre*. In this he contends that only the Epistles to the Galatians, Corinthians and Romans are genuinely Pauline, and that the Paul of Acts is a different person from the Paul of these genuine Epistles, the author being a Paulinist who, with an eye to the different parties in the Church, is at pains to represent Peter as far as possible as a Paulinist and Paul as far as possible as a Petrinist. Thus it becomes clear that Baur is prepared to apply his theory to the whole of the New Testament; in the words of H.S. Nash, "he carried a sweeping hypothesis into the examination of the New Testament." Those writings alone he considers genuine in which the conflict between Jewish-Christians and Gentile-Christians is clearly marked. In his *Kritische Untersuchungen über die kanonischen Evangelien, ihr Verhaltniss zu einander, ihren Charakter und Ursprung* (1847) he turns his attention to the Gospels, and here again finds that the authors were conscious of the conflict of parties; the Gospels reveal a mediating or conciliatory tendency (*Tendenz*) on the part of the writers or redactors. The Gospels, in fact, are adaptations or redactions of an older Gospel, such as the Gospel of the Hebrews, of Peter, of the Egyptians, or of the Ebionites. The Petrine Matthew bears the closest relationship to this original Gospel (*Urevangelium*); the Pauline Luke is later and arose independently; Mark represents a still later development; the account in John is idealistic: it "does not possess historical truth, and cannot and does not really lay claim to it." Baur's whole theory indeed starts with the supposition that Christianity was gradually developed out of Judaism. Before it could become a universal religion, it had to struggle with Jewish limitations and to overcome them. The early Christians were Jewish-Christians, to whom Jesus was the Messiah. Paul, on the other hand, represented a breach with Judaism, the Temple, and the Law. Thus there was some antagonism between the Jewish apostles, Peter, James and John and the Gentile apostle Paul, and this struggle continued down to the middle of the 2nd century. In short, the conflict between Petrinism and Paulinism is, as Carl Schwarz puts it, the key to the literature of the 1st and 2nd century.

But Baur was a theologian and historian as well as a Biblical critic. As early as 1834 he published a strictly theological work, *Gegensatz des Katholicismus und Protestantismus nach den Prinzipien und Hauptdogmen der beiden Lehrbegriffe*, a strong defence of Protestantism on the lines of Schleiermacher's *Glaubenslehre*, and a vigorous reply to J. Möhler's *Symbolik* (1833). This was followed by his larger histories of dogma, *Die christliche Lehre van der Versöhnung in ihrer geschichtlichen Entwicklung bis auf die neueste Zeit* (1838), *Die christliche Lehre von der Dreieinigkeit und Menschwerdung Gottes in ihrer geschichtlichen Entwicklung* (3 vols., 1841-1843), and the *Lehrbuch der christlichen Dogmengeschichte* (1847). The value of these works is impaired somewhat by Baur's habit of making the history of dogma conform to the formulae of Hegel's philosophy, a procedure "which only served to obscure the truth and profundity of his conception of history as a true development of the human mind" (Pfleiderer). Baur, however, soon came to attach more importance to personality, and to distinguish more carefully between religion and philosophy. The change is marked in his *Epochen der kirchlichen Geschichtschreibung* (1852), *Das Christenthum und die christliche Kirche der drei ersten Jahrhunderte* (1853), and *Die christliche Kirche von Anfang des vierten bis zum Ende des sechsten Jahrhunderts* (1859), works preparatory to his *Kirchengeschichte*, in which the change of view is specially pronounced. The *Kirchengeschichte* was published in five volumes during the years 1853-1863, partly by Baur himself, partly by his son, Ferdinand Baur, and his son-in-law, Eduard Zeller, from notes and lectures which the author left behind him. Pfleiderer describes this work, especially the first volume, as "a classic for all time." "Taken as a whole, it is the first thorough and satisfactory attempt to explain the rise of Christianity and the Church on *strictly historical* lines, *i.e.* as a natural development of the religious spirit of our race under the combined operation of various human causes" (*Development of Theology*, p. 288). Baur's lectures on the history of dogma, *Ausführlichere Vorlesungen über die christliche Dogmengeschichte*, were published later by his son (1865-1868).

Baur's views were revolutionary and often extreme; but, whatever may be thought of them, it is admitted that as a critic he rendered a great service to theological science. "One thing is certain: New Testament study, since his time, has had a different colour" (H.S. Nash). He has had a number of disciples or followers, who have in many cases modified his positions.

A full account of F.C. Baur's labours, and a complete list of his writings will be found in the article in Herzog-Hauck, *Realencyklopadie*, in which his work is divided into three periods:

(1) “Philosophy of Religion,” (2) “Biblical criticism,” (3) “Church History.” See also H.S. Nash, *The History of the Higher Criticism of the New Testament* (New York, 1901); Otto Pfleiderer, *The Development of Theology in Germany since Kant* (trans., 1890); Carl Schwarz, *Zur Geschichte der neuesten Theologie* (Leipzig, 1869); R.W. Mackay, *The Tübingen School and its Antecedents* (1863); A.S. Farrar, *A Critical History of Free Thought in reference to the Christian Religion* (Bampton Lectures, 1862); and cf. the article on “The Tübingen Historical School,” in *Bibliotheca Sacra*, vol. xix. No. 73, 1862.

(M. A. C.)

BAUTAIN, LOUIS EUGÈNE MARIE (1796-1867), French philosopher and theologian, was born at Paris. At the École Normale he came under the influence of Cousin. In 1816 he adopted the profession of higher teaching, and was soon after called to the chair of philosophy in the university of Strassburg. He held this position for many years, and gave a parallel course of lectures as professor of the literary faculty in the same city. The reaction against speculative philosophy, which carried away De Maistre and Lamennais, influenced him also. In 1828 he took orders, and resigned his chair at the university. For several years he remained at Strassburg, lecturing at the Faculty and at the college of Juilly, but in 1840 he set out for Paris as vicar of the diocese. At Paris he obtained considerable reputation as an orator, and in 1853 was made professor of moral theology at the theological faculty. This post he held till his death. Like the Scholastics, he distinguished reason and faith, and held that revelation supplies facts, otherwise unattainable, which philosophy is able to group by scientific methods. Theology and philosophy thus form one comprehensive science. Yet Bautain was no rationalist; like Pascal and Newman he exalted faith above reason. He pointed out, following chiefly the Kantian criticism, that reason can never yield knowledge of things in themselves. But there exists in addition to reason another faculty which may be called intelligence, through which we are put in connexion with spiritual and invisible truth. This intelligence does not of itself yield a body of truth; it merely contains the germs of the higher ideas, and these are made productive by being brought into contact with revealed facts. This fundamental conception Bautain worked out in the departments of psychology and morals. The details of this theology are highly imaginative. He says, for instance, that there is a spirit of the world and a spirit of nature; the latter gives birth to a physical and psychical spirit, and the physical spirit to the animal and vegetable spirits. His theories may well be compared with the arbitrary mysticism of van Helmont and the Gnostics. The most important of his works are:—*Philosophie du Christianisme* (1835); *Psychologic expérimentale* (1839), new edition entitled *Esprit humain et ses facultés* (1859); *Philosophie morale* (1840); *Religion et liberté* (1848); *La Morale de l’évangile comparée aux divers systèmes de morale* (Strassburg, 1827; Paris, 1855); *De l’éducation publique en France au XIX^{e} siècle* (Paris, 1876).

BAUTZEN (Wendish *Budissin*, “town”), a town of Germany, in the kingdom of Saxony and the capital of Saxon Upper Lusatia. Pop. (1890) 21,515; (1905) 29,412. It occupies an eminence on the right bank of the Spree, 680 ft. above the level of the sea, 32 m. E.N.E. from Dresden, on the Dresden-Görlitz-Breslau main line of railway, and at the junction of lines from Schandau and Königswartha. The town is surrounded by walls, and outside these again by ramparts, now in great measure turned into promenades, and has extensive suburbs partly lying on the left bank of the river. Among its churches the most remarkable is the cathedral of St Peter, dating from the 15th century, with a tower 300 ft. in height. It is used by both Protestants and Roman Catholics, an iron screen separating the parts assigned to each. There are five other churches, a handsome town hall, an orphan-asylum, several hospitals, a mechanics’ institute, a famous grammar school (gymnasium), a normal and several other schools, and two public libraries. The general trade and manufactures are considerable, including woollen (stockings and cloth), linen and cotton goods, leather, paper, saltpetre, and dyeing. It has also iron foundries, potteries, distilleries, breweries, cigar factories, &c.

Bautzen was already in existence when Henry I., the Fowler, conquered Lusatia in 928. It became a town and fortress under Otto I., his successor, and speedily attained considerable wealth and importance, for a good share of which it was indebted to the pilgrimages which were made to the “arm of St Peter,” preserved in one of the churches. It suffered greatly during the Hussite war, and still more during the Thirty Years’ War, in the course of which it was besieged and captured by the elector of Brandenburg, John George (1620), fell into the hands of Wallenstein (1633), and, in the following year was burned by its commander before being surrendered to the elector of Saxony. At the peace of Prague in 1635 it passed with Lusatia to Saxony as a war indemnity.

The town gives its name to a great battle in which, on the 20th and 21st of May 1813, Napoleon I. defeated an allied army of Russians and Prussians (see Napoleonic Campaigns).

Battle of Bautzen, 1813.

The position chosen by the allies as that in which to receive the attack of Napoleon ran S.W. to N.E. from Bautzen on the left to the village of Gleina on the right. Bautzen itself was held as an advanced post of the left wing (Russians), the main body of which lay 2 m. to the rear (E.) near Jenkwitz. On the heights of Burk, 2½ m. N.E. of Bautzen, was Kleist’s Prussian corps, with Yorck’s in support. On Kleist’s right at Pliskowitz (3 m. N.E. of Burk) lay Blücher’s corps, and on Blücher’s right, formed at an angle to him, and refused towards Gleina (7 m. N.E. by E. of Bautzen), were the Russians of Barclay de Tolly. The country on which the battle was fought abounded in strong defensive positions, some of which were famous as battlegrounds of the Seven Years’ War. The whole line was covered by the river Spree, which served as an immediate defence for the left and centre, and an obstacle to any force moving to attack the right; moreover the interval between the river and the position on this side was covered with a network of ponds and watercourses. Napoleon’s right and centre approached (on a broad front owing to the want of cavalry) from Dresden by Bischofswerda and Kamenz; the left under Ney, which was separated by nearly 40 m. from the left of the main body at Luckau, was ordered to march via Hoyerswerda, Weissig and Klix to strike the allies’ right. At noon on the 20th, Napoleon, after a prolonged reconnaissance, advanced the main army against Bautzen and Burk, leaving the enemy’s right to be dealt with by Ney on the morrow. He equally neglected the extreme left of the allies in the mountains, judging it impossible to move his artillery and cavalry in the broken ground there. Oudinot’s (XII.) corps, the extreme right wing, was to work round by the hilly country to Jenkwitz in rear of Bautzen, Macdonald’s (XI.) corps was to assault Bautzen, and Marmont, with the VI. corps, to cross the Spree and attack the Prussians posted about Burk. These three corps were directed by Soult. Farther to the left, Bertrand’s (IV.) corps was held back to connect with Ney, who had then reached Weissig with the head of his column. The Guard and other general reserves were in rear of Macdonald and Marmont. Bautzen was taken without difficulty; Oudinot and Marmont easily passed the Spree on either side, and were formed up on the other bank of the river by about 4 P.M. A heavy and indecisive combat took place in the evening between Oudinot and the Russian left, directed by the tsar in person, in which Oudinot’s men made a little progress towards Jenkwitz. Marmont’s battle was more serious. The Prussians were not experienced troops, but were full of ardour and hatred of the French. Kleist made a most stubborn resistance on the Burk ridge, and Bertrand’s corps was called up by Napoleon to join in the battle; but part of Blücher’s corps fiercely engaged Bertrand, and Burk was not taken till 7 P.M. The French attack was much impeded by the ground and by want of room to deploy between the river and the enemy. But Napoleon’s object in thus forcing the fighting in the centre was achieved. The allies, feeling there the weight of the French attack, gradually drew upon the reserves of their left and right to sustain the shock. At nightfall Bautzen and Burk were in possession of the French, and the allied line now stretched from Jenkwitz northward to Pliskowitz, Blücher and Barclay maintaining their original positions at Pliskowitz and Gleina. The night of the 20th-21st was spent by both armies on the battlefield. Napoleon cared little that the French centre was almost fought out; it had fulfilled its mission, and on the 21st the decisive point was to be Barclay’s position. Soon after daybreak fighting was renewed along the whole line; but Napoleon lay down to sleep until the time appointed for Ney’s attack. To a heavy counter-stroke against Oudinot, which completely drove that marshal from the ground won on the 20th, the emperor paid no more heed than to order Macdonald to support the XII corps. For in this second position of the allies, which was far more formidable than the original line, the decisive result could be brought about only by Ney. That commander had his own (III) corps, the corps of Victor and of Lauriston and the Saxons under Reynier, a total force of 60,000 men. Lauriston, at the head of the column, had been sharply engaged on the 19th, but had spent the 20th in calculated inaction. Early on the 21st the flank attack opened; Ney and Lauriston moving direct upon Gleina, while Reynier and Victor operated by a wide turning movement against Barclay’s right rear. The advance was carried out with precision; the

Russians were quickly dislodged, and Ney was now closing upon the rear of Blücher's corps at the village of Preititz. Napoleon at once ordered Soult's four corps to renew their attacks in order to prevent the allies from reinforcing their right. But at the critical moment Ney halted; his orders were to be in Preititz at 11 A.M. and he reached that place an hour earlier. The respite of an hour enabled the allies to organize a fierce counter-attack; Ney was checked until the flanking columns of Victor and Reynier could come upon the scene. At 1 P.M., when Ney resumed his advance, it was too late to cut off the retreat of the allies. Napoleon now made his final stroke. The Imperial Guard and all other troops in the centre, 80,000 strong and covered by a great mass of artillery, moved forward to the attack; and shortly the allied centre, depleted of its reserves, which had been sent to oppose Ney, was broken through and driven off the field. Blücher, now almost surrounded, called back the troops opposing Ney to make head against Soult, and Ney's four corps then carried all before them. Preparations had been made by the allies, ever since Ney's appearance, to break off the engagement, and now the tsar ordered a general retreat eastwards, himself with the utmost skill and bravery directing the rearguard. Thus the allies drew off unharmed, leaving no trophies in the hands of Napoleon, whose success, tactically unquestionable, was, for a variety of reasons, and above all owing to the want of cavalry, a *coup manqué* strategically. The troops engaged were, on the French side 163,000 men, on that of the allies about 100,000; and the losses respectively about 20,000 and 13,500 killed and wounded.

BAUXITE, a substance which has been considered to be a mineral species, having the composition $Al_2O(OH)_4$ (corresponding with alumina 73.9, water 26.1%), and thus to be distinct from the crystallized aluminium hydroxides, diaspore (AlO(OH)) and gibbsite (= hydrargillite, $Al(OH)_3$). It was first described by P. Berthier in 1821 as "alumine hydratée de Beaux," and was named beauxite by P.A. Dufrénoy in 1847 and bauxite by E.H. Sainte-Claire Deville in 1861; this name being derived from the original locality, the village of Les Baux (or Beaux), near Arles, dep. Bouches-du-Rhône in the south of France, where the material has been for many years extensively mined as an ore of aluminium. It is never found in a crystallized state, but always as earthy, clay-like or concretionary masses, often with a pisolitic structure. In colour it varies from white through yellow and brown to red, depending on the amount and the degree of hydration of the iron present. The specific gravity also varies with the amount of iron; that of the variety known as wocheinite (from near Lake Wochein, near Radmannsdorf, in northern Carniola) is given as 2.55. The numerous chemical analyses, which have mostly been made for technical purposes, show that material known as bauxite varies very widely in composition, the maximum and minimum percentages of each constituent being as follows: alumina (Al_2O_3) 33.2-76.9; water (H_2O) 8.6-31.4; iron oxide (Fe_2O_3) 0.1-48.8; silica (SiO_2) 0.3-37.8; titanic acid (TiO_2) up to 4. The material is thus usually very impure, being mixed with clay, quartz-sand and hydroxides of iron in variable amounts, the presence of which may be seen by a microscopical examination. Analyses of purer material often approximate to diaspore or gibbsite in composition, and minute crystalline scales of these minerals have been detected under the microscope.

Bauxite can therefore scarcely be regarded as a simple mineral, but rather as a mixture of gibbsite and diaspore with various impurities; it is in fact strikingly like laterite, both in chemical composition and in microscopical structure. Laterite is admittedly a decomposition-product of igneous or other crystalline rocks, and the same is no doubt also true of bauxite. The deposits in Co. Antrim occur with pisolitic iron ore inter-bedded with the Tertiary basalts, and similar deposits are met with in connexion with the basaltic rocks of the Westerwald in Germany. On the other hand, the more extensive deposits in the south of France (departments Bouches-du-Rhône, Ariège, Hérault, Var) and the southern United States (Georgia, Alabama, Arkansas) are often associated with limestones; in this case the origin of the bauxite has been ascribed to the chemical action of solutions of aluminium sulphate on the limestones.

Bauxite is of value chiefly as a source of metallic aluminium (*q.v.*); the material is first purified by chemical processes, after which the aluminium hydroxide is reduced in the electric furnace. Bauxite is also largely used in the manufacture of alum and other aluminium salts used in dyeing. Its refractory qualities render it available for the

manufacture of fire-bricks and crucibles.

(L. J. S.)

BAVAI, a town of northern France in the department of Nord, 15 m. E.S.E. of Valenciennes by rail. Pop. (1906) 1622. The town carries on the manufacture of iron goods and of fertilizers. Under the name of *Bagacum* or *Bavacum* it was the capital of the Nervii and, under the Romans, an important centre of roads, the meeting-place of which was marked by a milestone, destroyed in the 17th century and replaced in the 19th century by a column. Bavai was destroyed during the barbarian invasions and never recovered its old importance. It suffered much during the wars of the 15th, 16th and 17th centuries.

BAVARIA (Ger. *Bayern*), a kingdom of southern Germany, next to Prussia the largest state of the German empire in area and population. It consists of two distinct and unequal portions. Bavaria proper, and the Palatinate of the Rhine, which lie from 25 to 40 m. W. apart and are separated by the grand-duchies of Baden and Hesse.

Physical Features.—Bavaria proper is bounded on the S. by the Alps, on the N.E., towards Bohemia, by a long range of mountains known as the Böhmerwald, on the N. by the Fichtelgebirge and the Frankenwald, which separate it from the kingdom of Saxony, the principality of Reuss, the duchies of Saxe-Coburg-Gotha and Meiningen and the Prussian province of Hesse-Cassel. The ranges seldom exceed the height of 3000 or 4000 ft.; but the ridges in the south, towards Tirol, frequently attain an elevation of 9000 or 10,000 ft. On the W. Bavaria is bounded by Württemberg, Baden and Hesse-Darmstadt. The country mainly belongs to the basins of the Danube and the Main; by far the greater portion being drained by the former river, which, entering from Swabia as a navigable stream, traverses the entire breadth of the kingdom, with a winding course of 200 m., and receives in its passage the Iller, the Lech, the Isar and the Inn from the south, and the Naab, the Altmühl and the Wörnitz from the north. The Inn is navigable before it enters Bavarian territory, and afterwards receives the Salzach, a large river flowing from Upper Austria. The Isar does not become navigable till it has passed Munich; and the Lech is a stream of a similar size. The Main traverses the northern regions, or Upper and Lower Franconia, with a very winding course and greatly facilitates the trade of the provinces. The district watered by the southern tributaries of the Danube consists for the most part of an extensive plateau, with a mean elevation of 2390 ft. In the mountainous parts of the country there are numerous lakes and in the lower portions considerable stretches of marshy ground. The smaller or western portion, the Palatinate, is bounded on the E. by the Rhine, which divides it from the grand-duchy of Baden, on the S. by Alsace, and on the W. and N. by a lofty range of hills, the Haardtgebirge, which separate it from Lorraine and the Prussian Rhine province.

The climate of Bavaria differs greatly according to the character of the region, being cold in the vicinity of Tirol but warm in the plains adjoining the Danube and the Main. On the whole, the temperature is in the winter months considerably colder than that of England, and a good deal hotter during summer and autumn.

Area and Population.—Bavaria proper, or the eastern portion, contains an area of 26,998 sq. m., and the Palatinate or western, 2288 sq. m., making the whole extent of the kingdom about 29,286 sq. m. The total population, according to the census of 1905, was 6,512,824. Almost a quarter of the inhabitants live in towns, of which Munich and Nuremberg have populations exceeding 100,000, Augsburg, Würzburg, Fürth and Ludwigshafen between 50,000 and 100,000, while twenty-six other towns number from 10,000 to 50,000 inhabitants.

Ethnographically, the Bavarians belong to various ancient tribes; Germanized Slavs in the north-east, Swabians and Franks in the centre, Franks towards the west, and, in the Palatinate, Walloons. Politically, the country is divided into eight provinces, as follows:—

Provinces.	Capital.	Pop. of Province in 1905.	Area in sq. m.
Upper Bavaria	Munich	1,410,763	6,456
Lower Bavaria	Landshut	706,345	4,152
Upper Palatinate	Regensburg	573,476	3,728
Upper Franconia	Bayreuth	637,239	2,702
Middle Franconia	Ansbach	868,072	2,925
Lower Franconia	Würzburg	680,769	3,243
Swabia	Augsburg	750,880	3,792
The Palatinate	Spires	885,280	2,288
	Total	6,512,824	29,286

Religion.—The majority of the inhabitants (about 70%) are Roman Catholics. The Protestant-Evangelical Church claims about 29%, while Jews, and a very small number of other sects, account for the remainder.

The districts of Lower Bavaria, Upper Bavaria and the Upper Palatinate are almost wholly Roman Catholic, while in the Rhine Palatinate, Upper Franconia, and especially Middle Franconia, the preponderance is on the side of the Protestants. The exercise of religious worship in Bavaria is altogether free. The Protestants have the same civil rights as the Roman Catholics, and the sovereign may be either Roman Catholic or Protestant. Of the Roman Catholic Church the heads are the two archbishops of Munich-Freising and Bamberg, and the six bishops of Eichstätt, Spires, Würzburg, Augsburg, Regensburg and Passau, of whom the first three are suffragans of Bamberg. The “Old Catholic” party, under the bishop of Bonn, has failed, despite its early successes, to take deep root in the country. Among the Protestants the highest authority is the general consistory of Munich. The numbers of the different religions in 1900 were as follows:—Roman Catholics, 4,357,133; Protestants, 1,749,206; Jews, 54,928.

Education.—Bavaria, formerly backward in education, has recently done much in this connexion. The state has two Roman Catholic universities, Munich and Würzburg, and a Lutheran, Erlangen; in Munich there are a polytechnic, an academy of sciences and an academy of art.

Agriculture.—Of the total surface of Bavaria about one-half is under cultivation, one-third forest, and the remaining sixth mostly pasture. The level country, including both Lower Bavaria (extending northwards to the Danube) and the western and middle parts of Franconia, is productive of rye, oats, wheat, barley and millet, and also of hemp, flax, madder and fruit and vines. The last are grown chiefly in the vicinity of the Lake of Constance, on the banks of the Main, in the lower part of its course, and in the Palatinate of the Rhine. Hops are extensively grown in central Franconia; tobacco (the best in Germany) round Nuremberg and in the Palatinate, which also largely produces the sugar-beet. Potatoes are cultivated in all the provinces, but especially in the Palatinate and in the Spessart district, which lies in the north-west within a curve of the Main. The southern divisions of Swabia and Upper Bavaria, where pasture-land predominates, form a cattle-breeding district and the dairy produce is extensive. Here also horses are bred in large numbers.

The extent of forest forms nearly a third of the total area of Bavaria. This is owing to various causes: the amount of hilly and mountainous country, the thinness of the population and the necessity of keeping a given extent of ground under wood for the supply of fuel. 544 More than a third of the forests are public property and furnish a considerable addition to the revenue. They are principally situated in the provinces of Upper Bavaria, Lower Bavaria and the Palatinate of the Rhine. The forests are well stocked with game, deer, chamois (in the Alps), wild boars, capercailzie, grouse, pheasants, &c. being plentiful. The greater proportion of the land throughout the kingdom is in the hands of peasant proprietors, the extent of the separate holdings differing very much in different districts. The largest peasant property may be about 170 acres, and the smallest, except in the Palatinate, about 50.

Minerals.—The chief mineral deposits in Bavaria are coal, iron ore, graphite and salt. The coal mines lie principally in the districts of Amberg, Kissingen, Steben, Munich and the Rhine Palatinate. Salt is obtained on a large scale partly from brine springs and partly from mines, the principal centres being Halle, Berchtesgaden, Traunstein and Rosenheim. The government monopoly which had long existed was abolished in 1867 and free trade was established in salt between the members of the customs-union. Of quicksilver there are several mines, chiefly in the Palatinate of the Rhine; and small quantities of copper, manganese and cobalt are obtained. There are numerous quarries of excellent marble,

alabaster, gypsum and building stone; and the porcelain-clay is among the finest in Europe. To these may be added emery, steatite, barytes, felspar and ochre, in considerable quantities; excellent lithographic stone is obtained at Solenhofen; and gold and silver are still worked, but to an insignificant extent.

Manufactures and Trade.—A great stimulus was given to manufacturing industry in Bavaria by the law of 1868, which abolished the last remains of the old restrictions of the gilds, and gave the whole country the liberty which had been enjoyed by the Rhine Palatinate alone. The chief centres of industry are Munich, Nuremberg, Augsburg, Fürth, Erlangen, Aschaffenburg, Regensburg, Würzburg, Bayreuth, Ansbach, Bamberg and Hof in Bavaria proper, and in the Palatinate Spires and the Rhine port of Ludwigshafen. The main centres of the hardware industry are Munich, Nuremberg, Augsburg and Fürth; the two first especially for locomotives and automobiles, the last for tinfoil and metal toys. Aschaffenburg manufactures fancy goods, Augsburg and Hof produce excellent cloth, and Munich has a great reputation for scientific instruments. In Franconia are numerous paper-mills, and the manufacture of wooden toys is largely carried on in the forest districts of Upper Bavaria. A considerable quantity of glass is made, particularly in the Böhmerwald. Brewing forms an important industry, the best-known breweries being those of Munich, Nuremberg, Erlangen and Kulmbach. Other articles of manufacture are leather, tobacco, porcelain, cement, spirits, lead pencils (Nuremberg), plate-glass, sugar, matches, aniline dyes, straw hats and baskets. The commerce of Bavaria is very considerable. The exports consist chiefly of corn, potatoes, hops, beer, wine, cloth, cotton goods, glass, fancy wares, toys, cattle, pigs and vegetables. The seat of the hop-trade is Nuremberg; of wool, Augsburg. The imports comprise sugar, tobacco, cocoa, coffee, oils, silk and pig iron.

Communications.—Trade is served by an excellent railway system and there are steamboat services on the navigable rivers, to the east by way of Passau on the Danube, and to the west by Ludwigshafen. The high roads of Bavaria, many of which are military roads laid out at the beginning of the 19th century, extend in all over about 10,000 m. There were 4377 m. of railways in operation in 1904, of which about 3800 were in the hands of the state, and about 440 m. belonged to the private system of the Palatinate. The principal canal is the Ludwigskanal, which connects the Rhine with the Danube, extending from Bamberg on the Regnitz to Dietfurt on the Altmühl. There is an extensive network of telegraph and telephone lines. All belong to the government post office, which forms an administrative system independent of the imperial German post office.

Constitution and Administration.—By the treaty of Versailles (23rd November 1870) and the imperial constitution of the 16th of April 1871, Bavaria was incorporated with the German empire, reserving, however, certain separate privileges (*Sonderrechte*) in respect of the administration of the army, the railways and the posts, the excise duties on beer, the rights of domicile and the insurance of real estate. The king is the supreme chief of the army, and matters requiring adjudication in the adjutant-general’s court are referred to a special Bavarian court attached to the supreme imperial military tribunal in Berlin. Bavaria is represented in the Bundesrat by six votes and sends forty-eight deputies to the imperial diet. The Bavarian constitution is mainly founded on the constitutional act of the 26th of May 1818, modified by subsequent acts—that of the 9th of March 1828 as affecting the upper house, and those of the 4th of June 1848 and of the 21st of March 1881 as affecting the lower—and is a limited monarchy, with a legislative body of two houses. The crown is hereditary in the house of Wittelsbach, according to the rights of primogeniture, females being excluded from succession so long as male agnates of equal birth exist. The title of the sovereign is king of Bavaria, that of his presumptive heir is crown-prince of Bavaria, and during the minority or incapacity of the sovereign a regency is declared, which is vested in the nearest male agnate capable of ascending the throne. Such a regency began on the 10th of June 1886, at first for King Louis II., and after the 14th of the same month for King Otto I., in the person of the prince regent Luitpold. The executive power resides in the king and the responsibility for the government of the kingdom in his ministers. The royal family is Roman Catholic, and the seat of government is Munich, the capital.

The upper house of the Bavarian parliament (*Kammer der Reichsräte*) is composed of (1) the princes of the blood royal (being of full age), (2) the ministers of the crown, (3) the archbishops of Munich, Freising and Bamberg, (4) the heads of such noble families as were formerly “immediate” so long as they retain their ancient possessions in Bavaria, (5) of a Roman Catholic bishop appointed by the king for life, and of the president for the time being of the Protestant consistory, (6) of hereditary counsellors (*Reichsräte*) appointed by the king, and (7) of other counsellors appointed by the king for life. The lower house (*Kammer der Abgeordneten*) or chamber of representatives, consists, since 1881, of 159 deputies, in

proportion of one—reckoned on the census of 1875—to every 31,500 inhabitants. A general election takes place every six years, and, under the electoral law of 1906, is direct. Qualifications for the general body of electors are full age of twenty-five years, Bavarian citizenship of one year at least, and discharge of all rates and taxes. Parliament must be assembled every three years, but as the budget is taken every two years, it is regularly called together within that period. No laws affecting the liberty or property of the subject can be passed without the sanction of parliament.

Revenue.—The following is a fairly typical statement of the budget estimates (1902-1903), in marks (= 1 shilling sterling):—

Receipts.

	Mks.
Direct taxes	38,199,000
Customs and indirect taxes	50,900,990
State railways	184,551,000
Posts and telegraphs	41,665,100
Forests and agricultural dues	37,395,000
Imperial assignments	62,571,605
	———————
	415,282,695
	=========
	= £20,764,135

Disbursements.

	Mks.
Civil list	5,402,475
State debt	51,323,200
Ministry of the Royal house and of Foreign dept.	688,398
Ministry of Justice	20,615,299
Ministry of interior	30,055,338
Public worship and education	34,667,673
Minister of finance	6,696,780
Constribution to imperial exchequer	72,647,090
	———————
	222,296,253
	=========
	= £11,114,813

The public debt amounts to about £95,000,000, of which over 75% was incurred for railways.

Army.—The Bavarian army forms a separate portion of the army of the German empire, with a separate administration, but in time of war is under the supreme command of the German emperor. The regulations applicable to other sections of the whole imperial army are, however, observed. It consists, on a peace footing, of three army corps, 1st, 2nd and 3rd Royal Bavarian (each of two divisions), the headquarters of which are in Munich, Nuremberg and Würzburg respectively. The Bavarian army comprises sixty-seven battalions of infantry, two battalions of rifles, ten regiments of cavalry (two heavy, two Ulan and six Chevauxlegers), a squadron of mounted infantry (*Jäger-zu-pferde*), twelve field- and two foot-artillery regiments, three battalions of engineers, three of army service, and a balloon section; in all 60,000 men with 10,000 horses. In time of war the total force is trebled.

(P. A. A.)

History

The earliest known inhabitants of the district afterwards called Bavaria were a people, probably of Celtic extraction, who were subdued by the Romans just before the opening of the Christian era, when colonies were founded among them and their land was included in the province of Raetia. During the 5th century it was ravaged by the troops of Odoacer and, after being almost denuded of inhabitants, was occupied by tribes who, pushing along the valley of the Danube, settled there between A.D. 488 and 520. Many conjectures have been formed concerning the race and origin of these people, who were certainly a new and composite social aggregate. Most likely they were descendants of the Marcomanni, Quadi

and Narisci, tribes of the Suevic or Swabian race, with possibly a small intermixture of Gothic or Celtic elements. They were called *Baioarii, Baiowarii, Bawarii* or *Baiuwarii*, words derived most probably from *Baja* or *Baya*, corruptions of *Bojer*, and given to them because they came from *Bojerland* or *Bohemia*. Another but less probable explanation derives the name from a combination of the old high German word *uuâra*, meaning league, and *bai*, a Gothic word for both. The Bavarians are first mentioned in a Frankish document of 520, and twenty years later Jordanes refers to them as lying east of the Swabians. Their country bore some traces of Roman influence, and its main boundaries were the Enns, the Danube, the Lech and the Alps; but its complete settlement was a work of time.

Frankish influence.

The Bavarians soon came under the dominion of the Franks, probably without a serious struggle; and were ruled from 555 to 788 by dukes of the Agilolfing family, who were possibly of Frankish descent. For a century and a half a succession of dukes resisted the inroads of the Slavs on their eastern frontier, and by the time of Duke Theodo I., who died in 717, were completely independent of the feeble Frankish kings. When Charles Martel became the virtual ruler of the Frankish realm he brought the Bavarians into strict dependence, and deposed two dukes successively for contumacy. Pippin the Short was equally successful in maintaining his authority, and several marriages took place between the family to which he belonged and the Agilolfings, who were united in a similar manner with the kings of the Lombards. The ease with which various risings were suppressed by the Franks gives colour to the supposition that they were rather the outcome of family quarrels than the revolt of an oppressed people. Between the years 739 and 748 the Bavarian law was committed to writing and supplementary clauses were afterwards added, all of which bear evident traces of Frankish influence. Thus, while the dukedom belongs to the Agilolfing family, the duke must be chosen by the people and his election confirmed by the Frankish king, to whom he owes fealty. He has a fivefold wergild, summons the nobles and clergy for purposes of deliberation, calls out the host, administers justice and regulates finance. There are five noble families, possibly representing a former division of the people, after whom come the freeborn, and then the freedmen. The country is divided into *gaus* or counties, under their counts, who are assisted by judges responsible for declaring the law.

Christianity.

Christianity had lingered in Bavaria from Roman times; but a new era set in when Rupert, bishop of Worms, came to the country at the invitation of Duke Theodo I. in 696. He founded several monasteries, and a similar work was also performed by St Emmeran, bishop of Poitiers; with the result that before long the bulk of the people professed Christianity and relations were established between Bavaria and Rome. The 8th century witnessed indeed a heathen reaction; but it was checked by the arrival in Bavaria about 734 of St. Boniface, who organized the Bavarian church and founded or restored bishoprics at Salzburg, Freising, Regensburg and Passau.

Frankish conquest.

Tassilo III., who became duke of the Bavarians in 749, recognized the supremacy of the Frankish king Pippin the Short in 757, but soon afterwards refused to furnish a contribution to the war in Aquitaine. Moreover, during the early years of the reign of Charlemagne, Tassilo gave decisions in ecclesiastical and civil causes in his own name, refused to appear in the assemblies of the Franks, and in general acted as an independent ruler. His position as possessor of the Alpine passes, as an ally of the Avars, and as son-in-law of the Lombard king Desiderius, was so serious a menace to the Frankish kingdom that Charlemagne determined to crush him. The details of this contest are obscure. Tassilo appears to have done homage in 781, and again in 787, probably owing to the presence of Frankish armies. But further trouble soon arose, and in 788 the duke was summoned to Ingelheim, where on a charge of treachery he was sentenced to death. He was, however, pardoned by the king; and he then entered a monastery and formally renounced his duchy at Frankfort in 794. The country was ruled by Gerold, a brother-in-law of Charlemagne, till his death in a battle with the Avars in 799, when its administration was entrusted to Frankish counts and assimilated with that of the rest of the Carolingian empire, while its condition was improved by the measures taken by Charlemagne for the intellectual progress and material welfare of his realm. The Bavarians offered no resistance to the change which thus abolished their dukedom; and their incorporation with the Frankish dominions, due mainly to the unifying influence of the church, was already so complete that Charlemagne did not find it necessary to issue more than two capitularies dealing especially with Bavarian affairs.

The history of Bavaria for the ensuing century is bound up with that of the Carolingian empire. Given at the partition of 817 to the king of the East Franks, Louis the German, it formed part of the larger territories which were confirmed to him in 843 by the treaty of

Union with Carolingian Empire.

Verdun, Louis made Regensburg the centre of his government, and was active in improving the condition of Bavaria, and providing for its security by numerous campaigns against the Slavs. When he divided his possessions in 865 it passed to his eldest son, Carloman, who had already undertaken its government, and after his death in 880 it formed part of the extensive territories of the emperor Charles the Fat. Its defence was left by this incompetent emperor to Arnulf, an illegitimate son of Carloman, and it was mainly owing to the support of the Bavarians that Arnulf was able to take the field against Charles in 887, and to secure his own election as German king in the following year. Bavaria, which was the centre of the East Frankish kingdom, passed in 899 to Louis the Child, during whose reign it was constantly ravaged by the Hungarians. The resistance to these inroads became gradually feebler, and it is said that on the 5th of July 907 almost the whole of the Bavarian race perished in battle with these formidable enemies. For the defence of Bavaria the mark of Carinthia had been erected on the south-eastern frontier, and during the reign of Louis the Child this was ruled by Liutpold, count of Scheyern, who possessed large domains in Bavaria. He was among those who fell in the great fight of 907; but his son Arnulf, surnamed the Bad, rallied the remnants of the race, drove back the Hungarians, and was chosen duke of the Bavarians in 911, when Bavaria and Carinthia were united under his rule. Refusing to acknowledge the supremacy of the German king Conrad I., he was unsuccessfully attacked by the latter, and in 920 was recognized as duke by Conrad's successor, Henry I., the Fowler, who admitted his right to appoint the bishops, to coin money and to issue laws. A similar conflict took place between

Part of the German Kingdom.

Arnulf's son and successor Eberhard and Otto the Great; but Eberhard was less successful than his father, for in 938 he was driven from Bavaria, which was given by Otto with reduced privileges to the late duke's uncle, Bertold; and a count palatine in the person of Eberhard's brother Arnulf was appointed to watch the royal interests. When Bertold died in 947 Otto conferred the duchy upon his own brother Henry, who had married Judith, a daughter of Duke Arnulf. Henry was disliked by the Bavarians and his short reign was spent mainly in disputes with his people. The ravages of the Hungarians ceased after their defeat on the Lechfeld in 955, and the area of the duchy was temporarily increased by the addition of certain adjacent districts in Italy. In 955 Henry was succeeded by his young son Henry, surnamed the Quarrelsome, who in 974 was implicated in a conspiracy against King Otto II. The reason for this rising was that the king had granted the duchy of Swabia to Henry's enemy, Otto, a grandson of the emperor Otto the Great, and had given the new Bavarian East Mark, afterwards known as Austria, to Leopold I., count of Babenberg. The revolt was, however, soon suppressed; but Henry, who on his escape from prison renewed his plots, was formally deposed in 976 when Bavaria was given to Otto, duke of Swabia. At the same time Carinthia was made into a separate duchy, the office of count palatine was restored, and the church was made dependent on the king instead of on the duke. Restored in 985, Henry proved himself a capable ruler by establishing internal order, issuing important laws and taking measures to reform the monasteries. His son and successor, who was chosen German king as Henry II. in 1002, gave Bavaria to his brother-in-law Henry of Luxemburg; after whose death in 1026 it passed successively to Henry, afterwards the emperor Henry III., and to another member of the family of Luxemburg, as Duke Henry VII. In 1061 the empress Agnes, mother of and regent for the German king Henry IV., entrusted the duchy to Otto of

The duchy passes to the Welfs.

Nordheim, who was deposed by the king in 1070, when the duchy was granted to Count Welf, a member of an influential Bavarian family. In consequence of his support of Pope Greegory VII. in his quarrel with Henry, Welf lost but subsequently regained Bavaria; and was followed successively by his sons, Welf II. in 1101, and Henry IX. in 1120, both of whom exercised considerable influence among the German princes. Henry was succeeded in 1126 by his son Henry X., called the Proud, who obtained the duchy of Saxony in 1137. Alarmed at this prince's power, King Conrad III. refused to allow two duchies to remain in the same hands; and, having declared Henry deposed, he bestowed Bavaria upon Leopold IV., margrave of Austria. When Leopold died in 1141, the king retained the duchy himself; but it continued to be the scene of considerable disorder, and in 1143 he entrusted it to Henry II., surnamed Jasomirgott, margrave of Austria. The struggle for its possession continued until 1156, when King Frederick I. in his desire to restore peace to Germany persuaded Henry to give up Bavaria to Henry the Lion, a son of Duke Henry the Proud.

A new era of government set in when, in consequence of Henry being placed under the imperial ban in 1180, the duchy was given by Frederick I. to Otto, a member of the old

Then to the Wittelsbachs.

Bavarian family of Wittelsbach (*q.v.*), and a descendant of the counts of Scheyern. During the years following the destruction of the Carolingian empire the borders of Bavaria were continually changing, and for a

Area of Bavaria.

lengthened period after 955 this process was one of expansion. To the west the Lech still divided Bavaria from Swabia, but on three other sides the opportunities for extension had been taken advantage of, and the duchy embraced an area of considerable dimensions north of the Danube. During the later years of the rule of the Welfs, however, a contrary tendency had operated, and the extent of Bavaria had been reduced. The immense energies of Duke Henry the Lion had been devoted to his northern rather than his southern duchy, and when the dispute over the Bavarian succession was settled in 1156 the district between the Enns and the Inn had been transferred to Austria. The increasing importance of the mark of Styria, erected into a duchy in 1180, and the county of Tirol, had diminished both the actual and the relative strength of Bavaria, which was now deprived on almost all sides of opportunities for expansion. The neighbouring duchy of Carinthia, the great temporal possessions of the archbishop of Salzburg, as well as a general tendency to independence on the part of both clerical and lay nobles, were additional forces of similar influence.

When Otto of Wittelsbach was invested with Bavaria at Altenburg in September 1180 the duchy was bounded by the Böhmerwald, the Inn, the Alps and the Lech; and the power of the duke was practically confined to his extensive private domains around Wittelsbach, Kelheim and Straubing. Otto only enjoyed his new dignity for three years, and was succeeded in 1183 by his son Louis I., who took a leading part in German affairs during the earlier years of the reign of the emperor Frederick II., and was assassinated at Kelheim in September 1231. His son Otto II., called the Illustrious, was the next duke, and his loyalty to the Hohenstaufen caused him to be placed under the papal ban, and Bavaria to be laid under an interdict. Like his father, Otto increased the area of his lands by purchases; and he had considerably strengthened his hold upon the duchy before he died in November 1253. The efforts of the dukes to increase their power and to give unity to the duchy had met with a fair measure of success; but they were soon vitiated by partitions among different members of the family which for 250 years made the history of Bavaria little more than a jejune chronicle of territorial divisions bringing war and weakness in their train. The first of these divisions was made in 1255 between Louis II. and Henry I., the sons of Duke Otto II., who for two years after their father’s death had ruled Bavaria jointly; and by it Louis obtained the western part of the duchy, afterwards called Upper Bavaria, and Henry secured eastern or Lower Bavaria. In the course of a long reign Louis, who was called the Stern, became the most powerful prince in southern Germany. He was the uncle and guardian of Conradin of Hohenstaufen, and when this prince was put to death in Italy in 1268, Louis and his brother Henry inherited the domains of the Hohenstaufen in Swabia and elsewhere. He supported Rudolph, count of Habsburg, in his efforts to secure the German throne in 1273, married the new king’s daughter Mechtild, and aided him in campaigns in Bohemia and elsewhere. For some years after Louis’ death in 1294 his sons Rudolph I. and Louis, afterwards the emperor Louis IV., ruled their duchy in common; but as their relations were never harmonious a division of Upper Bavaria was made in 1310, by which Rudolph received the land east of the Isar together with the town of Munich, and Louis the district between the Isar and the Lech. It was not long, however, before this arrangement led to war between the brothers, the outcome of which was that in 1317, three years after he had been chosen German king, Louis compelled Rudolph to abdicate, and for twelve years ruled alone over the whole of Upper Bavaria. But in 1329 a series of events induced him to conclude the treaty of Pavia with Rudolph’s sons, Rudolph and Rupert, to whom he transferred the Palatinate of the Rhine, which had been in the possession of the Wittelsbach family since 1214, and also a portion of Upper Bavaria north of the Danube, which was afterwards called the Upper Palatinate. At the same time it was decided that the electoral vote should be exercised by the two lines alternately, and that in the event of either branch of the family becoming extinct the surviving branch should inherit its possessions.

Rule of the Wittelsbachs.

Division of the duchy.

Upper Bavaria.

Henry I. of Lower Bavaria spent most of his time in quarrels with his brother, with Ottakar II. of Bohemia and with various ecclesiastics. When he died in February 1200 Lower Bavaria was ruled by his three sons, Otto III., Louis III. and Stephen I. Louis died childless in 1296; Stephen left two sons at his death in 1310, namely, Henry II. and Otto IV., and Otto, who was king of Hungary from 1305 to 1308, died in 1312, leaving a son, Henry III. Lower Bavaria was governed by these three princes until 1333, when Henry III. died, followed in 1334 by his cousin Otto; and as both died without sons the whole of Lower Bavaria then passed to Henry II. Dying in 1339, Henry left an only son, John I., who died childless in the following year, when the emperor Louis IV., by securing Lower Bavaria for himself, united

Lower Bavaria.

Reunion of

the duchy. the whole of the duchy under his sway. The consolidation of Bavaria under Louis lasted for seven years, during which the emperor was able to improve the condition of the country. When he died in 1347 he left six sons to share his possessions, who agreed upon a division of Bavaria in 1349. Its history, however, was complicated by its connexion with Brandenburg, Holland and Tirol, all of which had also been left by the emperor to his sons. All the six brothers exercised some authority in Bavaria; but three alone left issue, and of these the eldest, Louis, margrave of Brandenburg, died in 1361; and two years later was followed to the grave by his only son Meinhard, who was childless. The two remaining brothers, Stephen II. and Albert I., ruled over Bavaria-Landshut and Bavaria-Straubing respectively, and when Stephen died in 1375 his portion of Bavaria was governed jointly by his three sons. In 1392, when all the lines except those of Stephen and Albert had died out, an important partition took place, by which the greater part of the duchy was divided among Stephen's three sons, Stephen III., Frederick and John II., who founded respectively the lines of Ingolstadt, Landshut and Munich. Albert's duchy of Bavaria-Straubing passed on his death in 1404 to his son William II., and in 1417 to his younger son John, who resigned the bishopric of Liége to take up his new position. When John died in 1425 this family became extinct, and after a contest between various claimants Bavaria-Straubing was divided between the three remaining branches of the family.

The main result of the threefold division of 1392 was a succession of civil wars which led to the temporary eclipse of Bavaria as a force in German politics. Neighbouring states encroached upon its borders, and the nobles ignored the authority of the dukes, who, deprived of the electoral vote, were mainly occupied for fifty years with intestine strife. This condition of affairs, however, was not wholly harmful. The government of the country and the control of the finances passed mainly into the hands of an assembly called the *Landtag* or *Landschaft*, which had been organized in 1392. The towns, assuming a certain independence, became strong and wealthy as trade increased, and the citizens of Munich and Regensburg were often formidable antagonists to the dukes. Thus a period of disorder saw the growth of representative institutions and the establishment of a strong civic spirit. Stephen III., duke of Bavaria-Ingolstadt, was distinguished rather as a soldier than as a statesman; and his rule was marked by struggles with various towns, and with his brother, John of Bavaria-Munich. Dying in 1413 he was followed by his son, Louis, called the Bearded, a restless and quarrelsome prince, who before his accession had played an important part in the affairs of France, where his sister Isabella was the queen of King Charles VI. About 1417 he became involved in a violent quarrel with his cousin, Henry of Bavaria-Landshut, fell under both the papal and the imperial ban, and in 1439 was attacked by his son Louis the Lame. This prince, who had married a daughter of Frederick I. of Hohenzollern, margrave of Brandenburg, was incensed at the favour shown by his father to an illegitimate son. Aided by Albert Achilles, afterwards margrave of Brandenburg, he took the elder Louis prisoner and compelled him to abdicate in 1443. When Louis the Lame died in 1445 his father came into the power of his implacable enemy, Henry of Bavaria-Landshut, and died in prison in 1447. The duchy of Bavaria-Ingolstadt passed to Henry, who had succeeded his father Frederick as duke of Bavaria-Landshut in 1393, and whose long reign was almost entirely occupied with family feuds. He died in July 1450, and was followed by his son, Louis IX. (called the Rich), and about this time Bavaria began to recover some of its former importance. Louis IX. expelled the Jews from his duchy, did something for the security of traders, and improved both the administration of justice and the condition of the finances. In 1472 he founded the university of Ingolstadt, attempted to reform the monasteries, and was successful in a struggle with Albert Achilles of Brandenburg. On his death in January 1479 he was succeeded by his son George, also called the Rich; and when George, a faithful adherent of the German king Maximilian I., died without sons in December 1503, a war broke out for the possession of his duchy.

Internal condition 1392.

Intestine troubles.

Bavaria-Munich passed on the death of John II. in 1397 to his sons Ernest and William III., but they only obtained possession of their lands after a struggle with Stephen of Bavaria-Ingolstadt. Both brothers were then engaged in warfare with the other branches of the family and with the citizens of Munich. William, a loyal servant of the emperor Sigismund, died in 1435, leaving an only son, Adolf, who died five years later; and Ernest, distinguished for his bodily strength, died in 1438. In 1440 the whole of Bavaria-Munich came to Ernest's son Albert, who had been estranged from his father owing to his union with the unfortunate Agnes Bernauer (*q.v.*). Albert, whose attempts to reform the monasteries earned for him the surname of Pious, was almost elected king of Bohemia in 1440. He died in 1460, leaving five sons, the two elder of whom, John IV. and Sigismund, reigned in common until the death of

John in 1463. The third brother, Albert, who had been educated for the church, joined his brother in 1465, and when Sigismund abdicated two years later became sole ruler in spite of the claims of his two younger brothers. Albert, who was called the Wise, added the district of Abensberg to his possessions, and in 1504 became involved in the war which broke out for the possession of Bavaria-Landshut on the death of George the Rich. Albert's rival was George's son-in-law, Rupert, formerly bishop of Freising, and son of Philip, count palatine of the Rhine; and the emperor Maximilian I., interested as archduke of Austria and count of Tirol, interfered in the dispute. Rupert died in 1504, and the following year an arrangement was made at the diet of Cologne by which the emperor and Philip's grandson, Otto Henry, obtained certain outlying districts, while Albert by securing the bulk of George's possessions united Bavaria under his rule. In 1506 Albert decreed that the duchy should pass undivided according to the rules of primogeniture, and endeavoured in other ways also to consolidate Bavaria. He was partially successful in improving the condition of the country; and in 1500 Bavaria formed one of the six circles into which Germany was divided for the maintenance of peace. He died in March 1508, and was succeeded by his son, William IV., whose mother, Kunigunde, was a daughter of the emperor Frederick III. In spite of the decree of 1506 William was compelled in 1516, after a violent quarrel, to grant a share in the government to his brother Louis, an arrangement which lasted until the death of Louis in 1545.

War over the succession to Bavaria-Landshut.

Reigns of Albert the Wise and William IV.

William followed the traditional Wittelsbach policy, opposition to the Habsburgs, until in 1534 he made a treaty at Linz with Ferdinand, king of Hungary and Bohemia. This was strengthened in 1546, when the emperor Charles V. obtained the help of the duke during the war of the league of Schmalkalden by promising him in certain eventualities the succession to the Bohemian throne, and the electoral dignity enjoyed by the count palatine of the Rhine. William also did much at a critical period to secure Bavaria for Catholicism. The reformed doctrines had made considerable progress in the duchy when the duke from the pope extensive rights over the bishoprics and monasteries, and took measures to repress the reformers, many of whom were banished; while the Jesuits, whom he invited into the duchy in 1541, made the university of Ingolstadt their headquarters for Germany. William, whose death occurred in March 1550, was succeeded by his son Albert IV., who had married a daughter of Ferdinand of Habsburg, afterwards the emperor Ferdinand I. Early in his reign Albert made some concessions to the reformers, who were still strong in Bavaria; but about 1563 he changed his attitude, favoured the decrees of the council of Trent, and pressed forward the work of the Counter-Reformation. As education passed by degrees into the hands of the Jesuits the progress of Protestantism was effectually arrested in Bavaria. Albert IV. was a great patron of art. His court at Munich was the resort of artists of all kinds, and the city was enriched with splendid buildings; while artistic works were collected from Italy and elsewhere. The expenses of a magnificent court led the duke to quarrel with the *Landschaft*, to oppress his subjects, and to leave a great burden of debt when he died in October 1579. The succeeding duke was Albert's son, William V. (called the Pious), who was educated by the Jesuits and was keenly attached to their tenets. He secured the archbishopric of Cologne for his brother Ernest in 1583, and this dignity remained in the possession of the family for nearly 200 years. In 1597 he abdicated in favour of his son Maximilian I., and retired into a monastery, where he died in 1626. Maximilian found the duchy encumbered with debt and filled with disorder, but ten years of his vigorous rule effected a remarkable change. The finances and the judicial system were reorganized, a class of civil servants and a national militia founded, and several small districts were brought under the duke's authority. The result was a unity and order in the duchy which enabled Maximilian to play an important part in the Thirty Years' War; during the earlier years of which he was so successful as to acquire the Upper Palatinate and the electoral dignity which had been enjoyed since 1356 by the elder branch of the Wittelsbach family. In spite of subsequent reverses these gains were retained by Maximilian at the peace of Westphalia in 1648. During the later years of this war Bavaria, especially the northern part, suffered severely. In 1632 it was invaded by the Swedes, and, when Maximilian violated the treaty of Ulm in 1647, was ravaged by the French and the Swedes. After repairing this damage to some extent, the elector died at Ingolstadt in September 1651, leaving his duchy much stronger than he had found it. The recovery of the Upper Palatinate made Bavaria compact; the acquisition of the electoral vote made it influential; and the duchy was able to play a part in European politics which intestine strife had rendered impossible for the past four hundred years.

Roman Catholicism in Bavaria.

Reign of Maximillian I. and the Thirty Years' War.

(A. W. H.*)

Whatever lustre the international position won by Maximilian I. might add to the ducal house, on Bavaria itself its effect during the next two centuries was more dubious.

Beginning of modern period.

Maximillian's son, Ferdinand Maria (1651-1679), who was a minor when he succeeded, did much indeed to repair the wounds caused by the Thirty Years' War, encouraging agriculture and industries, and building or restoring numerous churches and monasteries. In 1669, moreover, he again called a meeting of the diet, which had been suspended since 1612. His good work, however, was largely undone by his son Maximilian II. Emmanuel (1679-1726), whose far-reaching ambition set him warring against the Turks and, on the side of France, in the great struggle of the Spanish succession. He shared in the defeat at Höchstädt on the 13th of August 1704; his dominions were temporarily partitioned between Austria and the elector palatine, and only restored to him, harried and exhausted, at the peace of Baden in 1714. Untaught by Maximilian Emmanuel's experience, his son, Charles Albert (1726-1745), devoted all his energies to increasing the European prestige and power of his house. The death of the emperor Charles VI. was his opportunity; he disputed the validity of the Pragmatic Sanction which secured the Habsburg succession to Maria Theresa, allied himself with France, conquered Upper Austria, was crowned king of Bohemia at Prague and, in 1742, emperor at Frankfort. The price he had to pay, however, was the occupation of Bavaria itself by Austrian troops; and, though the invasion of Bohemia in 1744 by Frederick II. of Prussia enabled him to return to Munich, at his death on the 20th of January 1745 it was left to his successor to make what terms he could for the recovery of his dominions. Maximilian III. Joseph (1745-1777), by the peace of Füssen signed on the 22nd of April 1745, obtained the restitution of his dominions in return for a formal acknowledgment of the Pragmatic Sanction. He was a man of enlightenment, did much to encourage agriculture, industries and the exploitation of the mineral wealth of the country, founded the Academy of Sciences at Munich, and abolished the Jesuit censorship of the press. At his death, without issue, on the 30th of December 1777, the Bavarian line of the Wittelsbachs became extinct, and the succession passed to Charles Theodore, the elector palatine. After a separation of four and a half centuries, the Palatinate, to which the duchies of Jülich and Berg had been added, was thus reunited with Bavaria. So great an accession of strength to a neighbouring state, whose ambition she had so recently had just reason to fear, was intolerable to Austria, which laid claim to a number of lordships—forming one-third of the whole Bavarian inheritance—as lapsed fiefs of the Bohemian, Austrian, and imperial crowns. These were at once occupied by Austrian troops, with the secret consent of Charles Theodore himself, who was without legitimate heirs, and wished to obtain from the emperor the elevation of his natural children to the status of princes of the Empire. The protests of the next heir, Charles, duke of Zweibrücken (Deux-Ponts), supported by the king of Prussia, led to the war of Bavarian succession. By the peace of Teschen (May 13th, 1779) the Inn quarter was ceded to Austria, and the succession secured to Charles of Zweibrücken. For Bavaria itself Charles Theodore did less than nothing. He felt himself a foreigner among foreigners, and his favourite scheme, the subject of endless intrigues with the Austrian cabinet and the immediate cause of Frederick II.'s League of Princes (*Fürstenbund*) of 1785, was to exchange Bavaria for the Austrian Netherlands and the title of king of Burgundy. For the rest, the enlightened internal policy of his predecessor was abandoned. The funds of the suppressed order of Jesus, which Maximilian Joseph had destined for the reform of the educational system of the country, were used to endow a province of the knights of St John of Jerusalem, for the purpose of combating the enemies of the faith. The government was inspired by the narrowest clericalism, which culminated in the attempt to withdraw the Bavarian bishops from the jurisdiction of the great German metropolitans and place them directly under that of the pope. On the eve of the Revolution the intellectual and social condition of Bavaria remained that of the middle ages.

Re-union of the Palatinate.

In 1792 the revolutionary armies overran the Palatinate; in 1795 the French, under Moreau, invaded Bavaria itself, advanced to Munich—where they were received with joy by the long-suppressed Liberals—and laid siege to Ingolstadt. Charles Theodore, who had done nothing to prevent or to resist the invasion, fled to Saxony, leaving a regency, the members of which signed a convention with Moreau, by which he granted an armistice in return for a heavy contribution (September 7th, 1796). Immediately afterwards he was forced to retire.

The revolutionary wars.

Between the French and the Austrians, Bavaria was now in an evil case. Before the death of Charles Theodore (February 16th, 1799) the Austrians had again occupied the country,

preparatory to renewing the war with France. Maximilian IV. Joseph (of Zweibrücken), the new elector, succeeded to a difficult inheritance. Though his own sympathies, and those of his all-powerful minister, Max Josef von Montgelas (*q.v.*), were, if anything, French rather than Austrian, the state of the Bavarian finances, and the fact that the Bavarian troops were scattered and disorganized, placed him helpless in the hands of Austria; on the 2nd of December 1800 the Bavarian arms were involved in the Austrian defeat at Hohenlinden, and Moreau once more occupied Munich. By the treaty of Lunéville (February 9th, 1801) Bavaria lost the Palatinate and the duchies of Zweibrücken and Jülich.

In view of the scarcely disguised ambitions and intrigues of the Austrian court, Montgelas now believed that the interests of Bavaria lay in a frank alliance with the French republic; he succeeded in overcoming the reluctance of Maximilian Joseph; and, on the 24th of August, a separate treaty of peace and alliance with France was signed at Paris. By the third article of this the First Consul undertook to see that the compensation promised under the 7th article of the treaty of Lunéville for the territory ceded on the left bank of the Rhine, should be carried out at the expense of the Empire in the manner most agreeable to Bavaria (de Martens, *Recueil*, vol. vii. p. 365). In 1803, accordingly, in the territorial rearrangements consequent on Napoleon's suppression of the ecclesiastical states, and of many free cities of the Empire, Bavaria received the bishoprics of Würzburg, Bamberg, Augsburg and Freisingen, part of that of Passau, the territories of twelve abbeys, and seventeen cities and villages, the whole forming a compact territory which more than compensated for the loss of her outlying provinces on the Rhine.[1] Montgelas' ambition was now to raise Bavaria to the rank of a first-rate power, and he pursued this object during the Napoleonic epoch with consummate skill, allowing fully for the preponderance of France—so long as it lasted—but never permitting Bavaria to sink, like so many of the states of the confederation of the Rhine, into a mere French dependency. In the war of 1805, in accordance with a treaty of alliance signed at Würzburg on the 23rd of September, Bavarian troops, for the first time since Charles VII., fought side by side with the French, and by the treaty of Pressburg, signed on the 26th of December, the principality of Eichstädt, the margraviate of Burgau, the lordship of Vorarlberg, the countships of Hohenems and Königsegg-Rothenfels, the lordships of Argen and Tetnang, and the city of Lindau with its territory were to be added to Bavaria. On the other hand Würzburg, obtained in 1803, was to be ceded by Bavaria to the elector of Salzburg in exchange for Tirol. By the 1st article of the treaty the emperor acknowledged the assumption by the elector of the title of king, as Maximilian I.[2] The price which Maximilian had reluctantly to pay for this accession of dignity was the marriage of his daughter Augusta with Eugène Beauharnais.

French influence.

For the internal constitution of Bavaria also the French alliance had noteworthy consequences. Maximilian himself was an "enlightened" prince of the 18th-century type, whose tolerant principles had already grievously offended his clerical subjects; Montgelas was a firm believer in drastic reform "from above," and, in 1803, had discussed with the rump of the old estates the question of reforms. But the revolutionary changes introduced by the constitution proclaimed on the 1st of May 1808 were due to the direct influence of Napoleon. A clean sweep was made of the medieval polity surviving in the somnolent local diets and corporations. In place of the old system of privileges and exemptions were set equality before the law, universal liability to taxation, abolition of serfdom, security of person and property, liberty of conscience and of the press. A representative assembly was created on paper, based on a narrow franchise and with very limited powers, but was never summoned.

In 1809 Bavaria was again engaged in war with Austria on the side of France, and by the treaty signed at Paris on the 28th of February 1810 ceded southern Tirol to Italy and some small districts to Württemberg, receiving as compensation parts of Salzburg, the quarters of the Inn and Hausrück and the principalities of Bayreuth and Regensburg. So far the policy of Montgelas had been brilliantly successful; but the star of Napoleon had now reached its zenith, and already the astute opportunist had noted the signs of the coming change. The events of 1812 followed; in 1813 Bavaria was summoned to join the alliance against Napoleon, the demand being passionately backed by the crown prince Louis and by Marshal Wrede; on the 8th of October was signed the treaty of Ried, by which Bavaria threw in her lot with the Allies. Montgelas announced to the French ambassador that he had been compelled temporarily to bow before the storm, adding "Bavaria has need of France." (For Bavaria's share in the war see Napoleonic Campaigns.)

Treaty of Ried.

Immediately after the first peace of Paris (1814), Bavaria ceded to Austria Tirol and

Vorarlberg; by the congress of Vienna it was decided that she was to add to these the greater part of Salzburg and the quarters of the Inn and Hausrück, receiving as compensation, besides Würzburg and Aschaffenburg, the Palatinate on the left bank of the Rhine and certain districts of Hesse and of the former abbacy of Fulda. But with the collapse of France the old fear and jealousy of Austria had revived in full force, and Bavaria only agreed to these cessions (treaty of Munich, April 16th, 1816) on Austria promising that, in the event of the powers ignoring her claim to the Baden succession in favour of that of the line of the counts of Hochberg, she should receive also the Palatinate on the right bank of the Rhine. The question was thus left open, the tension between the two powers remained extreme, and war was only averted by the authority of the Grand Alliance. At the congress of Aix (1818) the question of the Baden succession was settled in favour of the Hochberg line, without the compensation stipulated for in the treaty of Munich; and by the treaty of Frankfort, signed on behalf of the four great powers on the 20th of July 1819, the territorial questions at issue between Bavaria and Austria were settled, in spite of the protests of the former, in the general sense of the arrangement made at Vienna. A small strip of territory was added, to connect Bavaria with the Palatinate, and Bavarian troops were to garrison the federal fortress of Mainz.

Relations with Austria.

Meanwhile, on the 1st of February 1817, Montgelas had been dismissed; and Bavaria had entered on a new era of constitutional reform. This implied no breach with the European policy of the fallen minister. In the new German confederation Bavaria had assumed the rôle of defender of the smaller states against the ambitions of Austria and Prussia, and Montgelas had dreamed of a Bavarian hegemony in South Germany similar to that of Prussia in the north. It was to obtain popular support for this policy and for the Bavarian claims on Baden that the crown prince pressed for a liberal constitution, the reluctance of Montgelas to concede it being the cause of his dismissal. On the 26th of May 1818 the constitution was proclaimed. The parliament was to consist of two houses; the first comprising the great hereditary landowners, government officials and nominees of the crown; the second, elected on a very narrow franchise, representatives of the small land-owners, the towns and the peasants. By additional articles the equality of religions was guaranteed and the rights of Protestants safeguarded, concessions which were denounced at Rome as a breach of the Concordat, which had been signed immediately before. The result of the constitutional experiment hardly justified the royal expectations; the parliament was hardly opened (February 5th, 1819) before the doctrinaire radicalism of some of its members, culminating in the demand that the army should swear allegiance to the constitution, so alarmed the king, that he appealed to Austria and Germany, undertaking to carry out any repressive measures they might recommend. Prussia, however, refused to approve of any *coup d'état*; the parliament, chastened by the consciousness that its life depended on the goodwill of the king, moderated its tone; and Maximilian ruled till his death as a model constitutional monarch. On the 13th of October 1825, he was succeeded by his son, Louis I., an enlightened patron of the arts and sciences, who transferred the university of Landshut to Munich, which, by his magnificent taste in building, he transformed into one of the most beautiful cities of the continent. The earlier years of his reign were marked by a liberal spirit and the reform, especially, of the financial administration; but the revolutions of 1831 frightened him into reaction, which was accentuated by the opposition of the parliament to his expenditure on building and works of art. In 1837 the Ultramontanes came into power with Karl von Abel (1788-1859) as prime minister. The Jesuits now gained the upper hand; one by one the liberal provisions of the constitution were modified or annulled; the Protestants were harried and oppressed; and a rigorous censorship forbade any free discussion of internal politics. The collapse of this régime was due, not to popular agitation, but to the resentment of Louis at the clerical opposition to the influence of his mistress, Lola Montez. On the 17th of February 1847, Abel was dismissed, for publishing his memorandum against the proposal to naturalize Lola, who was an Irishwoman; and the Protestant Georg Ludwig von Maurer (*q.v.*) took his place. The new ministry granted the certificate of naturalization; but riots, in which ultramontane professors of the university took part, were the result. The professors were deprived, the parliament dissolved, and, on the 27th of November, the ministry dismissed. Lola Montez, created Countess Landsfeld, was supreme in the state; and the new minister, Prince Ludwig von Oettingen-Wallerstein (1791-1870), in spite of his efforts to enlist Liberal sympathy by appeals to pan-German patriotism, was powerless to form a stable government. His cabinet was known as the "Lolaministerium"; in February 1848, stimulated by the news from Paris, riots broke out against the countess; on the 11th of March the king dismissed Oettingen, and on the 20th, realizing the force of public opinion against him, abdicated in favour of his son,

Constitution of 1818.

Lola Montez.

Maximilian II.

Before his abdication Louis had issued, on the 6th of March, a proclamation promising the zealous co-operation of the Bavarian government in the work of German freedom and unity.

Anti-Prussian policy.

To the spirit of this Maximilian was faithful, accepting the authority of the central government at Frankfort, and (19th of December) sanctioning the official promulgation of the laws passed by the German parliament. But Prussia was henceforth the enemy, not Austria. In refusing to agree to the offer of the imperial crown to Frederick William IV., Maximilian had the support of his parliament. In withholding his assent to the new German constitution, by which Austria was excluded from the Confederation, he ran indeed counter to the sentiment of his people; but by this time the back of the revolution was broken, and in the events which led to the humiliation of Prussia at Olmütz in 1851, and the restoration of the old diet of the Confederation, Bavaria was safe in casting in her lot with Austria (see GERMANY: *History*). The guiding spirit in this anti-Prussian policy, which characterized Bavarian statesmanship up to the war of 1866, was Ludwig Karl Heinrich von der Pfordten (1811-1880), who became minister for foreign affairs on the 19th of April 1849. His idea for the ultimate solution of the question of the balance of power in Germany was the so-called *Trias*, *i.e.* a league of the Rhenish states as a counterpoise to the preponderance of Austria and Prussia. In internal affairs his ministry was characterized by a reactionary policy less severe than elsewhere in Germany, which led none the less from 1854 onward to a struggle with the parliament, which ended in the dismissal of Pfordten's ministry on the 27th of March 1859. He was succeeded by Karl Freiherr von Schrenk auf Notzing (1806-1884), an official of Liberal tendencies who had been Bavarian representative in the diet of the Confederation. Important reforms were now introduced, including the separation of the judicial and executive powers and the drawing up of a new criminal code. In foreign affairs Schrenk, like his predecessor, aimed at safeguarding the independence of Bavaria, and supported the idea of superseding the actual constitution of the Confederation by a supreme directory, in which Bavaria, as leader of the purely German states, would hold the balance between Prussia and Austria. Bavaria accordingly opposed the Prussian proposals for the reorganization of the Confederation, and one of the last acts of King Maximilian was to take a conspicuous part in the assembly of princes summoned to Frankfort in 1863 by the emperor Francis Joseph (see GERMANY).

Maximilian was succeeded on the 10th of March 1864 by his son Louis II., a youth of eighteen. The government was at first carried on by Schrenk and Pfordten in concert. Schrenk soon retired, when the Bavarian government found it necessary, in order to maintain its position in the Prussian *Zollverein*, to become a party to the Prussian commercial treaty with France, signed in 1862. In the complicated Schleswig-Holstein question (*q.v.*) Bavaria, under Pfordten's guidance, consistently opposed Prussia, and headed the lesser states in their support of Frederick of Augustenburg against the policy of the two great German powers. Finally, in the war of 1866, in spite of Bismarck's efforts to secure her neutrality, Bavaria sided actively with Austria.

The rapid victory of the Prussians and the wise moderation of Bismarck paved the way for a complete revolution in Bavaria's relation to Prussia and the German question. The South

Union with German Empire.

German Confederation, contemplated by the 6th article of the treaty of Prague, never came into being; and, though Prussia, in order not prematurely to excite the alarm of France, opposed the suggestion that the southern states should join the North German Confederation, the bonds of Bavaria, as of the other southern states, with the north, were strengthened by an offensive and defensive alliance with Prussia, as the result of Napoleon's demand for "compensation" in the Palatinate. This was signed at Berlin on the 22nd of August 1866, on the same day as the signature of the formal treaty of peace between the two countries. The separatist ambitions of Bavaria were thus formally given up; she had no longer "need of France"; and in the war of 1870-71, the Bavarian army marched, under the command of the Prussian crown prince, against the common enemy of Germany. It was on the proposal of King Louis II. that the imperial crown was offered to King William.

This was preceded, on the 23rd of November 1870, by the signature of a treaty between Bavaria and the North German Confederation. By this instrument, though Bavaria became an integral part of the new German empire, she reserved a larger measure of sovereign independence than any of the other constituent states. Thus she retained a separate diplomatic service, military administration, and postal, telegraph and railway systems. The treaty was ratified by the Bavarian chambers on the 21st of January 1871, though not without considerable opposition on the part of the so-called "patriot" party. Their hostility

was increased by the *Kulturkampf*, due to the promulgation in 1870 of the dogma of papal infallibility. Munich University, where Döllinger (*q.v.*) was professor, became the centre of the opposition to the new dogma, and the "old Catholics" (*q.v.*) were protected by the king and the government. The federal law expelling the Jesuits was proclaimed in Bavaria on the 6th of September 1871 and was extended to the Redemptorists in 1873. On the 31st of March 1871, moreover, the bonds with the rest of the empire had been drawn closer by the acceptance of a number of laws of the North German Confederation, of which the most important was the new criminal code, which was finally put into force in Bavaria in 1879. The opposition of the "patriot" party, however, reinforced by the strong Catholic sentiment of the country, continued powerful, and it was only the steady support given by the king to successive Liberal ministries that prevented its finding disastrous expression in the parliament, where it remained in a greater or less majority till 1887, and has since, as the "centre," continued to form the most compact party in an assembly made up of "groups."

Meanwhile the royal dreamer, whose passion for building palaces was becoming a serious drain on the treasury, had been declared insane, and, on the 7th of June 1886, the heir-presumptive, Prince Luitpold, was proclaimed regent. Six days later, on the 13th of June, Louis committed suicide. His brother, Otto I., being also insane, the regency was confirmed to Prince Luitpold.

Since 1871 Bavaria has shared to the full in the marvellous development of Germany; but her "particularism," founded on traditional racial and religious antagonism to the Prussians, was by no means dead, though it exhibited itself in no more dangerous form than the prohibition, reissued in 1900, to display any but the Bavarian flag on public buildings on the emperor's birthday; a provision which has been since so far modified as to allow the Bavarian and imperial flags to be hung side by side.

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(W. A. P.)

1 See *Recès de la députation de l'empire ... du 25 févr, 1803*, &c., § II. vol. vii. p. 453 of G.F. de Martens, *Recueil des Traités*, &c. (Gottingue, 1831).

2 Text in de Martens' *Recueil*, viii. p. 388.

BAVENO, a town of Piedmont, Italy, in the province of Novara, on the west shore of Lago Maggiore, 13 m. N.N.W. of Arona by rail. Pop. (1901) 2502. It is much frequented as a resort in spring, summer and autumn, and has many beautiful villas. To the north-west are the famous red granite quarries, which have supplied the columns for the cathedral of Milan, the church of S. Paolo fuori le Mura at Rome, the Galleria Vittorio Emanuele at Milan, and other important buildings.

BAWBEE (of very doubtful origin, the most plausible conjecture being that the word is a corruption from the name of the mint master Sillebawby, by whom they were first issued, *c.* 1541), the Scottish name for a halfpenny or other small coin, and hence used of money generally. A writer in 1573, quoted in Tytler's *History of Scotland*, speaks of "a coin called a bawbee, ... which is in value English one penny and a quarter." The word was sometimes written "babie," and has therefore been identified merely with a "baby coin," but this

etymology is less probable.

BAXTER, ANDREW (1686-1750), Scottish metaphysician, was born in Aberdeen and educated at King's College. He maintained himself by acting as tutor to noblemen's sons. From 1741 to 1747 he lived with Lord Blantyre and Mr Hay of Drummelzier at Utrecht, and made excursions in Flanders, France and Germany. Returning to Scotland, he lived at Whittingehame, near Edinburgh, till his death in 1750. At Spa he had met John Wilkes, then twenty years of age, and formed a lasting friendship with him. His chief work, *An Inquiry into the Nature of the Human Soul* (editions 1733, 1737 and 1745; with appendix added in 1750 in answer to an attack in Maclaurin's Account of Sir I. Newton's Philosophical Discoveries, and dedication to John Wilkes), examines the properties of matter. The one essential property of matter is its inactivity, *vis inertiae* (accepted later by Monboddo). All movement in matter is, therefore, caused by some immaterial force, namely, God. But the movements of the body are not analogous to the movements of matter; they are caused by a special immaterial force, the soul. The soul, as being immaterial, is immortal, and its consciousness does not depend upon its connexion with the body. The argument is supported by an analysis of the phenomena of dreams, which are ascribed to direct spiritual influences. Lastly Baxter attempted to prove that matter is finite. His work is an attack on Toland's *Letters to Serena* (1704), which argued that motion is essential to matter, and on Locke and Berkeley. His criticism of Berkeley (in the second volume) is, however, based on the common misinterpretation of his theory (see BERKELEY). Sir Leslie Stephen speaks of him as a curious example of "the effects of an exploded metaphysics on a feeble though ingenious intellect."

Beside the *Inquiry*, Baxter wrote *Matho sive Cosmotheoria Puerilis* (an exposition in Latin of the elements of astronomy written for his pupils—editions in English 1740, 1745 and 1765, with one dialogue re-written); *Evidence of Reason in Proof of the Immortality of the Soul* (published posthumously from MSS. by Dr Duncan in 1779).

See life in *Biographia Britannica*; McCosh's *Scottish Philosophy*, pp. 42-49.

BAXTER, RICHARD (1615-1691), English puritan divine, called by Dean Stanley "the chief of English Protestant Schoolmen," was born at Rowton, in Shropshire, at the house of his maternal grandfather, in November (probably the 12th) 1615. His ancestors had been gentlefolk, but his father had reduced himself to hard straits by loose living. About the time of Richard's birth, however, he changed decisively for the better. The boy's early education was poor, being mainly in the hands of the illiterate and dissolute clergy and readers who held the neighbouring livings at that time. He was better served by John Owen, master of the free school at Wroxeter, where he studied from about 1629 to 1632, and made fair progress in Latin. On Owen's advice he did not proceed to Oxford (a step which he afterwards regretted), but went to Ludlow Castle to read with Richard Wickstead, the council's chaplain there. Wickstead neglected his pupil entirely, but Baxter's eager mind found abundant nourishment in the great library at the castle. He was persuaded—against his will—to turn his attention to a court life, and he went to London under the patronage of Sir Henry Herbert, master of the revels, to follow that course; but he very soon returned home with a fixed resolve—confirmed by the death of his mother—to study divinity. After three months' schoolmastering for Owen at Wroxeter he read theology, and especially the schoolmen, with Francis Garbet, the local clergyman. About this time (1634) he met Joseph Symonds and Walter Cradock, two famous Nonconformists, whose piety and fervour influenced him considerably. In 1638 he was nominated to the mastership of the free grammar school, Dudley, in which place he commenced his ministry, having been ordained and licensed by John Thornborough, bishop of Worcester. His success as a preacher was, at this early period, not very great; but he was soon transferred to Bridgnorth (Shropshire), where, as assistant to a Mr Madstard, he established a reputation for the vigorous discharge of the duties of his office.

He remained at Bridgnorth nearly two years, during which time he took a special interest in the controversy relating to Nonconformity and the Church of England. He soon, on some points, especially matters of discipline, became alienated from the Church; and after the requirement of what is called “the *et cetera* oath,” he rejected episcopacy in its English form. He could not, however, be called more than a moderate Nonconformist; and such he continued to be throughout his life. Though commonly denominated a Presbyterian, he had no exclusive attachment to Presbyterianism, and often manifested a willingness to accept a modified Episcopalianism. All forms of church government were regarded by him as subservient to the true purposes of religion.

One of the first measures of the Long Parliament was to effect the reformation of the clergy; and, with this view, a committee was appointed to receive complaints against them. Among the complainants were the inhabitants of Kidderminster, a town which had become famous for its ignorance and depravity. This state of matters was so clearly proved that an arrangement was agreed to on the part of the vicar (Dance), by which he allowed £60 a year, out of his income £200, to a preacher who should be chosen by certain trustees. Baxter was invited to deliver a sermon before the people, and was unanimously elected as the minister of the place. This happened in April 1641, when he was twenty-six years of age.

His ministry continued, with very considerable interruptions, for about nineteen years; and during that time he accomplished a work of reformation in Kidderminster and the neighbourhood which is as notable as anything of the kind upon record. Civilized behaviour succeeded to brutality of manners; and, whereas the professors of religion had been but small exceptions to the mass, the unreligious people became the exceptions in their turn. He formed the ministers in the country around him into an association for the better fulfilment of the duties of their calling, uniting them together irrespective of their differences as Presbyterians, Episcopalians and Independents. The spirit in which he acted may be judged of from *The Reformed Pastor*, a book published in relation to the general ministerial efforts he promoted. It drives home the sense of clerical responsibility with extraordinary power. The result of his action is that, to this day his memory is cherished as that of the true apostle of the district where he laboured.

The interruptions to which his Kidderminster life was subjected arose from the condition of things occasioned by the civil war. Baxter blamed both parties, but Worcestershire was a cavalier county, and a man in his position was, while the war continued, exposed to annoyance and danger in a place like Kidderminster. He therefore removed to Gloucester, 552
and afterwards (1643-1645) settled in Coventry, where he preached regularly both to the garrison and the citizens. After the battle of Naseby he took the situation of chaplain to Colonel Whalley’s regiment, and continued to hold it till February 1647. During these stormy years he wrote his *Aphorisms of Justification*, which on its appearance in 1649 excited great controversy.

Baxter’s connexion with the Parliamentary army was a very characteristic one. He joined it that he might, if possible, counteract the growth of the sectaries in that field, and maintain the cause of constitutional government in opposition to the republican tendencies of the time. He regretted that he had not previously accepted an offer of Cromwell to become chaplain to the Ironsides, being confident in his power of persuasion under the most difficult circumstances. His success in converting the soldiery to his views does not seem to have been very great, but he preserved his own consistency and fidelity in a remarkable degree. By public disputation and private conference, as well as by preaching, he enforced his doctrines, both ecclesiastical and political, and shrank no more from urging what he conceived to be the truth upon the most powerful officers than he did from instructing the meanest followers of the camp. Cromwell disliked his loquacity and shunned his society; but Baxter having to preach before him after he had assumed the Protectorship, chose for his subject the old topic of the divisions and distractions of the church, and in subsequent interviews not only opposed him about liberty of conscience, but spoke in favour of the monarchy he had subverted. There is a striking proof of Baxter’s insight into character in his account of what happened under these circumstances. Of Cromwell he says, “I saw that what he learned must be from himself.” It is worthy of notice that this intercourse with Cromwell occurred when Baxter was summoned to London to assist in settling “the fundamentals of religion,” and made the memorable declaration, in answer to the objection that what he had proposed as fundamental “might be subscribed by a Papist or Socinian,”—“So much the better, and so much the fitter it is to be the matter of concord.” In 1647 he was staying at the home of Lady Rouse of Rouse-Lench, and there, in much physical weakness, wrote a great part of his famous work, *The Saints’ Everlasting Rest* (1650). On his recovery he returned to his charge at Kidderminster, where he also became a prominent

political leader, his sensitive conscience leading him into conflict with almost every one of the contending parties in state and church. His conduct now, as at all times, did “credit to his conscientiousness rather than to his wisdom.”

After the Restoration in 1660 Baxter, who had helped to bring about that event, settled in London. He preached there till the Act of Uniformity took effect in 1662, and was employed in seeking for such terms of comprehension as would have permitted the moderate dissenters with whom he acted to have remained in the Church of England. In this hope he was sadly disappointed. There was at that time on the part of the rulers of the church no wish for such comprehension, and their object in the negotiations that took place was to excuse the breach of faith which their rejection of all reasonable methods of concession involved. The chief good that resulted from the Savoy conference was the production of Baxter’s *Reformed Liturgy*, a work of remarkable excellence, though it was cast aside without consideration. The same kind of reputation which Baxter had obtained in the country he secured in the larger and more important circle of the metropolis. The power of his preaching was universally felt, and his capacity for business placed him at the head of his party. He had been made a king’s chaplain, and was offered the bishopric of Hereford, but he could not accept the offer without virtually assenting to things as they were. This he could not do, and after his refusal he was not allowed, even before the passing of the Act of Uniformity, to be a curate in Kidderminster, though he was willing to serve that office gratuitously. Bishop Morley even prohibited him from preaching in the diocese of Worcester. Baxter, however, found much consolation in his marriage on the 24th of September 1662 with Margaret Charlton, a woman like-minded with himself. She died in 1681.

From the ejectment of 1662 to the indulgence of 1687, Baxter’s life was constantly disturbed by persecution of one kind or another. He retired to Acton in Middlesex, for the purpose of quiet study, and was dragged thence to prison for keeping a conventicle. The *mittimus* was pronounced illegal and irregular, and Baxter procured a *habeas corpus* in the court of common pleas. He was taken up for preaching in London after the licences granted in 1672 were recalled by the king. The meetinghouse which he had built for himself in Oxendon Street was closed against him after he had preached there but once. He was, in 1680, seized in his house, and conveyed away at the risk of his life; and though he was released that he might die at home, his books and goods were distrained. He was, in 1684, carried three times to the sessions house, being scarcely able to stand, and without any apparent cause was made to enter into a bond for £400 in security for his good behaviour.

But his worst encounter was with the chief justice, Sir George Jeffreys, in May 1685. He had been committed to the king’s bench prison on the ridiculous charge of libelling the Church in his *Paraphrase on the New Testament*, and was tried before Jeffreys on this accusation. The trial is well known as among the most brutal perversions of justice which have occurred in England, though it must be remembered that no authoritative report of the trial exists. If the partisan account on which tradition is based is to be accepted, it would appear that Jeffreys himself acted like an infuriated madman. (See Jeffreys, Sir George.) Baxter was sentenced to pay 500 marks, to lie in prison till the money was paid, and to be bound to his good behaviour for seven years. It was even asserted at the time that Jeffreys proposed he should be whipped at the cart’s tail through London. The old man, for he was now seventy, remained in prison for eighteen months, when the government, vainly hoping to win his influence to their side, remitted the fine and released him.

During the long time of oppression and injury which followed the ejectment, Baxter was sadly afflicted in body. His whole life was indeed one continued illness, but in this part of it his pain and languor had greatly increased. Yet this was the period of his greatest activity as a writer. He was a most voluminous author, his separate works, it is said, amounting to 168. They are as learned as they are elaborate, and as varied in their subjects as they are faithfully composed. Such treatises as the *Christian Directory*, the *Methodus Theologiae Christianae*, and the *Catholic Theology*, might each have occupied the principal part of the life of an ordinary man. His *Breviate of the Life of Mrs Margaret Baxter* records the virtues of his wife, and reveals on the part of Baxter a tenderness of nature which might otherwise have been unknown. His editors have contented themselves with re-publishing his “Practical Works,” and his ethical, philosophical, historical and political writings still await a competent editor.

The remainder of Baxter’s life, from 1687 onwards, was passed in peace and honour. He continued to preach and to publish almost to the end. He was surrounded by attached friends, and reverenced by the religious world. His saintly behaviour, his great talents, and his wide influence, added to his extended age, raised him to a position of unequalled reputation. He helped to bring about the downfall of James II. and complied with the

Toleration Act under William and Mary. He died in London on the 8th of December 1691, and his funeral was attended by churchmen as well as dissenters. A similar tribute of general esteem was paid to him nearly two centuries later, when a statue was erected to his memory at Kidderminster in July 1875.

Baxter was possessed by an unconquerable belief in the power of persuasive argument. He thought every one was amenable to reason—bishops and levellers included. And yet he was as far as possible from being a quarrelsome man. He was at once a man of fixed belief and large appreciation, so that his dogmatism and his liberality sometimes came into collision. His popularity as a preacher was deservedly pre-eminent; but no more diligent student ever shut himself up with his books. He was singularly fitted for intellectual debate, but his devotional tendency was equally strong with his logical aptitude. Some of his writings, from their metaphysical subtilty, will always puzzle the learned; but he could write to the level of the common heart without loss of dignity or pointedness. His *Reasons for the Christian Religion* is still, for its evidential purpose, better than most works of its kind. His *Poor Man's Family Book* is a manual that continues to be worthy of its title. His *Saints' Everlasting Rest* will always command the grateful admiration of pious readers. It is also charged with a robust and manly eloquence and a rare and unsought felicity of language that make it a masterpiece of style. Perhaps no thinker has exerted so great an influence upon nonconformity as Baxter has done, and that not in one direction only, but in every form of development, doctrinal, ecclesiastical and practical. He is the type of a distinct class of the Christian ministry—that class which aspires after scholarly training, prefers a broad to a sectarian theology, and adheres to rational methods of religious investigation and appeal. The rational element in him was very strong. He had a settled hatred of fanaticism. Even Quakerism he could scarcely endure. Religion was with him all and in all—that by which all besides was measured, and to whose interests all else was subordinated. Isaac Barrow said that "his practical writings were never minded, and his controversial ones seldom confuted," and John Wilkins, bishop of Chester, asserted that "if he had lived in the primitive time he had been one of the fathers of the church."

BIBLIOGRAPHY.—Our most valuable source is Baxter's autobiography, called *Reliquiae Baxterianae or Mr Richard Baxter's Narrative of the most memorable Passages of his Life and Times* (published by Matthew Sylvester in 1696). Edmund Calamy abridged this work (1702). The abridgment forms the first volume of the account of the ejected ministers, but whoever refers to it should also acquaint himself with the reply to the accusations which had been brought against Baxter, and which will be found in the second volume of Calamy's Continuation. William Orme's *Life and Times of Richard Baxter* appeared in 2 vols. in 1830; it also forms the first volume of "Practical Works" (1830, reprinted 1868). Sir James Stephen's interesting paper on Baxter, contributed originally to the *Edinburgh Review*, is reprinted in the second volume of his *Essays*. More recent estimates of Baxter are those given by John Tulloch in his *English Puritanism and its Leaders*, and by Dean Stanley in his address at the inauguration of the statue to Baxter at Kidderminster (see *Macmillan's Magazine*, xxxii. 385).

There is a good portrait of Baxter in the Williams library, Gordon Square, London.

BAXTER, ROBERT DUDLEY (1827-1875), English economist and statistician, was born at Doncaster in 1827. He was educated privately and at Trinity College, Cambridge. He studied law and entered his father's firm of Baxter & Co., solicitors, with which he was connected till his death. Though studiously attentive to business, he was enabled, as a member of the Statistical and other learned societies, to accomplish much useful economic work. His principal economic writings were *The Budget and the Income Tax* (1860), *Railway Extension and its Results* (1866), *The National Income* (1868), *The Taxation of the United Kingdom* (1869), *National Debts of the World* (1871), *Local Government and Taxation* (1874), and his purely political writings included *The Volunteer Movement* (1860), *The Redistribution of Seats and the Counties* (1866), *History of English Parties and Conservatism* (1870), and *The Political Progress of the Working Classes* (1871).

BAXTER, WILLIAM (1650-1723), British antiquarian, critic and grammarian, nephew of Richard Baxter, the divine, was born at Llanllugan, Montgomeryshire. When he went to Harrow school, at the age of eighteen, he was unable to read, and could speak no language except Welsh. His progress must have been remarkable, since he published his Latin grammar about ten years afterwards. During the greater part of his life Baxter was a schoolmaster, and was finally headmaster of the Mercers' school, where he remained till shortly before his death on the 31st of May 1723. He was an accomplished linguist, and his learning was undoubtedly very great. His published works are: *De Analogia* (1679), an advanced Latin grammar; *Anacreontis Teii Carmina*, including two odes of Sappho (1695; reprinted in 1710, "with improvements," which he was accused of having borrowed from the edition of Joshua Barnes); *Horace* (1701 and subsequent editions, regarded as remarkable for its abuse of Bentley); *Glossarium Antiquitatum Britannicarum* (1719); and *Glossarium Antiquitatum Romanarum* (1826). The last two works were published by the Rev. Moses Williams, the second (which goes no farther than the letter A) under the title of *Reliquiae Baxterianae*, including an autobiographical fragment. Baxter also contributed to a joint translation of Plutarch's *Moralia*, and left notes on Juvenal and Persius.

BAY, a homonymous term of which the principal branches are as follows, (1) The name of the sweet laurel (*Laurus nobilis*) or bay tree (see Laurel); this word is derived through the O. Fr. *baie*, from Lat. *baca*, berry, the bay bearing a heavy crop of dark purple berries. The leaves of the bay were woven in garlands to crown poets, and hence the word is often used figuratively in the sense of fame and reward. (2) A wide opening or indentation in a coast line. This may be of the same origin as "bay," in the architectural sense, or from a Latin word which is seen in the place name Baiae. (3) The name of a colour, of a reddish brown, principally used of the colour in horses; there are various shades, light bay, bright bay, &c. This word is derived from the Latin *badius*, which is given by Varro (in *Nonnius*, pp. 80-82) as one of the colours of horses. The word is also seen in baize (*q.v.*). (4) The deep bark of dogs. This word is also seen in the expression "at bay," properly of a hunted animal who at the last turns on the "baying" hounds and defends itself. The origin of the word is the O. Fr. *bayer, abayer*, Lat. *badare*, properly to gape, open wide the mouth. (5) An architectural term (Fr. *travée*, Ital. *compartimento*, Ger. *Abteilung*) for any division or compartment of an arcade, roof, &c. Each space from pillar to pillar in a cathedral, church or other building is called a "bay" or "severy." This word is also to be referred to *bayer*, to gape.

A "bay-window" or "bow-window" is a window projecting outwards and forming a recess in the apartment. Bay-windows may be rectangular, polygonal or semicircular in plan, in the last case being better known as bow-windows. The bay-window would seem to have been introduced in the 15th century, but the earliest examples of importance are those which were built during the reign of Edward IV. (1461-1483), when it was largely employed in the colleges of Oxford and Cambridge and in the feudal castles of the period. Examples are found in the palace at Eltham, Cowdray Castle in Sussex, Thornbury Castle in Gloucestershire, and in the George Inn at Glastonbury; one of the finest of a later date is that of the Banqueting Hall at Hampton Court, some 50 ft. high. In the great entrance halls of ancient mansions the floor of the last bay of the hall was generally raised two or three steps, and this portion was reserved for the lord of the manor and his guests, and was known as the dais. The usual position of the bay-window is at one end of this dais, and occasionally but rarely at both ends. The sills of the windows are at a lower level than those in the hall, and, raised on one or two steps, are seats in the recess. The recess of the bay-window was generally covered with a ribbed vault of elaborate design, and the window itself subdivided by mullions and transoms. In some of the larger windows such as those at Cowdray and Hampton Court there are no fewer than five transoms, and this sub-division gave great scale to the design. The same feature when employed in an upper storey and supported by corbels or brackets is known as an oriel window. (See also Dais and Hall.)

BAYAMO, an old inland city on the N. slope of the Sierra Maestra in Santiago province,

Cuba. Pop. (1907) 4102. It lies on a plain by the Bayamo river, in a fertile country, but isolated from sea and from railway. Its older parts are extraordinarily irregular. The streets are of all widths, and of all degrees of crookedness, and run in all directions. Bayamo was the third of the seven cities founded by Diego Velazquez, and was established in 1513. During much of the 16th century it was one of the most important agricultural and commercial settlements of the island. Its inland situation gave it relative security against the pirates who then infested West Indian seas, and the misfortunes of Santiago were the fortunes of Bayamo. Down the river Cauto, then open to the sea for vessels of 200 tons, and through Manzanillo, Bayamo drove a thriving contraband trade that made it at the opening of the 17th century the leading town of Cuba. A tremendous flood, in 1616, choking the Cauto with trees and wrecked vessels, cut it off from direct access to the sea; but through Manzanillo it continued a great clandestine traffic with Curaçao, Jamaica, and other foreign islands all through the 17th and 18th centuries. Bayamo was then surrounded by fine plantations. It was a rich and turbulent city. In the war of 1868-78 it was an insurgent stronghold; near it was fought one of the most desperate conflicts of the war, and it was nearly destroyed by the opposing parties. Bayamo was the birthplace and the home of Carlos Manuel de Céspedes (1819-1874), first president of the “first” Cuban republic, and was also the birthplace and home of Tomás Estrada Palma (1835-1908), first president of the present Cuban republic.

BAYARD, PIERRE TERRAIL, Seigneur de (1473-1524), French soldier, the descendant of a noble family, nearly every head of which for two centuries past had fallen in battle, was born at the château Bayard, Dauphiné (near Pontcharra, Isère), about 1473. He served as a page to Charles I., duke of Savoy, until Charles VIII. of France, attracted by his graceful bearing, placed him among the royal followers under the seigneur (count) de Ligny (1487). As a youth he was distinguished for comeliness, affability of manner, and skill in the tilt-yard. In 1494 he accompanied Charles VIII. into Italy, and was knighted after the battle of Fornova (1495), where he had captured a standard. Shortly afterwards, entering Milan alone in ardent pursuit of the enemy, he was taken prisoner, but was set free without a ransom by Lodovico Sforza. In 1502 he was wounded at the assault of Canossa. Bayard was the hero of a celebrated combat of thirteen French knights against an equal number of Germans, and his restless energy and valour were conspicuous throughout the Italian wars of this period. On one occasion it is said that, single-handed, he made good the defence of the bridge of the Garigliano against about 200 Spaniards, an exploit that brought him such renown that Pope Julius II. sought to entice him into the papal service, but unsuccessfully. In 1508 he distinguished himself again at the siege of Genoa by Louis XII., and early in 1509 the king made him captain of a company of horse and foot. At the siege of Padua he won further distinction, not only by his valour, but also by his consummate skill. He continued to serve in the Italian wars up to the siege of Brescia in 1512. Here his intrepidity in first mounting the rampart cost him a severe wound, which obliged his soldiers to carry him into a neighbouring house, the residence of a nobleman, whose wife and daughters he protected from threatened insult. Before his wound was healed, he hurried to join Gaston de Foix, under whom he served in the terrible battle of Ravenna (1512). In 1513, when Henry VIII. of England routed the French at the battle of the Spurs (Guinegate, where Bayard’s father had received a lifelong injury in a battle of 1479), Bayard in trying to rally his countrymen found his escape cut off. Unwilling to surrender, he rode suddenly up to an English officer who was resting unarmed, and summoned him to yield; the knight complying, Bayard in turn gave himself up to his prisoner. He was taken into the English camp, but his gallantry impressed Henry as it had impressed Lodovico, and the king released him without ransom, merely exacting his parole not to serve for six weeks. On the accession of Francis I. in 1515 Bayard was made lieutenant-general of Dauphiné; and after the victory of Marignan, to which his valour largely contributed, he had the honour of conferring knighthood on his youthful sovereign. When war again broke out between Francis I. and Charles V., Bayard, with 1000 men, held Mézières, which had been declared untenable, against an army of 35,000, and after six weeks compelled the imperial generals to raise the siege. This stubborn resistance saved central France from invasion, as the king had not then sufficient forces to withstand the imperialists. All France rang with the achievement, and Francis gained time to collect the royal army which drove out the invaders (1521). The parlement thanked Bayard as the saviour of his country; the king made him a knight of the order of St

Michael, and commander in his own name of 100 *gens d'armes*, an honour till then reserved for princes of the blood. After allaying a revolt at Genoa, and striving with the greatest assiduity to check a pestilence in Dauphiné, Bayard was sent, in 1523, into Italy with Admiral Bonnivet, who, being defeated at Robecco and wounded in a combat during his retreat, implored Bayard to assume the command and save the army. He repulsed the foremost pursuers, but in guarding the rear at the passage of the Sesia was mortally wounded by an arquebus ball (April 30th, 1524). He died in the midst of the enemy, attended by Pescara, the Spanish commander, and by his old comrade the constable de Bourbon. His body was restored to his friends and interred at Grenoble. Chivalry, free of fantastic extravagance, is perfectly mirrored in the character of Bayard. As a soldier he was one of the most skilful commanders of the age. He was particularly noted for the exactitude and completeness of his information of the enemy's movements; this he obtained both by careful reconnaissance and by a well-arranged system of espionage. In the midst of mercenary armies Bayard remained absolutely disinterested, and to his contemporaries and his successors he was, with his romantic heroism, piety and magnanimity, the fearless and faultless knight, *le chevalier sans peur et sans reproche*. His gaiety and kindness won him, even more frequently, another name bestowed by his contemporaries, *le bon chevalier*.

Contemporary lives of Bayard are the following:—"*Le loyal serviteur*" (? Jacques de Maille); *La très joyeuse, plaisante, et récréative histoire ... des faiz, gestes, triumphes et prouesses du bon chevalier sans paour et sans reproche, le gentil seigneur de Bayart* (original edition printed at Paris, 1527; the modern editions are very numerous, those of M.J. Roman and of L. Larchey appeared in 1878 and 1882); Symphorien Champier, *Les Gestes, ensemble la vie du preulx chevalier Bayard* (Lyons, 1525); Aymar du Rivail, *Histoire des Allobroges* (edition of de Terrebasse, 1844); see *Bayard* in *Répertoire des sources historiques*, by Ulysse Chevalier, and in particular A. de Terrebasse, *Hist. de Pierre Terrail, seigneur de Bayart* (1st ed., Paris, 1828; 5th ed., Vienna, 1870).

BAYARD, THOMAS FRANCIS (1828-1898), American diplomatist, was born in Wilmington, Delaware, on the 29th of October 1828. His great-grandfather, Richard Bassett (1745-1815), governor of Delaware; his grandfather, James Asheton Bayard (1767-1815), a prominent Federalist, and one of the United States commissioners who negotiated the treaty of Ghent with Great Britain after the War of 1812; his uncle, Richard Henry Bayard (1796-1868); and his father, James Asheton Bayard (1799-1880), a well-known constitutional lawyer, all represented Delaware in the United States Senate. Intending to go into business, he did not receive a college education; but in 1848 he began the study of law in the office of his father, and was admitted to the bar in 1851. Except from 1855 to 1857, when he was a partner of William Shippen in Philadelphia, he practised chiefly in Wilmington. He was a United States senator from Delaware from 1869 to 1885, and in 1881 was (October 10th to 13th) president *pro tempore* of the Senate. His abilities made him a leader of the Democrats in the Senate, and his views on financial and legal questions gave him a high reputation for statesmanship. He was a member of the electoral commission of 1877. In the Democratic national conventions of 1872, 1876, 1880 and 1884 he received votes for nomination as the party candidate for the presidency. He was secretary of state, 1885-1889, during the first administration of President Cleveland, and pursued a conservative policy in foreign affairs, the most important matter with which he was called upon to deal being the Bering Sea controversy. As ambassador to Great Britain, 1893-1897, his tall dignified person, unfailing courtesy, and polished, if somewhat deliberate, eloquence made him a man of mark in all the best circles. He was considered indeed by many Americans to have become too partial to English ways; and, for the expression of some criticisms regarded as unfavourable to his own countrymen, the House of Representatives went so far as to pass, on the 7th of November 1895, a vote of censure on him. The value of Mr Bayard's diplomacy was, however, fully recognized in the United Kingdom, where he worthily upheld the traditions of a famous line of American ministers. He was the first representative of the United States in Great Britain to hold the diplomatic rank of an ambassador. He died in Dedham, Massachusetts, on the 28th of September 1898.

See Edward Spencer, *Public Life and Services of T.F. Bayard* (New York, 1880).

BAYAZID, or Bajazet, a border fortress of Asiatic Turkey, chief town of a sanjak of the Erzerum vilayet, situated close to the frontiers of Russia and Persia, and looking across a marshy plain to the great cone of Ararat, at a general altitude of 6000 ft. It occupies a site of great antiquity, as the cuneiform inscriptions on the neighbouring rocks testify; it stands on the site of the old Armenian town of Pakovan. It is picturesquely situated in an amphitheatre of sharp, rocky hills. The great trade route from Trebizond by Erzerum into N.W. Persia crosses the frontier at Kizil Dize a few miles to the south and does not enter the town. A knoll above the town is occupied by the half-ruined fort or palace of former governors, built for Mahmud Pasha by a Persian architect and considered one of the most beautiful buildings in Turkey. It contains two churches and a monastery, the Kasa Kilissa, famous for its antiquity and architectural grandeur. The cuneiform inscriptions are on the rock pinnacles above the town, with some rock chambers, indicating a town or fortress of the Vannic period. The population has lately decreased and now numbers about 4000. A Russian consul resides here and the town is a military station. It was captured during the Russian campaigns of 1828 and 1854, also in 1878, but was then recaptured by the Turks, who subjected the Russian garrison to a long siege; the place was ultimately relieved, but a massacre of Christians then took place in the streets. Bayazid was restored to Turkey by the treaty of Berlin.

BAYBAY, a town of the province of Leyte, island of Leyte, Philippine Islands, on the W. coast. Pop. (1903) 22,990. The town proper is situated at the mouth of the Pagbañganan river, 45 m. S.S.W. of Tacloban, the provincial capital. A superior grade of hemp is exported. Other products are rice, corn, copra, cacao, sugar, cattle and horses. The Cebú dialect of the Visayan language is spoken.

BAY CITY, a city and the county seat of Bay county, Michigan, U.S.A., on the Saginaw river, about 2 m. from its entrance into Saginaw Bay and about 108 m. N.N.W. of Detroit. Pop. (1890) 27,839; (1900) 27,628, of whom 8483 were foreign-born, including 2413 English-Canadians, 1743 Germans, 1822 Poles—the city has a Polish weekly newspaper—and 1075 French-Canadians; (1910, census) 45,166. Bay City is served by the Michigan Central, the Père Marquette, the Grand Trunk and the Detroit & Mackinac railways, and by lake steamers. The city extends for several miles along both sides of the river, and is in a good farming district, with which it is connected by stone roads. Among the public buildings are the Federal building, the city hall and the public library. The city has lumber and fishing interests (perch, whitefish, sturgeon, pickerel, bass, &c. being caught in Saginaw Bay), large machine shops and foundries (value of products in 1905, $1,743,155, or 31% of the total of the city’s factory products), and various manufactures, including ships (wooden and steel), wooden ware, wood-pipe, veneer, railroad machinery, cement, alkali and chicory. A salt basin underlies the city, and, next to the lumber industry, the salt industry was the first to be developed, but its importance has dwindled, the product value in 1905 being $20,098 out of $5,620,866 for all factory products. Near the city are valuable coal mines, and there is one within the city limits. At Essexville (pop. in 1910, 1477), N.E., at Banks, N.W., and at Salzbury, S.W. of Bay City, are beet-sugar factories—sugar beets are extensively grown in the vicinity. Alcohol is made from the refuse molasses obtained from these beet-sugar factories. The municipality owns and operates the water-works and electric-lighting plant. The settlements of Lower Saginaw and Portsmouth were made in 1837, and were later united to form Bay City, which was incorporated as a village in 1859, and chartered as a city in 1865. In 1905 West Bay City (pop. 1900, 13,119) and Bay City were consolidated.

BAYEUX, a town of north-western France, capital of an arrondissement in the department of Calvados, 18 m. N.W. of Caen on the Western railway. Pop. (1906) 6930. Bayeux is situated on the Aure, 5 m. from the English Channel. Its majestic cathedral was built in the 13th century on the site of a Romanesque church, to which the lateral arcades of the nave and the two western towers with their high stone spires belonged. A third and still loftier tower, the upper part of which, in the florid Gothic style, is modern, surmounts the crossing. The chancel, surrounded with radiating chapels, is a fine example of early Gothic. Underneath it there is a crypt of the 11th century restored in the 15th century. The oak stalls in the choir are fine examples of late 16th-century carving. The former bishop's palace, parts of which are of great age though the main building is of the 18th century, serves as law-court and hôtel de ville. Bayeux possesses many quaint, timbered houses and stone mansions in its quiet streets. The museum contains the celebrated Bayeux tapestry (see below). The town is the seat of a bishop and of a sub-prefect; it has tribunals of first instance and of commerce, an ecclesiastical seminary, a communal college and a chamber of arts and manufactures. Dyeing, leather-dressing, lace-making and the manufacture of porcelain for household and laboratory purposes are carried on.

Till the 4th century Bayeux bore the name of *Augustodurum*, but afterwards, when it became the capital of the two tribes of the Baiocasses and Viducasses, took the name of Civitas Baiocassium. Its bishopric dates from the latter half of the 4th century. Before the Norman invasion it was governed by counts. Taken in 890 by the Scandinavian chief, Rollo, it was soon after peopled by the Normans and became a residence of the dukes of Normandy, one of whom, Richard I., built about 960 a castle which survived till the 18th century. During the quarrels between the sons of William the Conqueror it was pillaged and sacked by Henry I. in 1106, and in later times it underwent siege and capture on several occasions during the Hundred Years' War and the religious wars of the 16th century. Till 1790 it was the capital of the Bessin, a district of lower Normandy.

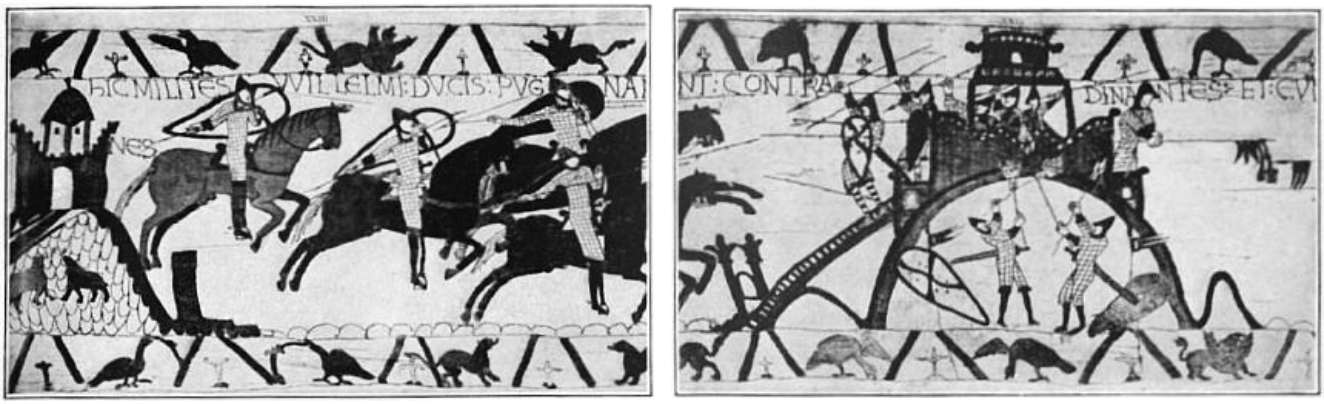
BAYEUX TAPESTRY, THE. This venerable relic consists of a band of linen, 231 ft. long and 20 in. wide, now light brown with age, on which have been worked with a needle, in worsteds of eight colours, scenes representing the conquest of England by the Normans. Of these scenes there are seventy-two, beginning with Harold's visit to Bosham on his way to Normandy, and ending with the flight of the English from the battle of Hastings, though the actual end of the strip has perished. Along the top and the bottom run decorative borders with figures of animals, scenes from fables of Aesop and of Phaedrus, from husbandry and the chase, and occasionally from the story of the Conquest itself (see EMBROIDERY; Plate I. fig. 7). Formerly known as the *Toile de St Jean*, it was used on certain feast days to decorate the nave of Bayeux cathedral. Narrowly escaping the perils of the Revolution, it was exhibited in Paris, by Napoleon's desire, in 1803-1804, and has since been in civil custody at Bayeux, where it is now exhibited under glass. In the Franco-German War (1871) it was hastily taken down and concealed.

"The noblest monument in the world relating to our old English history," as William Stukeley described it in 1746, it has been repeatedly described, discussed and reproduced, both in France and in England since 1730. The best coloured reproduction is that by C.A. Stothard in 1818, published in the sixth volume of *Vetusta Monumenta*; but in 1871-1872 the "tapestry" was photographed for the English education authorities by E. Dossetter.

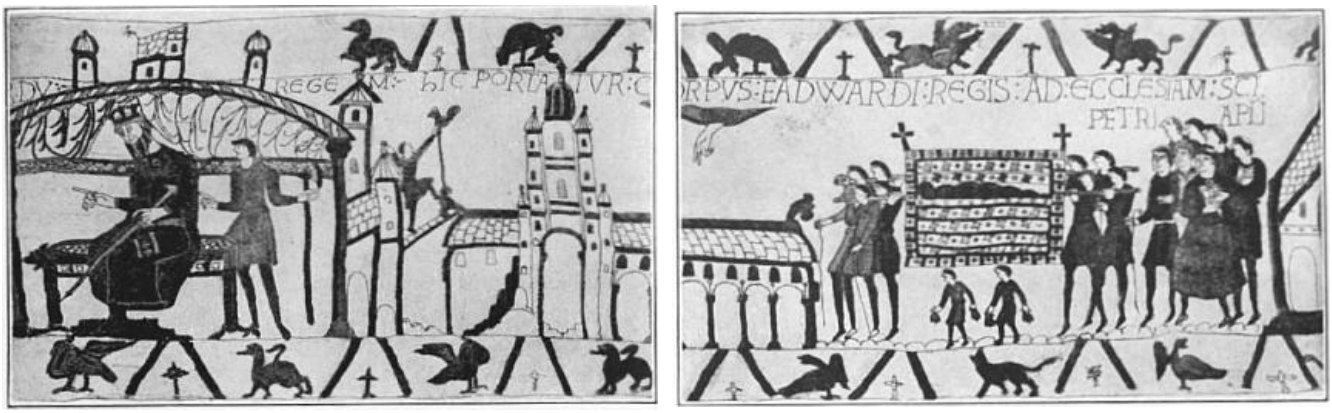
Local tradition assigned the work to the Conqueror's wife. F. Pluquet, in his *Essai historique sur la ville de Bayeux* (Caen, 1829), was the first to reject this belief, and to connect it with the Conqueror's half-brother Odo, bishop of Bayeux, and this view, which is now accepted, is confirmed by the fact that three of the bishop's followers mentioned in Domesday Book are among the very few named figures on the tapestry. That Odo had it executed for his cathedral seems tolerably certain, but whether it was worked by English fingers or not has been disputed, though some of the words upon it have been held to favour that view. Freeman emphatically pronounced it to be "a contemporary work," and historically "a primary authority ... in fact the highest authority on the Norman side." As some of its evidence is unique, the question of its authority is important, and Freeman's conclusions have been practically confirmed by recent discussion. In 1902 M. Marignan questioned, on archaeological grounds, the date assigned to the tapestry, as the Abbé de la Rue had questioned it ninety years before; but his arguments were refuted by Gaston Paris

and M. Lanore, and the authority of the tapestry was vindicated. The famous relic appears to be the solitary survivor of a class, for Abbot Baudri described in Latin verse a similar work executed for Adela, daughter of the Conqueror, and in earlier days the widow of Brihtnoth had wrought a similar record of her husband's exploits and death at the hard-fought battle of Maldon (991).

PLATE I.

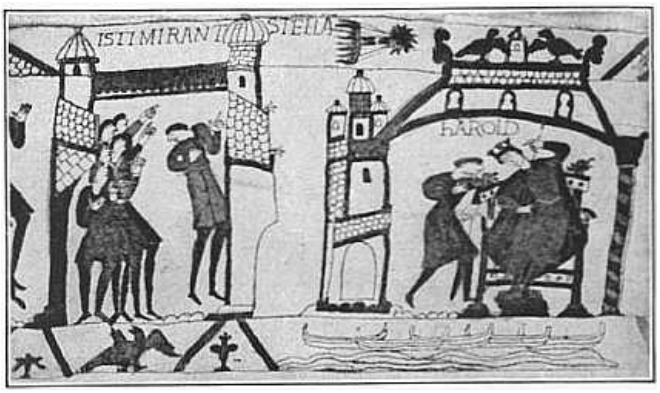


1. SIEGE OF DINANT. Note the wooden castle on a mound, and the knight handing over the keys on his lance tip.

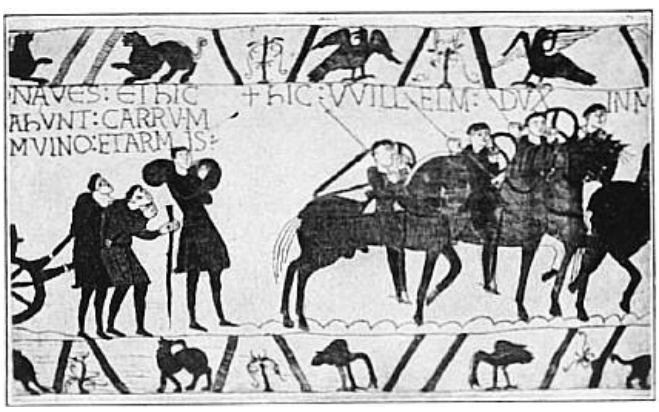


2. THE FUNERAL OF EDWARD THE CONFESSOR AT WESTMINSTER ABBEY.

3. CORONATION OF HAROLD.



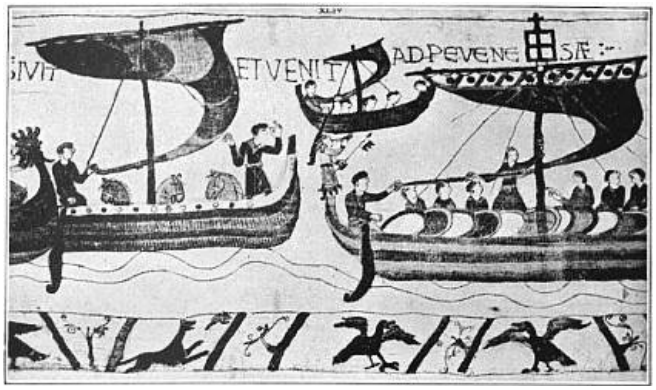
4. APPEARANCE OF HALLEY'S COMET.



5. THE NORMANS CARRY THEIR ARMS TO THE SHIPS.

(*By permission of G, Bell & Sons.*)

PLATE II.



6. THE NORMANS CROSS TO PEVENSEY.

7. BUILDING OF HASTINGS CASTLE.

8. HAROLD'S ADVANCE ANNOUNCED TO WILLIAM. THE BURNING OF HASTINGS.

9. THE NORMAN CAVALRY ATTACKS THE ENGLISH SHIELD WALL.

10. WILLIAM RAISES HIS HELMET TO RALLY HIS MEN.

11. ODO, BISHOP OF BAYEUX, WIELDING HIS MACE.

See E.A. Freeman, *Norman Conquest*, vol. iii. (ed. 1875), with summary of the discussion to date; *Archaeologia*, vols. xvii.—xix.; Dawson Turner, *Tour in Normandy* (1820); C.A. Stothard's illustrations in *Vetusta Monumenta*, vol. vi.; *Gentleman's Magazine*, 1837; Bolton Corney, *Researches and Conjectures on the Bayeux Tapestry* (1836-1838); A. de Caumont, "Un mot sur ... la tapisserie de Bayeux," in *Bulletin monumental de Vinstilut des provinces*, vol. viii. (1841); J. Laffetay, *Notice historique et descriptive sur la tapisserie* ... (1874); J. Comte, *Tapisserie de Bayeux*; F.R. Fowke, *The Bayeux Tapestry* (ed. 1898); Marignan, *Tapisserie de Bayeux* (1902); G. Pans, "Tapisserie de Bayeux," in *Romania*, vol. xxxi.; Lanore, "La Tapisserie de Bayeux," in *Bibliothèque de l'école des chartes*, vol. lxiv. (1903); and J.H. Round, "The Bayeux Tapestry," in *Monthly Review*, xvii. (1904).

(J. H. R.)

BAYEZID I. (1347-1403), Ottoman sultan, surnamed Yilderim or "LIGHTNING," from the great rapidity of his movements, succeeded his father Murad I. on the latter's assassination on the field of Kossovo, 1389, and signalized his accession by ordering at once the execution of his brother Yakub, who had distinguished himself in the battle. His arms were successful both in Europe and Asia, and he was the first Ottoman sovereign to be styled "sultan," which title he induced the titular Abbasid caliph to confer on him. After routing the chivalry of Christendom at the battle of Nikopoli in 1396, he pursued his victorious career in Greece, and Constantinople would doubtless have fallen before his attack, had not the emperor Manuel Palaeologus bought him off by timely concessions which reduced him practically to the position of Bayezid's vassal. But his conquests met with a sudden and overpowering check at the hands of Timur (Tamerlane). Utterly defeated at Angora by the Mongol invader, Bayezid became his prisoner, and died in captivity some months later, in March 1403.

Bayezid first married Devlet Shah Khatun, daughter of the prince of Kermian, who brought him in dowry Kutaiah and its dependencies. Two years before his accession he also married a daughter of the emperor John Palaeologus.

BAYEZID II. (1447-1512), sultan of Turkey, was the son of Mahommed II., whom he succeeded in 1481, but only after gaining over the janissaries by a large donative, which henceforth became for centuries the invariable prerogative of that undisciplined body on the accession of a new sultan. Before he could establish himself on the throne a long struggle ensued with his brother Prince Jem. Being routed, Jem fled for refuge to the knights of St John at Rhodes, who, in spite of a safe-conduct granted to him, accepted a pension from Bayezid as the price for keeping him a close prisoner. (See Aubusson, Pierre d'.)

So long as Jem lived he was a perpetual menace to the sultan's peace, and there was considerable rivalry among the sovereigns of Europe for the possession of so valuable an instrument for bringing pressure to bear upon the Porte for the purpose of extracting money or concessions. By common consent the prince was ultimately entrusted to Pope Innocent VIII., who used him not only to extract an annual tribute out of the sultan, but to prevent the execution of Bayezid's ambitious designs in the Mediterranean. His successor, Alexander VI., used him for a more questionable purpose, namely, not only to extract the arrears of the pension due for Jem's safe-keeping, but, by enlarging on Charles V.'s intention of setting him up as sultan, to persuade Bayezid to aid him against the emperor. There appears, however, to be no truth in the report that Bayezid succeeded in bribing the pope to have Jem poisoned. The prince, who had lived on excellent terms with Alexander, died at Naples in February 1495, possibly as the result of excesses in which he had been deliberately encouraged by the pope.

Whether as a result of his fear of the rivalry of Jem, or of his personal character, Bayezid showed little of the aggressive spirit of his warlike predecessors; and Machiavelli said that another such sultan would cause Turkey to cease being a menace to Europe. He abandoned

the attack on Rhodes at the first check, made concessions, for the sake of peace, to Venice and reduced the tribute due fiom Ragusa. His wars were of the nature of raids, on the Dalmatian coast and into Croatia, Hungary, Moldavia and Poland. The threat of the growing power in the Aegean of Venice, which had acquired Cyprus in 1489, at last roused him to a more serious effort; and in 1499 the war broke out with the republic, which ended in 1502 by the annexation to Turkey of Lepanto and Modon, Coron and Navarino in the Morea. Bayezid himself conducted the siege of Modon in 1500.

The comparative inactivity of Bayezid in the direction of Europe was partly due to preoccupation elsewhere. In the south he was threatened by the dangerous rivalry of Kait Bey, the Mameluke sultan of Egypt, who had extended his power northwards as far as Tarsus and Adana. In 1488 he gained a great victory over the Ottomans, and in 1491 a peace was made which was not again broken till after Bayezid's death. On the side of Persia too, where the decisive battle of Shurur (1502) had raised to power Ismail, the first of the modern line of shahs, danger threatened the sultan, and the latter years of his reign were troubled by the spread, under the influence of the new Persian power, of the Shi'ite doctrine in Kurdistan and Asia Minor. The forces destined to maintain his authority in Asia had been entrusted by Bayezid to his three sons, Ahmed, Corcud and Selim; and the sultan's declining years were embittered by their revolts and rivalry. Soon after the great earthquake of 1509, which laid Constantinople in ruins, Selim, the ungovernable pasha of Trebizond, whose vigorous rule in Asia had given Europe an earnest of his future career as sultan, appeared before Adrianople, where Bayezid had sought refuge. The sultan had designated Ahmed as his successor, but Selim, though temporarily defeated, succeeded in winning over the janissaries. On the 25th of April 1512 Bayezid was forced to abdicate in his favour, and died a few days later.

See J.B. Bury in the *Cambridge Modern History*, vol. i. chap. iii. and bibliography p. 700.

BAY ISLANDS (Islas de la Bahía), a small archipelago in the Caribbean Sea, off the coast of Honduras, of which country it forms an administrative district. Pop. (1905) about 3000, including 500 Indians. The archipelago consists of Roatan or Ruatan, Guanaja or Bonacca, Utilla, Barbareta, Helena, Morat, the Puercos or Hog Islands, and many *cays* or islets. The Bay Islands have a good soil, a fine climate and an advantageous position. Roatan, the largest, is about 30 m. long by 9 m. broad, with mountains rising to the height of 900 ft., covered with valuable woods and abounding with deer and wild hogs. Its chief towns are Coxen Hole and Puerto Real. Its trade is chiefly with New Orleans in plantains, cocoa-nuts, pineapples and other fruit. Guanaja is 9 m. long by 5 m. broad; it lies 15 m. E.N.E. of Roatan. Wild hogs abound in its thickly-wooded limestone hills. The other islands are comparatively small, and may, in some cases, be regarded as detached parts of Roatan, with which they are connected by reefs. Guanaja was discovered in 1502 by Columbus, but the islands were not colonized until the 17th century, when they were occupied by British logwood cutters from Belize, and pearlers from the Mosquito Coast. Forts were built on Roatan in 1742, but abandoned in 1749. In 1852 the islands were annexed by Great Britain. In 1859 they were ceded to Honduras.

BAYLE, PIERRE (1647-1706), French philosopher and man of letters, was born on the 18th of November 1647, at le Carla-le-Comte, near Pamiers (Ariège). Educated by his father, a Calvinist minister, and at an academy at Puylaurens, he afterwards entered a Jesuit college at Toulouse, and became a Roman Catholic a month later (1669). After seventeen months he resumed his former religion, and, to avoid persecution, fled to Geneva, where he became acquainted with Cartesianism. For some years he acted under the name of Bèle as tutor in various Parisian families, but in 1675 he was appointed to the chair of philosophy at the Protestant university of Sedan. In 1681 the university at Sedan was suppressed, but almost immediately afterwards Bayle was appointed professor of philosophy and history at Rotterdam. Here in 1682 he published his famous *Pensées diverses sur la comète de 1680*

and his critique of Maimbourg's work on the history of Calvinism. The great reputation achieved by this critique stirred the envy of Bayle's colleague, P. Jurieu, who had written a book on the same subject. In 1684 Bayle began the publication of his *Nouvelles de la république des lettres*, a kind of journal of literary criticism. In 1690 appeared a work entitled *Avis important aux refugiés*, which Jurieu attributed to Bayle, whom he attacked with animosity. After a long quarrel Bayle was deprived of his chair in 1693. He was not depressed by this misfortune, especially as he was at the time closely engaged in the preparation of the *Historical and Critical Dictionary* (*Dictionnaire historique et critique*). The remaining years of Bayle's life were devoted to miscellaneous writings, arising in many instances out of criticisms made upon his *Dictionary*. He died in exile at Rotterdam on the 28th of December 1706. In 1906 a statue in his honour was erected at Pamiers, "la réparation d'un long oubli." Bayle's erudition, despite the low estimate placed upon it by Leclerc, seems to have been very considerable. As a constructive thinker, he did little. As a critic he was second to none in his own time, and even yet one can admire the delicacy and the skill with which he handles his subject. The *Nouvelles de la république des lettres* (see Louis P. Betz, *P. Bayle und die Nouvelles de la république des lettres*, Zürich, 1896) was the first thorough-going attempt to popularize literature, and it was eminently successful. The *Dictionary*, however, is Bayle's masterpiece.

EDITIONS.—*Historical and Critical Dictionary* (1695-1697; 1702, enlarged; best that of P. des Maizeaux, 4 vols., 1740); *Les Œuvres de Bayle* (3 vols., The Hague); see des Maizeaux, *Vie de Bayle*; L.A. Feuerbach, *Pierre Bayle* (1838); Damiron, *La Philosophie en France au XVII^e siècle* (1858-1864); Sainte-Beuve, "Du génie critique et de Bayle" (*Revue des deux mondes*, 1st Dec. 1835); A. Deschamps, *La Génèse du scepticisme érudit chez Bayle* (Liége, 1878); J. Denis, *Bayle et Jurieu* (Paris, 1886); F. Brunetière, *La Critique littéraire au XVIII^e siècle* (vol. i., 1890), and *La Critique de Bayle* (1893); Émile Gigas, *Choix de la correspondance inédite de Pierre Bayle* (Paris, 1890, reviewed in *Revue critique*, 22nd Dec. 1890); de Budé, *Lettres inédites adressées à J.A. Turretini* (Paris, 1887); J.F. Stephen, *Horae Sabbaticae* (London, 1892, 3rd ser. pp. 174-192); A. Cazes, *P. Bayle, sa vie, ses idées*, &c. (1905).

BAYLO (Lat. *bajulus* or *baillivus*; cf. Ital. *balio*, Fr. *bailli*, Eng. *bailiff*), in diplomacy, the title borne by the Venetian representative at Constantinople. His functions were originally in the nature of those of a consul-general, but from the 16th century onwards he had also the rank and functions of a diplomatic agent of the first class. "Under the name of bayle," says A. de Wicquefort, "he performs also the functions of consul and judge; not only between members of his own nation, but also between all the other merchants who trade in the Levant under the flag of St Mark." (See DIPLOMACY.)

BAYLY, THOMAS HAYNES (1797-1839), English songwriter and dramatist, was born at Bath on the 13th of October 1797. He was educated at Winchester and at St Mary Hall, Oxford, with a view to entering the church. While on a visit to Dublin, however, he discovered his ability to write ballads, and on his return to England in 1824 he quickly gained a wide reputation with "I'd be a butterfly," following this up with "We met—'twas in a crowd," "She wore a wreath of roses," "Oh, no, we never mention her," and other light and graceful songs for which his name is still remembered. He set some of his songs to music himself; a well-known example is "Gaily the troubadour." Bayly also wrote two novels, *The Aylmers* and *A Legend of Killarney*, and numerous plays. His most successful dramatic piece was *Perfection*, which was produced by Madame Vestris and received high praise from Lord Chesterfield. Bayly had married in 1826 an Irish heiress, but her estates were mismanaged and the anxiety caused by financial difficulties undermined his health. He died on the 22nd of April 1839.

His *Collected Works* (1844) contain a memoir by his wife.

BAYNES, THOMAS SPENCER (1823-1887), English editor and man of letters, the son of a Baptist minister, was born at Wellington, Somerset, on the 24th of March 1823. He studied at Edinburgh University, where he was a pupil of Sir William Hamilton, whose assistant he became and of whose views on logic he became the authorized exponent. This teaching was embodied in his *Essay on the New Analytic of Logical Forms*, published in 1850, the same year in which he took his London University degree. This was followed in the next year by a translation of Arnauld's *Port Royal Logic*. In 1850 he had become editor of the *Edinburgh Guardian*, but after four years' work his health gave way. He spent two years in Somerset and then went to London, becoming, in 1858, assistant editor of the *Daily News*. In 1864 he was appointed professor of logic metaphysics and English literature at the university of St Andrews, and in 1873 the editorship of the ninth edition of the *Encyclopaedia Britannica* was entrusted to him. He conducted it singly until 1881, when the decline of his health rendered it necessary to provide him with a coadjutor in the person of Prof. W. Robertson Smith. Baynes, however, continued to be engaged upon the work until his death on the 31st May 1887, shortly before its completion. His article on Shakespeare (*Encyclopaedia Britannica*, 9th ed.) was republished in 1894, along with other essays on Shakespearian topics and a memoir by Prof. Lewis Campbell.

BAYONET, a short thrusting weapon, fixed to the muzzle or fore-end of a rifle or musket and carried by troops armed with the latter weapons. The origin of the word is disputed, but there is some authority for the supposition that the name is derived from the town of Bayonne, where the short dagger called *bayonnette* was first made towards the end of the 15th century. The elder Puységur, a native of Bayonne, says (in his *Memoirs*, published posthumously in Paris, 1747) that when he was commanding the troops at Ypres in 1647 his musketeers used bayonets consisting of a steel dagger fixed in a wooden haft, which fitted into the muzzle of the musket—in fact plug-bayonets. Courts-martial were held on some English soldiers at Tangier in 1663-1664 for using their daggers on their comrades. As bayonets were at first called daggers, and as there were few or no pikemen in Tangier until 1675, the probable conclusion is that the troops in Tangier used plug-bayonets. In 1671 plug-bayonets were issued to the French regiment of fusiliers then raised. They were issued to part of an English dragoon regiment raised in 1672 and disbanded in 1674, and to the Royal Fusiliers when raised in 1685. The danger incurred by the use of this bayonet (which put a stop to all fire) was felt so early that the younger Puységur saw a ring-bayonet in 1678 which could be fixed without stopping the fire. The English defeat at Killiecrankie in 1689 was due (among other things) to the use of the plug-bayonet; and shortly afterwards the defeated leader, General Mackay, introduced a ring-bayonet of his own invention. A trial with badly-fitting socket or zigzag bayonets was made after the battle of Fleurus, 1690, in the presence of Louis XIV., who refused to adopt them. Shortly after the peace of Ryswick (1697) the English and Germans abolished the pike and introduced these bayonets, and plates of them are given in Surirey de St Remy's *Mémoires d'Artillerie*, published in Paris in that year; but owing to a military cabal they were not issued to the French infantry until 1703. Henceforward the bayonet became, with the musket or other firearm, the typical weapon of infantry. This bayonet remained in the British service until 1805, when Sir John Moore introduced a bayonet fastened to the musket by a spring clip. The triangular bayonet (so called from the cross-section of its blade) was used in the British army until the introduction of the magazine rifle, when it was replaced by the sword-bayonet or dagger-bayonet. Sword-bayonets—weapons which could be used as sword or dagger apart from the rifle—had long been in use by special troops such as engineers and rifles, and many ingenious attempts have been made to produce a bayonet fitted for several uses. A long curved sword-bayonet with a saw-edged back was formerly used by the Royal Engineers, but all troops are now supplied with the plain sword-bayonet. The bayonet is usually hung in a scabbard on the belt of the soldier and only fixed during the final stages of a battle; the reason for this is that the "jump" of the rifle due to the shock of explosion is materially altered by the extra weight at the muzzle, which thus deranges the sighting. In the short Lee-Enfield rifle of 1903, the bayonet, not being directly attached to the barrel, does not influence accuracy, but with the long rifles, when the bayonet is fixed, the sight must be raised by two or three graduations to ensure correct elevation. In the Russian army troops almost invariably carry the bayonet (triangular) fixed; the model (1891) of Italian carbine has an inseparable bayonet; the United States rifle (the new short model of 1903) has a knife

bayonet, the model of 1905, which is 20.5875 in. long, with the lower edge of the blade sharpened along its entire length and the upper edge sharpened 5 in. from the point; this bayonet is carried in a wooden and leather scabbard attached to the cartridge belt. The British bayonet (pattern 1903) has a blade 1 ft. in length. The length of the rifle and bayonet together, considered as an *arme blanche*, varies considerably, that of the French Lebel pattern of 1886 being 6 ft., as against the 4 ft. 8¾ in. of the British short Lee-Enfield of 1903. The German rifles (1898) have a length with bayonet of 5 ft. 9¾ in.; the Russian (1894) 5 ft. 9 in.; and the Japanese 5 ft. 5½ in. In 1908 a new British bayonet was approved, 5 in. longer than its predecessor of 1903, the shape of the point being modified to obtain the thrusting effect of a spear or lance head.

BAYONNE, a town of south-western France, capital of an arrondissement in the department of Basses-Pyrénées, 66 m. W.N.W. of Pau on the Southern railway. Pop. (1906) 21,779. Bayonne, a first-class fortified place, is situated at the confluence of the Adour and its left-hand tributary, the Nive, about 3 m. from the sea. The two rivers divide the town into three nearly equal parts, communicating with each other by bridges. Grand Bayonne lies on the left bank of the Nive; the two squares which lie close together at the mouth of that river constitute the most animated quarter of the town. Petit Bayonne lies between the right bank of the Nive and the Adour; Saint Esprit, dominated by a citadel which is one of the finest works of Vauban, occupies the right bank of the Adour. The last is inhabited partly by a colony of Jews dating at least from the early 16th century. To the north-west of the town are the Allées Marines, fine promenades which border the Adour for a mile and a quarter, and the Allées Paulmy, skirting the fortifications. The cathedral of Ste Marie in Grand Bayonne is an imposing Gothic structure of the 13th, 14th and 15th centuries. It consists of a choir with deambulatory and apsidal chapels (the oldest part of the church), a transept, nave and aisles. The towers at the west end were only completed during the general restoration which took place in the latter half of the 19th century. A fine cloister of the 13th century adjoins the south side of the church. Ste Marie contains glass windows of the 15th and 16th centuries and other rich decoration. The Vieux-Château, also in Grand Bayonne, dates from the 12th and 15th centuries and is built upon a portion of the old Roman fortifications; it is used for military purposes. The Château Neuf (15th and 16th centuries) serves as barracks and prison. Bayonne is the seat of a bishopric and of a sub-prefect; it has tribunals of first instance and of commerce, a chamber of commerce, a lycée, a school of music, a library, an art museum with a large collection of the works of the painter Léon Bonnat, and a branch of the Bank of France. There are consulates of the chief nations of Europe, of the United States of America and of several Central and South American republics. The town also possesses an important military arsenal and military hospital. The commerce of Bayonne is much more important than its industries, which include the manufacture of leather and of chocolate. The port consists of an outer harbour, the so-called “rade” (roadstead) and the port proper, and occupies the course of the Adour from its mouth, which is obstructed by a shifting bar, to the Pont St Esprit, and the course of the Nive as far as the Pont Mayou. Above these two bridges the rivers are accessible only to river navigation. Vessels drawing from 16 to 22 ft. can make the port in normal weather. In the five years 1901-1905 the average value of the imports was £502,000, of the exports £572,000; for the five years 1896-1900 the average value of imports was £637,000, of exports £634,000. Exports include timber, mine-props, turpentine, resinous material from the Pyrénées and Landes and zinc ore; leading imports are the coal and Spanish minerals which supply the large metallurgical works of Le Boucau at the mouth of the river, the raw material necessary for the chemical works of the same town, wine, and the cereals destined for the flour mills of Pau, Peyrehorade and Orthez. During the early years of the 20th century the shipping of the port increased considerably in tonnage. In 1900 there entered 741 vessels, tonnage 277,959; and cleared 743, tonnage 276,992. In 1907 there entered 661 vessels, tonnage, 336,773; cleared 650, tonnage 335,849.

In the 3rd century Bayonne (*Lapurdum*) was a Roman military post and the principal port of Novempopulana. In the middle ages it belonged to the dukes of Aquitaine and then to the kings of England, one of whom, John, granted it full communal rights in 1216. In 1451 it offered a strenuous opposition to the French, by whom it was eventually occupied. By this time its maritime commerce had suffered disaster owing to the silting up of its port and the deflection of the Adour. New fortifications were constructed under Louis XII. and Francis I.,

and in 1523 the town was able to hold out against a Spanish army. In 1565 it was the scene of an interview between Charles IX. and Catherine de' Medici on the one hand and Elizabeth, queen of Spain, and the duke of Alva on the other. It is thought that on this occasion the plans were formed for the massacres of St Bartholomew, a crime in which Bayonne took no part, in 1572. In 1808 Napoleon met Charles IV., king of Spain, and his son Ferdinand at the Château de Marrac, near the town, and induced them to renounce their rights to the crown of Spain, which fell to Napoleon's brother Joseph. In 1814, after a severe siege, Bayonne was occupied by the English (see Peninsular War).

See J. Balasque and E. Dulaurens, *Études historiques sur la ville de Bayonne* (3 vols., Bayonne, 1862-1875); E. Ducéré, *Bayonne historique et pittoresque* (Bayonne, 1893), *Histoire topographigue et anecdotique des rues de Bayonne* (Bayonne, 1894); H. Léon, *Histoire des juifs de Bayonne* (Paris, 1893).

BAYONNE, a city of Hudson county, New Jersey, U.S.A., occupying the peninsula (about 5½ m. long and about ¾ m. wide) between New York harbour and Newark Bay, and immediately adjoining the south boundary of Jersey City, from which it is partly separated by the Morris Canal. It is separated from Staten Island only by the narrow strip of water known as the Kill van Kull, and it has a total water frontage of about 10 m. Pop. (1890) 19,033; (1900) 32,722, of whom 10,786 were foreign-born (3168 Irish, 1868 Russian, 1656 German); (1910) 55,545. Land area about 4 sq. m. Bayonne is served by the Central of New Jersey and by the Lehigh Valley railways (the latter for freight only), and by electric railway lines to Newark and Jersey City. The principal public buildings are the city hall, the public library, the post-office and the city hospital. Besides having a considerable share in the commerce of the port of New York, Bayonne is an important manufacturing centre; among its manufactures are refined petroleum, refined copper and nickel (not from the ore), refined borax, foundry and machine-shop products, tubular boilers, electric launches and electric motors, chemicals (including ammonia and sulphuric and nitric acids), iron and brass products, wire cables and silk goods. In 1905 the value of its factory product was $60,633,761, an increase of 57.1% over that of 1900, Bayonne ranking third in 1905 among the manufacturing cities of the state. It is the principal petroleum-distributing centre on the Atlantic seaboard, the enormous refineries and storehouses of the Standard Oil Company, among the largest in the world, being located here; there are connecting pipe lines with the Ohio and Pennsylvania oil fields, and with New York, Baltimore, Philadelphia and Washington. Much coal is shipped from the city. Bayonne, which comprises several former villages (Bayonne, Bergen Point, Pamrapo and Centerville), was settled about 1665-1670 by the Dutch. Originally a part of Bergen, it was set off as a township in 1861. It was chartered as a city in 1869.

BAYOU (pronounced bai-yoo, probably a corruption of Fr. *boyau*, gut), an "ox-bow" lake left behind by a river that has abandoned its old channel in the lower stages of its course. Good examples are found in Palmyra Lake, in the Mississippi valley below Vicksburg, and in Osage river, Missouri. As a river swings from side to side in a series of curves which widen laterally where the current is slow and the country more or less level, there is a tendency in flood times for the water to impinge more strongly upon the convex bank where the curve leaves the main channel. This bank will be eaten away, and the process will be repeated until the base of the "isthmus" is cut through, and the descending channel meets the returning curve, which is thus left stranded and filled with dead water, while the stream runs directly past it in the shorter course cut by the flood waters that deepen the new channel, and leave an isolated ox-bow lake in the old curve.

BAYREUTH, or BAIREUTH, a town of Bavaria, Germany, district of Upper Franconia, 58 m. by rail N.N.E. from Nuremberg. Pop. (1900) 29,384. In Richard-Wagner-strasse is Wagner's house, with his grave in the garden. Franz Liszt (1811-1886) is buried here, as well as Jean Paul Friedrich Richter, who is commemorated by a monument (1841). His house was in Friedrichstrasse. Most of the buildings are of comparatively modern date, the city having suffered severely from the Hussites in 1430 and from a conflagration in 1621. There should be mentioned the palace of Duke Alexander of Württemberg, the administrative offices, the statue of King Maximilian II. (1860) and the collections of the historical society Among the ecclesiastical buildings, the *Stadt-Pfarrkirche*, dating from 1439, and containing the monuments of the margraves of Bayreuth, is the most important. Bayreuth is a railway junction and has an active trade, chiefly in grain and horses. It manufactures woollen, linen and cotton goods, leather, delft and other earthenware, and tobacco, and has also several breweries and distilleries. The village of St Georgen is a suburb to the north east noted for its marble works; and about 2 m. to the east is the Hermitage, a fanciful building, erected in 1715 by the margrave George William (d. 1726), with gardens containing terraces, statues and fountains. Bayreuth was formerly the capital of a principality of the same name, which was annexed in 1791 to the kingdom of Prussia. In 1807 it was ceded by Prussia to France, which kept possession of it till 1810, when it was transferred to Bavaria.

The Wagner Theatre.—Among the many advantages which Wagner gained from his intimacy with Ludwig II., king of Bavaria, not the least was the practical support given to his plan of erecting a theatre for the ideal performance of his own music-dramas. The first plan of building a new theatre for the purpose in Munich itself was rejected, because Wagner rightly felt that the appeal of his advanced works, like the Nibelungen trilogy, would be far stronger if the comparatively small number of people who wished to hear them were removed from the distractions of a large capital; Bayreuth possessed the desired seclusion, being on a line of railway that could not be approached from any quarter without changing. The municipality furthered Wagner's scheme in every way, and in May 1872 the foundation stone of the Festspielhaus was laid, the event being commemorated by a notable performance of Beethoven's Choral Symphony in the old opera-house. The funds for the erection of the theatre were raised in part by the issue of 1000 certificates of patronage (*Patronatscheine*), but the bulk of the sum was raised by founding "Wagner Societies" from St Petersburg to Cairo, from London to New York; these societies sprang up with such success that the theatre was opened in the summer of 1876 with the first complete performance of *Der Ring des Nibelungen*. The theatre, which stands on a height a little under a mile from the town, is built from the plans of Gustav Semper, the idea of the design being Wagner's own, an experiment indeed, but one which succeeded beyond all expectation. The seats are arranged on a kind of sloping wedge, in such a manner that every one has an almost equally good view of the stage, for there are no boxes, and the only galleries are quite at the back, one, the *Fürstenloge*, being reserved for distinguished guests, the other, above it, for the townspeople. Immediately in front of the foremost row of seats a hood or sloping screen of wood covers a part of the orchestra, and another hood of similar shape starts from the front of the stage at a slightly lower level. Thus there is left a space between the two hoods through which the sound of the orchestra ascends with wonderfully blended effect; the conductor, sitting at the highest point of the orchestra, though under the screen, has a complete view of the stage as well as of his instrumentalists, and the sound of the orchestra is sent most forcibly in the direction of the stage, so that the voices are always well supported.

> As an important addition to the work of the theatre, a permanent school has been established at Bayreuth for the sake of training young musicians to take part in the festival performances, which were at first exclusively, and then partially, undertaken by artists from other German and foreign theatres. The special feature upon which most stress has been laid, ever since Wagner's death in 1883, has been not so much the musical as the dramatic significance of the works; it is contended by the inmost circle of Wagnerian adherents that none but they can fully realize the master's intentions or hand down his traditions. What is called the "Bayreuth Idea" is set forth in much detail from this point of view by Houston Stewart Chamberlain, in his *Richard Wagner* (1897 and 1900).

BAZA, a town of southern Spain, in the province of Granada; in the Hoya de Baza, a fruitful valley of the Sierra Nevada, not far from the small river Gallego, and at the terminus

of a railway from Lorca. Pop. (1900) 12,770. The dome-shaped mountain of Javaleon (4715 ft.) overlooks the town from the north-west. The ancient collegiate church of San Maximo occupies the traditional site of a cathedral founded by the Visigothic king Reccared about 600, and afterwards converted into a mosque. There is a brisk local trade in farm produce, and in the linen, hempen goods and pottery manufactured in Baza. The town nearly doubled its population in the last quarter of the 10th century. Sulphurous springs exist in the vicinity.

Baza is the Roman *Basti*, the medieval *Basta* or *Bastiana*; and numerous relics of antiquity, both Roman and medieval, have been found in the neighbourhood. Its bishopric was founded in 306. Under Moorish rule (*c.* 713-1489) it was one of the three most important cities in the kingdom of Granada, with an extensive trade, and a population estimated at 50,000. In 1489, after a stubborn defence lasting seven months, it was captured by the Spaniards under Isabella of Castile, whose cannon still adorn the *Alameda* or public promenade. On the 10th of August 1810 the French under Marshal Soult defeated a large Spanish force close to the town.

BAZAAR (Pers. *bazar*, market), a permanent market or street of shops, or a group of short narrow streets of stalls under one roof. The word has spread westward into Arabic, Turkish and, in special senses, into European languages, and eastward it has invaded India, where it has been generally adopted. In southern India and Ceylon bazaar means a single shop or stall. The word seems to have early reached South Europe (probably through Turkish), for F. Balducci Pegolotti in his mercantile handbook (*c.* 1340) gives “bazarra” as a Genoese word for market-place. The Malayan peoples have adopted the word as *pazar*. The meaning of the word has been much extended in English, where it is now equivalent to any sale, for charitable or mere commercial purposes, of mixed goods and fancy work.

BAZAINE, ACHILLE FRANÇOIS (1811-1888), marshal of France, was born at Versailles on the 13th of February 1811. He entered the army as a private soldier in 1831, with a view to service in Algeria, and received a commission as sub-lieutenant in 1833. By his gallantry in action he won the cross of the Legion of Honour, and he was promoted lieutenant in 1835. He served two campaigns with the Foreign Legion against the Carlists in Spain in 1837-38, returning to Africa as captain in 1839. During the succeeding decade he saw continual active service in Africa, and rose to be a brigadier-general with the charge of the district of Tlemçen. In the Crimean War he commanded a brigade, and maintained his reputation in the trenches before Sevastopol. On the capture of the south side he was appointed governor of the place, and was promoted general of division. He also commanded the French forces in the expedition to Kinburn. In Lombardy in 1859 he was wounded when in command of a division at Melegnano, and took a conspicuous part in the battle of Solferino. For his services in the campaign he received the grand cross of the Legion of Honour, of which he was already (1855) a commander. He commanded with great distinction the first division under General (afterwards marshal) Forey in the Mexican expedition in 1862, succeeded him in supreme command in 1863, and became marshal and senator of France in the following year. He at first pursued the war with great vigour and success, entering Mexico in 1863 and driving President Juarez to the frontier. The marshal’s African experience as a soldier and as an administrator stood him in good stead in dealing with the guerrilleros of the Juarez party, but he was less successful in his relations with Maximilian, with whose court the French headquarters was in constant strife. Here, as later in his own country, Bazaine’s policy seems to have been directed, at least in part, to his own establishment in the rôle of a mayor of the palace. His own army thought that he aspired to play the part of a Bernadotte. His marriage to a rich Mexican lady, whose family were supporters of Juarez, still further complicated his relations with the unfortunate emperor, and when at the close of the American Civil War the United States sent a powerful war-trained army to the Mexican frontier, the French forces were withdrawn (see Mexico, *History*). Bazaine skilfully conducted the retreat and embarkation at Vera Cruz (1867). On his return to Paris he was but coldly received by his sovereign; public opinion was, however, in his favour, and he was

held to have been made a scapegoat for the faults of others.

At the outbreak of the Franco-German War (*q.v.*) Marshal Bazaine was placed in command of the III. corps of the Army of the Rhine. He took no part in the earlier battles, but Napoleon III. soon handed over the chief command of the army to him. How far his inaction was the cause of the disaster of Spicheren is a matter of dispute. The best that can be said of his conduct is that the evil traditions of warfare on a small scale and the mania for taking up "strong positions," common to the French generals of 1870, were in Bazaine's own case emphasized by his personal dislike for the "schoolmaster" Frossard, lately the Prince Imperial's tutor and now commander of the army corps posted at Spicheren. Frossard himself, the leader of the "strong positions" school, could only blame his own theories for the paralysis of the rest of the army, which left the corps at Spicheren to fight unsupported. Bazaine, indeed, when called upon for help, moved part of his corps forward, but only to "take up strong positions," not to strike a blow on the battlefield. A few days later he took up the chief command, and his tenure of it is the central act in the tragedy of 1870. He found the army in retreat, ill-equipped and numerically at a great disadvantage, and the generals and staffs discouraged and distrustful of one another. There was practically no chance of success. The question was one of extricating the army and the government from a disastrous adventure, and Bazaine's solution of it was to bring back his army to Metz. For the events which led up to the battles before Metz and the investment of Bazaine's whole army in the fortress, see Franco-german War and Metz, *Battles*.

It seems to be clearly established that the charges of treason to which later events gave so strong a colour had, as yet, no foundation in fact. Nor, indeed, can his unwillingness to leave the Moselle region, while there was yet time to slip past the advancing enemy, be considered even as proof of special incompetence. The resolution to stay in the neighbourhood of Metz was based on the knowledge that if the slow-moving French army ventured far out it would infallibly be headed off and brought to battle in the open by superior numbers. In "strong positions" close to his stronghold, however, Bazaine hoped that he could inflict damaging repulses and heavy slaughter on the ardent Germans, and in the main the result justified the expectation. The scheme was creditable, and even heroic, but the execution throughout all ranks, from the marshal to the battalion commanders, fell far short of the idea. The minutely cautious methods of movement, which Algerian experience had evolved suitable enough for small African desert columns, which were liable to surprise rushes and ambushes, reduced the mobility of a large army, which had favourable marching conditions, to 5 m. a day as against the enemy's rate of 15. When, before he had finally decided to stay in Metz, Bazaine attempted half-heartedly to begin a retreat on Verdun, the staff work and organization of the movement over the Moselle was so ineffective that when the German staff calculated that Bazaine was nearing Verdun, the French had in reality barely got their artillery and baggage trains through the town of Metz. Even on the battlefield the marshal forbade the general staff to appear, and conducted the fighting by means of his personal orderly officers. After the cumbrous army had passed through Metz it encountered an isolated corps of the enemy, which was commanded by the brilliant leader Constantin von Alvensleben, and promptly attacked the French. At almost every moment of the day victory was in Bazaine's hands. Two corps of the Germans fought all day for bare existence. But Bazaine had no confidence in his generals or his troops, and contented himself with inflicting severe losses on the most aggressive portions of the German army. Two days later, while the French actually retreated on Metz—taking seven hours to cover 5 to 6 m.—the masses of the Germans gathered in front of him, intercepting his communication with the interior of France. This Bazaine expected, and feeling certain that the Germans would sooner or later attack him in his chosen position, he made no attempt to interfere with their concentration. The great battle was fought, and having inflicted severe punishment on his assailants, Bazaine fell back within the entrenched camp of Metz. But although he made no appeals for help, public opinion, alarmed and excited, condemned the only remaining army of France, Marshal MacMahon's "Army of Châlons," to rescue Bazaine at all costs. The adventure ended at Sedan, and with Sedan the Third Empire collapsed.

Up to this point Bazaine had served his country perhaps as well as circumstances allowed, and certainly with enough skill and a sufficient measure of success to justify his appointment. His experience, wide as it was, had not fitted him for the command of a large army in a delicate position. Since his Mexican expedition, moreover, he had himself fallen into a state of moral and physical lethargy, which, imperceptible on the field of battle, because his reputation for impassive bearing under fire was beyond question, was only too obvious in the staff offices, where the work of manoeuvring the army and framing plans and orders was chiefly done. But, in spite of these defects, it cannot be asserted that any one of

Bazaine's subordinates would have done better, with the possible exception of Ladmirault, and Ladmirault was one of the junior corps commanders.

Bazaine, therefore, in the main justified his reputation for ability. He was now to justify his reputation for intriguing and underhand diplomacy. If in Mexico he aspired to the rôle of mayor of the palace, it was far more so in Metz, where, as commander of the only organized army of France, he conceived himself to be the ruler of the country's destiny. Accordingly he engaged in a series of diplomatic intrigues, some of which to this day have never been properly cleared up. Negotiations passed between the outer world and the besieged commander, the purport of which remains still to some extent obscure, but it is beyond question that he proposed with the permission of the Germans to employ his army in "saving France from herself." The scheme, however, collapsed, and the army of the Rhine became prisoners of war to the number of 140,000. At the moment of the surrender a week's further resistance would have enabled the levies of the National Defence government to crush the weak forces of the Germans on the Loire and to relieve Paris. But the army of Prince Frederick Charles, set free by the surrender, hurried up in time to check and to defeat the great effort at Orleans (*q.v.*). The responsibility for this crushing blow was naturally enough, and justly enough, placed on Bazaine's shoulders, and although, when he returned from captivity, the marshal enjoyed a brief immunity, he was in 1873 brought to trial before a military court. He was found guilty of negotiating with and capitulating to the enemy before doing all that was prescribed by duty and honour, and sentenced to degradation and death, but very strongly recommended to mercy. His sentence was commuted to twenty years' seclusion, and the humiliating ceremonies attending degradation were dispensed with. He was incarcerated in the Ile Sainte-Marguérite and treated rather as an exile than as a convict; thence he escaped in 1874 to Italy. He finally took up his abode in Madrid, where he was treated with marked respect by the government of Alfonso XII. He died there on the 23rd of September 1888. He published *Épisodes de la guerre de 1870* (Madrid, 1883). He also wrote *L'Armée du Rhin* (Paris, 1872).

See the bibliography appended to the article FRANCO-GERMAN WAR; also memoir by C. Pelletan in *La Grande Encyclopédie*; for Bazaine's conduct see *Bazaine et l'armée du Rhin* (1873); J. Valfrey, *Le Maréchal et l'armée du Rhin* (1873); Count A. de la Guerronière, *L'Homme de Metz* (1871); Rossel, *Les Derniers Jours de Metz* (1871). See also the article BOURBAKI for the curious Regnier episode connected with the surrender of Metz.

BAZALGETTE, SIR JOSEPH WILLIAM (1819-1891), English engineer, was born at Enfield on the 28th of March 1819. At the age of seventeen he was articled to an engineer, and a few years later he began to practise successfully on his own account. His name is best known for the engineering works he carried out in London, especially for the construction of the main drainage system and the Thames embankment. In 1848 the control of London drainage, which had hitherto been divided among eight distinct municipal bodies, was consolidated under twelve commissioners, who were in 1849 superseded by a second commission. Under the latter Bazalgette accepted an appointment which he continued to hold under the three successive commissions which in the course of a year or two followed the second one, and when finally in 1855 these bodies were replaced by the Metropolitan Board of Works, he was at once appointed its chief engineer. His plans were ready, but the work was delayed by official obstruction and formality until 1858. Once begun, however, it was vigorously pushed on, and in 1865 the system was formally opened. It consisted of 83 m. of large intercepting sewers, draining more than 100 sq. m. of buildings, and calculated to deal with 420 million gallons a day. The cost was £4,600,000. Almost simultaneously Bazalgette was engaged on the plans for the Thames embankment. The section between Westminster and Vauxhall on the Surrey side was built between 1860 and 1869, and the length between Westminster and Blackfriars was declared open by the prince of Wales in 1870. The Chelsea embankment followed in 1871-1874, and in 1876 Northumberland Avenue was formed. The total outlay on the scheme exceeded £2,000,000. Bazalgette was also responsible for various other engineering works in the metropolitan area, designing, for example, new bridges at Putney and Battersea, and the steam ferry between north and south Woolwich. He also prepared plans for a bridge over the river near the Tower and for a tunnel under it at Blackwall, but did not live to see either of these projects carried out. He died on the 15th of March 1891 at Wimbledon.

BAZARD, AMAND (1791-1832), French socialist, the founder of a secret society in France corresponding to the Carbonari of Italy, was born at Paris. He took part in the defence of Paris in 1815, and afterwards occupied a subordinate situation in the prefecture of the Seine. About 1820 he united some patriotic friends into a society, called *Amis de la vérité*. From this was developed a complete system of Carbonarism, the peculiar principles of which were introduced from Italy by two of Bazard's friends. Bazard himself was at the head of the central body, and, while taking a general lead, contributed extensively to the Carbonarist journal, *L'Aristarque*. An unsuccessful outbreak at Belfort ruined the society, and the leaders were compelled to conceal themselves. Bazard, after remaining for some time in obscurity in Paris, came to the conclusion that the ends of those who wished well to the people would be most easily attained, not through political agitation, but by effecting a radical change in their social condition. This train of thinking naturally drew him towards the socialist philosophers of the school of Saint-Simon, whom he joined. He contributed to their journal, *Le Producteur*; and in 1828 began to give public lectures on the principles of the school (see SAINT-SIMON). His opposition to the emancipation of women brought about a quarrel with Enfantin (*q.v.*) in 1831, and Bazard found himself almost deserted by the members of the society. He attacked Enfantin violently, and in a warm discussion between them he was struck down by apoplexy. After lingering for a few months he died on the 29th of July 1832.

BAZAS, a town of south-western France, in the department of Gironde, 38½ m. S.S.E. of Bordeaux by rail. Pop. (1906) town, 2505; commune, 4684. The town, which was the seat of a bishop from at least the beginning of the 6th century till 1790, has a Gothic church (formerly the cathedral) dating from the 13th to the 16th centuries. There are remains of ramparts (15th and 16th centuries) and several old houses of the 16th century. The vineyards of the vicinity produce white wine. The town is capital of an arrondissement, and carries on tanning, &c., and trade in the well-known Bazadais cattle.

Bazas (*Cossio*) was capital of the ancient tribe of the *Vasates*, and under the Romans one of the twelve cities of Novempopuluna. In later times it was capital of the district of Bazadais. It was the scene of much bloodshed during the religious wars of the 16th century.

BAZIGARS, a nomad gipsy-folk of India, found throughout the peninsula, and variously known as Bazigars, Panchpiri, Nats, Bediyas, &c. They live a life apart from the surrounding Hindu population, and still preserve a certain ethnical identity, scarcely justified by any indications given by their physique. They make a living as jugglers, dancers, basket-weavers and fortune-tellers; and in true European gipsy fashion each clan has its king.

BAZIN, RENÉ (1853-), French novelist and man of letters, was born at Angers on the 26th of December 1853. He studied law in Paris, and on his return to Angers became professor of law in the Catholic university there. He contributed to Parisian journals a series of sketches of provincial life and descriptions of travel, but he made his reputation by *Une Tache d'encre* (1888), which received a prize from the Academy. Other novels of great charm and delicacy followed: *La Sarcelle bleue* (1892); *Madame Corentine* (1893); *Humble Amour* (1894); *De toute son âme* (1897); *La Terre qui meurt* (1899); *Les Oberlé* (1901), an

Alsatian story which was dramatized and acted in the following year; *L'Âme alsacienne* (1903); *Donatienne* (1903); *L'Isolée* (1905); *Le Blé qui lève* (1907); *Mémoires d'une vieille fille* (1908). *La Terre qui meurt*, a picture of the decay of peasant farming and a story of La Vendée, is an indirect plea for the development of provincial France. A volume of *Questions littéraires et sociales* appeared in 1906. René Bazin was admitted to the Academy on the 28th of April 1904.

BAZIRE, CLAUDE (1764-1794), French revolutionist, was deputy for the Côte d'Or in the Legislative Assembly, and made himself prominent by denouncing the court and the "Austrian committee" of the Tuileries. On the 20th of June 1792 he spoke in favour of the deposition of the king. In the Convention he sat with the Mountain, opposed adjourning the trial of Louis XVI., and voted for his death. He joined in the attack upon the Girondists, but, as member of the committee of general security, he condemned the system of the Terror. He was implicated by François Chabot in the falsification of a decree relative to the East India Company, and though his share seems to have been simply that he did not reveal the plot, of which he knew but part, he was accused before the Revolutionary Tribunal at the same time as Danton and Camille Desmoulins, and was executed on the 5th of April 1794.

BDELLIUM (βδέλλιον, used by Pliny and Dioscorides as the name of a plant which exuded a fragrant gum), a name applied to several gums or gum-resins that simulate and are sometimes found as adulterants of true myrrh (*q.v.*).

BEACH, a word of unknown origin; probably an old dialect word meaning shingle, hence, by transference, the place covered by shingle. Beach sometimes denotes the material thrown up by the waves, sometimes the long resulting ridge, but more frequently the area between high and low water, or even the area between land and sea covered with material thrown up by exceptional storms.

The actual character of beach material depends upon the nature and structure of the rocks inshore, the strength and direction of currents, and the force of the waves. The southern shore of the Isle of Wight furnishes a good example. The island ends westward in the well-known "Needles," consisting of chalk with flints. The disintegration of this rock by wave action separates the finer chalk, which is carried seawards in suspension, from the hard flint, which is piled in rough shingle upon the shore. The currents sweep constantly eastward up channel, and the rough flint shingle is rolled along by wave action toward the Ventnor rampart, and ground finer and finer until it arrives as a very fine flinty gravel at Ventnor pier. The sweep of Sandown Bay follows, where the cliffs are composed for the most part of greensand, and here the beach at low water is sandy and smooth. The eastern end of the island is again composed of chalk with flints, and here the beach material as at the western end consists of very coarse flint shingle. In this, as in similar cases, the material has been dragged seawards from the land by constant action of the undertow that accompanies each retreating tide and each returning wave. The resulting accumulated ridge is battered by every storm, and thrown above ordinary high-water mark in a ridge such as the Chesil Bank or the long grass-grown mound that has blocked the old channel of the Yar and diverted its waters into Yaverland Bay. Sandown furnishes an instructive example of the power of the eastward currents carrying high-storm waves. The groins built to preserve the foreshore are piled to the top with coarse shingle on the western side, while there is a drop of over 8 ft. on to the sands east of the wall, many thousands of tons of shingle having been moved bodily by the waves and deposited against each groin. The force of the waves has been measured on the west coast of Scotland and found to be as much as 3 tons per square

foot. Against these forces the preservation of the shore from the advance of the sea becomes an extremely difficult and often a hopeless undertaking, since blocks of rock over 100 tons in weight have been moved by the waves. The beach is therefore unstable in its position. It advances in front of the encroaching sea, burying former beaches under the sand and mud of the now deeper water, or it retreats when the sea is withdrawn from the land or the land rises locally, leaving the old shingle stranded in a “raised beach,” but its formation is in all cases due to the form and structure of the shore, the sapping action of the waves, the backward drag of the undertow plastering the shore with material, which is in turn bombarded by waves and swept by currents that cover the finer débris of the undertow with a layer of coarse fragments that are re-sorted by the daily action of currents and tides.

BEACHY HEAD, a promontory on the coast of Sussex, England, S.W. of Eastbourne, about 3 m. from the centre of the town. It consists of a perpendicular chalk cliff 532 ft. high, and forms the eastern termination of the hill-range known as the South Downs. The old Bell Tout lighthouse, 285 ft. above high-water mark, erected in 1831 on the second cliff to the westward, in 0° 10′ 18″ E., 50° 43′ 30″ N., has been superseded by a new lighthouse built in the sea at the foot of the head itself.

Battle of Beachy Head.—This naval battle, known to the French as Bévisier (a corruption of Pevensey), was fought on the 30th of June 1690. An allied force of 37 British sail of the line, under command of the earl of Torrington (Arthur Herbert), and of 22 Dutch under C. Evertsen, was at anchor under the headland, while a French fleet of over 70 sail, commanded by the comte de Tourville, was anchored some miles off to the south-west. The French fleet had orders to co-operate with an expected Jacobite rising in England. Torrington, to whom the general direction of the allied fleet belonged, was much disturbed by the enemy’s superiority in number, and on the 26th had written to the Council of Regency suggesting that he ought to retire to the Gunfleet at the mouth of the Thames, and observe the enemy from a distance till he could be reinforced. The council, which had the support of Admiral Russell, afterwards earl of Orford, considered that a retreat to the Gunfleet would have fatal consequences, by which they no doubt meant that it would leave the French free to land troops for the support of the Jacobites. They therefore ordered Herbert not to lose sight of the enemy, but rather to fight if he could secure an advantage of position. The admiral, who was on very bad terms with the council, elected to treat this as a peremptory order to fight. At daybreak on the 30th he got under way and bore down on the enemy. The wind was at north-east and gave him the weather-gage. As his fleet was only 57 sail in all he was not able to engage the enemy from end to end, but as the French were arranged in a line from east to west he could have fallen on the end nearest him, and could have guarded himself by telling off a part of his ships to watch the remainder. Torrington preferred to bring his fleet down in such a way that his van, consisting of the Dutch ships, should be opposite the enemy’s van, his centre opposite their centre, and his rear should engage their rear. The inferiority of the allies in numbers made it therefore inevitable that there should be gaps between the different divisions. As the fleets actually did come to action, the Dutch with a few English ships pressed on the French van, their leading ship being abreast of the ninth or tenth Frenchman. Torrington took his station opposite the rear of the French centre, leaving a great gap between himself and the ships in the van. Being apprehensive that the French centre would tack and pass this gap so as to put him between two fires, he kept a long way off so as to be free to manoeuvre against them if they made the attempt. The English rear division, consisting of the English blue squadron under Sir Ralph Delaval, fought a close action with the French opposite to them. In the meantime the French ships, ahead of the leading Dutchman, succeeded in turning to windward and putting part of Evertsen’s squadron between two fires. The Dutch ships suffered heavily, and one of them which was dismasted drifted among the French and was taken. More severe loss would have followed if the better average seamanship of the English and Dutch had not stood them in good stead. The tide turned from flood to ebb during the action, and the surface current which in the Channel sets to the west with the ebb began to carry the fleets with it. The Dutch and English dropped anchor. The French, who were not equally alert, did not and were carried westward. When the tide turned the allies retreated to the Thames, abandoning several of the most damaged ships in Pevensey Bay. The pursuit of the French was ineffective, for Tourville persisted in keeping his ships in line of battle, which forced them to regulate their speed by the slowest among them. Torrington was tried for his

conduct but acquitted.

A full account of the battle of Beachy Head, written with ample quotation of documents, and for the purpose of vindicating Herbert, will be found in Admiral Colomb's *Naval Warfare* (London, 1899).

(D. H.)

BEACON (from the O. Eng. *béacn*, a sign, cf. "beckon," another form of the same word), a signal, especially a fire lit on a high hill, structure or building for the purpose of sending a message of alarm or of important news over long distances. Such was the courier-fire (ἄγγαρος πῦρ) that brought the news of the fall of Troy to Argos (Aeschylus, *Agamemnon*), or the chain of signals that told of the approach of the Spanish Armada, or which circled the British Isles in the jubilee years of 1887 and 1897. The word occurs in many names for lofty and conspicuous hills, such as Dunkery Beacon in Somerset, the highest point on Exmoor. On many such hills the remains of old beacon towers and cressets are still found. The word is used generally of a lighthouse, but technically it means either a small unattended light, a superstructure on a floating buoy, such as a staff and cage, or staff and globe, or an unlighted structure, forming a conspicuous object at sea, used in each case to guide or warn sailors. (See LIGHTHOUSE and BUOY.)

BEACONSFIELD, BENJAMIN DISRAELI, EARL OF (1804-1881), British statesman, second child and eldest son of Isaac D'Israeli (*q.v.*) and Maria Basevi, who were married in 1802, was born at No. 6 John Street, Bedford Row, on the 21st of December 1804. Of Isaac D'Israeli's other children, Sarah was born in 1802, Naphtali in 1807, Ralph (Raphael) in 1809, and James (Jacob) in 1813. None of the family was akin to Benjamin for genius and character, except Sarah, to whom he was deeply indebted for a wise, unswerving and sympathetic devotion, when, in his earlier days, he needed it most. All Isaac D'Israeli's children were born into the Jewish communion, in which, however, they were not to grow up. It is a reasonable inference from Isaac's character that he was never at ease in the ritual of Judaism. His father died in the winter of 1816, and soon afterwards Isaac formally withdrew with all his household from the Jewish church. His son Benjamin, who had been admitted to it with the usual rites eight days after his birth, was baptized at St Andrew's church in Holborn on the 31st of July 1817. One of Isaac D'Israeli's reasons for quitting the tents of his people was that rabbinical Judaism, with its unyielding laws and fettering ceremonies, "cuts off the Jews from the great family of mankind." Little did he know, when therefore he cut off the D'Israeli family from Judaism, what great things he was doing for one small member of it. The future prime minister was then short of thirteen years old, and there was yet time to provide the utmost freedom which his birth allowed for the faculties and ambitions he was born with. Taking the worldly view alone, of course, most fortunate for his aspirations in youth was his withdrawal from Judaism in childhood. That it was fully sanctioned by his intellect at maturity is evident; but the vindication of unbiased choice would not have been readily accepted had Disraeli abandoned Judaism of his own will at the pushing *Vivian Grey* period or after. And though a mind like Disraeli's might work to satisfaction with Christianity as "completed Judaism," it could but dwell on a breach of continuity which means so much to Jews and which he was never allowed to forget amongst Christians. With all, he was proud of his race as truly, if not as vehemently, as his paternal grandmother detested it. Family pride contributed to the feeling in his case; for in his more speculative moods he could look back upon an ancestry which was of those, perhaps, who colonized the shores of the Mediterranean from before the time of the Captivity. More definite is the history of descent from an ennobled Spanish family which escaped from the Torquemada persecutions to Venice, there found a new home, took a new name, and prospered for six generations. The Benjamin D'Israeli, Lord Beaconsfield's grandfather, who came to England in 1748, was a younger son sent at eighteen to try his fortune in London. "A man of ardent character, sanguine, courageous, speculative, fortunate, with a temper which no disappointment could disturb" (so Lord Beaconsfield described him), he soon made

the beginnings of a handsome fortune and turned country gentleman. That his grandson exaggerated his prosperity is highly probable; but that he became a man of wealth and consideration is certain. He married twice. His second wife was Sarah Siprout de Gabay, “a beautiful woman of strong intellect” and importunate ambitions, who hated the race she belonged to because it was despised by others. She felt so keenly the social disabilities it brought upon her, and her husband’s indifference to them, that “she never pardoned him his name.” Her literary son Isaac suffered equally or even more; for though he had ambitions he had none that she could recognize as such. She could ridicule him for the aspirations which he had not and for those which he had; on the other hand, he never heard from her a tender word “though she lived to be eighty.” Nor did any other member of her family, according to her grandson.

Isaac D’Israeli was devoted to the reading and writing of books in domestic quiet; and his son Benjamin suffered appreciably from his father’s gentle preoccupations. As a child—unruly and disturbing no doubt—he was sent to a school of small account at Blackheath, and was there “for years” before he was recalled at the age of twelve on the death of his grandfather. Isaac D’Israeli was his father’s sole heritor, but change of fortune seems to have awakened in him no ambitions for the most hopeful of his sons. At fifteen, not before, Benjamin was sent to a Unitarian school at Walthamstow—a well-known school, populous enough to be a little world of emulation and conflict but otherwise unfit. Not there, nor in any similar institution at that illiberal time, perhaps, was a Jewish boy likely to make a fortunate entry into “the great family of mankind.” His name, the foreign look of him, and some pronounced incompatibilities not all chargeable to young Disraeli (as afterwards the name came to be spelt), soon raised a crop of troubles. His stay at Walthamstow was brief, his departure abrupt, and he went to school no more. With the run of his father’s library, and the benefits of that born bookman’s guidance, he now set out to educate himself. This he did with an industry stiffened by matchless self-confidence and by ambitions fully mature before he was eighteen. Yet he yielded to an attempt to make a man of business of him. He was barely seventeen when (in November 1821) he was taken into the office of Messrs Swain, Stevens and Co., solicitors, in Frederick’s Place, Old Jewry. Here he remained for three years—“most assiduous in his attention to business,” said one of the partners, “and showing great ability in the transaction of it.” It was then determined that he should go to the bar; and accordingly he was entered at Lincoln’s Inn in 1824. But Disraeli had found other studies and an alien use for his pen. Though “assiduous in his attention to business” in Frederick’s Place, he found time to write for the printer. Dr Smiles, in his *Memoirs of John Murray*, tells of certain pamphlets on the brightening prospects of the Spanish South American colonies, then in the first enjoyment of emancipation—pamphlets seemingly written for a Mr Powles, head of a great financial firm, whose acquaintance Disraeli had made. In the same year, apparently, he wrote a novel—his first, and never published. *Aylmer Papillon* was the title of it, Dr Smiles informs us; and he prints a letter from Disraeli to the John Murray of that day, which indicates its character pretty clearly. The last chapter, its author says, is taken up with “Mr Papillon’s banishment under the Alien Act, from a ministerial misconception of a metaphysical sonnet.” About the same time he edited a *History of Paul Jones*, originally published in America, the preface of the English edition being Disraeli’s first appearance as an author. Murray could not publish *Aylmer Papillon*, but he had great hopes of its boyish writer (Isaac D’Israeli was an old friend of his), “took him into his confidence, and related to him his experiences of men and affairs.” Disraeli had not completed his twenty-first year when (in 1825) Murray was possessed by the idea of bringing out a great daily newspaper; and if his young friend did not inspire that idea he keenly urged its execution, and was entrusted by Murray with the negotiation of all manner of preliminaries, including the attempt to bring Lockhart in as editor. The title of the paper, *The Representative*, was Disraeli’s suggestion. He chose reporters, looked to the setting-up of a printing-office, busied himself in all ways to Murray’s great satisfaction, and, as fully appears from Dr Smiles’s account of the matter, with extraordinary address. But when these arrangements were brought to the point of completion, Disraeli dropped out of the scheme and had nothing more to do with it. He was to have had a fourth share of the proprietorship, bringing in a corresponding amount of capital. His friend Mr Powles, whom he had enlisted for the enterprise, was to have had a similar share on the same conditions. Neither seems to have paid up, and that, perhaps, had to do with the quarrel which parted Benjamin Disraeli and John Murray before a sheet of the luckless *Representative* was printed. Many years afterwards (1853) Disraeli took an active interest in *The Press*, a weekly journal of considerable merit but meagre fortunes.

“The Representative.”

At the death of the elder Benjamin (1817), his son Isaac had moved from the King’s Road,

Gray's Inn (now Theobald's Road), to No. 6 Bloomsbury Square. Here he entertained the many distinguished friends, literary and political, who had been drawn to him by his "Curiosities" and other ingenious works, and here his son Benjamin also had their acquaintance and conversation. In Bloomsbury Square lived the Austens, and to their house, a great resort of similar persons, Mrs Austen cordially welcomed him. Murray's friendship and associations helped him in like manner, no doubt; and thus was opened to Disraeli the younger a world in which he was to make a considerable stir. The very much smaller society of that day was, of course, more comprehensible to sight and hearing, when once you were within its borders, than the society of this. Reverberations of the gossip of St James's and Mayfair extended to Bloomsbury in those days. Yet Disraeli's range of observation must have been not only brief but limited when he sat down at twenty or twenty-one to write *Vivian Grey*. It is therefore a probable conjecture that Mrs Austen, a clever woman of the world, helped him from her knowledge. His own strongly perceptive imagination (the gift in which he was to excel every other politician of his time) and the bent of political reading and aspiration from boyhood completed his equipment; and so the wonder that so young a man in Disraeli's social position should write a book like *Vivian Grey* is accounted for. It was published in 1826. The success of this insolently clever novel, the immediate introduction of its author to the great world, and the daring eccentricities of dress, demeanour, and opinion by which he fixed attention on himself there, have always been among the most favourite morsels of Disraeli's history. With them it began, and successive generations of inquirers into a strange career and a character still shrouded and baffling refer to them as settled starting-points of investigation. What was the man who, in such a society and with political aspirations to serve, could thrive by such vagaries as these, or in spite of them? If unaffected, what is to be thought of them as keys to character? If affected, what then? Inquiry still takes this shape, and when any part of Disraeli's career is studied, the laces and essences, the rings over gloves, the jewelled satin shirt-fronts, the guitareries and chibouqueries of his early days are never remote from memory. The report of them can hardly be doubted; and as the last relation was made (to the writer of this article) not with intent to ridicule Mr Disraeli's taste but to illustrate his conquering abilities, the story is repeated here. One of Disraeli's first friends in the world of fashion and genius was Sir Edward Lytton Bulwer. "And," said Sir Henry Bulwer ("Pelham's" brother), "we heard so much at the time of Edward's amazingly brilliant new friend that we were the less inclined to make his acquaintance." At length, however, Sir Edward got up a little dinner-party to convince the doubters. It was to meet at the early hour of those days at one of the Piccadilly hotels. "There was my brother, Alexander Cockburn, myself and (I think) Milnes; but for a considerable time no Mr Disraeli. Waiting for Mr Disraeli did not enhance the pleasure of meeting him, nor when he did arrive did his appearance predispose us in his favour. He wore green velvet trousers, a canary-coloured waistcoat, low shoes, silver buckles, lace at his wrists, and his hair in ringlets." The description of the coat is forgotten. "We sat down. Not one of us was more than five-and-twenty years old. We were all—if you will allow me to include myself—on the road to distinction, all clever, all ambitious, and all with a perfect conceit of ourselves. Yet if on leaving the table we had been severally taken aside and asked which was the cleverest of the party, we should have been obliged to say 'the man in the green velvet trousers.'" This story is a little lamp that throws much light. Here we see at their sharpest the social prejudices that Disraeli had to fight against, provocation of them carried to its utmost in every way open to him, and complete conquest in a company of young men less likely to admit superiority in a wit of their own years, probably, than any other that could have been brought together at that time.

"Vivan Grey."

Soon after the publication of *Vivian Grey*, Disraeli, who is said by Froude to have been "overtaken by a singular disorder," marked by fits of giddiness ("once he fell into a trance, and did not recover for a week"), went with the Austens on a long summer tour in France, Switzerland and Italy. Returning to a quiet life at Bradenham—an old manor-house near High Wycombe, which his father had taken—Disraeli put law in abeyance and resumed novel-writing. His weakest book, and two or three other productions, brief, but in every literary sense the finest of his works, were written in the next two or three years. But for *Ixion in Heaven*, *The Infernal Marriage*, and *Popanilla*, Disraeli could not be placed among the greater writers of his kind; yet none of his imaginative books have been so little read as these. The mysterious malady continued, and Disraeli set out with William Meredith, who was to have married Sarah Disraeli, for a tour in southern Europe and the nearer East. He saw Cadiz, Seville, Granada, Athens, Constantinople, Jerusalem, Cairo, Thebes; played the corsair with James Clay on a yacht voyage from Malta to Corfu; visited the terrible Reschid, then with a Turkish army in the Albanian capital; landed in Cyprus, and left it with an expectation in his singularly prescient mind that the island would one day be English. These travels must have profited him greatly,

Travel.

and we have our share of the advantage; not so much, however, in *The Wondrous Tale of Alroy* or *Tancred*, or the “Revolutionary Epic” which he was inspired to write on “the windy plains of Troy,” but in the letters he sent home to his sister. These letters, written with the utmost freedom and fullness to the one whose affection and intellect he trusted more than any, are of the greatest value for interpreting the writer. Together with other letters also published some time after Disraeli’s death, they tell more of him than anything that can be found in print elsewhere. They show, for example, that his extraordinary exuberances were unforced, leaping by natural impulse from an overcharged source. They also show that his Oriental fopperies were not so much “purposed affectation” as Froude and others have surmised. That they were so in great part is confessed again and again in these letters, but confessed in such a way as to reveal that they were permitted for his own enjoyment of them as much as planned. The “purposed affectation” sprang from an unaffected delight in gauds of attire, gauds of fancy and expression. It was not only to startle and impress the world that he paraded his eccentricities of splendour. His family also had to be impressed by them. It was to his sober father that he wrote, at the age of twenty-six: “I like a sailor’s life much, though it spoils the toilette.” It is in a letter from Gibraltar to the same hand that we read of his two canes—“a morning and an evening cane”—changed as the gun fires. And the same correspondent must be told that “Ralph’s handkerchief which he brought me from Paris is the most successful thing I ever wore.”

When Disraeli returned to England in 1831, all thought of the law was abandoned. The pen of romance was again taken up—the poet’s also and the politician’s. In the next five years he wrote *Contarini Fleming*, the *Revolutionary Epick, Alroy, Henrietta Temple, What is He?* (a pamphlet expository of his opinions), the *Runnymede Letters*, a *Vindication of the British Constitution*, and other matter of less note. The epic, begun in great hope and confidence, was ended in less, though its author was to the last unwilling that it should be forgotten. The novels revived the success he had with *Vivian Grey*, and restored him to his place among the brilliancies and powers of the time. The political writing, too, much of it in a garish, extravagant style, exercised his deeper ambitions, and stands as witness to the working of original thought and foresight. Both qualities are conspicuous in *What is He?* and the *Vindication*, of which it has been truly said that in these pages he “struck the keynote to the explanations he afterwards consistently offered of all his apparent inconsistencies.” Here an interpretation of Tory principles as capable of running with the democratic idea, and as called upon to do so, is ingeniously attempted. The aristocratic principle of government having been destroyed by the Reform Bill, and the House of Lords being practically “abrogated” by that measure, it became necessary that Toryism should start from the democratic basis, from which it had never been alien. The filched liberties of the crown and the people should be restored, and the nation redeemed from the oligarchies which had stolen from both. When at the beginning of all this writing Disraeli entered the political arena as candidate for High Wycombe (1832), he was nominated by a Tory and seconded by a Radical—in vain; and vain were two subsequent attempts in the autumn of 1832 and in 1834. In the first he was recommended to the electors by Daniel O’Connell and the Radical Hume. In his last candidature at Wycombe he stood on more independent ground, commending himself by a series of speeches which fully displayed his quality, though the prescience which gemmed them with more than one prophetic passage was veiled from his contemporaries. Among Disraeli’s great acquaintances were many—Lyndhurst at their head—whose expectations of his future were confirmed by the Wycombe speeches. He was “thought of” for various boroughs, Marylebone among the number, but his democratic Toryism seems to have stood in his way in some places and his inborn dislike of Radicalism in others. It was an impracticable situation—no getting on from it; and so, at Lyndhurst’s persuasion, as he afterwards acknowledged, he determined to side with the Tories. Accordingly, when in the spring of 1835 a vacancy occurred at Taunton, Disraeli contested the seat in the Tory interest with Carlton Club support. Here again he failed, but with enhanced reputation as a fighting politician and with other consequences good for notoriety. It was at Taunton that Disraeli fell upon O’Connell, rather ungratefully; whereupon the Liberator was roused to retort on his assailant vehemently as “a liar,” and humorously as a probable descendant of the impenitent thief. And then followed the challenge which, when O’Connell declined it, was fastened on his son Morgan, and the interruption of the duel by seizure of Mr Disraeli in his bed, and his famous appearance in the Marylebone police court. He declared himself very well satisfied with this episode, but nothing in it can really have pleased him, not even the noise it made.

Literary production.

Here the first period of Disraeli’s public life came to an end, a period of preliminaries and flourishes, and of what he himself called sowing his political wild oats. It was a more mature

Enters Parliament.

Disraeli who in the general election of 1837 was returned for Maidstone as the colleague of his providential friend Mr Wyndham Lewis. Though the fortunes of the Tory party were fast reviving under Peel's guidance, the victory was denied him on this occasion; but, for once, the return of the Whigs to power was no great disappointment for the junior member for Maidstone. To gain a footing in the House of Commons was all that his confident spirit ever asked, and Froude vouches for it that he succeeded only just in time to avert financial ruin. His electioneering ventures, the friendly backing of bills, and his own expense in keeping up appearances, had loaded him with debt. Yet (mark his worldly wisdom) "he had never entangled his friends in his financial dealings. He had gone frankly to the professional money-lenders, who made advances to him in a speculation on his success": they were to get their money back with large interest or lose it altogether. Such conditions were themselves incitement enough to a prompt redemption of the promise of parliamentary distinction, even without the restless spurring of ambition. And Disraeli had another promise to redeem: that which he uttered when he told O'Connell that they would meet again at Philippi. Therefore when, three weeks after the session began, a debate on Irish election petitions gave him opportunity, Disraeli attempted that first House of Commons speech which imagination still dwells upon as something wondrous strange. That he should not have known better, even by hearsay, than to address the House of Commons in fantastic phrase from the mouth of a fantastic figure is indeed remarkable, but not that he retained self-confidence enough to tell the unwitting crew who laughed him down that a time would come when they would hear him. It was one of the least memorable of his prophecies. The speech was a humiliating but not an oppressive failure. In about a week afterwards he spoke again, which shows how little damage he felt, while the good sense, brevity, and blameless manner of the speech (on a copyright bill) announced that he could learn. And for some time thereafter he affected no importance in the House, though not as withdrawing from attention.

Meanwhile, consciously and unconsciously, as is the way with men of genius, his mind was working upon problems of government, the magnitude, the relations and the natural developments of which he was more sensible of than any known politician of his time. "Sensible of," we say, to mark the difference between one sort of understanding and another which comes of labour and pains alone. Disraeli studied too, no doubt, reading and inquiring and applying set thought, but such means were insufficient to put into his mind all that he found there. It seems that opinions may be formed of inquiry and study alone, which are then constructive; but where intuitive perception or the perceptive imagination is a robust possession, the fruits of research become assimilative—the food of a divining faculty which needs more or less of it according to the power of divination. The better judgment in all affairs derives from this quality, which has some very covetable advantages for its possessor. His judgments may be held with greater confidence, which is an intellectual advantage; and, standing in his mind not so much an edifice as a natural growth, they cannot be so readily abandoned at the call of ease or self-interest. They may be denied assertion or even outraged for a purpose, but they cannot be got rid of,—which is a moral advantage. Disraeli's mind and its judgments were of this character. Its greatest gift was not the romantic imagination which he possessed abundantly and employed overmuch, but the perceptive, interpretative, judicial or divining imagination, without which there can be no great man of affairs. Breadth of view, insight, foresight, are more familiar but less adequate descriptions of a faculty which Disraeli had in such force that it took command of him from first to last. Although he knew and acted on the principle that "a statesman is a practical character," whose business is to "serve the country according to its present necessities," he was unable to confine his vision to the nearer consequences of whatever policy, or course of action, or group of conditions it rested on. Without effort, and even without intention probably, it looked beyond first consequences to the farther or the final outcome; and to complete the operation, the faculty which detected the remoter consequences did not allow them to remain in obscurity, but brought them out as actualities no less than the first and perhaps far more important than the first. Moreover, it did not allow him to keep silence where the remoter consequences were of that character, and ought to be provided for betimes. Of course silence was always possible. These renderings to foresight might be denied assertion either for the sake of present ease (and Disraeli's prescience of much of his country's later troubles only made him laughed at) or in deference to hopes of personal advancement. But the same divining imagination which showed him these things also showed him the near time when it would be too late to speak of them, and when not to have spoken would leave him irredeemably in the common herd of hand-to-mouth politicians. Therefore he spoke.

Mental characteristics.

Remembrance of these characteristics—remembrance, too, that his mind, which was

neither English nor European, worked in absolute detachment—should accompany the traveller through all the turns and incidents of Disraeli's long career. They are sometimes puzzling, often speculative; yet nearly all that is obscure in them becomes clear, much apparent contradiction disappears, when read by these persistent unvarying lights. The command which his idiosyncrasies had upon him is shown, for example, by reproachful speeches on the treatment of Ireland, and by a startling harangue on behalf of the Chartists, at a time when such irregularities could but damage him, a new man, where he hoped for influence and office. At about the same time his political genius directed him to open a resolute critical campaign against the Conservatism of the party he proposed to thrive in, and he could but obey. This he did in writing *Coningsby*, a novel of the day and for the day, but commended to us of a later generation not only by the undimmed truth of its character-portraits, but by qualities of insight and foresight which we who have seen the proof of them can measure as his contemporaries could not. *Sybil*, which was written in the following year (1845), is still more remarkable for the faculties celebrated in the preceding paragraph. When *Sybil* was written a long historic day was ending in England, a new era beginning; and no eyes saw so clearly as Disraeli's the death of the old day, the birth of the new, or what and how great their differences would be. In *Coningsby* the political conditions of the country were illustrated and discussed from the constitutional point of view, and by light of the theory that for generations before the passing of the Reform Bill the authority of the crown and the liberties of the people had been absorbed and extinguished in an oligarchic system of government, itself become fossilized and soulless. In *Sybil* were exhibited the social relations of rich and poor (the "two nations") under this régime, and under changes in which, while the peasantry were neglected by a shoddy aristocracy ignorant of its duties, factory life and a purblind gospel of political economy imbruted the rest of the population. These views were enforced by a startling yet strictly accurate representation of the state of things in the factory districts at that time. Taken from the life by Disraeli himself, accompanied by one or two members of the Young England party of which he was the head, it was the first of its kind; and the facts as there displayed, and Disraeli's interpretation of them—a marvel of perceptive and prophetic criticism—opened eyes, roused consciences, and led direct to many reforms.

"Coningsby," "Sybil."

These two books, the *Vindication*, published in 1835, and his speeches up to this time and a little beyond, are quite enough to show what Disraeli's Tory democracy meant, how truly national was its aim, and how exclusive of partisanship for the "landed interest"; though he did believe the stability and prosperity of the agricultural class a national interest of the first order, not on economic grounds alone or even chiefly. And if Disraeli, possessed by these views, became aggressively insubordinate some time before Peel's proclaimed conversion to Free Trade, we can account for it on reasonable and even creditable grounds. Spite, resentment at being passed over when Peel formed the 1841 government, is one explanation of these outbreaks, and a letter to Peel, lately published, is proof to many minds that Disraeli's denial to Peel's face in 1846 that he had ever solicited office was daringly mendacious. The letter certainly reads like solicitation in the customary half-veiled form. All that can be said in doubt is that since the '41 government came into existence on the 6th of September, and the letter was written on the 5th, its interpretation as complaint of being publicly neglected, as a craving for *some* mark of recognition, is possible. More than possible it is if Disraeli knew on the 5th (as he very well might from his friend Lyndhurst, Peel's lord chancellor) that the appointments were then complete. The pecuniary need of office, if that comes into the question, had been lightened, if not extinguished, two years before by his marriage with Mrs Wyndham Lewis. Mrs Lewis—a lady fifteen years his senior—brought him a considerable fortune which, however, was but for her life. She lived to a great age, and would gladly have lived longer, in any of the afflictions that time brings on, to continue her mere money-worth to her "Dizzy." Her devotion to him, and his devotion to her, is the whole known story of their private life; and we may believe that nothing ever gratified him more than offering her a coronet from Mr Disraeli.

Disraeli made Peel's acquaintance early in his career and showed that he was proud of it. In his *Life of Lord George Bentinck* he writes of Peel fairly and even generously. But they were essentially antipathetic persons; and it is clear that the great minister and complete Briton took no pains to understand the dazzling young Jew of whom Lyndhurst thought so much, and wished to have little to do with him. Such men make such feelings evident; and there is no reason for thinking that when, after 1841, Disraeli charged at Peel in obedience to his principles, he gave himself pain. It was not long after it had settled in office that Peel's government, the creature of an anxious Conservative reaction, began to be suspected of drifting toward Manchester. That it was forced in that direction we should say rather,

looking back, for it was a time of dire distress, especially in the manufacturing districts of the north; so that in his second session Peel had to provide some relief by revising the corn laws and reducing import dues generally. His measures were supported by Disraeli, who understood that Protection must bend to the menacing poverty of the time, though unprepared for total abolition of the corn tax and strongly of opinion that it was not for Peel to abolish it. In the next session (1843) he and his Young England party took up a definitely independent rôle, which became more sharply critical to the end. Disraeli's first strong vote of hostility was on a coercion bill for perishing and rebellious Ireland. It was repeated with greater emphasis in the session of 1844, also in a condition-of-Ireland debate; and from that time forth, as if foreseeing Peel's course and its effect on the country party, Disraeli kept up the attack. Meanwhile bad harvests deepened the country's distress, Ireland was approached by famine, the Anti-Corn-Law League became menacingly powerful, and Peel showed signs of yielding to free trade. Disraeli's opportunity was soon to come now; and in 1845, seeing it on the way, he launched the brilliantly destructive series of speeches which, though they could not prevent the abolition of the corn-laws, abolished the minister who ended them. These speeches appeal more to admiration than to sympathy, even where the limitations of Disraeli's protectionist beliefs are understood and where his perception of the later consequences of free trade is most cordially acknowledged. That he remained satisfied with them himself is doubtful, unless for their foresight, their tremendous effect as instruments of punishment, and as they swept him to so much distinction. Within three years, on the death of Lord George Bentinck, there was none to dispute with him the leadership of the Conservative party in the House of Commons.

Politics. 1841-67.

In the parliament of 1841 he was member for Shrewsbury. In 1847 he was returned for Buckinghamshire, and never again had occasion to change his constituency. Up to this time his old debts still embarrassed him, but now his private and political fortunes changed together. Froude reports that he "received a large sum from a private hand for his *Life of Lord George Bentinck*" (published in 1852), "while a Conservative millionaire took upon himself the debts to the usurers; the 3% with which he was content being exchanged for the 10% under which Disraeli had been staggering." In 1848 his father Isaac D'Israeli died, leaving to his son Benjamin nearly the whole of his estate. This went to the purchase of Hughenden Manor—not, of course, a great property, but with so much of the pleasant and picturesque, of the dignified also, as quite to explain what it was to the affectionate fancy of its lord. About this time, too (1851), his acquaintance was sought by an old Mrs Brydges Willyams—born a Spanish Jewess and then the widow of a long-deceased Cornish squire—who in her distant home at Torquay had conceived a restless admiration for Benjamin Disraeli. She wrote to him again and again, pressing for an appointment to consult on an important matter of business: would meet him at the fountain of the Crystal Palace in Hyde Park. Her importunity succeeded, and the very small, oddly-dressed, strange-mannered old lady whom Disraeli met at the fountain became his adoring friend to the end of her life. Gratitude for her devotion brought him and his wife in constant intimacy with her. There were many visits to Torquay; he gratified her with gossiping letters about the great people with whom and the great affairs with which the man who did so much honour to her race was connected, that being the inspiration of her regard for him. She died in 1863, leaving him all her fortune, which was considerable; and, as she wished, was buried at Hughenden, close to the grave where Disraeli was to lie.

It is agreed that the first three years of Disraeli's leadership in Opposition were skilfully employed in reconstructing the shattered Tory party. In doing this he made it sufficiently clear that there could be no sudden return to Protectionist principles. At the same time, however, he insisted (as he did from first to last) on the enormous importance to the country, to the character of its people no less than to its material welfare, of agricultural contentment and prosperity; and he also obtained a more general recognition of the fact that "the land" had borne fiscal burdens under the old régime which were unfair and unendurable under the new. So far he did well; and when in 1852 he took office as chancellor of the exchequer in Lord Derby's first administration, the prospect was a smiling one for a man who, striving against difficulties and prejudices almost too formidable for imagination in these days, had attained to a place where he could fancy them all giving way. That, however, they were not. New difficulties were to arise and old prejudices to revive in full force. His first budget was a quaint failure, and was thrown out by a coalition of Liberals and Peelites which he believed was formed against Mr Disraeli more than against the chancellor of the exchequer. It was on this occasion that he exclaimed, "England does not love coalitions." After a reign of ten months he was again in Opposition, and remained so for seven years. Of

As leader in the House of Commons.

the Crimean War he had a better judgment than those whose weakness led them into it, and he could tell them the whole truth of the affair in twenty words: “You are going to war with an opponent who does not want to fight, and whom you are unwilling to encounter.” Neither were they prepared; and the scandals and political disturbances that ensued revealed him as a party leader who could act on such occasions with a dignity, moderation and sagacity that served his country well, maintained the honour of party government and cost his friends nothing. The mismanagement of the war broke down the Aberdeen government in 1855, and then Disraeli had the mortification of seeing a fortunate chance of return to office lost by the timidity and distrust of his chief, Lord Derby—the distrust too clearly including the under-valuation of Disraeli himself. Lord Derby wanted Lord Palmerston’s help, Mr Gladstone’s, Mr Sidney Herbert’s. This arrangement could not be made; Lord Derby therefore gave up the attempt to form a ministry and Lord Palmerston came in. The next chance was taken in less favouring times. The government in which Disraeli was again financial minister lasted for less than eighteen months (1858-1859), and then ensued another seven years in the cold and yet colder shade of Opposition. Both of these seven-year outings were bad, but the second by far the worse. Parliamentary reform had become a burning question and an embarrassing one for the Tory party. An enormous increase of business, consequent upon the use of steam machinery and free-trade openings to commerce, filled the land with prosperity, and discredited all statesmanship but that which steered by the star over Manchester. Mr Gladstone’s budgets, made possible by this prosperity, were so many triumphs for Liberalism. Foreign questions arose which strongly excited English feeling—the arrangements of peace with Russia, Italian struggles for freedom, an American quarrel, the “Arrow” affair and the Chinese war, the affair of the French colonels and the Conspiracy Bill; and as they arose Palmerston gathered into his own sails (except on the last occasion) every wind of popular favour. Amid all this the Tory fortunes sank rapidly, becoming nearly hopeless when Lord Palmerston, without appreciable loss of confidence on his own side, persuaded many Tories in and out of parliament that Conservatism would suffer little while he was in power. Yet there was great despondency, of course, in the Conservative ranks; with despondency discontent; with discontent rancour. The prejudice against Disraeli as Jew, the revolt at his theatricalisms, the distrust of him as “mystery man,” which up to this time had never died out even among men who were his nearest colleagues, were now more openly indulged. Out of doors he had a “bad press,” in parliament he had some steady, enthusiastic friends, but more that were cold. Sometimes he was seen on the front Opposition bench for hours quite alone. Little conspiracies were got up to displace him, and might have succeeded but for an unconquerable dread of the weapon that destroyed Peel. In this state of things he patiently held his ground, working for his party more carefully than it knew, and never seizing upon false or discrediting advantages. But it was an extremely bad time for Benjamin Disraeli.

Though Lord Palmerston stumbled over his Foreign Conspiracy Bill in 1858, his popularity was little damaged, and it was in no hopeful spirit that the Tories took office again in that year. They were perilously weak in the House of Commons, and affairs abroad, in which they had small practice and no prestige, were alarming. Yet the new administration did very well till, after resettling the government of India, and recovering from a blunder committed by their Indian secretary, Lord Ellenborough, they must needs launch a Reform Bill to put that dangerous question out of controversial politics. The well-intended but fantastic measure brought in for the purpose was rejected. The country was appealed to, with good but insufficient results; and at the first meeting of the new parliament the Tories were turned out on a no-confidence vote moved by Lord Hartington. Foreign affairs supplied the motive: failure to preserve the peace of Europe at the time of the Italian war of independence. It is said that the foreign office had then in print a series of despatches which would have answered its accusers had they been presented when the debate began, as for some unexplained reason they were not. Lord Palmerston now returned to Downing Street, and while he lived Disraeli and his colleagues had to satisfy themselves with what was meant for useful criticism, though with small hope that it was so for their own service. A Polish insurrection, the Schleswig-Holstein question, a commercial treaty with France, the Civil War in America, gave Disraeli occasions for speech that was always forcible and often wiser than all could see at the time. He never doubted that England should be strictly neutral in the American quarrel when there was a strong feeling in favour of the South. All the while he would have gladly welcomed any just means of taking an animated course, for these were dull, dark days for the Conservatives as a parliamentary party. Yet, unperceived, Conservatism was advancing. It was much more than a joke that Palmerston sheltered Conservative principles under the Liberal flag. The warmth of his popularity, to which Radical applause contributed nothing in his later days, created an atmosphere entirely favourable to the quiet growth of Conservatism. He died in 1865. Earl Russell succeeded

him as prime minister, Mr Gladstone as leader of the House of Commons. The party most pleased with the change was the Radical; the party best served was Disraeli's. Another Reform Bill, memorable for driving certain good Liberals into a Cave of Aduilam, broke up the new government in a few months; Disraeli contributing to the result by the delivery of opinions not new to him and of lasting worth, though presently to be subordinated to arguments of an inferior order and much less characteristic. "At this rate," he said in 1866, "you will have a parliament that will entirely lose its command over the executive, and it will meet with less consideration and possess less influence." Look for declining statesmanship, inferior aptitude, genius dying off. "Instead of these you will have a horde of selfish and obscure mediocrities, incapable of anything but mischief, and that mischief devised and regulated by the raging demagogue of the hour." The Reform legislation which promised these results in 1866 was thrown out. Lord Derby's third administration was then formed in the summer of the same year, and for the third time there was a Tory government on sufferance. Its followers were still a minority in the House of Commons; an angry Reform agitation was going on; an ingenious resolution founded on the demand for an enlarged franchise serviceable to Liberals might extinguish the new government almost immediately; and it is pretty evident that the Tory leaders took office meaning to seek a cure for this desperate weakness by wholesale extension of the suffrage. Their excuses and calculations are well known, but when all is said, Lord Derby's statement of its character, "a leap in the dark," and of its intention, "dishing the Whigs," cannot be bettered. Whether Lord Derby or Mr Disraeli originated this resolve has been much discussed, and it remains an unsettled question. It is known that Disraeli's private secretary, Mr Ralph Earle, quarrelled with him violently at about this time; and Sir William Fraser relates that, meeting Mr Earle, that gentleman said: "I know what your feelings must be about this Reform Bill, and I think it right to tell you that it was not Disraeli's bill, but Lord Derby's. I know everything that occurred." Mr Earle gave the same assurances to the writer of these lines, and did so with hints and half-confidences (quite intelligible, however) as to the persuasions that wrought upon his chief. Mr Earle's listener on these occasions confesses that he heard with a doubting mind, and that belief in what he heard still keeps company with Mahomet's coffin. One thing, however, is clear. To suppose Disraeli satisfied with the excuses made for his adoption of the "dishing" process is forbidden by the whole tenor of his teaching and conduct. He could not have become suddenly blind to the fallacy of the expectations derived from such a course; and all his life it had been his distinction to look above the transient and trafficking expedients of the professional politician. However, the thing was done. After various remodellings, and amid much perturbation, secession, violent reproach, the Household Suffrage Bill passed in August 1867. Another memorable piece of work, the confederation of Canada, had already been accomplished. A few days after parliament met in the next year Lord Derby's failing health compelled him to resign and Mr Disraeli became prime minister. Irish disaffection had long been astir; the Fenian menace looked formidable not only in Ireland but in England also. The reconstructed government announced its intention of dealing with Irish grievances. Mr Gladstone approved, proposing the abolition of the Irish Church to begin with. A resolution to that effect was immediately carried against the strong opposition of the government. Disraeli insisted that the question should be settled in the new parliament which the franchise act called for, and he seems to have had little doubt that the country would declare against Mr Gladstone's proposal. He was mistaken. It was the great question at the polls; and the first elections by the new constituencies went violently against the authors of their being.

Reform Bill of 1867.

Premier, 1868.

The history of the next five years is Mr Gladstone's. The Irish Church abolished, he set to work with passionate good intention on the Irish land laws. The while he did so sedition took courage and flourished exceedingly, so that to pacify Ireland the constable went hand in hand with the legislator. The abolition of the Irish Church was followed by a coercion act, and the land act by suspension of *Habeas Corpus*. Disraeli, who at first preferred retirement and the writing of *Lothair*, came forward from time to time to point the moral and predict the end of Mr Gladstone's impulsive courses, which soon began to fret the confidence of his friends. Some unpleasant errors of conduct—the case of Sir R. Collier (afterwards Lord Monkswell, *q.v.*), the Ewelme rectory case,[1] the significant Odo Russell (Lord Ampthill) episode (to help the government out of a scrape the ambassador was accused of exceeding his instructions)—told yet more. Above all, many humiliating proofs that England was losing her place among the nations came out in these days, the discovery being then new and unendurable. To be brief, in less than four years the government had well-nigh worn out its own patience with its own errors, failures and distractions, and would gladly have gone to pieces when it was defeated on an Irish university bill. But Disraeli, having good

constitutional reasons for declining office at the moment, could not allow this. Still gathering unpopularity, still offending, alarming, alienating, the government went on till 1874, suddenly dissolved parliament, and was signally beaten, the Liberal party breaking up. Like most of his political friends, Disraeli had no expectation of such a victory—little hope, indeed, of any distinct success. Yet when he went to Manchester on a brief political outing two years before, he was received with such acclaim as he had never known in his life. He was then sixty-eight years old, and this was his first full banquet of popularity. The elation and confidence drawn from the Manchester meetings were confirmed by every circumstance of the 1874 elections. But he was well aware of how much he owed to his opponents' errors, seeing at the same time how safely he could lay his future course by them. He had always rejected the political economy of his time, and it was breaking down. He had always refused to accept the economist's dictum without reference to other considerations than the turnover of trade; and even Manchester could pardon the refusal now. The national spirit, vaporized into a cosmopolitan mist, was fast condensing again under mortification and insult from abroad uncompensated by any appreciable percentage of cash profit. This was a changing England, and one that Disraeli could govern on terms of mutual satisfaction; but not if the reviving "spirit of the country" ran to extremes of self-assertion. At one of the great Manchester meetings he said, "Do not suppose, because I counsel firmness and decision at the right moment, that I am of that school of statesmen who are favourable to a turbulent and aggressive diplomacy. I have resisted it during a large part of my life."

But for the hubbub occasioned by the Public Worship Regulation Act, the first two years of the 1874 administration had no remarkable excitements till near the end of them. The Public Worship Act, introduced by the archbishop of Canterbury, was meant to restrain ritualism. Disraeli, who from first to last held to the Reformed Church as capable of dispensing social good as no other organization might, supported the Bill as "putting down ritualism"; spoke very vehemently; gave so much offence that at one time neither the bill nor the government seemed quite safe. For some time afterwards there was so little legislation of the kind called "enterprising" that even some friends of the government began to think it too tame; but at the end of the second year an announcement was made which put that fear to rest. The news that the khedive's Suez Canal shares had been bought by the government was received with boundless applause. It was a courageous thing to do; but it was not a Disraeli conception, nor did it originate in any government department. It was suggested from without at a moment when the possibility of ever acquiring the shares was passing away. On the morning of the 15th of November 1875, Mr Frederick Greenwood, then editor of the *Pall Mall Gazette*, went to Lord Derby at the foreign office, informed him that the khedive's shares were passing into the hands of a French syndicate, and urged arrest of the transaction by purchase for England. (The shares being private property their sale could not, of course, be forbidden.) Lord Derby thought there must be a mistake. He could not believe that bargaining of that kind could go on in Cairo without coming to the knowledge of the British consul there. He was answered that nevertheless it was going on. The difficulties of purchase by England were then arrayed by Lord Derby. They were more than one or two, and of course they had a formidable look, but so also had the alternative and the lost opportunity. One difficulty had already come into existence, and had to be met at once. Lord Derby had either to make direct inquiry of the khedive or to let the matter go. If he inquired, and there was no such negotiation, his question might be interpreted in a very troublesome way; moreover, we should put the idea of selling the shares into the khedive's head, which would be unfortunate. "There's my position, and now what do you say?" The answer given, Lord Derby drafted a telegram to the British consul-general at Cairo, and read it out. It instructed Colonel Stanton to go immediately to the khedive and put the question point blank. Meanwhile the prime minister would be seen, and Lord Derby's visitor might call next day to hear the reply from Cairo. It is enough to add here that on receipt of the answer the purchase for England was taken up and went to a speedy conclusion.[2]

Suez Canal shares.

As if upon the impulse of this transaction, Disraeli opened the next session of parliament with a bill to confer upon the queen the title of empress of India—a measure which offended the instincts of many Englishmen, and, for the time, revived the prejudices against its author. More important was the revival of disturbances in European Turkey, which, in their outcome, were to fill the last chapter of Disraeli's career. But for this interruption it is likely that he would have given much of his attention to Ireland, not because it was an attractive employment for his few remaining years, but because he saw with alarm the gathering troubles in that country. And his mind was strongly drawn in another direction. In a remarkable speech delivered in 1872, he spoke with great warmth of the slighting of the colonies, saying that "no minister in this country will do his duty who neglects any

opportunity of reconstructing as much as possible our colonial empire, and of responding to those distant sympathies which may become the source of incalculable strength and happiness to this island." However, nothing was done in fulfilment of this duty in the first two years from 1874, and early in the third the famous Andrassy note, the Berlin memorandum, the Bashi-Bazouk atrocities, and the accumulative excitement thereby created in England, reopened the Eastern question with a vengeance. The policy which Disraeli's government now took up may be truly called the national policy. Springing from the natural suggestions of self-defence against the march of a dangerous rivalry, it had the sanction of all British statesmanship for generations, backed by the consenting instinct of the people. It was quite unsentimental, being pro-Turkish or anti-Russian only as it became so in being pro-British. The statesmen by whom it was established and continued saw in Russia a power which, unless firmly kept within bounds, would dominate Europe; more particularly that it would undermine and supersede British authority in the East. And without nicely considering the desire of Russia to expand to the Mediterranean, the Pacific or in any other direction, they thought it one of their first duties to maintain their own Eastern empire; or, to put it another way, to contrive that Great Britain should be subject to Russian ascendancy (if ever), at the remotest period allowed by destiny. Such were the ideas on which England's Russian policy was founded. In 1876 this policy revived as a matter of course in the cabinet, and as spontaneously, though not upon a first provocation, became popular almost to fury. And furiously popular it remained. But a strong opposing current of feeling, equally passionate, set in against the Turks; war began and lasted long; and as the agitation at home and the conflict abroad went on, certain of Disraeli's colleagues, who were staunch enough at the beginning, gradually weakened. It is certainly true that Disraeli was prepared, in all senses of the word, to take strong measures against such an end to the war as the San Stefano treaty threatened. Rather than suffer that, he would have fought the Russians in alliance with the Turks, and had gone much farther in maturing a scheme of attack and defence than was known at the time or is commonly known now. That there was a master motive for this resolution may be taken for granted; and it is to be found in a belief that not to throw back the Russian advance then was to lose England's last chance of postponing to a far future the predominance of a great rival power in the East. How much or how little judgment shows in that calculation, when viewed in the light of later days, we do not discuss. What countenance it had from his colleagues dropped away. At the end their voices were strong enough to insist upon the diplomatic action which at no point falls back on the sword; Lord Derby (foreign minister) being among the first to make a stand on that resolution, though he was not the first seceder from the government. Such diplomacy in such conditions is paralytic. It cannot speak thrice, with whatever affectation of boldness, without discovering its true character to trained ears; which should be remembered when Disraeli's successes at Berlin are measured. It should be remembered that what with the known timidity of his colleagues, and what with the strength and violence of the Russian party in England, his achievement at Berlin was like the reclamation of butter from a dog's mouth; as Prince Bismarck understood in acknowledging Disraeli's gifts of statesmanship. It should also be remembered, when his Eastern policy in 1876-1878 is denounced as malign and a failure, that it was never carried out. Good or bad, ill or well calculated, effective existence was denied to it; and a man cannot be said to have failed in what he was never permitted to attempt. The nondescript course of action which began at the Constantinople conference and ended at Berlin was not of his direction until its few last days. It only marked at various stages the thwarting and suppression of his policy by colleagues who were haunted night and day by memories of the Crimean War, and not least, probably, by the fate of the statesmen who suffered for its blunders and their own. Disraeli also looked back to those blunders, and he was by no means insensible to the fate of fallen ministers. But just as he maintained at the time of the conflict, and after, that there would have been no Crimean War had not the British government convinced the tsar that it was in the hands of the peace party, so now he believed that a bold policy would prevent or limit war, and at the worst put off grave consequences which otherwise would make a rapid advance.

Eastern question.

As if aware of much of this, the country was well content with Disraeli's successes at Berlin, though sore on some points, he himself sharing the soreness. Yet there were great days for him after his return. At the Berlin conference he had established a formidable reputation; the popularity he enjoyed at home was affectionately enthusiastic; no minister had ever stood in more cordial relations with his sovereign; and his honours in every kind were his own achievement against unending disadvantage. But he was soon to suffer irretrievable defeat. A confused and unsatisfactory war in Afghanistan, troubles yet more unsatisfactory in South Africa, conspired with two or three years of commercial distress to invigorate "the swing of the pendulum" when he dissolved parliament in 1880. Dissolution

the year before would have been wiser, but a certain pride forbade. The elections went heavily against him. He took the blow with composure, and sank easily into a comparative retirement. Yet he still watched affairs as a great party leader should, and from time to time figured vigorously in debate. Meanwhile he had another novel to sit down to—the poor though highly characteristic *Endymion*; which, to his great surprise and equal pleasure, was replaced on his table by a cheque for ten thousand pounds. Yet even this satisfaction had its tang of disappointment; for though *Endymion* was not wholly written in his last days, it was in no respect the success that *Lothair* was. This also he could bear. His description of his grandfather recurs to us: “A man of ardent character, sanguine, courageous and fortunate, with a temper which no disappointment could disturb.”

As earl of Beaconsfield (failing health had compelled him to take refuge in the House of Lords in 1876) Benjamin Disraeli died in his house in Curzon Street on the 19th of April 1881. The likelihood of his death was publicly known for some days before the event, and then the greatness of his popularity and its warmth were declared for the first time. No such demonstration of grief was expected even by those who grieved the most. He lies in Hughenden churchyard, in a rail-enclosed grave, with liberty for the turf to grow between him and the sky. Within the church is a marble tablet, placed there by his queen, with a generous inscription to his memory. The anniversary of his death has since been honoured in an unprecedented manner, the 19th of April being celebrated as “Primrose Day”—the primrose, for reasons impossible accurately to define, being popularly supposed to have been Disraeli’s favourite flower. Even among his friends in youth (Sir Edward Lytton Bulwer, for example), and not improbably among the city men who wagered their money in irrecoverable loans to him on the chance of his success, there may have been some who compassed the thought of Benjamin Disraeli as prime minister and peer; but at no time could any fancy have imagined him remembered so enduringly as Lord Beaconsfield has been. It is possible that Sarah Disraeli (the Myra of *Endymion*), or that “the most severe of critics but a perfect wife,” may have had such dreams—hardly that they could have occurred to any mind but a devoted woman’s. Disraeli’s life was a succession of surprises, but none was so great as that he should be remembered after death more widely, lastingly, respectfully, affectionately, than any other statesman in the long reign of Queen Victoria. While he lived he did not seem at all cut out for that distinction even as an Imperialist. Significant as was the common grief when he died, no such consequence could be inferred from it, and certainly not from the elections of 1880. It stands, however, this high distinction, and with it the thought that it would have been denied to him altogether had the “adventurer” and “mystery man” of the sixties died at the age of threescore years and ten. We have said that never till 1872 did he look upon the full cup of popularity. It might have been said that even at that time intrigue to get rid of him had yet to cease in his own party; and but a few years before, a man growing old, he was still in the lowest deeps of his disappointments and humiliations. How, then, could it be imagined that with six years of power from his seventieth year, the Jew “adventurer,” mysterious and theatrical to the last, should fill a greater space in the mind of England twenty years after death than Peel or Palmerston after five? Of course it can be explained; and when explained, we see that Disraeli’s good fortune in this respect is not due entirely to his own merits. His last years of power might have been followed by as long a period of more acceptable government than his own, to the effacement of his own from memory; but that did not happen. What did follow was a time of universal turbulence and suspicion, in which the pride of the nation was wounded again and again. To say “Majuba” and “Gordon” recalls its deepest hurts, but not all of them; and it may be that a pained and angry people, looking back, saw in the man whom they lately displaced more than they had ever seen before. From that time, at any rate, Disraeli has been acknowledged as the regenerator and representative of the Imperial idea in England. He has also been accused on the same grounds; and if the giver of good wine may be blamed for the guest who gets drunk on it, there is justice in the accusation. It is but a statement of fact, however, that Disraeli retains his hold upon the popular mind on this account mainly. The rekindling of the Imperial idea is understood as a timely act of revolt and redemption: of revolt against continuous humiliations deeply felt, redemption from the fate of nations obviously weak and suspected of timidity. It has been called rescue-work—deliverance from the dangers of invited aggression and a philosophical neglect of the means of defence. And its first achievement for the country (this is again a mere statement of fact) was the restoration of a much-damaged self-respect and the creation of a great defensive fleet not a day too soon for safety. So much for “the great heart of the people.” Meanwhile political students find to their satisfaction that he never courted popularity, and never practised the art of working for “quick returns” of sympathy or applause. As “adventurer,” he should have done so; yet he neglected the cultivation of that paying art for the wisdom that looks to the long future,

Death and influence.

and bears its fruit, perchance, when no one cares to remember who sowed the seed. So it is that to read some of his books and many of his speeches is to draw more respect and admiration from their pages than could have been found there originally. The student of his life understands that Disraeli's claim to remembrance rests not only on the breadth of his views, his deep insight, his long foresight, but even more on the courage which allowed him to declare opinions supplied from those qualities when there was no visible likelihood of their justification by experience, and therefore when their natural fate was to be slighted. His judgments had to wait the event before they were absolved from ridicule or delivered from neglect. The event arrives; he is in his grave; but his reputation loses nothing by that. It gains by regret that death was beforehand with him.

"Adventurer," as applied to Disraeli, was a mere term of abuse. "Mystery-man" had much of the same intention, but in a blameless though not in a happy sense it was true of him to the end of his days. Even to his friends, and to many near him, he remained mysterious to the last. It is impossible to doubt that some two or three, four or five perchance, were at home in his mind, being freely admitted there; but of partial admissions to its inner places there seem to have been few or none. Men who were long associated with him in affairs, and had much of his stinted companionship, have confessed that with every wish to understand his character they never succeeded. Sometimes they fancied they had got within the topping walls of the maze, and might hope to gain the point whence survey could be made of the whole; but as often they found themselves, in a moment, where they stood at last and at first —outside. His speeches carry us but a little way beyond the mental range; his novels rather baffle than instruct. It is commonly believed that Disraeli looked in the glass while describing Sidonia in *Coningsby*. We group the following sentences from this description for a purpose that will be presently seen:—(1) "He was admired by women, idolized by artists, received in all circles with great distinction, and appreciated for his intellect by the very few to whom he at all opened himself." (2) "For, though affable and generous, it was impossible to penetrate him: though unreserved in his manners his frankness was limited to the surface. He observed everything, thought ever, but avoided serious discussion. If you pressed him for an opinion he took refuge in raillery, and threw out some paradox with which it was not easy to cope. The secret history of the world was Sidonia's pastime. His great pleasure was to contrast the hidden motive with the public pretext of transactions." (3) "He might have discovered a spring of happiness in susceptibilities of the heart; but this was a sealed fountain for Sidonia. In his organization there was a peculiar, perhaps a great deficiency; he was a man without affection. It would be hard to say that he had no heart, for he was susceptible of deep emotions; but not for individuals. Woman was to him a toy, man a machine." These sentences are separately grouped here for the sake of suggesting that they will more truly illustrate Disraeli's character if taken as follows:—The first as representing his most cherished social ambitions—in whatever degree achieved. The second group as faithfully and closely descriptive of himself; descriptive too of a character purposely cloaked. The third as much less simple; in part a mixture of truth with Byronic affectation, and for the rest (and more significantly), as intimating the resolute exercise of extraordinary powers of control over the promptings and passions by which so many capable ambitions have come to grief. So read, Sidonia and Benjamin Disraeli are brought into close resemblance by Disraeli himself; for what in this description is untrue to the suspected fundamentals of his character is true to his known foibles. But for a general interpretation of Lord Beaconsfield and his career none serves so well as that which Froude insists on most. He was thoroughly and unchangeably a Jew. At but one remove by birth from southern Europe and the East, he was an Englishman in nothing but his devotion to England and his solicitude for her honour and prosperity. It was not wholly by volition and design that his mind was strange to others and worked in absolute detachment. He had "none of the hereditary prepossessions of the native Englishman." No such prepossessions disturbed his vision when it was bent upon the rising problems of the time, or rested on the machinery of government and the kind of men who worked it and their ways of working. The advantages of Sidonia's intellect and temperament were largely his, in affairs, but not without their drawbacks. His pride in his knowledge of the English character was the pride of a student; and we may doubt if it ever occurred to him that there would have been less pride but more knowledge had he been an Englishman. It is certain that in shrouding his own character he checked the communication of others to himself, and so could continue to the end of his career the costly mistake of being theatrical in England. There was a great deal too (though little to his blame) in Lord Malmesbury's observation that he was not only disliked in the House of Commons for his mysterious manner, but prejudiced by a pronounced foreign air and aspect. Lord Malmesbury does not put it quite as strongly as that, but he might have done so with truth. No Englishman could approach Disraeli without some immediate consciousness that he was in the presence of a

Character.

foreigner.

Lord Beaconsfield has been praised for his integrity in money matters; the praise could have been spared—it does not rise high enough. It is also said to his honour that he "never struck at a little man," and that was well; but it is explained as readily by pride and calculation as by magnanimity. A man of extraordinary coolness and self-control, his faults in every kind were faults of excess: it is the mark of them all. But whatever offence they gave, whatever mischief they did, was soon exhausted, and has long since been pardoned.

AUTHORITIES.—The writer's personal knowledge is largely represented in the above article. Among the biographical literature available prior to the authoritative *Life* the following may be cited:—Lord Beaconsfield's Preface to 1849 edition of Isaac D'Israeli's works; *Correspondence with his Sister*, and *Home Letters*, edited by Ralph Disraeli; Samuel Smiles, *Memoirs and Correspondence of John Murray; Life of the Earl of Beaconsfield*, by F. Hitchman; *Memoir* by T.E. Kebbel; *Memoir* by J.A. Froude; *Memoir* by Harold Gorst; Sir William Fraser's *Disraeli and his Day; The Speeches of Lord Beaconsfield*, edited by T.E. Kebbel. In 1904, however, the large collection of material for Lord Beaconsfield's life, in the hands of his executors Lord Rowton and Lord Rothschild, was acquired by *The Times*, and the task of preparing the biography was assigned to Mr W.F. Monypenny, an assistant editor of *The Times* (1894-1899), who was best known to the public as editor of the Johannesburg *Star* during the crisis of 1899-1903.

(F. G.)

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1 The crown had in 1871 appointed the Rev. W.W. Harvey (1810-1883), a Cambridge man, to the living of Ewelme, near Oxford, for which members of the Oxford house of convocation were alone eligible. Gladstone was charged with evading this limitation in allowing Harvey to qualify for the appointment by being formally admitted M.A. by incorporation.

2 For a detailed, if somewhat controversial, account of this affair, see Lucien Wolf's article in *The Times* of December 26, 1905, and Mr Greenwood's letters on the subject.

BEACONSFIELD, a town of Devon county, Tasmania, on the river Tamar, 28 m. direct N.W. of Launceston. Pop. (1901) 2658. From its port at Beauty Point, 3½ m. distant, with which it is connected by a steam tramway, communication is maintained with Georgetown and Launceston. It is the centre of the most important gold-field in the island.

BEACONSFIELD, a town of South Africa in Griqualand West, about 3 m. S.W. of Kimberley, of which it is practically a suburb, though possessing a separate municipality. Pop. (1904) 9378, of whom 2780 were whites. Beaconsfield was founded in 1870 near the famous Dutoitspan diamond mine. The land on which the town is built belongs to the De Beers Company. (See KIMBERLEY.)

BEACONSFIELD, a town in the Wycombe parliamentary division of Buckinghamshire, England. 23 m. W. by N. of London, on the main road to Oxford, and on the Great Central & Great Western joint railway. Pop. of urban district (1901) 1570. It lies in a hilly well-wooded district above the valley of the small river Wye, a tributary of the Thames. The broad Oxford road forms its picturesque main street. It was formerly a posting station of importance, and had a considerable manufacture of ribbons. The Perpendicular church of St Mary and All Saints is the burial place of Edmund Burke (d. 1797), who lived at Gregories, or as he named it Butler's Court, near the town. He would have taken his title from Beaconsfield had he survived to enter the peerage. A monument to his memory was erected in 1898. Edmund Waller the poet owned the property of Hall Barn, and died here in 1687. His tomb is in the

churchyard. Benjamin Disraeli chose the title of earl of Beaconsfield in 1876, his wife having in 1868 received the title of Viscountess Beaconsfield. The opening of railway communication with London in 1906 resulted in a considerable accretion of residential population.

BEAD, a small globule or ball used in necklaces, and made of different materials, as metal, coral, diamond, amber, ivory, stone, pottery, glass, rock-crystal and seeds. The word is derived from the Middle Eng. *bede*, from the common Teutonic word for "to pray," cf. German *beten* and English *bedesman*, the meaning being transferred from "prayer" to the spherical bodies strung on a rosary and used in counting prayers. Beads have been made from remote antiquity, and are found in early Egyptian tombs; variegated glass beads, found in the ground in certain parts of Africa, as Ashantiland, and highly prized by the natives as *aggry*-beads, are supposed to be of Egyptian or Phoenician origin. Beads of the more expensive materials are strung in necklaces and worn as articles of personal adornment, while the cheaper kinds are employed for the decoration of women's dress. Glass beads have long been used for purposes of barter with savage tribes, and are made in enormous numbers and varieties, especially in Venice, where the manufacture has existed from at least the 14th century. Glass, either transparent, or of opaque coloured enamel (*smalti*), or having complex patterns produced by the twisting of threads of coloured glass through a transparent body, is drawn out into long tubes, from which the beads are pinched off, and finished by being rotated with sand and ashes in heated cylinders.

In architecture, the term "bead" is given to a small cylindrical moulding, in classic work often cut into bead and reel.

BEADLE, also Bedel or Bedell (from A.S. *bydel*, from *beodan*, to bid), originally a subordinate officer of a court or deliberative assembly, who summoned persons to appear and answer charges against them (see Du Cange, *supra tit. Bedelli*). As such, the beadle goes back to early Teutonic times; he was probably attached to the moot as its messenger or summoner, being under the direction of the reeve or constable of the leet. After the Norman Conquest, the beadle seems to have diminished in importance, becoming merely the crier in the manor and forest courts, and sometimes executing processes. He was also employed as the messenger of the parish, and thus became, to a certain extent, an ecclesiastical officer, but in reality acted more as a constable by keeping order in the church and churchyard during service. He also attended upon the clergy, the churchwardens and the vestry. He was appointed by the parishioners in vestry, and his wages were payable out of the church rate. From the Poor Law Act of 1601 till the act of 1834 by which poor-law administration was transferred to guardians, the beadle in England was an officer of much importance in his capacity of agent for the overseers. In all medieval universities the bedel was an officer who exercised various executive and spectacular functions (H. Rashdall, *Hist. of Universities in the Middle Ages*, i. 193). He still survives in many universities on the continent of Europe and in those of Oxford and Cambridge, but he is now shorn of much of his importance. At Oxford there are four bedels, representing the faculties of law, medicine, arts and divinity. Their duties are chiefly processional, the junior or sub-bedel being the official attendant on the vice-chancellor, before whom he bears a silver mace. At Cambridge there are two, termed esquire-bedels, who both walk before the vice-chancellor, bearing maces.

BEAK (early forms *beke* and *becke*, from Fr. *bec*, late Lat. *beccus*, supposed to be a Gaulish word; the Celtic *bec* and *beq*, however, are taken from the English), the horny bill of a bird, and so used of the horny ends of the mandibles of the octopus, the duck-billed

platypus and other animals; hence the rostrum (*q.v.*) or ornamented prow of ancient war vessels. The term is also applied, in classic architecture, to the pendent fillet on the edge of the corona of a cornice, which serves as a drip, and prevents the rain from flowing inwards.

The slang use of “beak” for a magistrate or justice of the peace has not been satisfactorily explained. The earlier meaning, which lasted down to the beginning of the 19th century, was “watchman” or “constable.” According to *Slang and its Analogues* (J.S. Farmer and W.E. Henley, 1890), the first example of its later use is in the name of “the Blind Beak,” which was given to Henry Fielding’s half-brother, Sir John Fielding (about 1750). Thomas Harman, in his book on vagrants, *Caveat or Warening for commen cursitors, Vulgarely called Vagabones*, 1573, explains *harmans beck* as “counstable,” *harman* being the word for the stocks. Attempts have been made to connect “beak” in this connexion with the Old English *beag*, a gold torque or collar, worn as a symbol of authority, but this could only be plausible on the assumption that “magistrate” was the earlier significance of the word.

BEAKER (Scottish *bicker*, Lat. *bicarium*, Ger. *Becher*, a drinking-bowl), a large wide-mouthed drinking-cup or laboratory vessel. See Drinking-Vessels.

BEALE, DOROTHEA (1831-1906), English schoolmistress, was born on the 21st of March 1831 in London, her father being a physician of good family and cultivated tastes. She had already shown a strong intellectual bent and considerable force of character when in 1848 she was one of the first to attend lectures at the newly opened Queen’s College for Ladies, London, and from 1849 to 1856 she herself took classes there. In 1857 for a few months she became head teacher of the Clergy Daughters’ school at Casterton, Westmoreland, but narrow religious prejudices on the part of the governors led to her retirement. In 1858 she was appointed principal of the Ladies College at Cheltenham (opened 1854), then in very low water. Her tact and strenuousness, backed by able financial management, led to its success being thoroughly established by 1864, and as the college increased in numbers new buildings were erected from 1873 onwards. Under Miss Beale’s headship it grew into one of the great girls’ schools of the country, and its development and example played an important part in the revolution effected in regard to the higher education of women. Miss Beale retained her post till her death on the 9th of November 1906. Strongly religious by nature, broad-minded and keenly interested in all branches of culture, she exercised a far-reaching influence on her pupils.

Her *Life* was written by Elizabeth Raikes (1908).

BEAM (from the O. Eng. *béam*, cf. Ger. *Baum*, a tree, to which sense may be referred the use of “beam” as meaning the rood or crucifix, and the survival in certain names of trees, as hornbeam), a solid piece of timber, as a beam of a house, of a plough, a loom, or a balance. In the last case, from meaning simply the cross-bar of the balance, “beam” has come to be used of the whole, as in the expression “the king’s beam,” or “common beam,” which refers to the old English standard balance for wholesale goods, for several hundred years in the custody of the Grocers’ Company, London. As a nautical term, “beam” was transferred from the main cross-timbers to the side of the ship; thus “on the weather-beam” means “to windward,” and a ship is said to be “wide in the beam” when she is wide horizontally. The phrase “to be on one’s beam-ends,” denoting a position of extreme peril or helplessness, is borrowed from the position of a ship which has heeled over so far as to stand on the ends of her horizontal beams. The meaning of “beam” for shafts or rays of light comes apparently from the use of the word to translate the Latin *columna lucis*, a pillar of light.

BEAN (a common Teutonic word, cf. Ger. *Bohne*), the seed of certain leguminous plants cultivated for food all over the world, and furnished chiefly by the genera *Vicia, Phaseolus, Dolichos* and others. The common bean, in all its varieties, as cultivated in Britain and on the continents of Europe and America, is the produce of *Vicia Faba*. The French bean, kidney bean, or haricot, is the seed of *Phaseolus vulgaris*; but in India several other species of this genus of plants are raised, and form no small portion of the diet of the inhabitants. Besides these there are numerous other pulses cultivated for the food both of man and domestic animals, to which the name bean is frequently given. The common bean is even more nutritious than wheat; and it contains a very high proportion of nitrogenous matter under the form of legumin, which amounts on an average to 24%. It is, however, a rather coarse food, and difficult of digestion, and is chiefly used to feed horses, for which it is admirably adapted. In England French beans are chiefly, almost exclusively, used in the green state; the whole pod being eaten as a table vegetable or prepared as a pickle. It is wholesome and nutritious; and in Holland and Germany the pods are preserved in salt by almost every family for winter and spring use. The green pods are cut across obliquely, most generally by a machine invented for the purpose, and salted in barrels. When wanted for use they are steeped in fresh water to remove the salt, and broiled or stewed they form an agreeable addition to the diet at a time when no other vegetable may be had.

The broad bean—*Vicia Faba*, or *Faba vulgaris*, as it is known by those botanists who regard the slight differences which distinguish it from the great majority of the species of the vetch genus (*Vicia*) as of generic importance—is an annual which has been cultivated fiom prehistoric times for its nutritious seeds.

The lake-dwellers of Switzerland, and northern Italy in the bronze age cultivated a small-fruited variety, and it was grown in ancient Egypt, though, according to Herodotus, regarded by the priests as unclean. The ancient Greeks called it κύαμος, the Latins *faba*, but there is no suggestion that the plant is a native of Europe. Alphonse de Candolle (*Origin of Cultivated Plants*, p. 320) concludes that the bean was introduced into Europe probably by the western Aryans at the time of their earliest migrations. He suggests that its wild habitat was twofold some thousands of years ago, one of the centres being to the south of the Caspian, the other in the north of Africa, and that its area has long been in process of diminution and extinction. The nature of the plant favours this hypothesis, for its seed has no means of dispersing itself, and rodents or other animals can easily make prey of it; the struggle for existence which was going against this plant as against maize would have gradually isolated it and caused it to disappear, if man had not saved it by cultivation. It was introduced into China a little before the Christian era, later into Japan and more recently into India, though it has been suggested that in parts of the higher Himalayas its cultivation has survived from very ancient times. It is a plant which will flourish in all ordinary good garden soil. The seeds are sown about 4 in. apart, in drills 2½ ft. asunder for the smaller and 3 ft. for the larger sorts. The soil should, preferably, be a rather heavy loam, deeply worked and well enriched. For an early crop, seeds may be sown in November, and protected during winter in the same manner as early peas. An early crop may also be obtained by dibbling in the seeds in November, sheltering by a frame, and in February transplanting them to a warm border. Successional crops are obtained by sowing suitable varieties from January to the end of June. All the culture necessary is that the earth be drawn up about the stems. The plants are usually topped when the pods have set, as this not only removes the black aphides which often settle there, but is also found to promote the filling of the pods.

The following are some of the best sorts:—for early use, Early Mazagan, Long-pod, Marshall’s Early Prolific and Seville Long-pod; for late use, Carter’s Mammoth Long-pod and Broad Windsor.

The horse-bean is a variety—var. *equina*.

Cultivation of Field-bean.—Several varieties of *Vicia Faba* (*e.g.* the horse bean, the mazagan, the tick bean, the winter bean) are cultivated in the field for the sake both of the grain, which is used as food for live-stock, and of the haulm, which serves for either fodder or litter. They are best adapted for heavy soils such as clays or clayey loams. The time for sowing is from the end of January to the beginning of March, or in the case of winter beans from the end of September to the middle of November. The bean-crop is usually interposed between two crops of wheat or some other cereal. If spring beans are to be sown, the land

after harvest is dressed with farmyard manure, which is then ploughed in. In January the soil is levelled with the harrows, and the seed, which should be hard and light brown in colour, is drilled in rows from 15 to 24 in. apart at the rate of from 2 to 2½ bushels to the acre and then harrowed in. The alternative is to “dibble” the seed in the furrow left by the autumn ploughing and cover it in with the harrows; or the land may be ridged with the double-breasted plough, manure deposited in the furrows and the seed sown broadcast, the ridges being then split back so as to cover both manure and seed. After the plant shows, horse-hoeing and hand-hoeing between the rows is carried on so long as the plant is small enough to suffer no injury therefrom. The routine of cultivation for winter beans hardly differs from that described except as regards the time of sowing.

Beans are cut when the leaf is fallen and the haulm is almost black either with the fagging hook or the reaping machine, though the stoutness of the stalks causes a severe strain on the latter implement. They are tied and stocked, and are so left for a considerable time before stacking. There is less fear of injury to the crop through damp than in the case of other cereals. Their value for feeding purposes increases in the stack, where they may remain for a year or more before threshing. Pea and bean weevils, both striped (*Sitones lineatus*) and spotted (*Sitones crinitus*), and the bean aphis (*Aphis rumicis*), are noted pests of the crop. Winter beans come to maturity earlier than the spring-sown varieties, and are therefore strong enough to resist the attacks of the aphis by the end of June, when it begins its ravages. Field-beans yield from 25 to 35 bushels to the acre.

Phascolus vulgaris, the kidney, French or haricot bean, an annual, dwarf and bushy in growth, is widely cultivated in temperate, sub-tropical and tropical regions, but is nowhere known as a wild plant. It was long supposed to be of Indian origin, an idea which was disproved by Alphonse de Candolle, who sums up the facts bearing on its origin as follows: —*Phaseolus vulgaris* has not been long cultivated in India, the south-west of Asia and Egypt, and it is not certain that it was known in Europe before the discovery of America. At the latter epoch the number of varieties in European gardens suddenly increased, and all authors began to mention them. The majority of the species of the genus exist in South America, and seeds apparently belonging to the species in question have been found in Peruvian tombs of an uncertain date, intermixed with many species, all American. Hence it is probable that the plant is of South American origin.

It is a tender annual, and should be grown in a rich light loamy soil and a warm sheltered situation. The soil should be well enriched with hot-bed dung. The earliest crop may be sown by the end of March or beginning of April. If, however, the temperature of the soil is below 45°, the beans make but little progress. The main crops should be got in early in May; and a later sowing may be made early in July. The earlier plantings may be sown in small pots, and put in frames or houses, until they can be safely planted out-of-doors. A light covering of straw or some other simple shelter suffices to protect from late frosts. The seeds should be covered 1½ or 2 in. deep, the distance between the rows being about 2 ft., or for the dwarfest sorts 18 in., and that between plants from 4 to 6 in. The pods may be used as a green vegetable, in which case they should be gathered whilst they are so crisp as to be readily snapped in two when bent; but when the dry seeds are to be used the pods should be allowed to ripen. As the green pods are gathered others will continue to be formed in abundance, but if old seed-forming pods are allowed to remain the formation of young ones will be greatly checked. There are numerous varieties; among the best are Canadian Wonder, Canterbury and Black Negro.

Phaseolus multiflorus, scarlet runner, is nearly allied to *P. vulgaris*, of which it is sometimes regarded as a variety, but differs in its climbing habit. It is naturally perennial and has a thick fleshy root, but is grown in Great Britain as a tender annual. Its bright, generally scarlet flowers, arranged in long racemes, and the fact that it will flourish in any ordinary good garden soil, combine to make it a favourite garden plant. It is also of interest as being one of the few plants that twine in a direction contrary to the apparent motion of the sun. The seeds of the runner beans should be sown in an open plot,—the first sowing in May, another at the beginning of June, and a third about the middle of June. In the London market-gardens they are sown 8 to 12 in. apart, in 4 ft. rows if the soil is good. The twining tops are pinched or cut off when the plants are from 2 to 2½ ft. high, to save the expense of staking. It is better, however, in private gardens to have the rows standing separately, and to support the plants by stakes 6 or 7 ft. high and about a foot apart, the tops of the stakes being crossed about one-third down. If the weather is dry when the pods are forming abundantly, plenty of tepid water should be supplied to the plants. In training the shoots to their supports, they should be twined from right to left, contrary to the course of the sun, or they will not lay hold. By frequently picking the pods the plants are encouraged to form

fresh blooms from which pods may be picked until the approach of frost.

The ordinary scarlet runner is most commonly grown, but there is a white-flowered variety which has also white seeds; this is very prolific and of excellent quality. Another variety called Painted Lady, with the flowers red and white, is very ornamental, but not so productive. Carter's Champion is a large-podded productive variety.

Another species *P. lunatus*, the Lima bean, a tall biennial with a scimitar-shaped pod (whence the specific name) 2 to 3 in. long containing a few large seeds, is widely cultivated in the warmer parts of the world.

The young pods of another leguminous climbing herb, *Dolichos Lablab*, as well as the seeds, are widely used in the tropics, as we use the kidney bean. The plant is probably a native of tropical Africa, but is now generally cultivated in the tropics. The word *Dolichos* is of Greek origin, and was used by Theophrastus for the scarlet runner.

Another species, *D. biflorus*, is the horse gram, the seed of which is eaten by the poorer class of natives in India, and is also, as are the pods, a food for horses and cattle.

The Soy bean, *Glycine hispida*, was included by Linnaeus in the genus *Dolichos*. It is extensively cultivated in China and Japan, chiefly for the pleasant-flavoured seed from which is prepared a piquant sauce. It is also widely grown in India, where the bean is eaten, while the plant forms a valuable fodder; it is cultivated for the latter purpose in the United States.

Other references to beans will be found under special headings, such as Calabar Bean, Locust-Tree. There are also several non-leguminous seeds to which the popular name bean is attached. Among these may be mentioned the sacred Egyptian or Pythagorean bean (*Nelumbium speciosum*), and the Ignatius bean (probably *Strychnos multiflora*), a source of strychnine.

The ancient Greeks and Romans made use of beans in gathering the votes of the people, and for the election of magistrates. A white bean signified absolution, and a black one condemnation. Beans had a mysterious use in the *lemuralia* and *parentalia*, where the master of the family, after washing his hands three times, threw black beans over his head nine times, reiterating the words "I redeem myself and my family by these beans."

BEAN-FEAST, primarily an annual dinner given by an employer to his workpeople, and then colloquially any jollification. The phrase is variously derived. The most probable theory is that which connects it with the custom in France, and afterwards in Germany and England, of a feast on Twelfth Night, at which a cake with a bean buried in it was a great feature. The bean-king was he who had the good fortune to have the slice of cake in which was the bean. This choosing of a king or queen by a bean was formerly a common Christmas diversion at the English and Scottish courts, and in both English universities. This monarch was master of the revels like his congener the lord of misrule. A clue to his original functions is possibly found in the old popular belief that the weather for the ensuing twelve months was determined by the weather of the twelve days from Christmas to Twelfth Night, the weather of each particular month being prognosticated from each day. Thus the king of the bean of Twelfth Night may have originally reigned for the twelve days, his chief duty being the performance of magical ceremonies for ensuring good weather during the ensuing twelve months. Probably in him and the lord of misrule it is correct to find the lineal descendant of the old king of the Saturnalia, the real man who personated Saturn and, when the revels ceased, suffered a real death in his assumed character. Another but most improbable derivation for bean-feast connects it with M.E. *bene* "prayer," "request," the allusion being to the soliciting of alms towards the cost of their Twelfth Night dinner by the workpeople.

See Wayzgoose; Misrule, Lord of; also J. Boemus, *Mores, leges et ritus omnium gentium* (Lyons, 1541), p. 222; Laisnel de la Salle, *Croyances et légendes du centre de la France*, i. 19-29; Lecœur, *Esquisses du Bocage normand*, ii. 125; Schmitz, *Sitten und Sagen des Eifler Volkes*, i. 6; Brand, *Popular Antiquities of Great Britain* (Hazlitt's edit. 1905), under "Twelfth Night"; Cortet, *Fêtes religieuses*, p. 29 sqq.

BEAR, properly the name of the European brown bear (*Ursus arctus*), but extended to include all the members of the *Ursidae*, the typical family of Arctoid carnivora, distinguished by their massive bodies, short limbs, and almost rudimentary tails. With the single exception of the Indian sloth-bear, all the species have forty-two teeth, of which the incisors and canines closely resemble those of purely carnivorous mammals; while the molars, and especially the one known as the “sectorial” or “carnassial,” have their surfaces tuberculated so as to adapt them for grinding vegetable substances. As might have been supposed from their dentition, the bears are omnivorous; but most prefer vegetable food, including honey, when a sufficient supply of this can be had. The grizzly bear, however, is chiefly carnivorous; while the polar bear is almost wholly so.

Bears are five-toed, and provided with formidable claws, which are not retractile, and thus better fitted for digging and climbing than for tearing. Most climb trees in a slow, lumbering fashion, and, in descending, always come hind-quarters first. The grizzly bear is said to lose this power of climbing in the adult stage. In northern countries bears retire during the winter into caves and the hollows of trees, or allow the falling snow to cover them, and there remain dormant till the advent of spring, about which time the female usually produces her young. These are born naked and blind, and it is commonly five weeks before they see, or become covered with hair. Before hibernating the adults grow very fat, and it is by the gradual consumption of this fat—known in commerce as bear’s grease—that such vital action as is necessary to the continuance of life is sustained.

The bear family is widely distributed, being found in every quarter of the globe except Australia, and in all climates, from the highest northern latitudes yet reached by man to the warm regions of India and Malaya. In the north-west corner of Africa the single representative of the family found on that continent occurs.

The polar or white bear (*Ursus maritimus*), common to the Arctic regions of both hemispheres, is distinguished from the other species by having the soles of the feet covered with close-set hairs,—in adaptation to the wants of the creature, the bear being thereby enabled to walk securely on slippery ice. In the whiteness of its fur also, it shows such an assimilation in colour to that of surrounding nature as must be of considerable service in concealing it from its prey. The food of the white bear consists chiefly of seals and fish, in pursuit of which it shows great power of swimming and diving, and a considerable degree of sagacity; but its food also includes the carcases of whales, birds and their eggs, and grass and berries when these can be had. That it can sustain life on a purely vegetable diet is proved by instances on record of its being fed for years on bread only, in confinement. These bears are strong swimmers, Sir Edward Sabine having found one “swimming powerfully 40 m. from the nearest shore, and with no ice in sight to afford it rest.” They are often carried on floating ice to great distances, and to more southern latitudes than their own, no fewer than twelve Polar bears having been known to reach Iceland in this way during one winter. The female always hibernates, but the male may be seen abroad at all seasons. In bulk the white bear exceeds most other members of the family, measuring nearly 9 ft. in length, and often weighing 1600 lb.

Land bears have the soles of the feet destitute of hair, and their fur more or less shaggy. On these the brown bear (*Ursus arctus*,—ἄρκτος of Aristotle) is found in one or other of its varieties all over the temperate and north temperate regions of the eastern hemisphere, from Spain to Japan. The fur is usually brownish, but there are black, blackish-grey and yellowish varieties. It is a solitary animal, frequenting the wooded parts of the regions it inhabits, and living on a mixed diet of fruits, vegetable, honey, fish and the smaller animals. In winter it hibernates, concealing itself in some hollow or cavern. It does not seek to attack man; but when baited, or in defence of its young, shows great courage and strength, rising on its hind legs and endeavouring to grasp its antagonist in an embrace. Bear-baiting, till within comparatively recent times, was a favourite sport throughout Europe, but, along with cock-fighting and badger-baiting, has gradually disappeared before a more humane civilization. It was a favourite pastime among the Romans, who imported their bears from Britain, a proof that the animal was then comparatively abundant in that country; indeed, from reference made to it in early Scottish history, the bear does not appear to have been extirpated in Britain before the end of the 11th century. It is now found in greatest abundance in Norway, Russia and Siberia, where hunting the bear is a favourite sport, and where, when dead, its remains are highly valued. Among the Kamchadales “the skin of the bear,” says a traveller, “forms their beds and their coverlets, bonnets for their heads, gloves for their hands and collars for their dogs. The flesh and fat are their dainties. Of the intestines they make masks or covers for their faces, to protect them from the glare of the sun in the spring, and use them as a substitute for glass, by extending them over their

windows. Even the shoulder-blades are said to be put in requisition for cutting grass." In confinement the brown bear is readily tamed; and advantage has been taken of the facility with which it can sustain itself on the hind feet to teach it to dance to the sound of music. It measures 4 ft. in length, and is about 2½ ft. high. Of this species Crowther's bear from the Atlas Mountains, the Syrian bear (*Ursus arctus pyriacus*) and the snow or isabelline bear (*Ursus arctus isabellinus*) of the Himalaya are local races, or at most subspecies.[1] American naturalists regard the big brown bears of Alaska as a distinct group. They range from Sitka to the extremity of the Alaskan Peninsula, over Kodiak Island, and inland. Their distinctive external features are their large size, light-brown colour, high shoulders, massive heads of great breadth and shaggy coat.

The grizzly bear (*Ursus arctus horribilis*, formerly known as *U. ferox*) is regarded by some naturalists as a distinct species and by others as a variety of the brown bear, to which it is closely allied. It was said to exceed all other American mammals in ferocity of disposition and muscular strength. Stories were told of its attacking the bison, and it has been reported to carry off the carcase of a wapiti, weighing nearly 1000 ℔, for a considerable distance to its den, there to devour it at leisure. It also eats fruit and vegetables. Its fur is usually of a yellowish-brown colour, coarse and grizzled, and of little value commercially, while its flesh, unlike that of other bears, is uneatable even by the Indians. The grizzly bear is now rare in the United States, save in the Yellowstone Park and the Clearwater Mountains of Idaho, though more common in British Columbia. Several geographical races are recognized. The Tibet bear (*U. pruinosus*) is a light-coloured small species.

The American black bear (*Ursus americanus*) occurs throughout the wooded parts of the North American continent, whence it is being gradually driven to make room for man. It is similar in size to the brown bear, but its fur is of a soft even texture, and of a shining black colour, to which it owes its commercial value. At the beginning of the 19th century black bears were killed in enormous numbers for their furs, which at that time were highly valued. In 1803 the skins imported into England numbered 25,000, but the imports have since decreased to one-half of that number. They are chiefly used for military accoutrements. This is a timid animal, feeding almost solely on fruits, and lying dormant during winter, at which period it is most frequently killed. It is an object of superstitious reverence to the Indians, who never kill it without apologizing and deploring the necessity which impels them to do so.

The Himalayan black bear (*U. torquatus*) is found in the forest regions ranging from the Persian frontier eastward to Assam. The average length is about 5 ft.; there is no under-fur, and the coat is smooth, black in colour, with the exception of a white horseshoe-mark on the chest. It feeds chiefly on fruit and roots, but kills sheep, goats, deer, ponies and cattle, and sometimes devours carrion.

The small bruang or Malayan bear (*Ursus malayanus*) is of a jet-black colour, with a white semilunar mark on the chest, and attains a length of 4½ ft. Its food consists almost solely of vegetables and honey, but the latter is its favourite food,—the extreme length and pliability of the tongue enabling it to scoop out the honeycombs from the hollows of trees. It is found in the Malay Peninsula and Islands, and is readily tamed.

Not much larger than the Malay bear is the South American spectacled bear of the Andes (*U. ornatus*), distinguished from all the rest by the presence of a perforation in the lower end of the humerus, and hence sometimes separated as *Tremarctus*. It is black, with tawny rings round the eyes, and white cheeks, throat and chest. A second race or species exists.

The sloth-bear (*Melursus labiatus* or *ursinus*) is distinguished by the absence of one pair of upper incisors, the small size of the cheek-teeth and the very extensile character of the lips. It is also known as the aswail and the honey-bear, the last name being also given to the Malay bear and the kinkajou. It is about the size of the brown bear, is covered with long, black hair, and of extremely uncouth aspect. It inhabits the mountainous regions of India, is readily tamed and is the bear usually exhibited by the Hindu jugglers. The food consists of fruits, honey and white ants.

Fossil remains of extinct bears first occur in strata of the Pliocene age. Those of the great cave bear (*Ursus spelaeus*), found abundantly in certain caverns of central Europe and Asia, show that it must have exceeded in size the polar bear of the present day. Its remains are also found in similar situations in Britain associated with those of an allied species (*Ursus priscus*).

1 Lydekker, in *Proc. Zool. Soc.*, 1897, p. 412.

BEAR-BAITING and **BULL-BAITING,** sports formerly very popular in England but now suppressed on account of their cruelty. They took place in arenas built in the form of theatres which were the common resort even of cultivated people. In the bear-gardens, which are known to have existed since the time of Henry II., the bear was chained to a stake by one hind leg or by the neck and worried by dogs. Erasmus, writing (about 1500) from the house of Sir Thomas More, spoke of “many herds of bears maintained in the country for the purpose of baiting.” Sunday was the favourite day for these sports. Hentzner, writing in 1598, describes the bear-garden at Bankside as “another place, built in the form of a theatre, which serves for the baiting of Bulls and Bears. They are fastened behind, and then worried by great English bull-dogs, but not without great risk to the dogs from the horns of the one and the teeth of the other, and it sometimes happens they are killed upon the spot; fresh ones are immediately supplied in the places of those that are wounded or tired.” He also describes the whipping of a blinded bear, a favourite variation of bear-baiting. For a famous baiting which took place before Queen Elizabeth in 1575 thirteen bears were provided. Of it Robert Laneham (fl. 1575) wrote, “it was a sport very pleasant to see, to see the bear, with his pink eyes, tearing after his enemies’ approach; the nimbleness and wait of the dog to take his advantage and the force and experience of the bear again to avoid his assaults: if he were bitten in one place how he would pinch in another to get free; that if he were taken once, then by what shift with biting, with clawing, with roaring, with tossing and tumbling he would work and wind himself from them; and when he was loose to shake his ears twice or thrice with the blood and the slaver hanging about his physiognomy.” The famous “Paris Garden” in Southwark was the chief bear-garden in London. A Spanish nobleman of the time, who was taken to see a pony baited that had an ape tied to its back, expressed himself to the effect that “to see the animal kicking amongst the dogs, with the screaming of the ape, beholding the curs hanging from the ears and neck of the pony, is very laughable.” Butler describes a bear-baiting at length in the first canto of his *Hudibras*.

The Puritans endeavoured to put an end to animal-baiting, although Macaulay sarcastically suggested that this was “not because it gave pain to the bear, but because it gave pleasure to the spectators.” The efforts of the Puritans seem, however, to have had little effect, for we find the sport flourishing at the Restoration; but the conscience of cultivated people seems to have been touched, for Evelyn wrote in his *Diary*, under the date of June 16th, 1670: “I went with some friends to the bear-garden, where was cock-fighting, dog-fighting, bear and bull baiting, it being a famous day for all these butcherly sports, or rather barbarous cruelties. The bulls did exceedingly well, but the Irish wolf-dog exceeded, which was a tall greyhound, a stately creature indeed, who beat a cruel mastiff. One of the bulls tossed a dog full into a lady’s lap, as she sat in one of the boxes at a considerable height from the arena. Two poor dogs were killed, and so all ended with the ape on horseback, and I most heartily weary of the rude and dirty pastime, which I had not seen, I think, in twenty years before.” Steele also attacked these cruel sports in the *Tatler*. Nevertheless, when the tsar Nicholas I. visited England as cesarevich, he was taken to see a prize-fight and a bull-baiting. In this latter form of the sport the bull’s nose was usually blown full of pepper to render him the more furious. The bull was often allowed a hole in the ground, into which to thrust his nose and lips, his most vulnerable parts. Sometimes the bull was tethered, and dogs, trained for the purpose, set upon him one by one, a successful attack resulting in the dog fastening his teeth firmly in the bull’s snout. This was called “pinning the bull.” A sport called bull-running was popular in several towns of England, particularly at Tutbury and Stamford. Its establishment at Tutbury was due to John of Gaunt, to whose minstrels, on the occasion of their annual festival on August 16th the prior of Tutbury, for his tenure, delivered a bull, which had his horns sawn off, his ears and tail cut off, his nostrils filled with pepper and his whole body smeared with soap. The minstrels gave chase to the bull, which became the property of any minstrel of the county of Stafford who succeeded in holding him long enough to cut off a lock of his hair. Otherwise he was returned to the prior. At the dissolution of the monasteries this tenure devolved upon the dukes of Devonshire, who suppressed it in 1788. At Stamford the running took place annually on November 13th, the bull being provided by the butchers of the town, the townspeople taking part in the chase, which was carried on until both people and beast were exhausted, and ended in the killing of the bull. Certain rules were strictly observed, such as the prohibition of carrying sticks or staves that were shod with iron. The Stamford bull-running survived well into the 19th century. Bear-baiting and bull-baiting were prohibited by

act of parliament in 1835.

BEARD, WILLIAM HOLBROOK (1825-1900), American painter, was born on the 13th of April 1825 at Painesville, Ohio. He studied abroad, and in 1861 removed to New York City, where in 1862 he became a member of the National Academy of Design. He was a prolific worker and a man of much inventiveness and originality, though of modest artistic endowment. His humorous treatment of cats, dogs, horses and monkeys, generally with some human occupation and expression, usually satirical, gave him a great vogue at one time, and his pictures were largely reproduced. His brother, James Henry Beard (1814-1893), was also a painter.

BEARD (A.S. *beard*, O.H. and Mod. Ger. *Bart*, Dan. *baard*, Icel. *bar*, rim, edge, beak of a ship, &c., O. Slav, *barda*, Russ. *barodá*. Cf. Welsh *barf*, Lat. *barba*, though, according to the *New English Dictionary*, the connexion is for phonetic reasons doubtful). Modern usage applies this word to the hair grown upon a man's chin and cheek. When the chin is shaven, what remains upon the cheeks is called whiskers. "Moustache" or "moustaches" describes the hair upon the upper lip. But the words have in the past had less exact meaning. Beard has stood alone for all these things, and whisker has in its time signified what we now call moustache, as in the case of Robinson Crusoe's great pair of "Turkish whiskers."

The bearded races of mankind have ever held the beard in high honour. It is the sign of full manhood; the lad or the eunuch is beardless, and the bearded woman is reckoned a witch, a loathsome thing to all ages. Also the beard shrinks from the profane hand; a tug at the beard is sudden pain and dishonour. The Roman senator sat like a carven thing until the wondering Goth touched his long beard; but then he struck, although he died for the blow. The future King John gave deadly offence to the native chieftains, when visiting Ireland in 1185, by plucking at their flowing beards.

David's ambassadors had their beards despitefully shaven by a bold heathen. Their own king mercifully covered their shame—"Tarry ye at Jericho until your beards be grown"—but war answered the insult. The oath on the beard is as old as history, and we have an echo of it in the first English political ballad when Sir Simon de Montfort swears "by his chin" revenge on Warenne.

Adam, our first father, was by tradition created with a beard: Zeus Allfather is bearded, and the old painters and carvers who hardily pictured the first person of the Trinity gave Him the long beard of his fatherhood. The race-fathers have it and the ancient heroes. Abraham and Agamemnon, Woden and King Arthur and Charlemagne, must all be bearded in our pictures. With the Mahommedan peoples the beard as worn by an unshaven prophet has ever been in high renown, the more so that amongst most of the conquering tribes who first acknowledged the unity of God and prophethood of Mahomet it grows freely. But before Mahomet's day, kings of Persia had plaited their sacred beards with golden thread, and the lords of Nineveh had curiously curled and oiled beards such as their winged bull wears. Bohadin tells us that Saladin's little son wept for terror when he saw the crusaders' envoys "with their clean-shaven chins." Selim I. (1512-1521) comes down as a Turkish sultan who broke into holy custom and cut off his beard, telling a remonstrating Mufti that his vizier should now have nothing to lead him by. But such tampering with tradition has its dangers, and the absolute rule of Peter the Great is made clear when we know that he taxed Russian beards and shaved his own, and yet died in his bed. Alexander the Great did as much and more with his well-drilled Macedonians, and was obeyed when he bade them shave off the handle by which an enemy could seize them.

With other traditions of their feudal age, the Japanese nation has broken with its ancient custom of the razor, and their emperor has beard and moustache; a short moustache is common amongst Japanese officers and statesmen, and generals and admirals of Nippon follow the imperial example. The Nearer East also is abandoning the full beard, even in

Mahommedan lands. Earlier shahs of the Kajar house have glorious beards below their girdles, but Náṣiru'd-Dín and his successor have shaved their chins. In later years the sultan of Turkey has added a beard to his moustache; the khedive of Egypt, son of a bearded father, has a soldier's moustache only. In Europe the great Russian people is faithful to the beard, Peter's law being forgotten. The tsar Alexander III.'s beard might have satisfied Ivan the Terrible, whose hands played delightedly with the five-foot beard of Queen Elizabeth's agent George Killingworth. Indeed the royal houses of Europe are for the most part bearded or whiskered. It may be that the race of Olivier le Dain, of the man who can be trusted with a sharp razor near a crowned king's throat, is extinct. Leopold II., king of the Belgians, however, was in 1909 the only sovereign with the full beard unclipped. The Austrian emperor, Francis Joseph, retained the moustache and whiskers of the 'sixties, and the German emperor, William II., for a short period, commemorated by a few very rare photographs, had a beard, although it was never suffered to reach the length of that beard which gave his father an air of Charlemagne or Barbarossa. In France bearded presidents have followed each other, but it may be noted that the waxed moustache and "imperial" beard of the Second Empire is now all but abandoned to the Frenchman of English comedy. The modern English fashion of shaving clean is rare in France save among actors, and during 1907 many Parisian waiters struck against the rule which forbade them to grow the moustache.

For the most part the clergy of the Roman obedience shave clean, as have done the popes for two centuries and more. But missionary bishops cultivate the long beard with some pride, and the orders have varying customs, the Dominican shaving and the Franciscan allowing the hair to grow. The Roman Catholic clergy of Dalmatia, secular and regular, are allowed to wear the moustache without beard or whiskers, as a concession to national prejudices.

Amongst English people, always ready to be swayed by fashion, the hair of the face has been, age by age, cherished or shaved away, curled or clipped into a hundred devices. Before the immigration from Sleswick the Briton knew the use of the razor, sometimes shaving his chin, but leaving the moustaches long. The old English also wore moustaches and forked beards, but, save for aged men, the beard had passed out of fashion before the Norman Conquest. Thus, in the Bayeux needlework, Edward the king is venerable with a long beard, but Harold and his younger fighting men have their chins reaped. "The English," says William of Malmesbury, "leave the upper lip unshaven, suffering the hair continually to increase," and to Harold's spies the Conqueror's knights, who had "the whole face with both lips shaven," were strange and priest-like. Matthew Paris had a strange idea that the beard was distinctive of Englishmen; he asserts that those who remained in England were compelled to shave their beards, while the native nobles who went into exile kept their beards and flowing locks "like the Easterns and especially the Trojans." He even believed that "William with the beard," who headed a rising in London under Richard I., came of a stock which had scorned to shave, out of hatred for the Normans, a statement which Thierry developed.

The *Chanson de Roland* shows us "the pride of France" as "that good bearded folk," with their beards hanging over coats of mail, and it makes the great emperor swear to Naimes by his beard. It was only about the year 1000, according to Rodolf Glaber, that men began in the north of France to wear short hair and shave "like actors"; and even in the Bayeux tapestry the old Norman shipwrights wear the beard. But so rare was hair on the face amongst the Norman invaders that William, the forefather of the Percys, was known in his lifetime and remembered after his death as William "Asgernuns" or "Oht les gernuns," *i.e.* "William with the moustaches," the epithet revived by one of his descendants making our modern name of Algernon. Count Eustace of Boulogne was similarly distinguished. Fashion swung about after the Conquest, and, in the day of Henry I., Serle the bishop could compare bearded men of the Norman-English court with "filthy goats and bristly Saracens." The crusades, perhaps, were accountable for the beards which were oddly denounced as effeminate in the young courtiers of William Rufus. Not only the Greeks but the Latins in the East sometimes adopted the Saracen fashion, and the siege of Antioch (1098) was as unfavourable to the use of the razor as that of Sevastopol. When the Latins stormed the town by night, bearded knights owed their death to the assumption that every Christian would be a shaven man. But for more than four centuries diversity is allowed, beards, moustaches and shaven faces being found side by side, although now and again one fashion or another comes uppermost to be followed by those nice in such matters. Henry II. is a close-shaven king, and Richard II.'s effigy shows but a little tuft on each side of the chin, tufts which are two curled locks on the chin of Henry IV. But Henry III. is long-bearded, Edward II. curls his beard in three great ringlets, and the third Edward's long forked beard

flows down his breast in patriarchal style. The mid-13th century, as seen in the drawings attributed to Matthew Paris, is an age of many full and curled beards, although the region about the lips is sometimes clipped or shaved. The beard is common in the 14th century, the forked pattern being favoured and the long drooping moustache. Amongst those who ride with him to Canterbury, Chaucer, a bearded poet, notes the merchant's "forked beard," the white beard of the franklin and the red beard of the miller, but the reeve's beard is "shave as ny as ever he can." Henry of Monmouth and his son are shaven, and thereafter beards are rare save with a few old folk until they come slowly back with the 16th century. In Ireland the statute enacted by a parliament at Trim in 1447 recited that no manner of man who will be taken for an Englishman should have beard above his mouth—the upper lip must be shaven at least every fortnight or be of equal growth with the nether lip,—and this statute remained unrepealed for nigh upon two hundred years. Henry VIII., always a law to himself, brought back the beard to favour, Stowe's annals giving 1535 as the year in which he caused his beard "to be knotted and no more shaven," his hair being polled at the same time. Many portraits give his fashion of wearing a thin moustache, whose ends met a short and squarely trimmed beard parted at the chin, a fashion in which he was followed by his brother-in-law Charles Brandon. But it is remarkable that those about him rarely imitated their most dread sovereign. While Cromwell and Howard the Admiral go clean shaven, the Seymour brothers, Denny and Russell, have the beard long and flowing. Even the forty shilling a year man, says Hooper in 1548, will waste his morning time while he sets his beard in order. About this time the clergy began to break with the long tradition of smooth faces. A priest in 1531 is commanded to abstain from wearing a beard, and Cardinal Pole, coming from the court of a bearded pope, appears bearded like a Greek patriarch. The law too, the church's kinswoman, begins to forbid, a sign of the change, and from 1542 the society of Lincoln's Inn makes rules for fining and expelling those who appear bearded at their mess, rules which the example of exalted lawyers caused to be withdrawn in 1560.

The age of Elizabeth saw lawyers, soldiers, courtiers and merchants all bearded. Her Cecils, Greshams, Raleighs, Drakes, Dudleys and Walsinghams have the beard. A shaven chin such as that seen in the portrait of Philip Howard, earl of Arundel, is rare, but the beards take a hundred fashions, and satirists and Puritan pamphleteers were busy with them and with the men who wasted hours in perfuming or starching them, in dusting them with orris powder, in curling them with irons and quills. Stubbs gives them a place amongst his abuses. "It is a world to consider how their mowchatowes must be preserved or laid out from one cheek to another and turned up like two horns towards the forehead." Of the English variety of beards Harrison has a good word: "beards of which some are shaven from the chin like those of Turks, not a few cut short like to the beard of Marquess Otto, some made round like a rubbing brush, others with a *pique de vant* (O! fine fashion) or now and then suffered to grow long, the barbers being grown to be so cunning in this behalf as the tailors. And therefore if a man have a lean and straight face, a Marquess Otto's cut will make it broad and large; if it be platter-like, a long slender beard will make it seem the narrower; if he be weasel-becked, then much hair left on the cheeks will make the owner look big like a bowdled hen, and as grim as a goose, if Cornelis of Chelmersford say true." Nevertheless he adds that "many old men do wear no beards at all." The Elizabethan fashions continued under King James, the beard trimmed to a point being common wear; but under King Charles there is a certain reaction, and the royal style of shaving the cheeks and leaving the moustache whose points sweep upward and the chin beard like a downward flame is followed by most of the gentry. With some the beard disappears altogether or remains a mere fleck below the lip. Archbishop Laud has a cavalier-like chin tuft and upturned moustache, but Abbot his predecessor wore the spade beard, the "cathedral beard" of Randle Holme, seen in all its dignity on the Chigwell brass of Samuel Harsnett, archbishop of York (died 1631), a grim figure with his angry moustache and a long and broad beard, cut square at the bottom.

From the Restoration year the razor comes more into use. Young men shave clean. The restored king curls a few dark hairs of a moustache over each cheek, but his brother James is shaven. With the reign of Queen Anne the country enters the beardless age, and beards, moustaches and whiskers are no more seen. In the 18th century the moustache indicated a soldier from beyond sea. A Jew or a Turk was known by the beard, an appendage loathsome as comic. Matthew Robinson, the second Lord Rokeby, was indeed wearing a beard in 1798, but he was reckoned a madman therefor, and Phillips's *Public Character* pictures him as "the only peer and perhaps the only gentleman of either Great Britain or Ireland who is thus distinguished." That George III. in his madness should have been left unshaved was a circumstance of his misery that wrung the hearts of all loyal folk. But in the very year of 1798, when Lord Rokeby's image was engraved for the curious, the Worcestershire militia

officers quartered near Brighton were copying the Austrian moustache of the foreign troops, and we may note that the hair of the face, which disappeared when wigs came in, began to reappear as wigs went out. Early in the 19th century the bucks began to show a patch of whisker beside the ear, and the soldier's moustache became a common sight. Before Waterloo, guardsmen were complaining that officers of humbler regiments imitated their fashion of the moustache, and by the Waterloo year most young cavalry officers were moustached. The Horse Artillery were the next moustached corps, the rest of the army, already whiskered, following their example in the 'fifties. But for a civilian to grow a moustache was long reckoned a piece of unseemly swagger. Clive Newcome, it will be remembered, wore one until the taunting question whether he was "going in the Guards" shamed him into shaving clean. When in 1840 Mr George Frederick Muntz appeared in parliament with a full beard there were those who felt that this tall Radical had taken his own strange method of insulting English parliamentary institutions. James Ward, R.A. (d. 1859), painter of animals, was another breaker of the unwritten law, defending his beard in a pamphlet of eighteen arguments as a thing pleasing at once to the artist and to his Creator. Freedom in these matters only came when the troops were home from the Crimea, when officers who had grown beards and acquired the taste for tobacco during the long months in the trenches showed their beards and their cigars in Piccadilly. Then came the Volunteer movement, and every man was a soldier, taking a soldier's licence. The dominant fashion was the moustache, worn with long and drooping whiskers. But the "Piccadilly weepers" of the 'sixties were out of the mode for the younger men when the 'eighties began, and by the end of the century whiskers were seen in the army only upon a few veteran officers. The fashion of clean shaving had made some way, the popularity of the shaven actor having a part in this. In 1909 all modes of dealing with the hair of the face might be recognized, but the full beard had become somewhat rare in England and the full whiskers rarer still. The upper class showed an inclination to shave clean, although the army grudgingly recognized a rule which ordered the moustache to be worn. Naval men, by regulation, shaved or wore both beard and moustache, but their beards were always trimmed. Most barristers shaved the lips, although the last judge unable to hear an advocate whose voice a moustache interrupted had left the bench. Clergymen followed the lay fashions as they did under the first Stuart kings, although there was still some prejudice against the moustache as an ornament military and inappropriate. A newspaper of 1857, describing the appearance of Livingstone the missionary at a Mansion House meeting, records that he came wearing a moustache, "braving the prejudices of his countrymen and thus evincing a courage only inferior to that exhibited by him amongst the savages of Central Africa." Even as late as 1884 the *Pall Mall Gazette* has some surprised comments on the beard of Bishop Ryle, newly consecrated to the see of Liverpool.

The footman, whose full-dress livery is the court dress of a hundred years ago, must show no more than the rudimentary whisker of the early eighteen-hundreds, and butler, coachman and groom come under the same rule. The jockey and the hunt whip are shaven likewise, but the courier has the whiskers and moustache that once marked him as a foreigner in the English milor's service, and the chauffeur, a servant with no tradition behind him, is often moustached.

Lastly, we may speak of the practice of the royal house since England came out of the beardless century. The regent took the new fashion, and sat "in whiskered state," but his brother and successor shaved clean and disliked even the hussar's moustache. The prince consort wore the moustache as a young man, adding whiskers in later years. King Edward VII. wore moustache and trimmed beard, and his heir apparent also followed the fashion of many fellow admirals.

(O. Ba.)

BEARDSLEY, AUBREY VINCENT (1872-1898), English artist in black and white, was born at Brighton on the 24th of August 1872. In 1883 his family settled in London, and in the following year he appeared in public as an "infant musical phenomenon," playing at several concerts with his sister. In 1888 he obtained a post in an architect's office, and afterwards one in the Guardian Life and Fire Insurance Company (1889). In 1891, under the advice of Sir Edward Burne-Jones and Puvis de Chavannes, he took up art as a profession. In 1892 he attended the classes at the Westminster School of Art, then under Professor Brown; and

from 1893 until his death, at Mentone, on the 16th of March 1898, his work came continually before the public, arousing a storm of criticism and much hostile feeling. Beardsley had an unswerving tendency towards the fantastic of the gloomier and "unwholesome" sort. His treatment of most subjects was revolutionary; he deliberately ignored proportion and perspective, and the "freedom from convention" which he displayed caused his work to be judged with harshness. In certain phases of technique he especially excelled; and his earlier methods of dealing with the single line in conjunction with masses of black are in their way unsurpassed, except in the art of Japan, the country which probably gave his ideas some assistance. He was always an ornamentist, rather than an illustrator; and his work must be judged from that point of view. His frontispiece to *Volpone* is held by some to be, from this purely technical standpoint, one of the best pen-drawings of the age. His posters for the Avenue theatre and for Mr Fisher Unwin were among the first of the modern cult of that art.

The following are the chief works which are illustrated with drawings by Beardsley: the *Bon Mot* Library, *The Pall Mall Budget*, and *The Studio* (1893), Sir Thomas Malory's *Morte d'Arthur* (1893-1894), *Salomé* (1894), *The Yellow Book* (1894-1895), *The Savoy Magazine* (1896), *The Rape of the Lock* (1896).

See also J. Pennell, *The Studio* (1893); Symons, *Aubrey Beardsley* (1898); R. Ross, *Volpone* (1898); H.C. Marillier, *The Early Work of Aubrey Beardsley* (1899); Smithers, *Reproductions of Drawings by Aubrey Beardsley*; John Lane, *The Later Works of Aubrey Beardsley* (1901); R. Ross, *Aubrey Beardsley* (1908).

(E. F. S.)

BEARDSTOWN, a city of Cass county, Illinois, U.S.A., in the W. part of the state, on the E. bank of the Illinois river, about 111 m. N. of St Louis, Missouri. It is served by the Baltimore & Ohio South-Western, and the Burlington (Chicago, Burlington & Quincy) railways, and by steamboats plying between it and St. Louis. Pop. (1890) 4226; (1900) 4827 (444 foreign-born); (1910) 6107. The industrial establishments of the city include flour, planing and saw mills, the machine shops (of the St Louis division) of the Chicago, Burlington & Quincy railway, ice factories, pearl button factories and a shoe factory. The fishing interests are also important. Beardstown was laid out in 1827 and was incorporated as a city in 1896. It was named in honour of Thomas Beard, who settled in the vicinity in 1820. During the Black Hawk War (1832) it was a base of supplies for the Illinois troops. The old court house in which Abraham Lincoln, in 1854, won his famous "Armstrong murder case," is now used for a city hall.

BEARER, strictly "one who carries," a term used in India for a palanquin-bearer, and now especially for a body-servant. The term is also used in connexion with military ambulances, and "bearer" companies formed part of the Royal Army Medical Corps until amalgamated with the field-hospitals to form field-ambulances (1905). In banking and commerce the word is applied to the holder or presenter of a cheque or draft not made payable to a specific person; it has also a technical use, as in printing, of anything that supports pressure in machinery, &c.

BEARINGS. In engineering a "bearing" is that particular kind of support which, besides carrying the load imposed upon it by the shaft associated with it, allows the shaft freedom to revolve. Or, put in another way, a bearing forms with the shaft a pair of elements having one degree of freedom to turn relatively to one another about their common axis. The part of the shaft in the bearing is commonly called the *journal*. The component parts of a small bearing,

pillow block, plummer block or pedestal, as it is variously styled, are illustrated in fig. 1, and these parts, put together, are further illustrated in fig. 2 with the shaft added. Corresponding parts are similarly lettered in the two illustrations. The shaft (S) is encircled by the *brasses* (B_1 and B_2) made of gun metal, phosphor bronze or other suitable material. The lower brass fits into the main casting (A) in the semicircular seat provided for it, and is prevented from moving endways by the flanges (F, F) and from turning with the shaft by the projections (P, P), which fit into corresponding recesses in the casting (A), one of which is shown at *p*. After the shaft has been placed in position, the upper brass (B_2) and the cap (C) are put on and both are held in place by the bolts (Q_1, Q_2). The brasses are bedded into the main casting (A) and the cap (C) respectively at the surfaces D, D, D, D. The complete bearing is held to the framework of the machine by bolts (R_1, R_2) passing through holes (H, H) which are slotted to allow endwise adjustment of the whole bearing in order to facilitate the alignment of the shaft. Oil or other lubricant is introduced through the hole (G), and it passes through the top brass to grooves or oilways cut into the surface of the brass for the purpose of distributing the oil uniformly to the journal.

Some form of lubricator is usually fitted at G in order to supply oil to the bearing continuously. A form of lubricator used for this purpose is shown in place, fig. 2, and an enlarged section is shown in fig. 3. It will be seen that the lubricator consists essentially of a cup the base of which is pierced centrally by a tube which reaches to within a small distance of the lid of the cup inside, and projects into the oilway leading to the journal outside. The annular space round the tube inside is filled with oil which is transferred to the central tube and thence to the bearing by the capillary action of a cotton wick thrust down on a piece of wire. It is only necessary to withdraw the wick from the central tube to stop the supply of oil. The lubricator is fitted through a hole in the lid which is usually plugged with a piece of cane or closed by more elaborate means. A line of shafting would be supported by several bearings of the kind illustrated, themselves supported by brackets projecting from or rigidly fixed to the walls of the workshop, or on frames resting on the floor, or on hangers attached to the roof girders or principals.

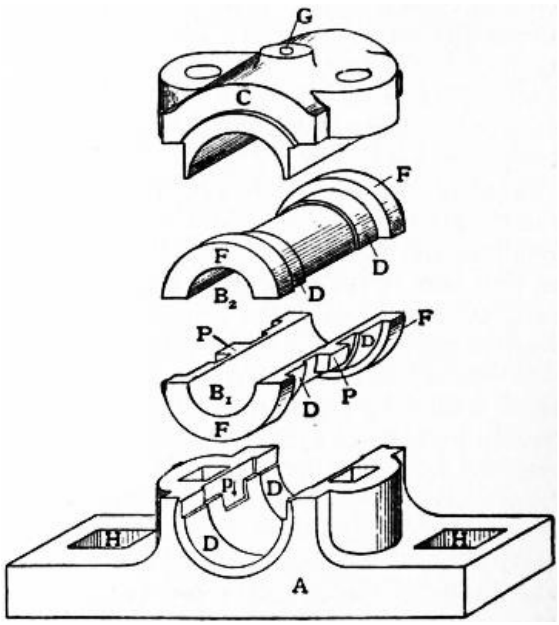

FIG. 1.

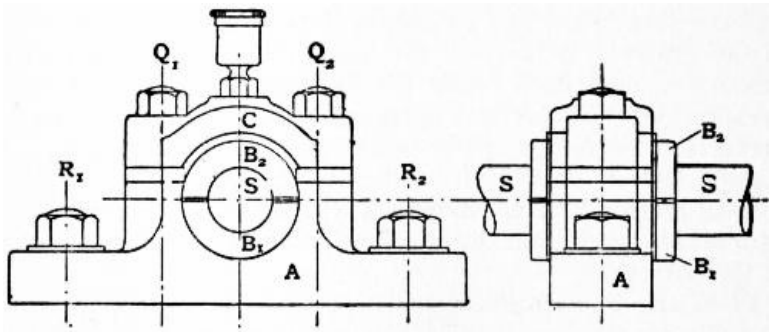

FIG. 2.

In bearings of modern design for supporting a line shaft the general arrangement shown in fig. 1 is modified so that the alignments of the shaft can be made both vertically or horizontally by means of adjusting screws, and the brass is jointed with the supporting main body so that it is free to follow the small deflections of the shaft which take place when the shaft is working. Another modern improvement is the formation of an oil reservoir or well in the base of the bearing itself, and the transference of the oil from this well to the shaft by means of one or two rings riding loosely on the shaft. The bottom part of the ring dips into the oil contained in the well of the bearing and, as the shaft rotates, the ring rolls on the shaft and thus carries oil up to the shaft continuously, from which it finds its way to the surfaces of the shaft and bearing in

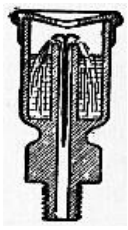

FIG. 3.

contact. It should be understood that the upper brass is slotted crossways to allow the ring to rest on the shaft. When the direction of the load carried by the bearing is constant it is unnecessary to provide more than one brass, and the construction is modified accordingly.
Figs. 4 and 5 show an axle box used for goods wagons on the Great Eastern railway, and they also illustrate the method of pad lubrication in general use for this kind of bearing. The main casting, A, is now uppermost, and is designed so that the upper part supports and constrains the spring buckle through which the load W is transmitted to the bearing, and the lower part inside is arranged to support the brass, B. The brass is jointed freely with the main casting by means of a hemispherical hump resting in a corresponding recess in the casting. What may be called the cap, C, forms the lower part of the axle box, but instead of supporting a second brass it is formed into an oil reservoir in which is arranged a pad of cotton wick woven on a tin frame. The upper part of the pad is formed into a kind of brush, shaped to fit the underside of the journal, whilst the lower part consists of streamers of wick resting in the oil. The oil is fed to the brush by the capillary action of the streamers. The reservoirs are filled with oil through the apertures P and O. The bottom cap is held in position by the T-headed bolts Q_1 and Q_2 (fig. 5). By slackening the nuts and turning the T-heads fair with the slots in the cap, the cap comes right away and the axle may be examined. A leather ring L is fitted as shown to prevent dust from entering the axle box.

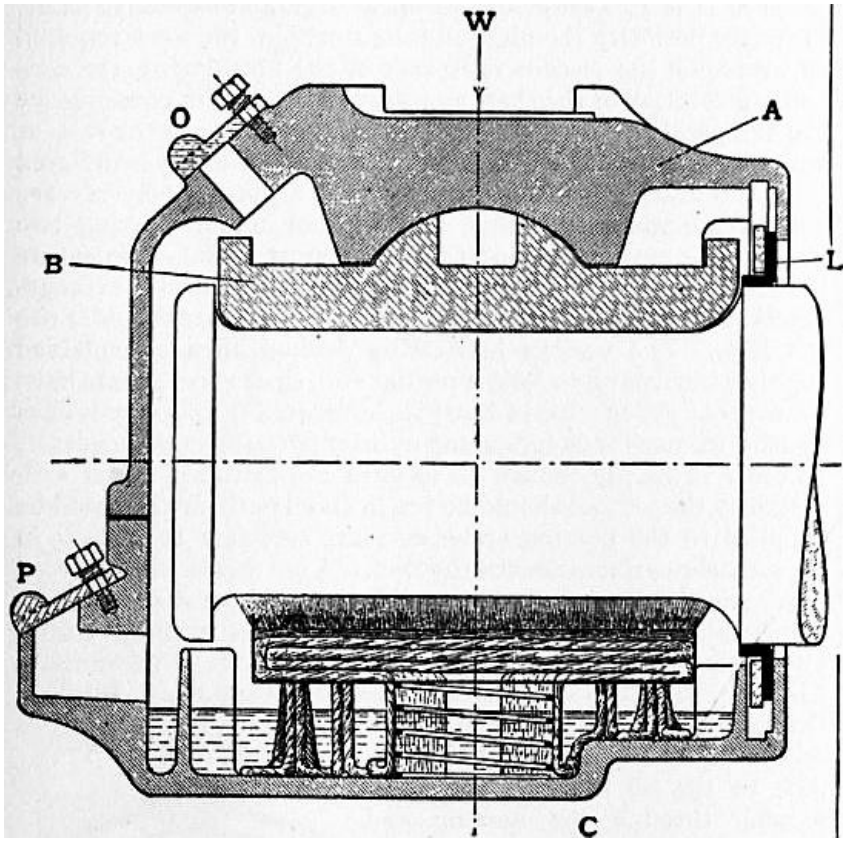

Fig. 4.

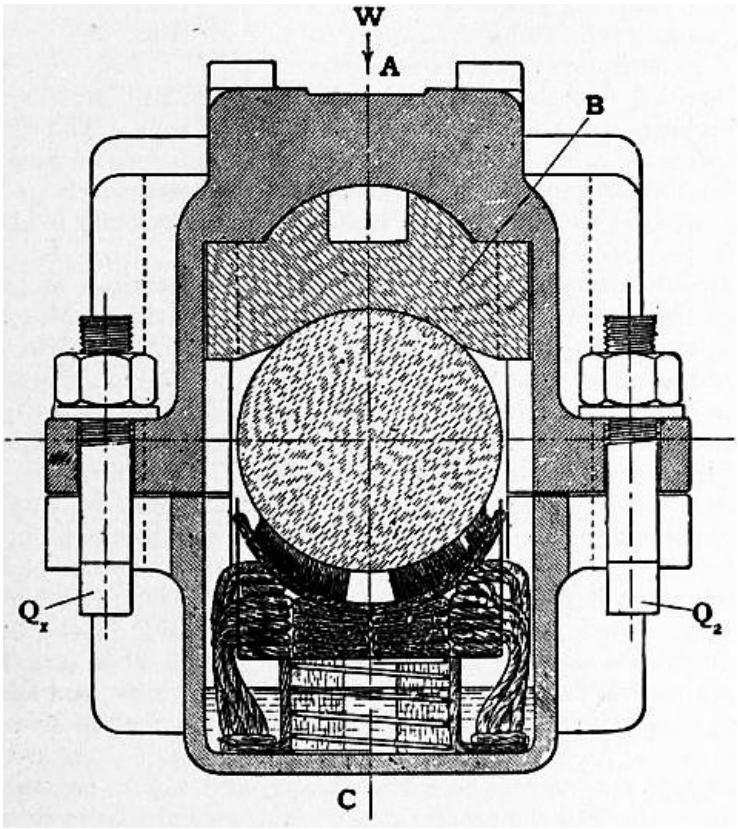

FIG. 5.

Footsteps.—A bearing arranged to support the lower end of a vertical shaft is called a footstep, sometimes a pivot bearing. A simple form of footstep is shown in fig 6. A casting A, designed so that it can be conveniently bolted to a foundation block, cross beam, or bracket is bored out and fitted with a brass B, which is turned inside to carry the end of the shaft S. The whole vertical load on the shaft is carried by the footstep, so that it is important to arrange efficient lubricating apparatus. Results of experiments made on a footstep, reported in *Proc. Inst. Mech. Eng.*, 1891, show that if a diametral groove be cut in the brass, as indicated at *g* (fig 6), and if the oil is led to the centre of this groove by a channel *c* communicating with the exterior, the rotation of the shaft draws in a plentiful supply of oil which radiates from the centre and makes its way vertically between the shaft and the brass and finally overflows at the top of the brass. The overflowing oil may be led away and may be re-introduced into the footsteps at *c*. The rotation of the shaft thus causes a continuous circulation of oil through the footstep. One experiment from the report mentioned above may be quoted. A 3-in. shaft, revolving 128 times per minute and supported on a manganese bronze bearing lubricated in the way explained above sustained increasing loads until, at a load of 300 pounds per square inch of the area of the end of the shaft, it seized. The mechanical details of a footstep may be varied for purposes of adjustment in a variety of ways similarly to the variations of a common bearing already explained.

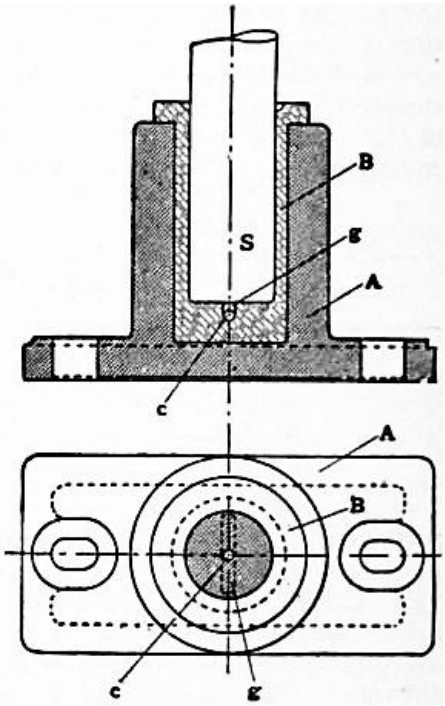

FIG. 6.

Thrust Block Bearing.—In cases where a bearing is required to resist a longitudinal movement of the shaft through it, as for example in the case of the propeller shaft of a marine engine or a vertical shaft supporting a heavy load not carried on a footstep, the shaft is provided with one or more collars which are grooved with corresponding recesses in the brasses of the bearing. A general sketch of a thrust block for a propeller shaft is shown in fig. 7. There are seven collars turned on the shaft and into the circumferential grooves between them fit corresponding circumferential projections on the brasses, these

projections being formed in the case illustrated by means of half rings which are fitted into grooves turned in the brasses. This method of construction allows an individual ring to be replaced or adjusted if it should get hot. The total area of the rubbing surfaces should be proportioned so that the average load is not more than from 50 to 70 ℔ per sq. in. Arrangements are usually made for cooling a thrust block with water in case of heating. The spindles of drilling machines, boring machine spindles, turbine shafts may be cited as examples of vertical shafts supported on one collar. Experiments on the friction of a collar bearing have been made by the Research Committee of the Institution of Mechanical Engineers (*Proc. Inst. Mech. Eng.*, 1888).

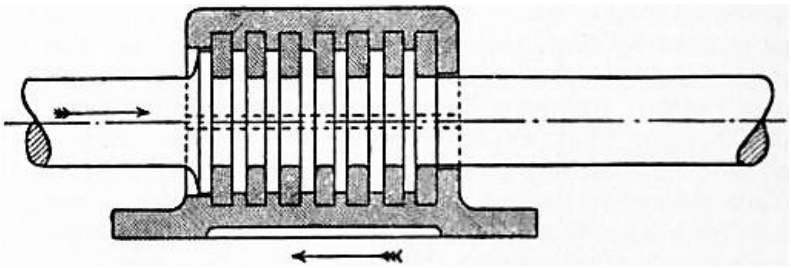

FIG. 7.

Roller and Ball Bearings.—If rollers are placed between two surfaces having relative tangential motion the frictional resistance to be overcome is the small resistance to rolling. The rollers move along with a velocity equal to one half the relative velocity of the surfaces. This way of reducing frictional resistance has been applied to all kinds of mechanical contrivances, including bearings for shafts, railway axle boxes, and axle boxes for tramcars. An example of a roller bearing for a line shaft is illustrated in figs. 8 and 9. The main casting, A, and cap, C, bolted together, form a spherical seating for the part of the bearing E corresponding to the brasses in a bearing of the usual type. Between the inside of the casting E and the journal are placed rollers held in position relatively to one another by a "squirrel cage" casting, the section of the bars of which are clearly shown in the half sectional elevation, fig. 9. This squirrel cage ensures that the several axes of the rollers keep parallel to the axis of the journal during the rolling motion. The rollers are made of hard tool steel, and the surfaces of the journal and bearing between which they roll are hardened.

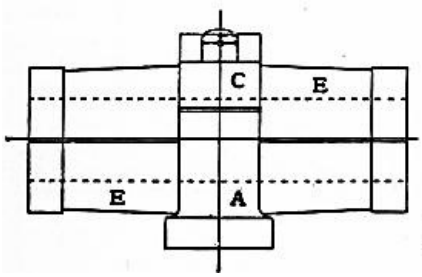

FIG. 8.

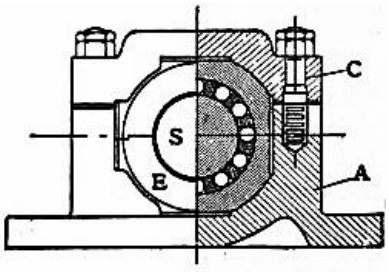

FIG. 9.

Two rings of balls may be used instead of a single ring of rollers, and the kind of ball bearing thus obtained is in general use principally in connexion with bicycles and motor cars (see BICYCLE). In ball bearings the load is concentrated at a few points, the points where the balls touch the race, and in the roller bearing at a few lines, the lines of contact between the rollers and the surfaces of the journal and bearing; consequently the load which bearings of this kind carry must not be great enough to cause any indentation at the points or lines of contact. Both rollers and balls, and the paths on which they roll, therefore, are made of hard material; further, balls and rollers must all be exactly the same size in an individual bearing in order to distribute the load between the points or lines of contact as uniformly as possible. The finest workmanship is required therefore to make good roller or good ball bearings.

Bearings for High Speeds and Forced Lubrication.—When the shaft turns the metallic surfaces of the brass and the journal are prevented from actual contact by a film of oil which is formed and maintained by the motion of the shaft and which sustains the pressure between the journal and the brass provided the surfaces are accurately formed and the supply of oil is unlimited. This film changes what

would otherwise be the friction between metallic surfaces into a viscous resistance within the film itself. When through a limited supply of oil or imperfect lubrication this film is imperfect or fails altogether and allows the journal to make metallic contact with the brass, the friction increases; and it may increase so much that the bearing rapidly becomes hot and may ultimately seize, that is to say the rubbing surfaces may become stuck together. With the object of reducing the friction at the points of metallic contact and of confining the damage of a hot bearing to the easily renewable brass, the latter is partially, sometimes wholly, lined with a soft fusible metal, technically known as white metal, which melts away before actual seizure takes place, and thus saves the journal which is more expensive because it is generally formed on a large and expensive shaft. However perfectly the film fulfils its function, the work required to overcome the viscous resistance of the film during the continuous rotation of the shaft appears as heat, and in consequence the temperature of the bearing gradually rises until the rate at which heat is produced is equal to the rate at which it is radiated from the bearing. Hence in order that a journal may revolve with a minimum resistance and without undue heating two precautions must be taken: (1) means must be taken to ensure that the film of oil is complete and never fails; and (2) arrangements must be made for controlling the temperature should it rise too high. The various lubricating devices already explained supply sufficient oil to form a partial film, since experiments have shown that the friction of bearings lubricated in this way is akin to solid friction, thus indicating at least partial metallic contact. In order to supply enough oil to form and maintain a film with certainty the journal should be run in an oil bath, or oil should be supplied to the bearing under pressure sufficient to force it in between the surfaces against the load. A bearing to which forced lubrication and water cooling are applied is illustrated in fig. 10, which represents one of the bearings of a Westinghouse turbo-alternator installed at the power station of the Underground Electric Railways Company of London at Lots Road, Chelsea. Oil flows under pressure from a tank on the top of a tower along a supply pipe to the oil inlet O, and after passing through the bearing and performing its duty as a film it falls away from each end of the journal into the bottom of the main casting, from which a pipe, E, conveys the oil back to the base of the tank tower where it is cooled and finally pumped back into the tank. There is thus a continuous circulation of oil through the bearing. The space C is for cooling water; in fact the bearing is water jacketed and the jacket is connected to a supply pipe and a drain pipe so that a continuous circulation may be maintained if desired. This bearing is 12 in. in diameter and 48 in. long, and it carries a load of about 12.8 tons. The rise in temperature of the bearing under normal conditions of working without water circulating in the jacket is approximately 38° F. The speed of rotation is such that the surface velocity is about 50 ft. per second.

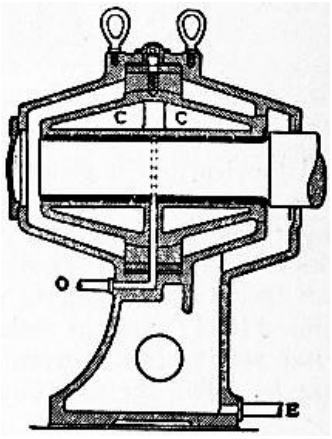

FIG. 10.

Forced lubrication in connexion with the bearings of high-speed engines was introduced in 1890 by Messrs Belliss & Morcom, Ltd., under patents taken out in the name of A.C. Pain. It should be understood that providing the film of oil in the bearing of an engine can be properly maintained a double-acting engine can be driven at a high speed without any knocking, and without perceptible wear of the rubbing surfaces. Fig. 11 shows that the general arrangement of the bearings of a Belliss & Morcom engine arranged for forced lubrication. A small force-pump F, driven from the eccentric strap X, delivers oil into the pipe P, along which it passes to A, the centre of the right-hand main bearing. There is a groove turned on the inside of the brass from which a slanting hole leads to B. The oil when it arrives at A thus has two paths open to it, one to the right and left of the groove through the bearing, the other along the slanting hole to B. At B it divides again into two streams, one stream going upwards to the eccentric sheave, and a part continuing up the pipe Q to the eccentric pin. The second stream from B follows the slanting hole in the crank shaft to C, where it is led to the big end journal through the pipe R to the crosshead pin, and through the slanting hole to D, where it finds its way into the left main bearing. The oil forced through each bearing falls away to the right and to the left of the journal and drops into the bottom of the engine framing, whence it is again fed to the pump through a strainer. The parts of an engine lubricated in this way must be entirely enclosed.

Load on bearings.—The distribution of pressure over the film of lubricant separating the rubbing surfaces of a

bearing is variable, being greatest at a point near but not at the crown of the brass, and falling away to zero in all directions towards the boundaries of the film. It is usual in practice to ignore this variation of pressure through the film, and to indicate the severity with which the bearing is loaded by stating the load per square inch of the rubbing surfaces projected on to the diametral plane of the journal. Thus the projected area of the surfaces of a journal 6 in. in diameter and 8 in. long is 48 sq. in., and if the total load carried by the bearing is 20,000 pounds, the bearing would be said to carry a load of 417 pounds per square inch. When a shaft rotates in a bearing continuously in one direction the load per square inch with which it is safe to load the bearing in order to avoid undue heating is much less than if the motion is intermittent. A table of a few values of the bearing loads used in practice is given in the article LUBRICANTS.

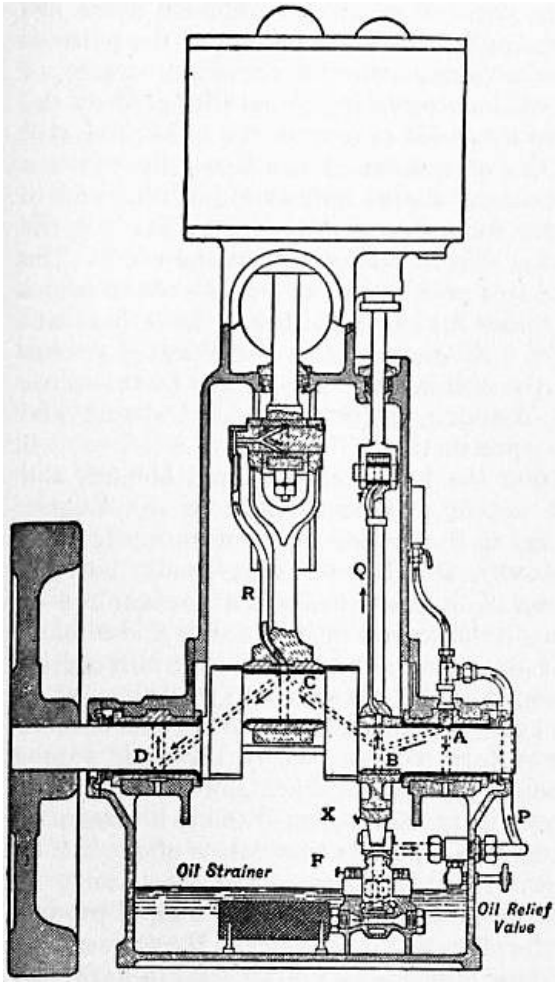

FIG. 11.

Bearing Friction.—If W is the total load on a bearing, and if μ is the coefficient of friction between the rubbing surfaces, the tangential resistance to turning is expressed by the product μW. If v is the relative velocity of the rubbing surfaces, the work done per second against friction is μWv foot pounds. This quantity of work is converted into heat, and the heat produced per second is therefore μWv/778 British Thermal Units. The coefficient μ is a variable quantity, and bearing in mind that a properly lubricated journal is separated from its supporting brass by a film of lubricant it might be expected that μ would have values characteristic of the coefficient of friction between two metallic surfaces, merging into the characteristics properly belonging to fluid friction, according as the oil film varied from an imperfect to a perfect condition, that is, according as the lubrication is partial or complete, completeness being attained by the use of an oil bath or by some method of forced lubrication. This expectation is entirely borne out by experimental researches. Beauchamp Tower ("Report on Friction Experiments," *Proc. Inst. Mech. Eng.*, November 1883) found that when oil was supplied to a bearing by means of a pad the coefficient of friction was approximately constant with the value of $\frac{1}{100}$, thus following the law of solid friction; but when the journal was lubricated by means of an oil bath the coefficient of friction varied nearly inversely as the load on the bearing, thus making μW = constant. The tangential resistance in this case is characteristic of fluid friction since it is independent of the pressure. Tower's experiments were carried out at a nearly constant temperature. The later experiments of O. Lasche (*Zeitsch. Verein deutsche Ingenieure*, 1902, 46, pp. 1881 et seq.) show how μ depends upon the temperature. Lasche's main results with regard to the variation of μ are briefly:—μW is a constant quantity, thus confirming Tower's earlier experiments; μ is practically independent of the relative velocity of the rubbing surfaces within the limits of 3 to 50 ft. per second; and the product μt is constant, t being the temperature of the bearing. Writing p for the load per unit of projected area of the bearing, Lasche found that the result of the experiments could be expressed by the simple formula pμt = constant = 2, where p = the pressure in kilograms per square centimetre, and t = the temperature in degrees centigrade. If p is changed to pounds per square inch the constant in the expression is approximately 30. The expression is valid between limits of pressure 14 to 213 pounds per square inch, limits of temperature 30° to 100° C., and between limits of velocity 3 to 50 ft. per second.

Theory of Lubrication.—After the publication of Tower's experiments on journal friction Professor Osborne Reynolds showed (*Phil. Trans.*, 1886, p. 157) that the facts observed in connexion with a journal lubricated by means of an oil bath could be explained by a theory based upon the general principles of the motion of a viscous fluid. It is

first established as an essential part of the theory that the radius of the brass must be slightly greater than the radius of the journal as indicated in fig. 12, where J is the centre of the journal and I the centre of the brass. Given this difference of curvature and a sufficient supply of oil, the rotation of the journal produces and maintains an oil film between the rubbing surfaces, the circumferential extent of which depends upon the rate of the oil supply and the external load. With an unlimited supply of oil, that is with oil-bath lubrication, the film extends continuously to the extremities of the brass, unless such extension would lead to negative pressures and therefore to a discontinuity, in which case the film ends where the pressures in the film become negative. The minimum distance between the journal and the brass occurs at the point H (fig. 12), on the off side of the point O where the line of action of the load cuts the surface of the journal. To the right and left of H the thickness of the film gradually increases, this being the condition that the oil-flow to and from the film may be automatically maintained. With an unlimited supply of oil the point H moves farther from O as the load increases until it reaches a maximum distance, and then it moves back again towards O as the load is further increased until a limiting load is reached at which the pressure in the film becomes negative at the boundaries of the film, when the boundaries recede from the edges of the brass as though the supply of oil were limited.

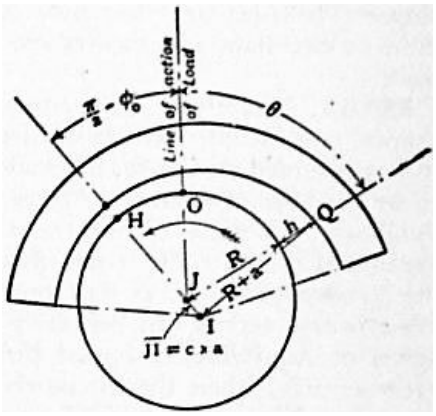

FIG. 12.

In the mathematical development of the theory it is first necessary to define the coefficient of viscosity. This is done as follows:—If two parallel surfaces AB, CD are separated by a viscous film, and if whilst CD is fixed AB moves in a tangential direction with velocity U, the surface of the film in contact with CD clings to it and remains at rest, whilst the lower surface of the film clings to and moves with the surface AB. At intermediate points in the film the tangential motion of the fluid will vary uniformly from zero to U, and the tangential resistance will be F = μU/h, where μ is the coefficient of viscosity and h is the thickness of the film. With this definition of viscosity and from the general equations representing the stress in a viscous fluid, the following equation is established, giving the relations between p, the pressure at any point in the film, h the thickness of the film at a point x measured round the circumference of the journal in the direction of relative motion, and U the relative tangential velocity of the surfaces,

$$\frac{d}{dx}\left(h^3 \frac{dp}{dx}\right) = 6\mu U \frac{dh}{dx} \qquad (1)$$

In this equation all the quantities are independent of the co-ordinate parallel to the axis of the journal, and U is constant. The thickness of the film h is some function of x, and for a journal Professor Reynolds takes the form,

$$h = a\{1 + c\sin(\theta - \varphi_0)\},$$

in which the various quantities have the significance indicated in fig. 12. Reducing and integrating equation (1) with this value of h it becomes

$$\frac{dp}{d\theta} = \frac{6R\mu Uc\{\sin(\theta - \varphi_0) - \sin(\varphi_1 - \varphi_0)\}}{a^2\{1 + c\sin(\theta - \varphi_0)\}^3} \qquad (2)$$

φ_1 being the value of θ for which the pressure is a maximum. In order to integrate this the right-hand side is expanded into a trigonometrical series, the values of the coefficients are computed, and the integration is effected term by term. If, as suggested by Professor J. Perry, the value of h is taken to be $h = h_0 + ax^2$, where h_0 is the minimum thickness of the film, the equation reduces to the form

$$-\frac{dp}{dx} = \frac{6\mu U}{(h_0 + ax^2)^2} + \frac{C}{(h_0 + ax^2)^3} \qquad (3)$$

and this can be integrated. The process of reduction from the form (1) to the form (3) with the latter value of h, is shown in full in *The Calculus for Engineers* by Professor Perry (p. 331), and also the final solution of equation (3), giving the pressure in terms of x.

Professor Reynolds, applying the results of his investigation to one of Tower's experiments, plotted the pressures through the film both circumferentially and longitudinally, and the agreement with the observed pressure of the experiment was exceedingly close. The whole investigation of Professor Reynolds is a remarkable one, and is in fact the first real explanation of the fact that oil is able to insinuate itself between the journal and the brass of

a bearing carrying a heavy load. (See also LUBRICATION.)

(W. E. D.)

BEAR-LEADER, formerly a man who led bears about the country. In the middle ages and Tudor times these animals were chiefly used in the brutal sport of bear-baiting and were led from village to village. Performing bears were also common, and are even still sometimes seen perambulating the country with their keepers, generally Frenchmen or Italians. The phrase "bear-leader" has now come colloquially to mean a tutor or guardian, who escorts any lad of rank or wealth on his travels.

BÉARN, formerly a small frontier province in the south of France, now included within the department of Basses-Pyrénées. It was bounded on the W. by Soule and Lower Navarre, on the N. by Chalosse, Tursan and Astarac, E. by Bigorre and S. by the Pyrénées. Its name can be traced back to the town of Beneharnum (Lescar). The *civitas Beneharnensium* was included in the *Novempopulania*. It was conquered by the Vascones in the 6th century, and in 819 became a viscounty dependent on the dukes of Aquitaine—a feudal link which was broken in the 11th century, when the viscounts ceased to acknowledge any suzerain. They then reigned over the two dioceses of Lescar and Oloron; but their capital was Morlaas, where they had a mint which was famous throughout the middle ages. In the 13th century Gaston VII., of the Catalonian house of Moncade, made Orthez his seat of government. His long reign (1229-1290) was a perpetual struggle with the kings of France and England, each anxious to assert his suzerainty over Béarn. As Gaston left only daughters, the viscounty passed at his death to the family of Foix, from whom it was transmitted through the houses of Grailly and Albret to the Bourbons, and they, in the person of Henry IV., king of Navarre, made it an apanage of the crown of France. It was not formally incorporated in the royal domains, however, until 1620. None of these political changes weakened the independent spirit of the Béarnais. From the 11th century onward, they were governed by their own special customs or *fors*. These were drawn up in the language of the country, a Romance dialect (1288 being the date of the most ancient written code), and are remarkable for the manner in which they define the rights of the sovereign, determining the reciprocal obligations of the viscount and his subjects or vassals. Moreover, from the 12th century Béarn enjoyed a kind of representative government, with *cours plénières* composed of deputies from the three estates. From 1220 onward, the judiciary powers of these assemblies were exercised by a *cour majour* of twelve barons *jurats* charged with the duty of maintaining the integrity of the *fors*. When Gaston-Phoebus wished to establish a regular annual hearth-tax (*fouage*) in the viscounty, he convoked the deputies of the three estates in assemblies called *états*. These soon acquired extensive political and financial powers, which continued in operation till 1789. Although, when Béarn was annexed to the domains of the crown, it was granted a *conseil d'état* and a parlement, which sat at Pau, the province also retained its *fors* until the Revolution.

See also Olhagaray, *Histoire de Foix, Béarn et Navarre* (1609); Pierre de Marca, *Histoire de Béarn* (1640). This work does not go beyond the end of the 13th century; it contains a large number of documents. Faget de Baure, *Essais historiques sur le Béarn* (1818); *Les Fors de Béarn*, by Mazure and Hatoulet (1839), completed by J. Brissaud and P. Rogé in *Textes additionnels aux anciens Fors de Béarn* (1905); Léon Cadier, *Les États de Béarn depuis leur origine jusqu'au commencement du XVI^e siècle* (1888).

(C. B.*)

BEAS or BIAS, a river of India. The Beas, which was the Hyphasis of the Greeks, is one of

the Five Rivers of the Punjab. It issues in the snowy mountains of Kulu at an altitude of 13,326 ft. above sea-level, flows through the Kangra valley and the plains of the Punjab, and finally joins the Sutlej after a course of 290 m. It is crossed by a railway bridge near Jullundur.

BEAT (a word common in various forms to the Teutonic languages; it is connected with the similar Romanic words derived from the Late Lat. *battere*), a blow or stroke; from the many applications of the verb "to beat" come various meanings of the substantive, in some of which the primary sense has become obscure. It is applied to the throbbing of the pulse or heart, to the beating of a drum, either for retreat, or charge, or to quarters; in music to the alternating sound produced by the striking together of two notes not exactly of the same pitch (see SOUND), and also to the movement of the baton by which a conductor of an orchestra or chorus indicates the time, and to the divisions of a bar. As a nautical term, a "beat" is the zigzag course taken by a ship in sailing against the wind. The application of the word to a policeman's or sentry's round comes either from beating a covert for game and hence the term means an exhaustive search of a district, or from the repeated strokes of the foot in constantly walking up and down. In this sense the word is used in America, particularly in Alabama and Mississippi, of a voting precinct.

BEATIFICATION (from the Lat. *beatus*, happy, blessed, and *facere*, to make), the act of making blessed; in the Roman Catholic Church, a stage in the process of canonization (*q.v.*).

BEATON (or BETHUNE), **DAVID,** (*c.* 1494-1546), Scottish cardinal and archbishop of St Andrews, was a younger son of John Beaton of Balfour in the county of Fife, and is said to have been born in the year 1494. He was educated at the universities of St Andrews and Glasgow, and in his sixteenth year was sent to Paris, where he studied civil and canon law. About this time he was presented to the rectory of Campsie by his uncle James Beaton, then archbishop of Glasgow. When James Beaton was translated to St Andrews in 1522 he resigned the rich abbacy of Arbroath in his nephew's favour, under reservation of one half of the revenues to himself during his lifetime. The great ability of Beaton and the patronage of his uncle ensured his rapid promotion to high offices in the church and kingdom. He was sent by King James V. on various missions to France, and in 1528 was appointed keeper of the privy seal. He took a leading part in the negotiations connected with the king's marriages, first with Madeleine of France, and afterwards with Mary of Guise. At the French court he was held in high estimation by King Francis I., and was consecrated bishop of Mirepoix in Languedoc in December 1537. On the 20th of December 1538 he was appointed a cardinal priest by Pope Paul III., under the title of St Stephen in the Coelian Hill. He was the only Scotsman who had been named to that high office by an undisputed right, Cardinal Wardlaw, bishop of Glasgow, having received his appointment from the anti-pope Clement VII. On the death of Archbishop James Beaton in 1539, the cardinal was raised to the primatial see of Scotland.

Beaton was one of King James's most trusted advisers, and it was mainly due to his influence that the king drew closer the French alliance and refused Henry VIII.'s overtures to follow him in his religious policy. On the death of James in December 1542 he attempted to assume office as one of the regents for the infant sovereign Mary, founding his pretensions on an alleged will of the late king; but his claims were disregarded, and the earl of Arran, head of the great house of Hamilton, and next heir to the throne, was declared regent by the estates. The cardinal was, by order of the regent, committed to the custody of Lord Seaton; but his imprisonment was merely nominal, and he was soon again at liberty

and at the head of the party opposed to the English alliance. Arran too was soon won over to his views, dismissed the preachers by whom he had been surrounded, and joined the cardinal at Stirling, where in September 1543 Beaton crowned the young queen. In the same year he was raised to the office of chancellor of Scotland, and was appointed protonotary apostolic and legate *a latere* by the pope. Had Beaton confined himself to secular politics, his strenuous opposition to the plans of Henry VIII. for the subjugation of Scotland would have earned him the lasting gratitude of his countrymen. Unfortunately politics were inextricably interwoven with the religious controversies of the time, and resistance to English influence involved resistance to the activities of the reformers in the church, whose ultimate victory has obscured the cardinal's genuine merits as a statesman. During the lifetime of his uncle, Beaton had shared in the efforts of the hierarchy to suppress the reformed doctrines, and pursued the same line of conduct still more systematically after his elevation to the primacy. The popular accounts of the persecution for which he was responsible are no doubt exaggerated, and it sometimes ceased for considerable periods so far as capital punishments were concerned. When the sufferers were of humble rank not much notice was taken of them. It was otherwise when a more distinguished victim was selected in the person of George Wishart. Wishart had returned to Scotland, after an absence of several years, about the end of 1544. His sermons produced a great effect, and he was protected by several barons of the English faction. These barons, with the knowledge and approbation of King Henry, were engaged in a plot to assassinate the cardinal, and in this plot Wishart is now proved to have been a willing agent. The cardinal, though ignorant of the details of the plot, perhaps suspected Wishart's knowledge of it, and in any case was not sorry to have an excuse for seizing one of the most eloquent supporters of the new opinions. For some time he was unsuccessful; but at last, with the aid of the regent, he arrested the preacher, and carried him to his castle of St Andrews. On the 28th of February 1546 Wishart was brought to trial in the cathedral before the cardinal and other judges, the regent declining to take any active part, and, being found guilty of heresy, was condemned to death and burnt.

The death of Wishart produced a deep effect on the Scottish people, and the cardinal became an object of general dislike, which encouraged his enemies to proceed with the design they had formed against him. Naturally resolute and fearless, he seems to have under-estimated his danger, the more so since his power had never seemed more secure. He crossed over to Angus, and took part in the wedding of his illegitimate daughter with the heir of the earl of Crawford. On his return to St Andrews he took up his residence in the castle. The conspirators, the chief of whom were Norman Leslie, master of Rothes, and William Kirkaldy of Grange, contrived to obtain admission at daybreak of the 29th of May 1546, and murdered the cardinal under circumstances of horrible mockery and atrocity.

The character of Beaton has already been indicated. As a statesman he was able, resolute, and in his general policy patriotic. As an ecclesiastic he maintained the privileges of the hierarchy and the dominant system of belief conscientiously, but always with harshness and sometimes with cruelty. His immoralities, like his acts of persecution, were exaggerated by his opponents; but his private life was undoubtedly a scandal to religion, and has only the excuse that it was not worse than that of most of his order at the time. The authorship of the writings ascribed to him in several biographical notices rests on no better authority than the apocryphal statements of Thomas Dempster.

Beaton's uncle, James Beaton, or Bethune (d. 1539), archbishop of Glasgow and St Andrews, was lord treasurer of Scotland before he became archbishop of Glasgow in 1509, was chancellor from 1513 to 1526, and was appointed archbishop of St Andrews and primate of Scotland in 1522. He was one of the regents during the minority of James V., and was chiefly responsible for this king's action in allying himself with France and not with England. He burned Patrick Hamilton and other heretics, and died at St Andrews in September 1539.

This prelate must not be confused with another, James Beaton, or Bethune (1517-1603), the last Roman Catholic archbishop of Glasgow. A son of John Bethune of Auchmuty and a nephew of Cardinal Beaton, James was a trusted adviser of the Scottish regent, Mary of Lorraine, widow of James V., and a determined foe of the reformers. In 1552 he was consecrated archbishop of Glasgow, but from 1560 until his death in 1603 he lived in Paris, acting as ambassador for Scotland at the French court.

See John Knox, *Hist. of the Reformation in Scotland*, ed. D. Laing (1846-1864); John Spottiswoode, archbishop of St Andrews, *Hist. of the Church of Scotland* (Spottiswoode Soc., 1847-1851); Art. in *Dict. of Nat. Biog.* and works there quoted; and A. Lang, *Hist. of Scotland*, vols. i. and ii. (1900-1902).

BEATRICE, a city and the county-seat of Gage county, in S.E. Nebraska, U.S.A., about 40 m. S. of Lincoln. Pop. (1900) 7875 (852 foreign-born); (1910) 9356. It is served by the Chicago, Burlington & Quincy, the Chicago, Rock Island & Pacific, and the Union Pacific railways. Beatrice is the seat of the state institute for feeble-minded youth, and has a Carnegie library. The city is very prettily situated in the valley of the Big Blue river, in the midst of a fine agricultural region. Among its manufactures are dairy products (there is a large creamery), canned goods, flour and grist mill products, gasoline engines, well-machinery, barbed wire, tiles, ploughs, windmills, corn-huskers, and hay-balers. Beatrice was founded in 1857, becoming the county-seat in the same year. It was reached by its first railway and was incorporated as a town in 1871, was chartered as a city in 1873, and in 1901 became a city of the first class.

BEATTIE, JAMES (1735-1803), Scottish poet and writer on philosophy, was born at Laurencekirk, Kincardine, Scotland, on the 25th of October 1735. His father, a small farmer and shopkeeper, died when he was very young; but an elder brother sent him to Marischal College, Aberdeen, where he gained a bursary. In 1753 he was appointed schoolmaster of Fordoun in his native county. Here he had as neighbours the eccentric Francis Garden (afterwards Lord Gardenstone, judge of the supreme court of Scotland), and Lord Monboddo. In 1758 he became an usher in the grammar school of Aberdeen, and two years later he was made professor of moral philosophy at Marischal College. Here he became closely acquainted with Dr Thomas Reid, Dr George Campbell, Dr Alexander Gérard and others, who formed a kind of literary or philosophic society known as the “Wise Club.” They met once a fortnight to discuss speculative questions, David Hume’s philosophy being an especial object of criticism. In 1761 Beattie published a small volume of *Original Poems and Translations*, which contained little work of any value. Its author in later days destroyed all the copies he found. In 1770 Beattie published his *Essay on the Nature and Immutability of Truth in opposition to sophistry and scepticism*, the object of which, as explained by its author, was to “prove the universality and immutability of moral sentiment” (letter to Sir W. Forbes, 17th January 1765). It was in fact a direct attack on Hume, and part of its great popularity was due to the fact. Hume is said to have justly complained that Beattie “had not used him like a gentleman,” but made no answer to the book, which has no philosophical value. Beattie’s portrait, by Sir Joshua Reynolds, hangs at Marischal College, Aberdeen. The philosopher is painted with the *Essay on Truth* in his hand, while a figure of Truth thrusts down three figures representing, according to Sir W. Forbes, sophistry, scepticism and infidelity. Reynolds in a letter to Beattie (February 1774) intimates that he is well enough pleased that one of the figures is identified with Hume, and that he intended Voltaire to be one of the group. Beattie visited London in 1773, and was received with the greatest honour by George III., who conferred on him a pension of £200 a year. In 1771 and 1774 he published the first and second parts of *The Minstrel*, a poem which met with great and immediate success. The Spenserian stanza in which it is written is managed with smoothness and skill, and there are many fine descriptions of natural scenery. It is entirely on his poetry that Beattie’s reputation rests. The best known of his minor poems are “The Hermit” and “Retirement.”

In 1773 he was offered the chair of moral philosophy at Edinburgh University, but did not accept it. Beattie made many friends, and lost none. “We all love Beattie,” said Dr Johnson. “Mrs Thrale says, if ever she has another husband she will have him.” He was in high favour too with Mrs Montagu and the other *bas bleus*. Beattie was unfortunate in his domestic life. Mary Dunn, whom he married in 1767, became insane, and his two sons died just as they were attaining manhood. The elder, James Hay Beattie, a young man of great promise, who at the age of nineteen had been associated with his father in his professorship, died in 1790. In 1794 the father published *Essays and Fragments in Prose and Verse by James Hay Beattie* with a touching memoir. The younger brother died in 1796. Beattie never recovered from this second bereavement. His mind was seriously affected, and, although he continued to lecture occasionally, he neither wrote nor studied. In April 1799 he had a stroke of paralysis,

and died on the 18th of August 1803.

Beattie's other poetical works include *The Judgment of Paris* (1765), and "Verses on the death of [Charles] Churchill," a bitter attack which the poet afterwards suppressed. The best edition is the *Poetical Works* (1831, new ed. 1866) in the *Aldine Edition of the British Poets*, with an admirable memoir by Alexander Dyce.

See also *An Account of the Life of James Beattie* (1804), by A. Bower; and *An Account of the Life and Writings of James Beattie* (1807), by Sir William Forbes; a quantity of new material is to be found in *Beattie and his Friends* (1904), by the poet's great-grand-niece, Margaret Forbes; and *James Beattie, the Minstrel. Some Unpublished Letters*, edited by A. Mackie (Aberdeen, 1908).

BEATUS, of Liebana and Valcavado, Spanish priest and monk, theologian and geographer, was born about 730, and died in 798. About 776 he published his *Commentaria in Apocalypsin*, containing one of the oldest Christian world-maps. He took a prominent part in the Adoptionist controversy, and wrote against the views of Felix of Urgel, especially as upheld by Elipandus of Toledo. As confessor to Queen Adosinda, wife of King Silo of Oviedo (774-783), and as the master of Alcuin and Etherius of Osma, Beatus exercised wide influence. His original map, which was probably intended to illustrate, above all, the distribution of the Apostolic missions throughout the world—depicting the head of Peter at Rome, of Andrew in Achaia, of Thomas in India, of James in Spain, and so forth—has survived in ten more or less modified copies. One only of these—the "Osma" of 1203—preserves the Apostolic pictures; among the remaining examples, that of "St Sever," now at Paris, and dating from about 1030, is the most valuable; that of "Valcavado," recently in the Ashburnham Library, executed in 970, is the earliest; that of "Turin," dating from about 1100, is perhaps the most curious. Three others—"Valladolid" of about 1035, "Madrid" of 1047, and "London" of 1109—are derivatives of the "Valcavado-Ashburnham" of 970; the eighth, "Paris II," is connected, though not very intimately, with "St Sever," otherwise "Paris I"; the ninth and tenth, "Gerona" and "Paris III," belong to the Turin group of Beatus maps. All these works are emphatically of "dark-age" character; very seldom do they suggest the true forms of countries, seas, rivers or mountains, but they embody some useful information as to early medieval conditions and history. St Isidore appears to be their principal authority; they also draw, directly or indirectly, from Orosius, St Jerome, St Augustine, and probably from a lost map of classical antiquity, represented in a measure by the Peutinger Table of the 13th century.

The chief MSS. of the *Commentaria in Apocalypsin* are (1-3) Paris, National Library, Lat. 8878; Lat. nouv. acq. 1366 and 2290; (4) Ashburnham MSS. xv.; (5) London, B. Mus., Addit. MSS. 11695; (6) Turin, National Library 1, ii. (1); (7) Valladolid, University Library, 229; (8) the MS. in the Episcopal Library at Osma, in Old Castile.

There is only one complete edition of the text, that by Florez (Madrid, 1770). See also Konrad Miller, *Die Weltkarte des Beatus*, Heft I. of *Mappaemundi: die ältesten Weltkarten* (Stuttgart, 1895); d'Avezac in *Annales de ... géographie* (June 1870); Beazley, *Dawn of Modern Geography*, i. 387-388 (1897); ii. 549-559; 591-605 (1901).

(C. R. B.)

BEAUCAIRE, a town of south-eastern France, in the department of Gard, 17 m. E. by S. of Nîmes on the Paris-Lyon railway. Pop. (1906) 7284. Beaucaire is situated on the right bank of the Rhone, opposite Tarascon, with which it is connected by two handsome bridges, a suspension-bridge of four spans and 1476 ft. in length, and a railway bridge. A triangular keep, a chapel, and other remains of a château (13th and 14th centuries) of the counts of Toulouse stand on the rocky pine-clad hill which rises to the north of the town; the chapel, dedicated to St Louis, belongs to the latest period of Romanesque architecture, and contains fine sculptures. The town derives celebrity from the great July fair, which has been held here annually since the 12th century, but has now lost its former importance (see FAIR). Beaucaire

gives its name to the canal which communicates with the sea (near Aigues-Mortes) and connects it with the Canal du Midi, forming part of the line of communication between the Rhone and the Garonne. The town is an important port on the Rhone, and its commerce, the chief articles of which are wine, and freestone from quarries in the vicinity, is largely water-borne. Among its industries are distilling and the manufacture of furniture, and the preparation of vermicelli, sausages and other provisions.

Beaucaire occupies the site of the ancient *Ugernum*, and several remains of the Roman city have been discovered, as well as (in 1734) the road that led from Nîmes. The present name is derived from *Bellum Quadrum*, a descriptive appellation applied in the middle ages either to the château or to the rock on which it stands. In 1125 Beaucaire came into the possession of the counts of Toulouse, one of whom, Raymund VI., established the importance of its fairs by the grant of privileges. In the Wars of the League it suffered severely, and in 1632 its castle was destroyed by Richelieu.

BEAUCE (Lat. *Belsia*), a physical region of north-central France, comprising large portions of the departments of Eure-et-Loir and Loir-et-Cher, and also extending into those of Loiret and Seine-et-Oise. It has an area of over 2800 sq. m., its limits being roughly defined by the course of the Essonne on the E., of the Loire on the S., and of the Brenne, the Loir and the Eure towards the W., though in the latter direction it extends somewhat beyond these boundaries. The Beauce is a treeless, arid and monotonous plain of limestone formation; windmills and church spires are the only prominent features of the landscape. Apart from the rivers on its borders, it is watered by insignificant streams, of which the Conie in the west need alone be mentioned. The inhabitants live in large villages, and are occupied in agriculture, particularly in the cultivation of wheat, for which the Beauce is celebrated. Clover and lucerne are the other leading crops, and large flocks of sheep are kept in the region. Chartres is its chief commercial centre.

BEAUCHAMP, the name of several important English families. The baronial house of Beauchamp of Bedford was founded at the Conquest by Hugh de Beauchamp, who received a barony in Bedfordshire. His eldest son Simon left a daughter, whose husband Hugh (brother of the count of Meulan) was created earl of Bedford by Stephen. But the heir-male, Miles de Beauchamp, nephew of Simon, held Bedford Castle against the king in 1137-1138. From his brother Payn descended the barons of Bedford, of whom William held Bedford Castle against the royal forces in the struggle for the Great Charter, and was afterwards made prisoner at the battle of Lincoln, while John, who sided with the barons under Simon de Montfort, fell at Evesham. With him the line ended, but a younger branch was seated at Eaton Socon, Beds., where the earthworks of their castle remain, and held their barony there into the 14th century.

The Beauchamps of Elmley, Worcestershire, the greatest house of the name, were founded by the marriage of Walter de Beauchamp with the daughter of Urise d’Abetot, a Domesday baron, which brought him the shrievalty of Worcestershire, the office of a royal steward, and large estates. His descendant William, of Elmley, married Isabel, sister and eventually heiress to William Mauduit, earl of Warwick, and their son succeeded in 1268 to Warwick Castle and that earldom, which remained with his descendants in the male line till 1445. The earls of the Beauchamp line played a great part in English history. Guy, the 2nd, distinguished himself in the Scottish campaigns of Edward I., who warned him at his death against Piers Gaveston. Under Edward II. he was one of the foremost foes of Piers, who had styled him “the black cur of Arden,” and with whose death he was closely connected. As one of the “lords ordainers” he was a recognized leader of the opposition to Edward II. By the heiress of the Tonis he left at his death in 1315 a son Earl Thomas, who distinguished himself at Crécy and Poitiers, was marshal of the English host, and, with his brother John, one of the founders of the order of the Garter. In 1369 his son Earl Thomas succeeded; from 1376 to 1379 he was among the lords striving for reform, and in the latter year he was

appointed governor to the king. Under Richard II. he joined the lords appellant in their opposition to the king and his ministers, and was in power with them 1388-1389; treacherously arrested by Richard in 1397, he was imprisoned in the Tower of London (the Beauchamp Tower being called after him), but liberated by Henry IV. on his triumph (1399). In 1401 he was succeeded by his son Earl Richard, a brave and chivalrous warrior, who defeated Owen Glendower, fought the Percys at Shrewsbury, and, after travelling in state through Europe and the Holy Land, was employed against the Lollards and afterwards as lay ambassador from England to the council of Constance (1414). He held command for a time at Calais, and took an active part in the French campaigns of Henry V., who created him earl and count of Aumale in Normandy. He had charge of the education of Henry VI., and in 1437 was appointed lieutenant of France and of Normandy. Dying at Rouen in 1439, he left by Isabel, widow of Richard Beauchamp, earl of Worcester, a son, Earl Henry, who was created duke of Warwick, 1445, and is alleged, but without authority, to have been crowned king of the Isle of Wight by Henry VI. He died, the last of his line, in June 1445. On the death of Anne, his only child, in 1449, his vast inheritance passed to Anne, his sister of the whole blood, wife of Richard Neville, earl of Salisbury ("the Kingmaker"), who thereupon became earl of Warwick.

Of the cadet branches of the house, the oldest was that of Powyke and Alcester, which obtained a barony in 1447 and became extinct in 1496; from it sprang the Beauchamps, Lords St. Amand from 1448, of whom was Richard, bishop of Salisbury, first chancellor of the order of the Garter, and who became extinct in 1508, being the last known male heirs of the race. Another cadet was Sir John Beauchamp of Holt, minister of Richard II., who was created Lord Beauchamp of Kidderminster (the first baron created by patent) 1387, but beheaded 1388; the barony became extinct with his son in 1400. Roger, Lord Beauchamp of Bletsoe, summoned in 1363, is said to have been descended from the Powyke branch; his line ended early in the 15th century. Later cadets were John, brother of the 3rd earl, who carried the standard at Crécy, became captain of Calais, and was summoned as a peer in 1350, but died unmarried; and William, brother of the 4th earl, who was distinguished in the French wars, and succeeding to the lands of the Lords Abergavenny was summoned in that barony 1392; his son was created earl of Worcester in 1420, but died without male issue in 1422; from his daughter, who married Sir Edward Neville, descended the Lords Abergavenny.

The Lords Beauchamp of "Hache" (1299-1361) were so named from their seat of Hatch Beauchamp, Somerset, and were of a wholly distinct family. Their title, "Beauchamp of Hache," was revived for the Seymours in 1536 and 1559. The title of "Beauchamp of Powyke" was revived as a barony in 1806 for Richard Lygon (descended through females from the Beauchamps of Powyke), who was created Earl Beauchamp in 1815.

See Sir W. Dugdale, *Baronage* (1675-1676) and *Warwickshire* (2nd ed., 1730); G.E. C[okayne], *Complete Peerage* (1887-1898); W. Courthope, *Rows Roll* (1859); and J.H. Round, *Geoffrey de Mandeville* (1892).

(J. H. R.)

BEAUCHAMP, ALPHONSE DE, French historian and man of letters, was born at Monaco in 1767, and died in 1832. In 1784 he entered a Sardinian regiment of marines, but on the outbreak of war with the French Republic, he refused to fight in what he considered an unjust cause, and was imprisoned for several months. After being liberated he took up his residence in Paris, where he obtained a post in one of the government offices. On the fall of Robespierre, Beauchamp was transferred to the *bureau* of the minister of police, and charged with the superintendence of the press. This situation opened up to him materials of which he made use in his first and most popular historical work, *Histoire de la Vendée et des Chouans*, 3 vols., 1806. The book, received with great favour by the people, was displeasing to the authorities. The third edition was confiscated; its writer was deprived of his post, and in 1809 was compelled to leave Paris and take up his abode in Reims. In 1811 he obtained permission to return, and again received a government appointment. This he had to resign on the Restoration, but was rewarded with a small pension, which was continued to his widow after his death.

Beauchamp wrote extensively for the public journals and for the magazines. His biographical and historical works are numerous, and those dealing with contemporary

events are valuable, owing to the sources at his disposal. They must, however, be used with great caution. The following are worth mention:—*Vie politique, militaire et privée du général Moreau* (1814); *Catastrophe de Murat, ou Récit de la dernière révolution de Naples* (1815); *Histoire de la guerre d'Espagne et du Portugal, 1807-1813* (2 vols., 1810); *Collection de mémoires relatifs aux révolutions d'Espagne* (2 vols., 1824); *Histoire de la révolution de Piémont* (2 vols., 1821, 1823); *Mémoires secrets et inédits pour servir à l'histoire contemporaine* (2 vols., 1825). The *Mémoires de Fouché* have also been ascribed to him, but it seems certain that he only revised and completed a work really composed by Fouché himself.

See an article by Louis Madelin in *La Revolution française* (1900).

BEAUFORT, the name of the family descended from the union of John of Gaunt, duke of Lancaster, with Catherine, wife of Sir Hugh Swynford, taken from a castle in Anjou which belonged to John of Gaunt. There were four children of this union—John, created earl of Somerset and marquess of Dorset; Henry, afterwards bishop of Winchester and cardinal (see Beaufort, Henry); Thomas, made duke of Exeter and chancellor; and Joan, who married Ralph Neville, first earl of Westmorland, and died in 1440. In 1396, some years after the birth of these children, John of Gaunt and Catherine were married, and in 1397 the Beauforts were declared legitimate by King Richard II. In 1407 this action was confirmed by their half-brother, King Henry IV., but on this occasion they were expressly excluded from the succession to the English throne.

John Beaufort, earl of Somerset (*c.* 1373-1410), assisted Richard II. in 1397 when the king attacked the lords appellants, and made himself an absolute ruler. For these services he was made marquess of Dorset, but after the deposition of Richard in 1399, he was degraded to his former rank as earl. In 1401, however, he was declared loyal, and appeared later in command of the English fleet. He married Margaret, daughter of Thomas Holland, second earl of Kent, and died in March 1410, leaving three sons, Henry, John, and Edmund, and two daughters, Jane or Joan, who married James I., king of Scotland, and Margaret, who married Thomas Courtenay, earl of Devon.

Thomas Beaufort (d. 1426) held various high offices under Henry IV., and took a leading part in suppressing the rising in the north in 1405. He became chancellor in 1410, but resigned this office in January 1412 and took part in the expedition to France in the same year. He was then created earl of Dorset, and when Henry V. became king in 1413, he was made lieutenant of Aquitaine and took charge of Harfleur when this town passed into the possession of the English. In 1416 he became lieutenant of Normandy, and was created duke of Exeter; and returning to England he compelled the Scots to raise the siege of Roxburgh. Crossing to France in 1418 with reinforcements for Henry V., he took an active part in the subsequent campaign, was made captain of Rouen, and went to the court of France to treat for peace. He was then captured by the French at Baugé, but was soon released and returned to England when he heard of the death of Henry V. in August 1422. He was one of Henry's executors, and it is probable that the king entrusted his young son, King Henry VI., to his care. However this may be, Exeter did not take a very prominent part in the government, although he was a member of the council of regency. Having again shared in the French war, the duke died at Greenwich about the end of the year 1426. He was buried at Bury St. Edmunds, where his remains were found in good condition 350 years later. He married Margaret, daughter of Sir Thomas Neville of Nornby, but left no issue. The Beaufort family was continued by Henry Beaufort (1401-1419), the eldest son of John Beaufort, earl of Somerset, who was succeeded as earl of Somerset by his brother John Beaufort (1403-1444). The latter fought under Henry V. in the French wars, and having been taken prisoner remained in France as a captive until 1437. Soon after his release he returned to the war, and after the death of Richard Beauchamp, earl of Warwick, in 1439, acted as commander of the English forces, and, with his brother Edmund, was successful in recapturing Harfleur. Although chagrined when Richard, duke of York, was made regent of France, Beaufort led an expedition to France in 1442, and in 1443 was made duke of Somerset. He died, probably by his own hand, in May 1444. He married Margaret, daughter of Sir John Beauchamp, and left a daughter, Margaret Beaufort, afterwards countess of Richmond and Derby, who married, for her first husband, Edmund Tudor, earl of Richmond, by whom she became the mother of King Henry VII. In this way the blood of the Beauforts was mingled with that of

the Tudors, and of all the subsequent occupants of the English throne.

The title of earl of Somerset descended on the death of John Beaufort in 1444 to his brother Edmund Beaufort, duke of Somerset (*q.v.*), who was killed at St Albans in 1455. By his marriage with Eleanor Beauchamp, daughter of the fifth earl of Warwick, he left three sons, Henry, Edmund and John, and a daughter, Margaret.

Henry Beaufort (1436-1464) became duke of Somerset in 1455, and soon began to take part in the struggle against Richard, duke of York, but failed to dislodge Richard's ally, Richard Neville, earl of Warwick, from Calais. He took part in the victory of the Lancastrians at Wakefield in 1460, escaped from the carnage at Towton in 1461, and shared the attainder of Henry VI. in the same year. In May 1464 he was captured at Hexham and was beheaded immediately after the battle. The title of duke of Somerset was assumed by his brother, Edmund Beaufort (*c.* 1438-1471), who fled from the country after the disasters to the Lancastrian arms, but returned to England in 1471, in which year he fought at Tewkesbury, and in spite of a promise of pardon was beheaded after the battle on the 6th of May 1471. His younger brother John Beaufort had been killed probably at this battle, and so on the execution of Edmund the family became extinct.

Margaret Beaufort married Humphrey, earl of Stafford, and was the mother of Henry Stafford, duke of Buckingham. Henry Beaufort, third duke of Somerset (d. 1464), left an illegitimate son, Charles Somerset, who was created earl of Worcester by Henry VIII. in 1514. His direct descendant, Henry Somerset, fifth earl of Worcester, was a loyal partisan of Charles I. and in 1642 was created marquess of Worcester. His grandson, Henry, the third marquess, was made duke of Beaufort in 1682, and the present duke of Beaufort is his direct descendant.

See Thomas Walsingham, *Historia Anglicana*, edited by H.T. Riley (London, 1863-1864); W. Stubbs, *Constitutional History of England*, vols. ii. and iii. (Oxford, 1895); *The Paston Letters*, edited by James Gairdner (London, 1904).

BEAUFORT, FRANÇOIS DE VENDÔME, Duc de (1616-1669), a picturesque figure in French history of the 17th century, was the second son of César de Vendôme, and grandson of Henry IV., by Gabrielle d'Estrées. He began his career in the army and served in the first campaigns of the Thirty Years' War, but his ambitions and unscrupulous character soon found a more congenial field in the intrigues of the court. In 1642 he joined in the conspiracy of Cinq Mars against Richelieu, and upon its failure was obliged to live in exile in England until Richelieu's death. Returning to France, he became the centre of a group, known as the "Importants," in which court ladies predominated, especially the duchess of Chevreuse and the duchess of Montbazon. For an instant after the king's death, this group seemed likely to prevail, and Beaufort to be the head of the new government. But Mazarin gained the office, and Beaufort, accused of a plot to murder Mazarin, was imprisoned in Vincennes, in September 1643. He escaped on the 31st of May 1648, just in time to join the Fronde, which began in August 1648. He was then with the parlement and the princes, against Mazarin. His personal appearance, his affectation of popular manners, his quality of grandson (legitimized), of Henry IV., rendered him a favourite of the Parisians, who acclaimed him everywhere. He was known as the *Roi des Halles* ("king of the markets"), and popular subscriptions were opened to pay his debts. He had hopes of becoming prime minister. But among the members of the parlement and the other leaders of the Fronde, he was regarded as merely a tool. His intelligence was but mediocre, and he showed no talent during the war. Mazarin, on his return to Paris, exiled him in October 1652; and he was only allowed to return in 1654, when the cardinal had no longer any reason to fear him. Henceforth Beaufort no longer intrigued. In 1658 he was named general superintendent of navigation, or chief of the naval army, and faithfully served the king in naval wars from that on. In 1664 he directed the expedition against the pirates of Algiers. In 1669 he led the French troops defending Candia against the Turks, and was killed in a night sortie, on the I5th of June 1669. His body was brought back to France with great pomp, and official honours rendered it.

See the memoirs of the time, notably those of La Rochefoucauld, the Cardinal de Retz, and Madame de Motteville. Also D'Avenel, *Richelieu et la monarchic absolue* (1884); Cheruel, *La France sous le ministère Mazarin* (1879); and *La France sous la minorité de Louis XIV*

(1882).

BEAUFORT, HENRY (*c.* 1377-1447), English cardinal and bishop of Winchester, was the second son of John of Gaunt, duke of Lancaster, by Catherine, wife of Sir Hugh Swynford. His parents were not married until 1396, and in 1397 King Richard II. declared the four children of this union to be legitimate. Henry spent some of his youth at Aix la-Chapelle, and having entered the church received various appointments, and was consecrated bishop of Lincoln in July 1398. When his half-brother became king as Henry IV. in 1399, Beaufort began to take a prominent place in public life; he was made chancellor in 1403, but he resigned this office in 1404, when he was translated from Lincoln to Winchester as the successor of William of Wykeham. He exercised considerable influence over the prince of Wales, afterwards King Henry V., and although he steadily supported the house of Lancaster he opposed the party led by Thomas Arundel, archbishop of Canterbury. A dispute over money left by John Beaufort, marquess of Dorset, caused or widened a breach in the royal family which reached a climax in 1411. The details are not quite clear, but it seems tolerably certain that the prince and the bishop, anxious to retain their power, sought to induce Henry IV. to abdicate in favour of his son. Angry at this request, the king dismissed his son from the council, and Beaufort appears to have shared his disgrace. When Henry V. ascended the throne in 1413 the bishop again became chancellor and took a leading part in the government until 1417, when he resigned his office, and proceeded to the council which was then sitting at Constance. His arrival had an important effect on the deliberations of this council, and the compromise which was subsequently made between the rival parties was largely his work. Grateful for Beaufort’s services, the new pope Martin V. offered him a cardinal’s hat which Henry V. refused to allow him to accept. Returning to England, he remained loyal to Henry; and after the king’s death in 1422 became a member of the council and was the chief opponent of the wild and selfish schemes of Humphrey, duke of Gloucester. In 1424 he became chancellor for the third time, and was mainly responsible for the conduct of affairs during Gloucester’s expedition to Hainaut. He was disliked by the citizens of London; and this ill-feeling was heightened when Gloucester, who was a favourite of the Londoners, returned to England and was doubtless reproached by Beaufort for the folly of his undertaking. A riot took place in London, and at the bishop’s entreaty, the protector, John, duke of Bedford, came back to England. As this dispute was still unsettled when the parliament met at Leicester in February 1426, Bedford and the lords undertook to arbitrate. Charged by Gloucester with treason against Henry IV. and his successors, Beaufort denied the accusations. But although a reconciliation was effected, the bishop evidently regarded this as a defeat; and having resigned the chancellorship his energies were diverted into another channel.

Anxious to secure his aid for the crusade against the Hussites, Pope Martin again offered him a cardinal’s hat, which Beaufort accepted. He went to France in 1427, and was then 587
appointed papal legate for Germany, Hungary and Bohemia; and proceeding eastwards, he made a bold but futile effort to rally the crusaders at Tachau. Returning to England to raise money for a fresh crusade, he was received with great state in London; but his acceptance of the cardinalate had weakened his position and Gloucester refused to recognize his legatine commission. Beaufort gave way on this question, but an unsuccessful attempt was made in 1429 to deprive him of his see. Having raised some troops he set out for Bohemia; but owing to the disasters which had just attended the English arms in France, he was induced to allow these soldiers to serve in the French war; and in February 1431 the death of Martin V. ended his commission as legate. Meanwhile an attempt on the part of Gloucester to exclude the cardinal from the council had failed, and it was decided that his attendance was required except during the discussion of questions between the king and the papacy. He accompanied King Henry VI. to Normandy in April 1430, and in December 1431 crowned him king of France. About this time Gloucester made another attempt to deprive Beaufort of his see, and it was argued in the council that as a cardinal he could not hold an English bishopric. The general council was not inclined to press the case against him; but the privy council, more clerical and more hostile, sealed writs of praemunire and attachment against him, and some of his jewels were seized. On his return to England he attended the parliament in May 1432, and asked to hear the charges against him. The king declared him loyal, and a statute was passed freeing him from any penalties which he might have incurred under the Statute of Provisors or in other ways. He supported Bedford in his attempts to restore order to the

finances. In August 1435 he attended the congress at Arras, but was unable to make peace with France; and after Bedford's death his renewed efforts to this end were again opposed by Gloucester, who favoured a continuance of the war. On two occasions the council advised the king to refuse him permission to leave England, but in 1437 he obtained a full pardon for all his offences. In 1439 and 1440 he went to France on missions of peace, and apparently at his instigation the English council decided to release Charles, duke of Orleans. This step further irritated Gloucester, who drew up and presented to the king a long and serious list of charges against Beaufort; but the council defended the policy of the cardinal and ignored the personal accusations against him. Beaufort, however, gradually retired from public life, and after witnessing the conclusion of the treaty of Troyes died at Wolvesey palace, Winchester, on the 10th of April 1447. The "black despair" which Shakespeare has cast round his dying hours appears to be without historical foundation. He was buried in Winchester cathedral, the building of which he finished. He also refounded and enlarged the hospital of St Cross near Winchester.

Beaufort was a man of considerable wealth, and on several occasions he lent large sums of money to the king. He was the lover of Lady Alice Fitzalan, daughter of Richard, earl of Arundel, by whom he had a daughter, Joan, who married Sir Edward Stradling of St Donat's in Glamorganshire. His interests were secular and he was certainly proud and ambitious; but Stubbs has pictured the fairer side of his character when he observes that Beaufort "was merciful in his political enmities, enlightened in his foreign policy; that he was devotedly faithful, and ready to sacrifice his wealth and labour for the king; that from the moment of his death everything began to go wrong, and went worse and worse until all was lost."

See *Historiae Croylandensis continuatio*, translated by H.T. Riley (London, 1854); *Proceedings and Ordinances of the Privy Council*, edited by N.H. Nicolas (London, 1834-1837); Aeneas Sylvius Piccolomini, *Historica Bohemica* (Frankfort and Leipzig, 1707); W. Stubbs, *Constitutional History*, vol. iii. (Oxford, 1895): M. Creighton, *A History of the Papacy during the Period of the Reformation* (London, 1897); and L.B. Radford, *Henry Beaufort* (1908).

BEAUFORT, LOUIS DE (d. 1795), French historian, of whose life little is known. In 1738 he published at Utrecht a *Dissertation sur l'incertitude des cinq premiers siècles de l'histoire romaine*, in which he showed what untrustworthy guides even the historians of highest repute, such as Livy and Dionysius of Halicarnassus, were for that period, and pointed out by what methods and by the aid of what documents truly scientific bases might be given to its history. This was an ingenious plea, bold for its time, against traditional history such as Rollin was writing at that very moment. A German, Christopher Saxius, endeavoured to refute it in a series of articles published in vols. i.-iii. of the *Miscellanea Liviensia*. Beaufort replied by some brief and ironical *Remarques* in the appendix to the second edition of his *Dissertation* (1750). Beaufort also wrote an *Histoire de César Germanicus* (Leyden, 1761), and *La République romaine, ou plan général de L'ancien gouvernement de Rome* (The Hague, 1766, 2 vols. quarto). Though not a scholar of the first rank, Beaufort has at least the merit of having been a pioneer in raising the question, afterwards elaborated by Niebuhr, as to the credibility of early Roman history.

BEAUFORT SCALE, a series of numbers from 0 to 12 arranged by Admiral Sir Francis Beaufort (1774-1857) in 1805, to indicate the strength of the wind from a calm, force 0, to a hurricane, force 12, with sailing directions such as "5, smacks shorten sails" for coast purposes, and "royals, &c., 'full and by'" for the open sea. An exhaustive report was made in 1906 by the Meteorological Office on the relation between the estimates of wind-force according to Beaufort's scale and the velocities recorded by anemometers belonging to the office, from which the following table is taken:—

Beaufort scale.	Corresponding wind.	Limits of hourly

		velocity.
Numbers.		Miles per hour.
0	Calm	Under 2
1-3	Light breeze	2-12
4-5	Moderate wind	13-23
6-7	Strong wind	24-37
8-9	Gale	38-55
10-11	Storm	56-75
12	Hurricane	Above 75

BEAUFORT WEST, in Cape province, South Africa, the capital of a division of this name, 339 m. by rail N.E. of Cape Town. Pop.(1904) 5481. The largest town in the western part of the Great Karroo, it lies, at an elevation of 2792 ft., at the foot of the southern slopes of the Nieuwveld mountains. It has several fine public buildings and the streets are lined with avenues of pear trees, while an abundant supply of water, luxuriant orchards, fields and gardens give it the appearance of an oasis in the desert. It is a favourite resort of invalids. The town was founded in 1819, and in its early days was largely resorted to by Griquas and Bechuana for the sale of ivory, skins and cattle. The Beaufort West division has an area of 6374 sq. m. and a pop. (1904) of 10,762, 45% being whites. Sheep-farming is the principal industry.

BEAUGENCY, a town of central France, in the department of Loiret, 16 m. S.W. of Orleans on the Orleans railway, between that city and Blois. Pop. (1906) 2993. It is situated at the foot of vine-clad hills on the right bank of the Loire, to the left bank of which it is united by a bridge of twenty-six arches, many of them dating from the 13th century. The chief buildings are the château, mainly of the 15th century, of which the massive donjon of the 11th century known as the Tour de César is the oldest portion; and the abbey-church of Notre-Dame, a building in the Romanesque style of architecture, frequently restored. Some of the buildings of the Benedictine abbey, to which this church belonged, remain. The hôtel de ville, the façade of which is decorated with armorial bearings of Renaissance carving, and the church of St Étienne, an unblemished example of Romanesque architecture, are of interest. Several old houses, some remains of the medieval ramparts and the Tour de l’Horloge, an ancient gateway, are also preserved. The town carries on trade in grain, and has flour mills.

The lords of Beaugency attained considerable importance in the 11th, 12th and 13th centuries; at the end of the 13th century the fief was sold to the crown, and afterwards passed to the house of Orleans, then to those of Dunois and Longueville and ultimately again to that of Orleans. Joan of Arc defeated the English here in 1429. In 1567 the town was sacked and burned by the Protestants. On the 8th, 9th and 10th of December 1870 the German army, commanded by the grand-duke of Mecklenburg, defeated the French army of the Loire, under General Chanzy, in the battle of Beaugency (or Villorceau-Josnes), which was fought on the left bank of the Loire to the N.W. of Beaugency.

BEAUHARNAIS, the name of a French family, well known from the 15th century onward in Orléanais, where its members occupied honourable positions. One of them, Jean Jacques de Beauharnais, seigneur de Miramion, had for wife Marie Bonneau, who in 1661 founded a female charitable order, called after her the Miramiones. François de Beauharnais, marquis de la Ferté-Beauharnais, was a deputy in the states-general of 1789, and a devoted defender of the monarchy. He emigrated and served in Condé’s army. Later he gave his adherence to

Napoleon, and became ambassador in Etruria and Spain; he died in 1823. His brother Alexandre, vicomte de Beauharnais, married Josephine Tascher de la Pagerie (afterwards the wife of Napoleon Bonaparte) and had two children by her—Eugène de Beauharnais (*q.v.*) and Hortense, who married Louis Bonaparte, king of Holland, and became mother of Napoleon III. Claude de Beauharnais, comte des Roches-Baritaud, uncle of the marquis and of the vicomte de Beauharnais, served in the navy and became a vice-admiral. He married Marie Anne Françoise (called Fanny) Mouchard, a woman of letters who had a celebrated salon. His son, also named Claude (d. 1819), was created a peer of France in 1814, and was the father of Stéphanie de Beauharnais, who married the grand-duke of Baden. The house of Beauharnais is still represented in Russia by the dukes of Leuchtenberg, descendants of Prince Eugène.

(M. P.*)

BEAUHARNAIS, EUGÈNE DE (1781-1824), step-son of Napoleon I., was born at Paris on the 3rd of September 1781. He was the son of the general Viscount Alexandre de Beauharnais (1760-1794) and Josephine Tascher de la Pagerie. The father, who was born in Martinique, and served in the American War of Independence, took part in the politics of the French Revolution, and in June-August 1793 commanded the army of the Rhine. His failure to fulfil the tasks imposed on him (especially that of the relief of Mainz) led to his being arrested, and he was guillotined (23rd June 1794) not long before the fall of Robespierre. The marriage of his widow Josephine to Napoleon Bonaparte in March 1796 was at first resented by Eugène and his sister Hortense; but their step-father proved to be no less kind than watchful over their interests. In the Italian campaigns of 1796-1797 Eugène served as aide-de-camp to Bonaparte, and accompanied him to Egypt in the same capacity. There he distinguished himself by his activity and bravery, and was wounded during the siege of Acre. Bonaparte brought him back to France in the autumn of 1799, and it is known that the intervention of Eugène and Hortense helped to bring about the reconciliation which then took place between Bonaparte and Josephine. The services rendered by Eugène at the time of the *coup d'état* of Brumaire (1799) and during the Consulate (1799-1804) served to establish his fortunes, despite the efforts of some of the Bonapartes to destroy the influence of the Beauharnais and bring about the divorce of Josephine.

After the proclamation of the Empire, Eugène received the title of prince, with a yearly stipend of 200,000 francs, and became general of the *chasseurs à cheval* of the Guard. A year later, when the Italian republic became the kingdom of Italy, with Napoleon as king, Eugène received the title of viceroy, with large administrative powers. (See ITALY.) Not long after the battle of Austerlitz (2nd December 1805) Napoleon dignified the elector of Bavaria with the title of king and arranged a marriage between Eugène and the princess Augusta Amelia of Bavaria. On the whole the government of Eugène gave general satisfaction in the kingdom of Italy; it comprised the districts between the Simplon Pass and Rimini, and also after the peace of Presburg (December 1805), Istria and Dalmatia. In 1808 (on the further partition of the papal states) the frontier of the kingdom was extended southwards to the borders of the kingdom of Naples, in the part known as the Abruzzi. In the campaign of 1809 Eugène commanded the army of Italy, with General (afterwards Marshal) Macdonald as his *adlatus*. The battle of Sacile, where he fought against the Austrian army of the Archduke John, did not yield proofs of military talent on the part of Eugène or of Macdonald; but on the retreat of the enemy into Austrian territory (owing to the disasters of their main army on the Danube) Eugène's forces pressed them vigorously and finally won an important victory at Raab in the heart of the Austrian empire. Then, joining the main army under Napoleon, in the island of Lobau in the Danube, near Vienna, Eugène and Macdonald acquitted themselves most creditably in the great battle of Wagram (6th July 1809). In 1810 Eugène received the title of grand-duke of Frankfort. Equally meritorious were his services and those of the large Italian contingent in the campaign of 1812 in Russia. He and they distinguished themselves especially at the battles of Borodino and Malojaroslavitz; and on several occasions during the disastrous retreat which ensued, Eugène's soldierly constancy and devotion to Napoleon shone out conspicuously in 1813-1814, especially by contrast with the tergiversations of Murat. On the downfall of the Napoleonic régime Eugène retired to Munich, where he continued to reside, with the title duke of Leuchtenberg and prince of Eichstädt. He died in 1824, leaving two surviving sons and three daughters.

For further details concerning Eugène see *Mémoires et correspondance politique et*

militaire du Prince Eugène, edited by Baron A. Ducasse (10 vols., Paris, 1858-1860); F.J.A. Schneidewind, *Prinz Eugen, Herzog van Leuchtenberg in den Feldzügen seiner Zeit* (Stockholm, 1857); A. Purlitzer, *Une Idylle sous Napoléon I^er^: le roman du Prince Eugène* (Paris, 1895); F. Masson, *Napoléon et sa famille* (Paris, 1897-1900).

(J. Hl. R.)

BEAUJEU. The French province of Beaujolais was formed by the development of the ancient seigniory of Beaujeu (department of Rhône, arrondissement of Villefranche). The lords of Beaujeu held from the 10th century onwards a high rank in feudal society. In 1210 Guichard of Beaujeu was sent by Philip Augustus on an embassy to Pope Innocent III.; he was present at the French attack on Dover, where he died in 1216. His son Humbert took part in the wars against the Albigenses and became constable of France. Isabeau, daughter of this Humbert, married Renaud, count of Forez; and their second son, Louis, assumed the name and arms of Beaujeu. His son Guichard, called the Great, had a very warlike life, fighting for the king of France, for the count of Savoy and for his own hand. He was taken prisoner by the Dauphinois in 1325, thereby losing important estates. Guichard's son, Edward of Beaujeu, marshal of France, fought at Crécy, and perished in the battle of Ardres in 1351. His son died without issue in 1374, and was succeeded by his cousin, Edward of Beaujeu, lord of Perreux, who gave his estates of Beaujolais and Dombes to Louis II., duke of Bourbon, in 1400. Pierre de Bourbon was lord of Beaujeu in 1474, when he married Anne of France, daughter of Louis XI., and this is why that princess retained the name of lady of Beaujeu. Louise of Savoy, mother of Francis I., got Beaujolais assigned to herself despite the claims of the constable de Bourbon. In 1531 the province was reunited to the crown; but Francis II. gave it back to the Montpensier branch of the Bourbons in 1560, from which house it passed to that of Orleans. The title of comte de Beaujolais was borne by a son of Philippe "Égalité," duke of Orleans, born in 1779, died in 1808.

(M. P.*)

BEAULIEU, a village in the French department of Alpes-Maritimes. Pop. (1906) 1460. It is about 4 m. by rail E. of Nice (1¼ m. from Villefranche), and on the main line between Marseilles and Mentone; it is also connected with Nice and Mentone by an electric tramway. Of late years it has become a much frequented winter resort, and many handsome villas (among them that built by the 3rd marquess of Salisbury) have been constructed in the neighbourhood. The harbour has been extended and adapted for the reception of yachts.

(W. A. B. C.)

BEAULY (pronounced *Bewley*; a corruption of *Beaulieu*), a town of Inverness-shire, Scotland, on the Beauly, 10 m. W. of Inverness by the Highland railway. Pop. (1901) 855. Its chief interest is the beautiful remains of the Priory of St John, founded in 1230 by John Bisset of the Aird, for Cistercian monks. At the Reformation the buildings (except the church, now a ruin) passed into the possession of Lord Lovat. On the right bank of the river is the site of Lovat Castle, which once belonged to the Bissets, but was presented by James VI. to Hugh Fraser and afterwards demolished. To the south-east is the church of Kirkhill containing the vault of the Lovats. Three miles south of Beauly is Beaufort Castle, the chief seat of the Lovats, a fine modern mansion in the Scottish baronial style. It occupies the site of a fortress erected in the time of Alexander II., which was besieged in 1303 by Edward I. This was replaced by several castles in succession, of which one—Castle Dounie—was taken by Cromwell and burned by the duke of Cumberland in 1746, the conflagration being witnessed from a neighbouring hill by Simon, Lord Lovat, before his capture on Loch Morar. The land around Beauly is fertile and the town drives a brisk trade in coal, timber, lime,

grain and fish.

BEAUMANOIR, a seigniory in what is now the department of Côtes-du-Nord, France, which gave its name to an illustrious family. Jean de Beaumanoir, marshal of Brittany for Charles of Blois, and captain of Josselin, is remembered for his share in the famous battle of the Thirty. This battle, sung by an unknown trouvère and retold with variations by Froissart, was an episode in the struggle for the succession to the duchy of Brittany between Charles of Blois, supported by the king of France, and John of Montfort, supported by the king of England. John Bramborough, the English captain of Ploërmel, having continued his ravages, in spite of a truce, in the district commanded by the captain of Josselin, Jean de Beaumanoir sent him a challenge, which resulted in a fight between thirty picked champions, knights and squires, on either side, which took place on the 25th of March 1351, near Ploërmel. Beaumanoir commanded thirty Bretons, Bramborough a mixed force of twenty Englishmen, six German mercenaries and four Breton partisans of Montfort. The battle, fought with swords, daggers and axes, was of the most desperate character, in its details very reminiscent of the last fight of the Burgundians in the *Nibelungenlied*, especially in the celebrated advice of Geoffrey du Bois to his wounded leader, who was asking for water: "Drink your blood, Beaumanoir; that will quench your thirst!" In the end the victory was decided by Guillaume de Montauban, who mounted his horse and overthrew seven of the English champions, the rest being forced to surrender. All the combatants on either side were either dead or seriously wounded, Bramborough being among the slain. The prisoners were well treated and released on payment of a small ransom. (See *Le Poème du combat des Trente*, in the *Panthéon littéraire*; Froissart, *Chroniques*, ed. S. Luce, c. iv. pp. 45 and 110 ff., and pp. 338-340).

Jean de Beaumanoir (1551-1614), seigneur and afterwards marquis de Lavardin, count of Nègrepelisse by marriage, served first in the Protestant army, but turned Catholic after the massacre of St Bartholomew, in which his father had been killed, and then fought against Henry of Navarre. When that prince became king of France, Lavardin changed over to his side, and was made a marshal of France. He was governor of Maine, commanded an army in Burgundy in 1602, was ambassador extraordinary to England in 1612, and died in 1614. One of his descendants, Henry Charles, marquis de Lavardin (1643-1701), was sent as ambassador to Rome in 1689, on the occasion of a difference between Louis XIV. and Innocent XI.

BEAUMANOIR, PHILIPPE DE RÉMI, Sire de (*c.* 1250-1296), French jurist, was born in the early part of the 13th century and died in 1296. The few facts known regarding his life are to be gathered from legal documents in which his name occurs. From these it appears that in 1273 he filled the post of *bailli* at Senlis, and in 1280 held a similar office at Clermont. He is also occasionally referred to as presiding at the assizes held at various towns. His great work is entitled *Coutumes de Beauvoisis* and first appeared in 1690, a second edition with introduction by A.A. Beugnot being published in 1842. It is regarded as one of the best works bearing on old French law, and was frequently referred to with high admiration by Montesquieu. Beaumanoir also obtained fame as a poet, and left over 20,000 verses, the best known of his poems being *La Manekine*, *Jehan et Blonde* and *Salut d'amour*.

BEAUMARCHAIS, PIERRE AUGUSTIN CARON DE (1732-1799), French dramatist, was born in Paris on the 24th of January 1732. His father, a watchmaker named Caron, brought him up to the same trade. He was an unusually precocious and lively boy, shrewd, sagacious, passionately fond of music and imbued with a strong desire for rising in the

world. At the age of twenty-one he invented a new escapement for watches, which was pirated by a rival maker. Young Caron at once published his grievance in the *Mercure*, and had the matter referred to the Academy of Sciences, which decided in his favour. This affair brought him into notice at court; he was appointed, or at least called himself, watchmaker to the king, who ordered from him a watch similar to one he had made for Mme de Pompadour. His handsome figure and cool assurance enabled him to make his way at court. Mme Franquet, the wife of an old court official, persuaded her husband to make over his office to young Caron, and, on her husband's death, a few months later, married the handsome watchmaker. Caron at the same time assumed the name Beaumarchais; and four years later, by purchasing the office of secretary to the king obtained a patent of nobility.

At court his musical talents brought him under the notice of the king's sisters, who engaged him to teach them the harp. This position enabled him to confer a slight favour on the great banker Joseph Duverney, who testified his gratitude by giving Beaumarchais a share in his speculations. The latter turned the opportunity to good account, and soon realized a handsome fortune. In 1764 he took a journey to Spain, partly with commercial objects in view, but principally on account of the Clavijo affair. José Clavijo y Fajardo had twice promised to marry the sister of Beaumarchais, and had failed to keep his word. The adventure had not the tragic ending of Goethe's *Clavigo*, for Beaumarchais did not pursue his vengeance beyond words. Beaumarchais made his first essay as a writer for the stage with the sentimental drama *Eugénie* (1767), in which he drew largely on the Clavijo incident. This was followed after an interval of two years by *Les Deux Amis*, but neither play had more than moderate success. His first wife had died within a year of the marriage and in 1768 Beaumarchais married Mme Lévêque. Her death in 1771 was the signal for unfounded rumours of poisoning. Duverney died in 1770; but some time before his death a duplicate settlement of the affairs between him and Beaumarchais had been drawn up, in which the banker acknowledged himself debtor to Beaumarchais for 15,000 francs. Duverney's heir, the comte de La Blache, denied the validity of the document though without directly stigmatizing it as a forgery. The matter was put to trial. Beaumarchais gained his cause, but his adversary at once carried the case before the parlement. In the meantime the duc de Chaulnes forced Beaumarchais into a quarrel over Mdlle Menard, an actress at the Comédie Italienne, which resulted in the imprisonment of both parties. This moment was chosen by La Blache to demand judgment from the parlement in the matter of the Duverney agreement. Beaumarchais was released from prison for three or four days to see his judges. He was, however, unable to obtain an interview with Goezman, the member of the parlement appointed to report on his case. At last, just before the day on which the report was to be given in, he was informed privately that, by presenting 200 *louis* to Mme Goezman and 15 to her secretary, the desired interview might take place, if the result should prove unfavourable the money would be refunded. The money was sent and the interview obtained; but the decision was adverse, and 200 *louis* were returned, the 15 going as business expenses to the secretary. Beaumarchais, who had learned that there was no secretary save Mme Goezman herself, insisted on restitution of the 15 *louis*, but the lady denied all knowledge of the affair. Her husband, who was probably not cognisant of the details of the transaction at first, doubtless thought the defeated litigant would be easily put down, and at once brought an accusation against him for an attempt to corrupt justice. The battle was fought chiefly through the *Mémoires*, or reports published by the adverse parties, and in it Beaumarchais's success was complete. For vivacity of style, fine satire and broad humour, his famous *Mémoires* have never been surpassed. Even Voltaire was constrained to envy them. Beaumarchais was skilful enough to make his particular case of universal application. He was attacking the parlement through one of its members, and the parlement was the universally detested body formed by the chancellor Maupeou. The *Mémoires* were, therefore, hailed with general delight; and the author, from being perhaps the most unpopular man in France, became at once the idol of the people. The decision went against Beaumarchais. The parlement condemned both him and Mme Goezman *au blâme*, *i.e.* to civic degradation, while the husband was obliged to abandon his position. Beaumarchais was reduced to great straits, but he obtained restitution of his rights within two years, and finally triumphed over his adversary La Blache.

During the next few years he was engaged in the king's secret service. One of his missions was to England to destroy the *Mémoires secrets d'une femme publique* in which Charles Theveneau de Morande made an attack on Mme Du Barry. Beaumarchais secured this pamphlet, and burnt the whole impression in London. Another expedition to England and Holland to seize a pamphlet attacking Marie Antoinette led to a series of incidents more amazing than the intrigues in Beaumarchais's own plays, but his own account must be received with caution. Beaumarchais pursued the libeller to Germany and overtook him in a

wood near Neustadt. After a struggle he had gained possession of the document when he was attacked by brigands. Unfortunately the wound alleged to have been received in this fight was proved to be self-inflicted. The Austrian government regarded Beaumarchais with a suspicion justified by the circumstances. He was imprisoned for some time in Vienna, and only released on the receipt of explanations from Paris.

His various visits to England led him to take a deep interest in the impending struggle between the American colonies and the mother-country. His sympathies were entirely with the former; and by his unwearied exertions he succeeded in inducing the French government to give ample, though private, assistance in money and arms to the Americans. He himself, partly on his own account, but chiefly as the agent of the French and Spanish governments, carried on an enormous traffic with America. Under the name of Rodrigue Hortalez et Cie, he employed a fleet of forty vessels to provide help for the insurgents.

During the same period he produced his two famous comedies. The earlier, *Le Barbier de Seville*, after a prohibition of two years, was put on the stage in 1775. The first representation was a complete failure. Beaumarchais had overloaded the last scene with allusions to the facts of his own case and the whole action of the piece was laboured and heavy. But he cut down and remodelled the piece in time for the second representation, when it achieved a complete success. The intrigues which were necessary in order to obtain a licence for the second and more famous comedy, *Le Mariage de Figaro*, are highly amusing, and throw much light on the unsettled state of public sentiment at the time. The play was completed in 1778, but the opposition of Louis XVI., who alone saw its dangerous tendencies, was not overcome till 1784. The comedy had an unprecedented success. The principal character in both plays, Figaro, is a completely original conception; in fact Beaumarchais drew a portrait of himself in the resourceful adventurer, who, for mingled wit, shrewdness, gaiety and philosophic reflection, may not unjustly be ranked with Tartuffe. To English readers the Figaro plays are generally known through the adaptations of them in the grand opera of Mozart and Rossini; but in France they long retained popularity as acting pieces. The success of *Le Mariage de Figaro* was helped on by the methods of self-advertisement so well understood by Beaumarchais. The proceeds of the fiftieth performance were devoted to a charity, the choice of which provoked numerous epigrams. Beaumarchais had the imprudence to retaliate by personalities that were reported by his enemies to be dedicated against the king and queen. Beaumarchais was imprisoned for a short time by royal order in the prison of St Lazare. Brilliant pamphleteer as he was, Beaumarchais was at last to meet more than his match. He undertook to defend the company of the “Eaux de Paris,” in which he had a large interest, against Mirabeau, and brought down on himself an invective to which he could offer no reply. His real influence was gone from that date (1785-1786). Shortly afterwards he was violently attacked by Nicolas Bergasse, whom he sued for defamation of character. He gained his case, but his reputation had suffered in the pamphlet war. Beaumarchais’s later productions, the bombastic opera *Tarare* (1787) and the drama *La Mère coupable* (1792), which was very popular, are in no way worthy of his genius.

By his writings Beaumarchais contributed greatly, though quite unconsciously, to hurry on the events that led to the Revolution. At heart he hardly seems to have been a republican, and the new state of affairs did not benefit him. The astonishing thing is that the society travestied in *Le Mariage de Figaro* was the most vehement in its applause. The court looked on at a play justly characterized by Napoleon as the “revolution already in action” apparently without a suspicion of its real character. His popularity had been destroyed by the Mirabeau and Bergasse affairs, and his great wealth exposed him to the enmity of the envious. A speculation into which he entered, to supply the Convention with muskets from Holland, proved a ruinous failure. He was accused of concealing arms and corn in his house, but when his house was searched nothing was discovered but some thousands of copies of the edition (1783-1790) of the works of Voltaire which he had had printed at his private press at Kehl, in Baden. He was charged with treason to the republic and was imprisoned in the Abbaye on the 20th of August 1792. A week later he was released at the intercession of Mme Houret de la Marinière, who had been his mistress. He took refuge in Holland and England. His memoirs entitled, *Mes six époques*, detailing his sufferings under the republic, are not unworthy of the Goezman period. His courage and happy disposition never deserted him, although he was hunted as an agent of the Convention in Holland and England, while in Paris he was proscribed as an *émigré*. He returned to Paris in 1796, and died there, suddenly, on the 18th of May 1799.

Gudin de la Brenellerie’s *Histoire de Beaumarchais* (1809) was edited by M. Maurice Tourneux in 1888. See also L. de Loménie, *Beaumarchais et son temps* (1855), Eng. trans. by

H.S. Edwards, (4. vols., 1856); A. Hallay's *Beaumarchais* (1897); M. de Lescure, *Éloge de Beaumarchais* (1886); and Sainte-Beuve, *Causeries du lundi*, vol. vi. Beaumarchais's works have been edited by Gudin (7 vols., 1809); by Furne (6 vols., 1827); and by É. Fournier (1876). A variorum edition of his *Théâtre complet* was published by MM. d'Heylli and de Marescot (4 vols., 1869-1875); and a *Bibliographie des œuvres de Beaumarchais*, by H. Cordier in 1883.

BEAUMARIS, a market town and municipal borough, and the county town of Anglesey, N. Wales, situated on the Bay of Beaumaris, not far from Penmon, the northern entrance of the Menai Strait. Pop. (1901) 2326. It has but one considerable street. The large castle chapel, dedicated to the Virgin, has some fine monuments. David Hughes, of Jesus College, Oxford, founded the free grammar school in 1603. Buildings include town-hall and county-hall, with St Mary's church of the 13th century, with chancel of the 16th. Practically without trade and with no manufactures, Beaumaris is principally noted as a bathing-place. Its earliest charter dates from 1283 and was revised under Elizabeth. The town was formerly called Barnover and, still earlier, Rhosfair, and bears its present name of French origin since Edward I. built its castle in 1293. This extensive building was erected on low ground, so that the fosse might communicate with the sea, and vessels might unload under its walls. The castle capitulated, after siege, to General Mytton (1646).

BEAUMONT, Belmont, or Bellomont, the name of a Norman and English family, taken from Beaumont-le-Roger in Normandy. Early in the 11th century Roger de Beaumont, a kinsman of the dukes of Normandy, married a daughter of Waleran, count of Meulan, and their son, Robert de Beaumont (d. 1118), became count of Meulan or Mellent about 1080. Before this date, however, he had fought at Hastings, and had added large estates in Warwickshire to the Norman fiefs of Beaumont and Pont Audemer, which he received when his father entered the abbey of St Peter at Préaux. It was during the reigns of William II. and Henry I. that the count rose to eminence, and under the latter monarch he became "the first among the counsellors of the king." A "strenuous and sagacious man" he rendered valuable service to both kings in their Norman wars, and Henry I. was largely indebted to him for the English crown. He obtained lands in Leicestershire, and it has been said he was created earl of Leicester; this statement, however, is an error, although he exercised some of the privileges of an earl. His abilities as a counsellor, statesman and diplomatist gained him the admiration of his contemporaries, and Henry of Huntingdon describes him as "the wisest man between this and Jerusalem." He seems to have been a man of independent character, for he assisted Anselm against William Rufus, although he supported Henry I. in his quarrel with Pope Paschal II. When Robert died on the 5th of June 1118 his lands appear to have been divided between his twin sons, Robert and Waleran, while a third son, Hugh, became earl of Bedford in 1138.

Robert de Beaumont (1104-1168), justiciar of England, married a granddaughter of Ralph Guader, earl of Norfolk, and receiving his father's English fiefs in 1118 became earl of Leicester. He and his brother, Waleran, were the chief advisers of Stephen, and helped this king to seize the bishops of Salisbury and Lincoln in 1139; later, however, Robert made his peace with Henry II., and became chief justiciar of England. First among the lay nobles he signed the Constitutions of Clarendon, he sought to reconcile Henry and Archbishop Becket, and was twice in charge of the kingdom during the king's absences in France. The earl founded the abbey of St Mary de Pré at Leicester and other religious houses, and by a charter confirmed the burgesses of Leicester in the possession of their merchant-gild and customs. His son, Robert, succeeded to the earldom of Leicester, and with other English barons assisted prince Henry in his revolt against his father the king in 1173. For this participation, and also on a later occasion, he was imprisoned; but he enjoyed the favour of Richard I., and died in Greece when returning from a pilgrimage in 1190. His son and heir, Robert, died childless in 1204.

Waleran de Beaumont (1104-1166) obtained his father's French fiefs and the title of count of Meulan in 1118. After being imprisoned for five years by Henry I. he spent some time in England, and during the civil war between Stephen and the empress Matilda he fought for the former until about 1150, when he deserted the king and assisted the empress. His later history appears to have been uneventful. The county of Meulan remained in possession of the Beaumont family until 1204, when it was united with the royal domain.

Another member of the Beaumont family, possibly a relative of the earlier Beaumonts, was Louis de Beaumont (d. 1333), bishop of Durham from 1317 until his death. This prelate was related to the English king, Edward II., and after a life spent in strife and ostentation, he died on the 24th of September 1333. John Beaumont, master of the rolls under Edward VI., was probably a member of the same family. A dishonest and corrupt judge, he was deprived of his office and imprisoned in 1552.

The barony of Beaumont dates from 1309, when Henry Beaumont (d. 1340), who was constable of England in 1322, was summoned to parliament under this title. It was retained by his descendants until the death of William, the 7th baron and the 2nd viscount,[1] in 1507, when it fell into abeyance. In 1840 the barony was revived in favour of Miles Thomas Stapleton (1805-1854), a descendant of Joan, Baroness Lovel, a daughter of the 6th baron, and it has since been retained by his descendants.

In 1906 Wentworth Blackett Beaumont (1829-1907), the head of a family well known in the north of England, was created Baron Allendale.

1 His father John (d. 1460), the 6th baron, great chamberlain and constable of England, was the first person advanced to the dignity of a viscount in England.

BEAUMONT, CHRISTOPHE DE (1703-1781), French ecclesiastic and archbishop of Paris, was a cadet of the Les Adrets and Saint-Quentin branch of the illustrious Dauphiné family of Beaumont. He became bishop of Bayonne in 1741, then archbishop of Vienne in 1743, and in 1746, at the age of forty-three, archbishop of Paris. Beaumont is noted for his struggle with the Jansenists. To force them to accept the bull *Unigenitus* which condemned their doctrines, he ordered the priests of his diocese to refuse absolution to those who would not recognize the bull, and to deny funeral rites to those who had confessed to a Jansenist priest. While other bishops sent Beaumont their adhesion to his crusade, the parlement of Paris threatened to confiscate his temporalities. The king forbade the parlement to interfere in these spiritual questions, and upon its proving obdurate it was exiled (September 18, 1753). The "royal chamber," which was substituted, having failed to carry on the administration of justice properly, the king was obliged to recall the parlement, and the archbishop was sent into honourable exile (August 1754). An effort was made to induce him to resign the active duties of his see to a coadjutor, but in spite of the most tempting offers—including a cardinal's hat—he refused. On the contrary, to his polemic against the Jansenists he added an attack on the *philosophes*, and issued a formal mandatory letter condemning Rousseau's *Émile*. Rousseau replied in his masterly *Lettre à M. de Beaumont* (1762), in which he insists that freedom of discussion in religious matters is essentially more religious than the attempt to impose belief by force.

De Beaumont's *Mandements, lettres et instructions pastorales* were published in two volumes in 1780, the year before his death.

BEAUMONT, SIR JOHN (1583-1627), English poet, second son of the judge, Sir Francis Beaumont, was born at Grace-Dieu in Leicestershire in 1583. The deaths of his father (in 1598) and of his elder brother, Sir Henry Beaumont (in 1605), made the poet early the head of this brilliant family; the dramatist, Francis Beaumont, being a younger brother. John went to Oxford in February 1597, and entered as a gentleman commoner in Broadgates Hall, the present Pembroke College. He was admitted to the Inner Temple in 1600, but on the death

of Henry he no doubt went down to Grace-Dieu to manage the family estates. He began to write verse early, and in 1602, at the age of nineteen, he published anonymously his *Metamorphosis of Tabacco*, written in very smooth couplets, in which he addressed Drayton as his "loving friend." He lived in Leicestershire for many years as a bachelor, being one "who never felt Love's dreadful arrow." But in process of time he became a tardy victim, and married a lady of the Fortescue family, who bore him four stout sons, the eldest of whom, another John, was accounted one of the most athletic men of his time. "He could leap 16 ft. at one leap, and would commonly, at a stand-leap, jump over a high long table in the hall, light on a settle beyond the table, and raise himself straight up." This magnificent young man was not without literary taste; he edited his father's posthumous poems, and wrote an enthusiastic elegy on him; he was killed in 1644 at the siege of Gloucester. Another of Sir John Beaumont's sons, Gervaise, died in childhood, and the incidents of his death are recorded in one of his father's most touching poems. Sir John Beaumont concentrated his powers on a poem in eight books, entitled *The Crown of Thorns*, which was greatly admired in MS. by the earl of Southampton and others, but which is lost. After long retirement, Beaumont was persuaded by the duke of Buckingham to move in larger circles; he attended court and in 1626 was made a baronet. This honour he did not long survive, for he died on the 19th of April 1627, and was buried in Westminster Abbey ten days later. The new Sir John, the strong man, published in 1629 a volume entitled *Bosworth Field; with a taste of the variety of other Poems left by Sir John Beaumont*. No more "tastes" were ever vouchsafed, so that it is by this volume and by the juvenile *Metamorphosis of Tobacco* that Beaumont's reputation has to stand. Of late years, the peculiarities of John Beaumont's prosody have drawn attention to his work. He wrote the heroic couplet, which was his favourite measure, with almost unprecedented evenness. Bosworth Field, the scene of the battle of which Beaumont's principal poem gives a vaguely epical narrative, lay close to the poet's house of Grace-Dieu. He writes on all occasions with a smoothness which was very remarkable in the first quarter of the 17th century, and which marks him, with Edmund Waller and George Sandys, as one of the pioneers of the classic reformation of English verse.

The poems of Sir John Beaumont were included in A. Chalmers's *English Poets*, vol. vi. (1810). An edition, with "memorial introduction" and notes, was included (1869) in Dr A.B. Grosart's *Fuller Worthies' Library*; and the *Metamorphosis of Tobacco* was included in J.P. Collier's *Illustrations of Early English Popular Literature*, vol. i. (1863).

(E. G.)

BEAUMONT and **FLETCHER,** English dramatists[1] The names of Francis Beaumont (1584-1616) and John Fletcher (1579-1625) are inseparably connected in the history of the English drama. John Fletcher was born in December 1579 at Rye in Sussex, and baptized on the 20th of the same month. Richard Fletcher, his father, afterwards queen's chaplain, dean of Peterborough, and bishop successively of Bristol, Worcester and London, was then minister of the parish in which the son was born who was to make their name immortal. That son was just turned of seven when the dean distinguished and disgraced himself as the spiritual tormentor of the last moments on earth of Mary Stuart. When not quite twelve he was admitted pensioner of Bene't College, Cambridge, and two years later was made one of the Bible-clerks: of this college Bishop Fletcher had been president twenty years earlier, and six months before his son's admission had received from its authorities a first letter of thanks for various benefactions, to be followed next year by a second. Four years later than this, when John Fletcher wanted five or six months of his seventeenth year, the bishop died suddenly of over much tobacco and the displeasure of Queen Elizabeth at his second marriage—this time, it appears, with a lady of such character as figures something too frequently on the stage of his illustrious son. He left eight children by his first marriage in such distress that their uncle, Dr Giles Fletcher, author of a treatise on the Russian commonwealth which is still held in some repute, was obliged to draw up a petition to the queen on their behalf, which was supported by the intercession of Essex, but with what result is uncertain.

From this date we know nothing of the fortunes of John Fletcher, till the needy orphan boy of seventeen reappears as the brilliant and triumphant poet whose name is linked for all time with the yet more glorious name of Francis Beaumont, third and youngest son of Sir Francis Beaumont of Grace-Dieu, one of the justices of the common pleas—born, according

to general report, in 1586, but, according to more than one apparently irrefragable document, actually born two years earlier. The first record of his existence is the entry of his name, together with those of his elder brothers Henry and John, as a gentleman-commoner of Broadgates Hall, Oxford, now supplanted by Pembroke College. But most lovers of his fame will care rather to remember the admirable lines of Wordsworth on the “eager child” who played among the rocks and woodlands of Grace-Dieu; though it may be doubted whether even the boy’s first verses were of the peaceful and pastoral character attributed to them by the great laureate of the lakes. That passionate and fiery genius which was so soon and for so short a time to “shake the buskined stage” with heroic and tragic notes of passion and of sorrow, of scorn and rage, and slighted love and jealousy, must surely have sought vent from the first in fancies of a more ardent and ambitious kind; and it would be a likelier conjecture that when Frank Beaumont (as we know on more authorities than one that he was always called by his contemporaries, even in the full flush of his adult fame—“never more than Frank,” says Heywood) went to college at the ripe age of twelve, he had already committed a tragedy or two in emulation of *Tamburlaine*, *Andronicus* or *Jeronymo*. The date of his admission was the 4th of February 1597; on the 22nd of April of the following year his father died; and on the 3rd of November 1600, having left Oxford without taking his degree, the boy of fifteen was entered a member of the Inner Temple, his two brothers standing sponsors on the grave occasion. But the son of Judge Beaumont was no fitter for success at the bar than the son of Bishop Fletcher for distinction in the church: it is equally difficult to imagine either poet invested with either gown. Two years later appeared the poem of *Salmacis and Hermaphroditus*, generally attributed to Beaumont, a voluptuous and voluminous expansion of the Ovidian legend, not on the whole discreditable to a lad of eighteen, fresh from the popular love-poems of Marlowe and Shakespeare, which it naturally exceeds in long-winded and fantastic diffusion of episodes and conceits. At twenty-three Beaumont prefixed to the magnificent masterpiece of Ben Jonson some noticeable verses in honour of his “dear friend” the author; and in the same year (1607) appeared the anonymous comedy of *The Woman-Hater*, usually assigned to Fletcher alone; but being as it is in the main a crude and puerile imitation of Jonson’s manner, and certainly more like a man’s work at twenty-two than at twenty-eight, internal evidence would seem to justify, or at least to excuse those critics who in the teeth of high authority and tradition would transfer from Fletcher to Beaumont the principal responsibility for this first play that can be traced to the hand of either. As Fletcher also prefixed to the first edition of *Volpone* a copy of commendatory verses, we may presume that their common admiration for a common friend was among the earliest and strongest influences which drew together the two great poets whose names were thenceforward to be for ever indivisible. During the dim eleven years between the death of his father and the dawn of his fame, we cannot but imagine that the career of Fletcher had been unprosperous as well as obscure. From seventeen to twenty-eight his youth may presumably have been spent in such painful struggles for success, if not for sustenance, as were never known to his younger colleague, who, as we have seen, was entered at Oxford a few months after Fletcher must in all likelihood have left Cambridge to try his luck in London: a venture most probably resolved on as soon as the youth had found his family reduced by the father’s death to such ruinous straits that any smoother course can hardly have been open to him. Entering college at the same age as Fletcher had entered six years earlier, Beaumont had before him a brighter and briefer line of life than his elder. But whatever may have been their respective situations when, either by happy chance or, as Dyce suggests, by the good offices of Jonson, they were first brought together, their intimacy soon became so much closer than that of ordinary brothers that the household which they shared as bachelors was conducted on such thoroughly communistic principles as might have satisfied the most trenchant theorist who ever proclaimed as the cardinal point of his doctrine, a complete and absolute community of bed and board, with all goods thereto appertaining. But in the year following that in which the two younger poets had united in homage to Jonson, they had entered into a partnership of more importance than this in “the same clothes and cloak, &c.,” with other necessaries of life specified by Aubrey.

In 1608, if we may trust the reckoning which seems trust-worthiest, the twin stars of our stage rose visibly together for the first time. The loveliest, though not the loftiest, of tragic plays that we owe to the comrades or the successors of Shakespeare, *Philaster*, has generally been regarded as the first-born issue of their common genius. The noble tragedy of *Thierry and Theodoret* has sometimes been dated earlier and assigned to Fletcher alone; but we can be sure neither of the early date nor the single authorship. The main body of the play, comprising both the great scenes which throw out into full and final relief the character of either heroine for perfect good or evil, bears throughout the unmistakable image and superscription of Fletcher; yet there are parts which for gravity and steady strength of style, for reserve and temperance of effect, would seem to suggest the

collaboration of a calmer and more patient hand; and these more equable and less passionate parts of the poem recall rather the touch of Massinger than of Beaumont. In the second act, for example, the regular structure of the verse, the even scheme of the action, the exaggerated braggardism which makes of the hero a mere puppet or mouthpiece of his own self-will, are all qualities which, for better or for worse, remind us of the strength or the weakness of a poet with whom we know that Fletcher, before or after his alliance with Beaumont, did now and then work in common. Even the Arbaces of Beaumont, though somewhat too highly coloured, does not "write himself down an ass," like Thierry on his first entrance, after the too frequent fashion of Massinger's braggarts and tyrants; does not proclaim at starting or display with mere wantonness of exposure his more unlovely qualities in the naked nature of their deformity. Compare also the second with the first scene of the fourth act. In style and metre this second scene is as good an example of Massinger as the first is of Fletcher at his best. Observe especially in the elaborate narrative of the pretended self-immolation of Ordella these distinctive notes of the peculiar style of Massinger; the excess of parenthetic sentences, no less than five in a space of twenty lines; the classical common-place of allusion to Athens, Rome and Sparta in one superfluous breath; the pure and vigorous but somewhat level and prosaic order of language, with the use of certain cheap and easy phrases familiar to Massinger as catchwords; the flat and feeble terminations by means of which the final syllable of one verse runs on into the next without more pause or rhythm than in a passage of prose; the general dignity and gravity of sustained and measured expression. These are the very points in which the style of Massinger differs from that of Fletcher; whose lightest and loosest verses do not overlap each other without sensible distinction between the end of one line and the beginning of the next; who is often too fluent and facile to be choice or forcible in his diction, but seldom if ever prosaic or conventional in phrase or allusion, and by no means habitually given to weave thoughts within thoughts, knit sentence into sentence, and hang whole paragraphs together by the help of loops and brackets. From these indications we might infer that this poem belongs altogether to a period later than the death of Beaumont; though even during his friend's life it appears that Fletcher was once at least allied with Massinger and two lesser dramatists in the composition of a play, probably the *Honest Man's Fortune*, of which the accounts are to be found in Henslowe's papers.

Hardly eight years of toil and triumph of joyous and glorious life were spared by destiny to the younger poet between the date assigned to the first radiant revelation of his genius in *Philaster* and the date which marks the end of all his labours. On the 6th of March 1616 Francis Beaumont died—according to Jonson and tradition, "ere he was thirty years of age," but this we have seen to be inconsistent with the registry of his entrance at Oxford. If we may trust the elegiac evidence of friends, he died of his own genius and fiery overwork of brain; yet from the magnificent and masculine beauty of his portrait one should certainly never have guessed that any strain of spirit or stress of invention could have worn out so long before its time so fair and royal a temple for so bright and affluent a soul. A student of physiognomy will not fail to mark the points of likeness and of difference between the faces of the two friends; both models of noble manhood, handsome and significant in feature and expression alike;—Beaumont's the statelier and serener of the two, with clear thoughtful eyes, full arched brows, and strong aquiline nose, with a little cleft at the tip; a grave and beautiful mouth, with full and finely curved lips; the form of face a long pure oval, and the imperial head with its "fair large front" and clustering hair set firm and carried high with an aspect at once of quiet command and kingly observation: Fletcher's a more keen and fervid face, sharper in outline every way, with an air of bright ardour and glad fiery impatience; sanguine and nervous, suiting the complexion and colour of hair; the expression of the eager eyes and lips almost recalling that of a noble hound in act to break the leash it strains at;—two heads as lordly of feature and as expressive of aspect as any gallery of great men can show. That spring of 1616, we may note in passing, was the darkest that ever dawned upon England or the world; for, just forty-eight days afterwards, it witnessed, on the 23rd of April, the removal from earth of the mightiest genius that ever dwelt among men. Scarcely more than a month and a half divided the death-days of Beaumont and of Shakespeare. Some three years earlier by Dyce's estimate, when about the age of twenty-nine, Beaumont had married Ursula, daughter and co-heiress to Henry Isley of Sundridge in Kent, by whom he left two daughters, one of them posthumous. Fletcher survived his friend just nine years and five months; he died "in the great plague, 1625," and was buried on the 29th of August in St Saviour's, Southwark; not, as we might have wished, beside his younger fellow in fame, who but three days after his untimely death had added another deathless memory to the graves of our great men in Westminster Abbey, which he had sung in such noble verse. Dying when just four months short of forty-six, Fletcher had thus, as well as we can now calculate, altogether some fourteen years and six months more of life than the poet who divides with

him the imperial inheritance of their common glory.

The perfect union in genius and in friendship which has made one name of the two names of these great twin brothers in song is a thing so admirable and so delightful to remember, that it would seem ungracious and unkindly to claim for either a precedence which we may be sure he would have been eager to disclaim. But if a distinction must be made between the Dioscuri of English poetry, we must admit that Beaumont was the twin of heavenlier birth. Only as Pollux was on one side a demigod of diviner blood than Castor can it be said that on any side Beaumont was a poet of higher and purer genius than Fletcher; but so much must be allowed by all who have eyes and ears to discern in the fabric of their common work a distinction without a difference. Few things are stranger than the avowal of so great and exquisite a critic as Coleridge, that he could trace no faintest line of demarcation between the plays which we owe mainly to Beaumont and the plays which we owe solely to Fletcher. To others this line has always appeared in almost every case unmistakable. Were it as hard and broad as the line which marks off, for example, Shakespeare's part from Fletcher's in *The Two Noble Kinsmen*, the harmony would of course be lost which now informs every work of their common genius, and each play of their writing would be such another piece of magnificent patchwork as that last gigantic heir of Shakespeare's invention, the posthumous birth of his parting Muse which was suckled at the breast of Fletcher's as a child of godlike blood might be reared on the milk of a mortal mother—or in this case, we might sometimes be tempted to say, of a she-goat who left in the veins of the heaven-born suckling somewhat too much of his nurse Amalthaea. That question however belongs in any case more properly to the study of Shakespeare than to the present subject in hand. It may suffice here to observe that the contributions of Fletcher to the majestic temple of tragedy left incomplete by Shakespeare show the lesser workman almost equally at his best and at him worst, at his weakest and at his strongest. In the plays which we know by evidence surer than the most trustworthy tradition to be the common work of Beaumont and Fletcher, there is indeed no trace of such incongruous and incompatible admixture as leaves the greatest example of romantic tragedy—for *Cymbeline* and the *Winter's Tale*, though not guiltless of blood, are in their issues no more tragic than *Pericles* or the *Tempest*—a unique instance of glorious imperfection, a hybrid of heavenly aid other than heavenly breed, disproportioned and divine. But throughout these noblest of the works inscribed generally with the names of both dramatists we trace on every other page the touch of a surer hand, we hear at every other turn the note of a deeper voice, than we can ever recognize in the work of Fletcher alone. 594
Although the beloved friend of Jonson, and in the field of comedy his loving and studious disciple, yet in that tragic field where his freshest bays were gathered Beaumont was the worthiest and the closest follower of Shakespeare. In the external but essential matter of expression by rhythm and metre he approves himself always a student of Shakespeare's second manner, of the style in which the graver or tragic part of his historical or romantic plays is mostly written; doubtless, the most perfect model that can be studied by any poet who, like Beaumont, is great enough to be in no danger of sinking to the rank of a mere copyist, but while studious of the perfection set before him is yet conscious of his own personal and proper quality of genius, and enters the presence of the master not as a servant but as a son. The general style of his tragic or romantic verse is as simple and severe in its purity of note and regularity of outline as that of Fletcher's is by comparison lax, effusive, exuberant. The matchless fluency and rapidity with which the elder brother pours forth the stream of his smooth swift verse gave probably the first occasion for that foolish rumour which has not yet fallen duly silent, but still murmurs here and there its suggestion that the main office of Beaumont was to correct and contain within bounds the overflowing invention of his colleague. The poet who while yet a youth had earned by his unaided mastery of hand such a crown as was bestowed by the noble love and the loving "envy" of Ben Jonson was, according to this tradition, a mere precocious pedagogue, fit only to revise and restrain the too liberal effusions of his elder in genius as in years. Now, in every one of the plays common to both, the real difficulty for a critic is not to trace the hand of Beaumont, but to detect the touch of Fletcher. Throughout the better part of every such play, and above all of their two masterpieces, *Philaster* and *The Maid's Tragedy*, it should be clear to the most sluggish or cursory of readers that he has not to do with the author of *Valentinian* and *The Double Marriage*. In those admirable tragedies the style is looser, more fluid, more feminine. From the first scene to the last we are swept as it were along the race of a running river, always at full flow of light and buoyant melody, with no dark reaches or perilous eddies, no stagnant pools or sterile sandbanks; its bright course only varied by sudden rapids or a stronger ripple here and there, but in rough places or smooth still stirred and sparkling with summer wind and sun. But in those tragic poems of which the dominant note is the note of Beaumont's genius a subtler chord of thought is sounded, a deeper key of emotion is touched, than ever was struck by Fletcher. The lighter genius is palpably

subordinate to the stronger, and loyally submits itself to the impression of a loftier spirit. It is true that this distinction is never grave enough to produce a discord: it is also true that the plays in which the predominance of Beaumont's mind and style is generally perceptible make up altogether but a small section of the work that bears their names conjointly; but it is no less true that within this section the most precious part of that work is comprised. Outside it we shall find no figures so firmly drawn, no such clearness of outline, no such cunning of hands as we recognize in the three great studies of Bellario, Evadne and Aspatia. In his male characters, as for instance in the parts of Philaster and Arbaces, Beaumont also is apt to show something of that exaggeration or inconsistency for which his colleague is perhaps more frequently and more heavily to blame; but in these there is not a jarring note, not a touch misplaced; unless, indeed, a rigid criticism may condemn as unfeminine and incongruous with the gentle beauty of her pathetic patience the device by which Aspatia procures herself the death desired at the hand of Amintor. This is noted as a fault by Dyce; but may well be forgiven for the sake of the magnificent scene which follows, and the highest tragic effect ever attained on the stage of either poet. That this as well as the greater part of those other scenes which are the glory of the poem is due to Beaumont might readily be shown at length by the process of comparison. The noble scene of regicide, which it was found expedient to cancel during the earlier years of the Restoration, may indeed be the work of Fletcher; but the part of Evadne must undoubtedly be in the main assigned to the more potent hand of his fellow. There is a fine harmony of character between her naked audacity in the second act and her fierce repentance in the fourth, which is not unworthy a disciple of the tragic school of Shakespeare; Fletcher is less observant of the due balance, less heedful of the nice proportions of good and evil in a faulty and fiery nature, compounded of perverse instinct and passionate reaction. From him we might have had a figure as admirable for vigour of handling, but hardly in such perfect keeping as this of Beaumont's Evadne, the murderess-Magdalen, whose penitence is of one crimson colour with her sin. Nor even in Fletcher's Ordella, worthy as the part is throughout even of the precious and exquisite praise of Lamb, is there any such cunning touch of tenderness or delicate perfume of pathos as in the parts of Bellario and Aspatia. These have in them a bitter sweetness, a subtle pungency of mortal sorrow and tears of divine delight, beyond the reach of Fletcher. His highest studies of female character have dignity, energy, devotion of the heroic type; but they never touch us to the quick, never waken in us any finer and more profound sense than that of applause and admiration. There is a modest pathos now and then in his pictures of feminine submission and slighted or outraged love; but this submission he is apt to make too servile, this love too dog-like in its abject devotion to retain that tender reverence which so many generations of readers have paid to the sweet memories of Aspatia and Bellario. To excite compassion was enough for Fletcher as in the masculine parts of his work it was enough for him to excite wonder, to sustain curiosity, to goad and stimulate by any vivid and violent means the interest of readers or spectators. The single instance of noble pathos, the one scene he has left us which appeals to the higher and purer kind of pity, is the death of the child Hengo in *Bonduca*—a scene which of itself would have sufficed to enrol his name for ever on the list of our great tragic poets. To him we may probably assign the whole merit of that fiery and high-toned tragedy, with all its spirit and splendour of national and martial passion; the conscious and demonstrative exchange of courtesy between Roman and Briton, which is one of the leading notes of the poem, has in it a touch of overstrained and artificial chivalry characteristic of Fletcher; yet the parts of Caratach and Poenius may be counted among the loftiest and most equal of his creations. But no surer test or better example can be taken of the distinctive quality which denotes the graver genius of either poet than that supplied by a comparison of Beaumont's *Triumph of Love* with Fletcher's *Triumph of Death*. Each little play, in the brief course of its single act, gives proof of the peculiar touch and special trick of its author's hand: the deeper and more delicate passion of Beaumont, the rapid and ardent activity of Fletcher, have nowhere found a more noticeable vent for the expression respectively of the most tender and profound simplicity of quiet sweetness, the most buoyant and impatient energy of tragic emotion.

In the wider field of their comic or romantic drama it is yet easier to distinguish the respective work of either hand. The bias of Fletcher was towards mixed comedy; his lightest and wildest humour is usually crossed or tempered by an infusion of romance; like Shakespeare in this one point at least, he has left no single play without some touch on it of serious interest, of poetic eloquence or fancy, however slight and fugitive. Beaumont, evidently under the imperious influence of Ben Jonson's more rigid theories, seems rather to have bent his genius with the whole force of a resolute will into the form or mould prescribed for comedy by the elder and greater comic poet. The admirable study of the worthy citizen and his wife, who introduce to the stage and escort with their applause *The Knight of the Burning Pestle* through his adventurous career to its untimely end, has all the

force and fulness of Jonson's humour at its best, with more of freshness and freedom. In pure comedy, varied with broad farce and mock-heroic parody, Beaumont was the earliest as well as the ablest disciple of the master whose mantle was afterwards to be shared among the academic poets of a younger generation, the Randolphs and Cartwrights who sought shelter under the shadow of its voluminous folds. The best example of the school of Jonson to be found outside the ample range of his own work is *The Scornful Lady*, a comedy whose exceptional success and prolonged popularity must have been due rather to the broad effect of its forcible situations, its wealth and variety of ludicrous incidents, and the strong gross humour of its dialogue, than to any finer quality of style, invention or character. It is the only work of Beaumont and Fletcher which a critic who weighs the meaning of his words can admit to be as coarse as the coarsest work of Ben Jonson. They are prone, indeed, to indulge elsewhere in a wanton and exuberant licence of talk; and Fletcher, at least, is liable to confuse the shades of right and wrong, to deface or efface the boundary lines of good and evil, to stain the ermine of virtue and palliate the nakedness of vice with the same indecorous and incongruous laxity of handling. Often in mere haste to despatch the business of a play, to huddle up a catastrophe or throw out some particular scene into sharp and immediate relief, he will sacrifice all seemliness and consistency of character to the present aim of stage effect, and the instant impression of strong incident or audacious eloquence. His heroines are too apt to utter sentiments worthy of Diana in language unworthy of Doll Tearsheet. But in this play both style and sentiment are throughout on a lower level, the action and emotion are of a baser kind than usual; the precept of Aristotle and the practice of Jonson have been so carefully observed and exaggerated that it might almost be said to offer us in one or two places an imitation not merely of the sorrier but of the sorriest qualities of human nature; and full as it is of spontaneous power and humorous invention, the comedy extolled by the moral Steele (with just so much of reservation as permits him to deprecate the ridicule cast upon the clerical character) is certainly more offensive to artistic law and aesthetic judgment by the general and ingrained coarseness of its tone, than the tragi-comedy denounced by the immoral Dryden as exceeding in licence his own worst work and that of his fellow playwrights; an imputation, be it said in passing, as groundless as the protest pleaded on their behalf is impudent; for though we may hardly agree with the uncompromising panegyrist who commends that play in particular to the approval of "the austere scarlet" (remembering, perhaps, that Aristophanes was the chosen bedfellow of Chrysostom), there is at least no such offence against art or taste in the eccentricity of its situations or the daring of its dialogue. The buoyant and facile grace of Fletcher's style carries him lightly across quagmires in which a heavier-footed poet, or one of slower tread, would have stuck fast, and come forth bemired to the knees. To Beaumont his stars had given as birthright the gifts of tragic pathos and passion, of tender power and broad strong humour; to Fletcher had been allotted a more fiery and fruitful force of invention, a more aerial ease and swiftness of action, a more various readiness and fulness of bright exuberant speech. The genius of Beaumont was deeper, sweeter, nobler than his elder's; the genius of Fletcher more brilliant, more supple, more prodigal, and more voluble than his friend's. Without a taint or a shadow on his fame of such imitative servility as marks and degrades the mere henchman or satellite of a stronger poet, Beaumont may fairly be said to hold of Shakespeare in his tragedy, in his comedy of Jonson; in each case rather as a kinsman than as a client, as an ally than as a follower: but the more special province of Fletcher was a land of his own discovering, where no later colonist has ever had power to settle or to share his reign. With the mixed or romantic comedy of Shakespeare it has nothing in common except the admixture or alternation of graver with lighter interest, of serious with humorous action. Nothing is here of his magic exaltation or charm of fairy empire. The rare and rash adventures of Fletcher on that forbidden track are too sure to end in pitiful and shameful failure. His crown of praise is to have created a wholly new and wholly delightful form of mixed comedy or dramatic romance, dealing merely with the humours and sentiments of men, their passions and their chances; to have woven of all these a web of emotion and event with such gay dexterity, to have blended his colours and combined his effects with such exquisite facility and swift light sureness of touch, that we may return once and again from those heights and depths of poetry to which access was forbidden him, ready as ever to enjoy as of old the fresh incomparable charm, the force and ease and grace of life, which fill and animate the radiant world of his romantic invention. Neither before him nor after do we find, in this his special field of fancy and of work, more than shadows or echoes of his coming or departing genius. Admirable as are his tragedies already mentioned, rich in splendid eloquence and strong in large grasp of character as is the Roman history of *The False One*, full of interest and vigour as is the better part of *Rollo Duke of Normandy*, and sublime in the loveliness of passion as is the one scene of perfect beauty and terror which crowns this latter tragedy, Fletcher may claim a yet higher and more special station among

his great dramatic peers by right of his comic and romantic than by right of his tragic and historic plays. Even in these he is more a romantic than a tragic poet. The quality of his genius, never sombre or subtle or profound, bears him always towards fresh air and sunshine. His natural work is in a midday world of fearless boyish laughter and hardly bitter tears. There is always more of rainbow than of storm in his skies; their darkest shadow is but a tragic twilight. What with him is the noon of night would seem as sunshine on the stage of Ford or Webster. There is but one passage in all these noble plays which lifts us beyond a sense of the stage, which raises our admiration out of speech into silence, tempers and transfigures our emotion with a touch of awe. And this we owe to the genius of Beaumont, exalted for an instant to the very tone and manner of Shakespeare's tragedy, when Amintor stands between the dead and the dying woman whom he has unwittingly slain with hand and tongue. The first few lines that drop from his stricken lips are probably the only verses of Beaumont or Fletcher which might pass for Shakespeare's even with a good judge of style—

"This earth of mine doth tremble," &c.

But in Fletcher's tragedy, however we may be thrilled and kindled with high contagious excitement, we are never awed into dumb delight or dread, never pierced with any sense of terror or pity too deep or even deep enough for tears. Even his Brunhalts and Martias can hardly persuade us to forget for the moment that "they do but jest, poison in jest." A critic bitten with the love of classification might divide those plays of Fletcher usually ranked together as comedies into three kinds: the first he would class under the head of pure comedy, the next of heroic or romantic drama, the third of mixed comedy and romance; in this, the last and most delightful division of the poet's work the special qualities of the two former kinds being equally blended and delicately harmonized. The most perfect and triumphant examples of this class are *The Spanish Curate, Monsieur Thomas, The Custom of the Country*, and *The Elder Brother*. Next to these and not too far below them, we may put *The Little French Lawyer* (a play which in its broad conception of a single eccentric humour suggests the collaboration of Beaumont and the influence of Jonson, but in style and execution throughout is perfect Fletcher), *The Humorous Lieutenant* (on which an almost identical verdict might be passed), *Women Pleased, Beggars' Bush*, and perhaps we might add *The Fair Maid of the Inn*; in most if not in all of which the balance of exultant and living humour with serious poetic interest of a noble and various kind is held with even hand and the skill of a natural master. In pure comedy *Rule a Wife and have a Wife* is the acknowledged and consummate masterpiece of Fletcher. Next to it we might class, for comic spirit and force of character, *Wit without Money, The Wildgoose Chase, The Chances*, and *The Noble Gentleman*, a broad poetic farce to whose overflowing fun and masterdom of extravagance no critic has ever done justice but Leigh Hunt, who has ventured, not without reason, to match its joyous and preposterous audacities of superlative and sovereign foolery with the more sharp-edged satire and practical merriment of *King and No King*, where the keen prosaic humour of Bessus and his swordsmen is as typical of the comic style in which Beaumont had been trained up under Ben Jonson as the high interest and graduated action of the serious part of the play are characteristic of his more earnest genius. Among the purely romantic plays of Fletcher, or those in which the comic effect is throughout subordinate to the romantic, *The Knight of Malta* seems most worthy of the highest place for the noble beauty and exaltation of spirit which informs it with a lofty life, for its chivalrous union of heroic passion and Catholic devotion. This poem is the fairest and the first example of those sweet fantastic paintings in rose-colour and azure of visionary chivalry and ideal holiness, by dint of which the romance of more recent days has sought to cast the glamour of a mirage over the darkest and deadliest "ages of faith." The pure and fervent eloquence of the style is in perfect keeping with the high romantic interest of character and story. In the same class we may rank among the best samples of Fletcher's workmanship *The Pilgrim, The Loyal Subject, A Wife for a Month, Love's Pilgrimage*, and *The Lover's Progress*,—rich all of them in exquisite writing, in varied incident, in brilliant effects and graceful and passionate interludes. In *The Coxcomb*, and *The Honest Man's Fortune*—two plays which, on the whole, can hardly be counted among the best of their class—there are tones of homelier emotion, touches of a simpler and more pathetic interest than usual; and here, as in the two admirable first scenes between Leucippus and Bacha, which relieve and redeem from contempt the tragic burlesque of *Cupid's Revenge*, the note of Beaumont's manner is at once discernible.

Even the most rapid revision of the work done by these great twin poets must impress every capable student with a sense of the homage due to this living witness of their large and liberal genius. The loss of their names from the roll of English poetry would be only less than the loss of the few greatest inscribed on it. Nothing could supply the want of their

tragic, their comic or romantic drama; no larger or more fiery planet can ever arise to supplant or to eclipse the twin lights of our zodiac. Whatever their faults of shortcoming or excess, there is in their very names or the mere thought of their common work a kind of special and personal attraction for all true lovers of high dramatic poetry. There is the glory and grace of youth in all they have left us; if there be also somewhat too much of its graceless as well as its gracious qualities, yet there hangs about their memory as it were a music of the morning, a breath and savour of bright early manhood, a joyous and vigorous air of free life and fruitful labour, which might charm asleep for ever all thought or blame of all mortal infirmity or folly, or any stain of earth that may have soiled in passing the feet of creatures half human and half divine while yet they dwelt among men. For good or for evil, they are above all things poets of youth; we cannot conceive of them grown grey in the dignity of years, venerable with the authority of long life, and weighted with the wisdom of experience. In the Olympian circle of the gods and giants of our race who on earth were their contemporaries and corrivals, they seem to move among the graver presences and figures of sedater fame like the two spoilt boys of heaven, lightest of foot and heart and head of all the brood of deity. Shakespeare may have smiled as Jonson may have nodded approval of their bright swift work, neither of these great elders grudging his praise to the special charm which won for it a preference during one generation at least even over their own loftier and weightier verse; and indeed the advance in natural ease, in truth and grace of dialogue, is alike manifest whether we turn to such of their comic characters as Valentine and Don John, Rutilio and Monsieur Thomas, from the Truewit of Jonson or even from the Mercutio of Shakespeare; the one too stiff with classic starch, the other too full of mere verbal catches and forced conceits, to persuade us that either can in any age have fairly represented the light free talk and facile humour of its youth. In another field than this Beaumont and Fletcher hold as high and secure a station of their own as any poet of their race. In perfect workmanship of lyrical jewellery, in perfect bloom and flower of song-writing, they equal all compeers whom they do not excel; the blossoms of their growth in this kind may be matched for colour and fragrance against Shakespeare’s, and for morning freshness and natural purity of form exceed the finest grafts of Jonson. *The Faithful Shepherdess* alone might speak for Fletcher on this score, being as it is simply a lyric poem in semi-dramatic shape, to be judged only as such, and as such almost faultless; but in no wise to be classed for praise or blame among the acting plays of its author, whose one serious error in the matter was the submission of his Dryad to the critical verdict of an audience too probably in great part composed of clowns and satyrs far unlike the loving and sweet-tongued sylvan of his lovely fancy. And whether we assign to him or to Beaumont the divine song of melancholy (*moestius lacrymis Simonideis*), perfect in form as Catullus and profound in sentiment as Shelley, which Milton himself could but echo and expand, could not heighten or deepen its exquisite intensity of thought and word alike, there will remain witness enough for the younger brother of a lyric power as pure and rare as his elder’s.

The excess of influence and popularity over that of other poets usually ascribed to the work of Beaumont and Fletcher for some half century or so after their own time has perhaps been somewhat overstated by tradition. Whatever may have been for a season the fashion of the stage, it is certain that Shakespeare can show two editions for one against them in folio; four in all from 1623 to 1685, while they have but their two of 1647 and 1679. Nor does one see how it can accurately or even plausibly be said that they were in any exact sense the founders of a school either in comedy or in tragedy. Massinger, for some years their survivor, and in some points akin to them as a workman, cannot properly be counted as their disciple; and no leading poet of the time had so much in common with them as he. At first sight, indeed, his choice of romantic subject and treatment of foreign stories, gathered from the fertile tale-tellers of the south, and ranging in date from Boccaccio to Cervantes, may seem to mark him out as a member of the same school; but the deepest and most distinctive qualities of his genius set it far apart from theirs; though undoubtedly not so far that any discrepancy or discord should impair the excellence or injure the keeping of works in which he took part with Fletcher. Yet, placed beside theirs, the tone of his thought and speech seems by comparison severe as well as sober, and sad as well as severe. Their extravagant and boyish insanity of prostrate royalism is not more alien from his half pensive and half angry undertone of political protest than his usually careful and complete structure of story from their frequently lax and slovenly incoherence of character or plot, than his well composed and proportioned metre from their lighter and looser melodies, than the bitter insistence and elaborate acrimony of his judicial satire on hypocrisy or oppression from the gaiety or facility of mood which suffers them in the shifting of a scene to redeem their worst characters by some juggler’s trick of conversion at the last moment allowed them to wind up a play with universal reconciliation and an act of oblivion on all hands. They could hardly have drawn with such steady skill and explicit finish an Overreach or a Luke; but the

strenuous and able work of Massinger at its highest point of success has no breath in it of their brighter and more immediate inspiration. Shirley, on the other hand, may certainly be classed as a pupil who copied their style in water-colour; his best tragedy and his best comedy, *The Traitor* and *The Lady of Pleasure*, might pass muster undetected among the plays of Fletcher, and might fairly claim to take rank above the lowest class of these. In the finest work of Middleton we recognize an almost exact reproduction of Fletcher's metrical effects,—a reverberation of that flowing music, a reiteration of those feminine final notes. In his later tragi-comedies, throughout his masterpiece of *Women beware Women*, and in the noble scenes which make up the tragic or serious parts of *The Changeling* or *The Spanish Gipsy*,—wherever, in a word, we find the admirable but unequal genius of this poet at its best—we find a likeness wholly wanting in his earlier and ruder work, which undoubtedly suggests the influence of Fletcher. Other instances of imitation, other examples of discipleship, might perhaps be found among lesser men of the next generation; but the mass of succeeding playwrights began in a very short time to lower the style and debase the scheme of dramatic poetry; and especially to loosen the last ties of harmony, to deface the very form and feature of tragic verse. In Shirley, the last and least of those in whom the lineal blood of the old masters was yet discernible, we find side by side with the fine ancestral indications of legitimate descent exactly such marks of decadence rather than degeneracy as we might have anticipated in the latest heir of a long line which began with the rise of Marlowe, "sun of the morning," in the highest heaven of our song, to prepare a pathway for the sun. After Shakespeare there was yet room for Beaumont and Fletcher; but after these and the other constellations had set, whose lights filled up the measure of that diviner zodiac through which he moved, there was but room in heaven for the pallid moonrise of Shirley; and before this last reflex from a sunken sun was itself eclipsed, the glory had passed away from English drama, to alight upon that summit of epic song, whence Milton held communion with darkness and the stars.

(A. C. S.)

Bibliographical Appendix

The chief collected editions of the plays of Beaumont and Fletcher are: *Comedies and Tragedies written by Francis Beaumont and John Fletcher Gentlemen*, printed by Humphrey Moseley in folio in 1647 as containing plays "never printed before"; *Fifty Comedies and Tragedies written, &c.* (fol. 1679); *Works ...* (11 vols. 1843-1846), edited by Alexander Dyce, which superseded earlier editions by L. Theobald, G. Colman and H. Weber, and presented a modernized text; a second two-volume edition by Dyce in 1852; *The Works of Francis Beaumont and John Fletcher* (15 vols. 1905, &c.) edited by Arnold Glover and A.R. Waller in the "Cambridge English Classics" from the text of the 2nd folio, and giving variant readings from all separate issues of the plays previous to that edition; and *Works ...* (12 vols. 1904, &c.), under the general editorship of A.H. Bullen, the text of which is founded on Dyce but with many variant readings, the last volume containing memoirs and excursuses by the editor.

The foundation of all critical work on Beaumont and Fletcher is to be found in Dyce. Discrimination between the work of the two dramatists and their collaborators has been the object of a series of studies for the establishment of metrical and other tests. Fletcher's verse is recognizable by the frequency of an extra syllable, often an accented one, at the end of a line, the use of stopped lines, and the frequency of trisyllabic feet. He thus obtained an adaptable instrument enabling him to dispense with prose even in comic scenes. The pioneer work in these matters was done by F.G. Fleay in a paper read before the New Shakspere Society in 1874 on "Metrical Tests as applied to Fletcher, Beaumont and Massinger." His theories were further developed in the article "Fletcher" in his *Biog. Chron. of the Eng. Drama*. Further investigations were published by R. Boyle in *Englische Studien* (vols. v.-x., Heilbronn, 1882-1887), and in the New Shakspere Society *Transactions* (1880-1886), by Benno Leonhardt in *Anglia* (Halle, vols. xix. *seq.*), and by E.H. Oliphant in *Englische Studien* (vols. xiv. *seq.*). Mr Oliphant restores to Beaumont much which other critics had been inclined to deny him. On the sources of the plays see E. Köppel in *Münchener Beiträge zur roman. u. eng. Phil.* (Erlangen and Leipzig, 1895). Consult further articles by A.H. Bullen and R. Boyle respectively on Fletcher and Massinger in the *Dict. of Nat. Biog.*; G.C. Macaulay, *Francis Beaumont, a Critical Study* (1883); and Dr A.W. Ward's chapter on "Beaumont and Fletcher" in vol. ii. of his *Hist. of Eng. Dram. Lit.* (new ed. 1899).

A list of the plays attributed to Beaumont and Fletcher, with some details, is added, with the premiss that beyond the main lines of criticism laid down in Mr Swinburne's article above it is often difficult to dogmatize on authorship. Even in cases where the play was

produced long after Beaumont had ceased to write for the stage there can be no certainty that we are not dealing with a piece which is an adaptation of an earlier play by a later hand.

The Joint Works of Beaumont and Fletcher.—*The Scornful Lady* (acted *c.* 1609, pr. 1616) is a farcical comedy of domestic life, in which Oliphant finds traces of alteration by a third and perhaps a fourth hand. *Philaster or Love Lies a-Bleeding* is assigned by Macaulay to Beaumont practically in its entirety, while Fleay attributes only three scenes to Fletcher. It was probably acted c. 1609, and was printed 1620; it was revised (1695) by Elkanah Settle and (1763) by the younger Colman, probably owing its long popularity to the touching character of Bellario. Beaumont's share also predominated in *The Maid's Tragedy* (acted *c.* 1609, pr. 1619), in *A King and No King* (acted at court December 26, 1611, and perhaps earlier, pr. 1619), while *The Knight of the Burning Pestle* (*c.* 1610, pr. 1613), burlesquing the heroic and romantic play of which Heywood's *Four Prentices* is an example, might perhaps be transferred entire to Beaumont's account. In *Cupid's Revenge* (acted at court January 1612, and perhaps at Whitefriars in 1610, pr. 1615), founded on Sidney's *Arcadia*, the two dramatists appear to have had a third collaborator in Massinger and perhaps a fourth in Nathaniel Field.

The *Coxcomb* (acted *c.* 1610, and by the Children of the Queen's Revels in 1612, pr. 1647) seems to have undergone later revision by Massinger. Fletcher's collaboration with other dramatists had begun during his connexion with Beaumont, who apparently ceased to write for the stage two or three years before his death.

Works Assigned to Beaumont's Sole Authorship.—*The Woman Hater* (pr. 1607, as "lately acted by the children of Paul's") was assigned formerly to Fletcher. The *Masque of the Inner Temple and Gray's Inn* was presented at Whitehall on the 26th of February 1612, on the marriage of the Prince and Princess Palatine. Of *Four Plays, or Moral Representations, in One* (acted 1608, pr. 1647), the *Induction*, with *The Triumph of Honour* and *The Triumph of Love*, both founded on tales from the *Decameron*, are by Beaumont.

Works Assigned to Fletcher's Sole Authorship.—*The Faithful Shepherdess* (pr. *c.* 1609) was ill received on its original production, but was revived in 1634. That Fletcher was the sole author is practically unquestioned, though Ben Jonson in Drummond's *Conversations* is made to assert that "Beaumont and Fletcher ten years since hath written *The Faithful Shepherdess*." It was translated into Latin verse by Sir R. Fanshawe in 1658, and Milton's *Comus* owes not a little to it. In *Four Plays in One*, the two last, *The Triumph of Death* and *The Triumph of Time*, are Fletcher's. In the indifferent comedy of *The Captain* (acted 1612-1613, revived 1626, pr. 1647) there is no definite evidence of any other hand than Fletcher's, though the collaboration of Beaumont, Massinger and Rowley has been advanced. Other Fletcher plays are: *Wit Without Money* (acted 1614, pr. 1639); the two romantic tragedies of *Bonduca* (in which Caradach or Caractacus is the chief figure rather than Bonduca or Boadicea) and *Valentinian*, both dating from *c.* 1616 and printed in the first folio; *The Loyal Subject* (acted 1618, revived at court 1633, pr. 1647); *The Mad Lover* (acted before March 1619, pr. 1647), which borrows something from the story of Mundus and Paulina in Josephus (bk. xviii.); *The Humorous Lieutenant* (1619, pr. 1647); *Woman Pleased* (*c.* 1620, pr. 1647); *The Woman's Prize or The Tamer Tam'd* (produced probably between 1610 and 1613, acted 1633 at Blackfriars and at court, pr. 1647), a kind of sequel to *The Taming of the Shrew*; *The Chances* (uncertain date, pr. 1647), taken from *La Sennora Cornelia* of Cervantes, and repeatedly revived after the Restoration and in the 18th century; *Monsieur Thomas* (acted perhaps as early as 1609, pr. 1639); *The Island Princess* (*c.* 1621, pr. 1647); *The Pilgrim* and *The Wild Goose-Chase* (pr. 1652), the second of which was adapted in prose by Farquhar, both acted at court in 1621, and possibly then not new pieces; *A Wife for a Month* (acted 1624, pr. 1647); *Rule a Wife and Have a Wife* (lic. 1624, pr. 1640). *The Pilgrim* received additions from Dryden, and was adapted by Vanbrugh.

Fletcher in Collaboration with other Dramatists.—External evidence of Fletcher's connexion with Massinger is given by Sir Aston Cokaine, who in an epitaph on Fletcher and Massinger wrote: "Playes they did write together, were great friends," and elsewhere claimed for Massinger a share in the plays printed in the 1647 folio. James Shirley and William Rowley have their part in the works that used to be included in the Beaumont and Fletcher canon; and to a letter from Field, Daborne and Massinger, asking for £5 for their joint necessities from Henslowe about the end of 1615, there is a postscript suggesting the deduction of the sum from the "mony remaynes for the play of Mr Fletcher and ours." The problem is complicated when the existing versions of the play are posterior to Fletcher's lifetime, that is, revisions by Massinger or another of pieces which were even originally of double authorship. In this way Beaumont's work may be concealed under successive revisions, and it would be rash to assert that none of the late plays contains anything of his. Mr R. Boyle joins the name of Cyril Tourneur to those of Fletcher and Massinger in connexion with *The Honest Man's Fortune* (acted 1613, pr. 1647), which Fleay identifies with "the play of Mr Fletcher's and ours." *The Knight of Malta* (acted 1618-1619, pr. 1647) is

in its existing form a revision by Fletcher, Massinger, and possibly Field, of an earlier play which Oliphant thinks was probably written by Beaumont about 1608. The same remarks (with the exclusion of Field's name) apply to *Thierry and Theodoret* (acted *c.* 1617, pr. 1621), perhaps a satire on contemporary manners at the French court, though Beaumont's share in either must be regarded as problematical. Fletcher and Massinger's great tragedy of *Sir John van Olden Barnaveldt* (acted 1619) was first printed in Bullen's *Old Plays* (vol. ii., 1883). They followed it up with *The Custom of the Country* (acted 1619, pr. 1647), based on an English translation (1619) of *Los Trabajos de Persiles y Sigismunda; The Double Marriage* (*c.* 1620, pr. 1647); *The Little French Lawyer* (*c.* 1620, pr. 1647), the plot of which can be traced indirectly to a *novellino* by Massuccio Salernitano; *The Laws of Candy* (*c.* 1618, pr. 1647), of disputed authorship; *The False One* (*c.* 1620, pr. 1647), dealing with the subject of Caesar and Cleopatra; *The Spanish Curate* (acted 1622, pr. 1647), repeatedly revived after the Restoration, was derived from Leonard Digges's translation (1622) of a Spanish novel, *Gerardo, the Unfortunate Spaniard; The Prophetess* (1622, pr. 1647), afterwards made into an opera by Betterton to Purcell's music; *The Sea-Voyage* (1622, pr. 1647); *The Elder Brother* (perhaps originally written by Fletcher *c.* 1614; revised and acted 1635, pr. 1647); *Beggar's Bush* (acted at court 1622, probably then not new, pr. 1647); and *The Noble Gentleman* (1625-1626, pr. 1647). Fletcher only had a small share in *Wit at Several Weapons* —"if he but writ an act or two," says an epilogue on its revival (1623 or 1626),—and the play is probably a revision by Rowley and Middleton of an early Beaumont and Fletcher play. *A Very Woman* (1634, pr. 1655) is a revision by Massinger of *The Woman's Plot* ascribed to Fletcher and acted at court in 1621. Field worked with Fletcher and Massinger on the lost play of the *Jeweller of Amsterdam* (1619), as on the *Faithful Friends* (1613-1614) and *The Queen of Corinth* (*c.* 1618, pr. 1647). *The Lover's Progress* (acted 1634, pr. 1647) is probably a revision by Massinger of the Fletcher play licensed in 1623 as *The Wandering Lovers*, and is perhaps identical with *Cleander*, licensed in 1634. *Love's Cure or The Martial Maid* (1623 or 1625) is thought by Mr Fleay to be a revision by Massinger of a Beaumont and Fletcher play produced as early as 1607-1608. W. Rowley joined Fletcher in *The Maid in the Mill* (1623, pr. 1647), and had a share with Massinger in the revision of *The Fair Maid of the Inn* (licensed 1626, pr. 1647), based on *La illustre Fregona* of Cervantes. *Nice Valour* (acted 1625-1626, pr. 1647) seems to have been altered by Middleton from an earlier play; *The Widow*, printed in 1652 as by Jonson, Fletcher and Middleton, must be ascribed almost exclusively to Middleton. *The Night Walker* (1633) is a revision by Shirley of a Fletcher play.

Fletcher and Jonson in Collaboration.—The history of *The Bloody Brother or Rollo, Duke of Normandy*, printed in 1637 as by "B.J.F.," is matter of varied speculation. Mr Oliphant thinks the basis of the play to be an early work (*c.* 1604) of Beaumont, on which is superimposed a revision (1616) by Fletcher, Jonson and Middleton, and a subsequent revision (1636-1637) by Massinger. The general view is that the main portion of the play is referable to Jonson and Fletcher. Jonson apparently had a share in Fletcher's *Love's Pilgrimage* (pr. 1647), which seems to have been revised by Massinger in 1635.

Fletcher and Shakespeare.—*The Two Noble Kinsmen* was printed in 1634 as by Mr John Fletcher and Mr William Shakespeare. If its first representation was in 1625 it was in the year of Fletcher's death. It was included in the second folio of Beaumont and Fletcher's comedies and tragedies. If Shakespeare and Fletcher worked in concert it was probably in 1612-1613, and the existing play probably represents a revision by Massinger in 1625. *Henry VIII.* (played at the Globe in 1613) is usually ascribed mainly to Fletcher and Massinger, and the conditions of its production were probably similar. Fletcher and Shakespeare are together credited at Stationers' Hall with the lost play of *Cardenio*, destroyed by Warburton's cook.

(M. Br.)

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1 Recent research has resulted in some variation of opinion as to the precise authorship of some of the plays commonly attributed to them; but this article, contributed to the ninth edition of the *Encyclopaedia Britannica*, remains the classical modern criticism of Beaumont and Fletcher, and its value is substantially unaffected. As representing to the end the views of its distinguished author, it is therefore retained as written, the results of later research being epitomized in the Bibliographical Appendix at the end. (*Ed.*)

BEAUMONT, a city and the county-seat of Jefferson county, Texas, U.S.A., situated on the Neches river, in the E. part of the state, about 28 m. from the Gulf of Mexico and 72 m. N.E. of Galveston. Pop. (1890) 3296; (1900) 9427, of whom 2953 were negroes; (1910, census)

20,640. It is served by the Gulf & Interstate, the Gulf, Colorado & Santa Fé, the Kansas City Southern, the Texas & New Orleans, the Colorado Southern, New Orleans & Pacific, the Beaumont, Sour Lake & Western (from Beaumont to Sour Lake, Tex.), and the (short) Galveston, Beaumont & North-Eastern railways. The Neches river from Beaumont to its mouth has a depth of not less than 19 ft.; from its mouth extends a canal (9 ft. deep, 100 ft. wide, and 12 m. long) which connects with the Port Arthur Canal (180 ft. wide and 25 ft. deep) extending to the sea. Situated in the midst of a region covered with dense forests of pine and cypress, Beaumont is one of the largest lumber centres of the southern states; it is also the centre of a large rice-growing region. The manufactories include rice mills, saw mills, sash, door and blind factories, shingle mills, iron works, oil refineries, broom factories and a dynamite factory. In 1905 the cleaning and polishing of rice was the most important industry, its output being valued at $1,203,123, being nearly twice the value of the product of the rice mills of the city in 1900, 25.9% of the total value of the state's product of polished and cleaned rice, 46.1% of the value ($2,609,829) of all of Beaumont's factory products, and about 7.4% of the value of the product of polished and cleaned rice for the whole United States in 1905. After the sinking of oil wells in 1901, Beaumont became one of the principal oil-producing places in the United States; its oil refineries are connected by pipe lines with the surrounding oil fields, and two 6-in. pipe lines extend from Beaumont to Oklahoma. Beaumont was first settled in 1828, and was first chartered as a city in 1899.

BEAUNE, a town of eastern France, capital of an arrondissement in the department of Côte-d'Or, on the Bouzoise, 23 m. S.S.W. of Dijon on the main line of the Paris-Lyon railway. Pop. (1906) 11,668. Beaune lies at the foot of the hills of Côte-d'Or. Portions of its ancient fortifications are still to be seen, but they have been for the most part replaced by a shady promenade which separates the town from its suburbs. The most interesting feature of Beaune is the old hospital of St Esprit, founded in 1443 by Nicolas Rolin, chancellor of Burgundy. Though it is built largely of wood, the fabric is in good preservation. The exterior is simple, but the buildings which surround the main courtyard have high-pitched roofs surmounted by numerous dormer windows with decorated gables, recalling the Flemish style of architecture. In the interior there are several interesting apartments; the chief of these is the ample council chamber with its fine tapestries, where an important wine sale is held annually. The hospital possesses many artistic treasures, among them the mural paintings of the 17th century in the Salle St Hugues and an altar-piece, the Last Judgment, attributed to Roger van der Weyden. The principal church of the town, Notre-Dame, dating mainly from the 12th and 13th centuries, has a fine central tower and a triple portal with handsome wooden doors. In the interior there is some valuable tapestry of the 15th century, and other works of art. Two round towers (15th century) are a survival of the castle of Beaune, dismantled by Henry IV. A belfry of 1403 and several houses of the Renaissance period, some of which are built over ancient wine-cellars, are architecturally notable. There is a statue to the mathematician, G. Monge, born in the town (1746), and a monument to Pierre Joigneaux the politician (d. 1892). Beaune has tribunals of first instance and of commerce, a chamber of commerce, a school of agriculture and viticulture and colleges for girls and boys. It carries on considerable trade in live-stock and cereals and in the vegetables of its market-gardens, and manufactures of casks, corks, white metal, oil, vinegar and machinery for the wine-trade are included among the industries; it is chiefly important for its vineyards and as the centre of the wine-trade of Burgundy.

Beaune was a fortified Roman camp and a stronghold during the middle ages. It was the capital of a separate county which in 1227 was united to the duchy of Burgundy; it then became the first seat of the Burgundian parlement or *jours généraux* and a ducal residence. On the death of Charles the Bold, it sided with his daughter, Mary of Burgundy, but was besieged and taken by the forces of Louis XI. in 1478. Its rank as commune, conceded to it in 1203, was confirmed by Francis I. in 1521. In the Wars of Religion it at first sided with the League, but afterwards opened its gates to the troops of Henry IV., from whom it received the confirmation of its communal privileges and permission to demolish its fortifications. The revocation of the edict of Nantes struck a severe blow at the cloth and iron industries, which had previously been a source of prosperity to the town. In the 18th century there were no fewer than seven monastic buildings in Beaune, besides a Bernardine abbey, a Carthusian convent and an ecclesiastical college.

BEAUREGARD, MARQUIS DE (*c.* 1772-?), French adventurer, the son of a poor vinegrower named Leuthraud, was born about 1772. He received the name Beauregard from a nobleman in whose service he was engaged as valet. On the outbreak of the revolution, this nobleman converted all his fortune into gold, and entrusting the bag containing the cash to his valet, fled to the frontier. For security's sake master and man took different roads, but Beauregard turned back with the money to Paris. By speculations in provisions and military equipments under the Directorate he amassed a considerable fortune, and styling himself the marquis de Beauregard, purchased a splendid mansion and began giving magnificent entertainments. Detected at the height of his success, the impostor was arrested and condemned to four years in irons and to be branded. He soon escaped from prison, and had the audacity to reappear in Paris and start his old life afresh. After a short time, however, he disappeared again, and is supposed to have committed suicide. It is probable that most of the information available about him is a blend of fact and fiction.

BEAUREGARD, PIERRE GUSTAVE TOUTANT (1818-1893), American soldier, was born near New Orleans, Louisiana, on the 28th of May 1818. At the United States military academy he graduated second in his class in July 1838, and was appointed lieutenant of engineers. In the Mexican War he distinguished himself in siege operations at Vera Cruz, and took part in all the battles around Mexico, being wounded at Chapultepec, and receiving the brevets of captain and major. In 1853 he became captain and was in charge of fortification and other engineer works of various points, on the Gulf coast from 1853 to 1860. He had just been appointed superintendent of West Point when the secession of his state brought about his resignation (20th February 1861). As a brigadier-general of the new Confederate army he directed the bombardment of Fort Sumter, S.C. As the commander of the Southern "Army of the Potomac" he opposed McDowell's advance to Bull Run, and during the battle was second in command under Joseph E. Johnston, who had joined him on the previous evening. He was one of the five full generals appointed in August 1861, and in 1862 was second in command under Sidney Johnston on the Tennessee. After Johnston's death he directed the battle of Shiloh, subsequent to which he retired to Corinth. This place he defended against the united armies under Halleck, until the end of May 1862, when he retreated in good order to the southward. His health now failing, he was employed in less active work. He defended Charleston against the Union forces from September 1862 to April 1864. In May 1864 he fought a severe and eventually successful battle at Drury's Bluff against General Butler and the Army of the James. Later in the year he endeavoured to gather troops wherewith to oppose Sherman's advance from Atlanta, and eventually surrendered with Johnston's forces in April 1865. After the war he engaged in railway management, became adjutant-general of his state and managed the Louisiana lottery. He declined high commands which were offered to him in the Rumanian and later in the Egyptian armies. General Beauregard died in New Orleans on the 20th of February 1893. He was the author of *Principles and Maxims of the Art of War* (Charleston, 1863); *Report on the Defence of Charleston* (Richmond, 1864).

See Alfred Roman, *Military Operations of General Beauregard* (New York, 1883).

BEAUSOBRE, ISAAC DE (1659-1738), French Protestant divine, was born at Niort on the 8th of March 1659. After studying theology at the Protestant academy of Saumur, he was ordained at the age of twenty-two, becoming pastor at Chatillon-sur-Indre. After the revocation of the edict of Nantes he fled to Rotterdam (November 1685), and in 1686 was appointed chaplain to the princess of Dessau, Henrietta Catherine of Orange. In 1693, on the death of the prince of Dessau, he went to Berlin and became chaplain to the court at

Oranienbaum, and in 1695 pastor of the French church at Berlin. He became court preacher, counsellor of the Consistory, director of the *Maison française*, a hospice for French people, inspector of the French gymnasium and superintendent of all the French churches in Brandenburg. He died on the 5th of June 1738. He had strong sense with profound erudition, was one of the best writers of his time and an excellent preacher.

BEAUVAIS, a town of northern France, capital of the department of Oise, 49 m. N. by W. of Paris, on the Northern railway. Pop. (1906) 17,045. Beauvais lies at the foot of wooded hills on the left bank of the Thérain at its confluence with the Avelon. Its ancient ramparts have been destroyed, and it is now surrounded by boulevards, outside which run branches of the Thérain. In addition, there are spacious promenades in the north-east of the town. Its cathedral of St Pierre, in some respects the most daring achievement of Gothic architecture, consists only of a transept and choir with apse and seven apse-chapels. The vaulting in the interior exceeds 150 ft. in height. The small Romanesque church of the 10th century known as the Basse-Oeuvre occupies the site destined for the nave. Begun in 1247, the work was interrupted in 1284 by the collapse of the vaulting of the choir, in 1573 by the fall of a too ambitious central tower, after which little addition was made. The transept was built from 1500 to 1548. Its façades, especially that on the south, exhibit all the richness of the late Gothic style. The carved wooden doors of both the north and the south portals are masterpieces respectively of Gothic and Renaissance workmanship. The church possesses an elaborate astronomical clock (1866) and tapestries of the 15th and 17th centuries; but its chief artistic treasures are stained glass windows of the 13th, 14th and 16th centuries, the most beautiful of them from the hand of the Renaissance artist, Engrand Le Prince, a native of Beauvais. To him also is due some of the stained glass in St. Étienne, the second church of the town, and an interesting example of the transition stage between the Romanesque and Gothic styles.

In the Place de l'Hôtel de Ville and in the old streets near the cathedral there are several houses dating from the 12th to the 16th centuries. The hôtel de ville, close to which stands the statue of Jeanne Hachette (see below), was built in 1752. The episcopal palace, now used as a court-house, was built in the 16th century, partly upon the Gallo-Roman fortifications. The industry of Beauvais comprises, besides the state manufacture of tapestry, which dates from 1664, the manufacture of various kinds of cotton and woollen goods, brushes, toys, boots and shoes, and bricks and tiles. Market-gardening flourishes in the vicinity and an extensive trade is carried on in grain and wine.

The town is the seat of a bishop, a prefect and a court of assizes; it has tribunals of first instance and of commerce, together with a chamber of commerce, a branch of the Bank of France, a higher ecclesiastical seminary, a lycée and training colleges.

Beauvais was known to the Romans as *Caesaromagus*, and took its present name from the Gallic tribe of the Bellovaci, whose capital it was. In the 9th century it became a countship, which about 1013 passed to the bishops of Beauvais, who ultimately became peers of France. In 1346 the town had to defend itself against the English, who again besieged it in 1433. The siege which it suffered in 1472 at the hands of the duke of Burgundy was rendered famous by the heroism of the women, under the leadership of Jeanne Hachette, whose memory is still celebrated by a procession on the 14th of October (the feast of Ste Angadrème), in which the women take precedence of the men.

See V. Lhuillier, *Choses du vieux Beauvais et au Beauvaisis* (1896).

BEAUVILLIER, the name of a very ancient French family belonging to the country around Chartres, members of which are found filling court offices from the 15th century onward. For Charles de Beauvillier, gentleman of the chamber to the king, governor and *bailli* of Blois, the estate of Saint Aignan was created a countship in 1537. François de Beauvillier, comte de Saint Aignan, after having been through the campaigns in Germany (1634-1635),

Franche-Comté (1636), and Flanders (1637), was sent to the Bastille in consequence of his having lost the battle of Thionville in 1640. In reward for his devotion to the court party during the Fronde he obtained many signal favours, and Saint Aignan was raised to a duchy in the peerage of France (duché-pairie) in 1663. His son Paul, called the duc de Beauvillier, was several times ambassador to England; he became chief of the council of finance in 1685, governor of the dukes of Burgundy, Anjou and Berri from 1689 to 1693, minister of state in 1691, and grandee of Spain in 1701. He married a daughter of Colbert. Paul Hippolyte de Beauvillier, comte de Montrésor, afterwards duc de Saint Aignan, was ambassador at Madrid from 1715 to 1718 and at Rome in 1731, and a member of the council of regency in 1719.

(M. P.*)

BEAUVOIR, ROGER DE, the *nom de plume* of Eugène Auguste Roger de Bully (1806-1866), French writer, who was born on the 8th of November 1806 in Paris. He was the son and nephew of public officials who did not approve his literary inclinations, and it was at their request that he wrote over the signature of Roger de Beauvoir. A good-looking young fellow, of independent means, an indefatigable *viveur*, he astonished all Paris with his ostentatious luxury and his adventures, while his romantic novels gave him a more serious if not durable reputation. Among the best of them are *L'Écolier de Cluny ou le Sophisme* (1832), which is said to have furnished Alexandre Dumas and Theodore Gaillardet (1808-1882) with the idea of the *Tour de Nesle*, and *Le Chevalier de Saint Georges* (1840). He had married in 1847 an actress, Eléonore Léocadie Doze (1822-1859), from whom he obtained a judicial separation a year or two later after a long and notorious trial, following which his mother-in-law got him imprisoned for three months and fined 500 francs for a satirical poem, *Mon Procès* (1849). Ruined by extravagance and tied to his chair by gout, he spent the last years of his life in retirement, and died in Paris on the 27th of August 1866.

BEAUX, CECILIA (1863-), American portrait-painter, was born in Philadelphia, Pennsylvania, where she became a pupil of William Sartain. But her real art training was obtained in Paris, where she started in the *atelier* Julian and had the coaching of painters like Robert-Fleury, Bouguereau and Dagnan Bouveret. In 1890 she exhibited at the Paris Exposition. Returning to Philadelphia, Miss Beaux obtained in 1893 the gold medal of the Philadelphia Art Club, and also the Dodge prize at the New York National Academy, and later various other distinctions. She became a member of the National Academy of Design, New York, in 1902. Among her portraits are those of Bishop-Coadjutor Greer (exhibited at the Salon in 1896); Mrs Roosevelt and her daughter; and Mrs Larz Anderson. Her "Dorothea and Francesca," and "Ernesta and her Little Brother," are good examples of her skill in painting children.

BEAVER,[1] the largest European aquatic representative of the mammalian order Rodentia (*q.v.*), easily recognized by its large trowel-like, scaly tail, which is expanded in the horizontal direction. The true beaver (*Castor fiber*) is a native of Europe and northern Asia, but it is represented in North America by a closely-allied species (*C. canadensis*), chiefly distinguished by the form of the nasal bones of the skull. Beavers are nearly allied to the squirrels (*Sciuridae*), agreeing in certain structural peculiarities of the lower jaw and skull. In the *Sciuridae* the two main bones (tibia and fibula) of the lower half of the leg are quite separate, the tail is round and hairy, and the habits are arboreal and terrestrial. In the beavers or *Castoridae* these bones are in close contact at their lower ends, the tail is depressed, expanded and scaly, and the habits are aquatic. Beavers have webbed hind-feet,

and the claw of the second hind-toe double. In length beavers—European and American—measure about 2 ft. exclusive of the tail, which is about 10 in. long. They are covered with a fur to which they owe their chief commercial value; this consists of two kinds of hair—the one close-set, silky and of a greyish colour, the other much coarser and longer, and of a reddish brown. Beavers are essentially aquatic in their habits, never travelling by land unless driven by necessity. Formerly common in England, the European beaver has not only been exterminated there, but likewise in most of the countries of the continent, although a few remain on the Elbe, the Rhone and in parts of Scandinavia. The American species is also greatly diminished in numbers from incessant pursuit for the sake of its valuable fur. Beavers are sociable anirrals, living in streams, where, so as to render the water of sufficient depth, they build dams of mud and of the stems and boughs of trees felled by their powerful incisor teeth. In the neighbourhood they make their "lodges," which are roomy chambers, with the entrance beneath the water. The mud is plastered down by the fore-feet, and not, as often supposed, by the tail, which is employed solely as a rudder. They are mainly nocturnal, and subsist chiefly on bark and twigs or the roots of water plants. The dam differs in shape according to the nature of particular localities. Where the water has little motion it is almost straight; where the current is considerable it is curved, with its convexity towards the stream. The materials made use of are driftwood, green willows, birch and poplars; also mud and stones intermixed in such a manner as contributes to the strength of the dam, but there is no particular method observed, except that the work is carried on with a regular sweep, and that all the parts are made of equal strength. "In places," writes Hearne, "which have been long frequented by beavers undisturbed, their dams, by frequent repairing, become a solid bank, capable of resisting a great force both of ice and water; and as the willow, poplar and birch generally take root and shoot up, they by degrees form a kind of regular planted hedge, which I have seen in some places so tall that birds have built their nests among the branches." Their houses are formed of the same materials as the dams, with little order or regularity of structure, and seldom contain more than four old, and six or eight young beavers. It not unfrequently happens that some of the larger houses have one or more partitions, but these are only posts of the main building left by the builders to support the roof, for the apartments have usually no communication with each other except by water. The beavers carry the mud and stones with their fore-paws and the timber between their teeth. They always work in the night and with great expedition. They cover their houses late every autumn with fresh mud, which, freezing when the frost sets in, becomes almost as hard as stone, so that neither wolves nor wolverines can disturb their repose.

The favourite food of the American beaver is the water-lily (*Nuphar luteum*), which bears a resemblance to a cabbage-stalk, and grows at the bottom of lakes and rivers. Beavers also gnaw the bark of birch, poplar and willow trees; but during the summer a more varied herbage, with the addition of berries, is consumed. When the ice breaks up in spring they always leave their embankments, and rove about until a little before the fall of the leaf, when they return to their old habitations, and lay in their winter stock of wood. They seldom begin to repair the houses till the frost sets in, and never finish the outer coating till the cold becomes severe. When they erect a new habitation they fell the wood early in summer, but seldom begin building till towards the end of August.

The flesh of the American beaver is eaten by the Indians, and when roasted in the skin is esteemed a delicacy and is said to taste like pork. *Castoreum* is a substance contained in two pear-shaped pouches situated near the organs of reproduction, of a bitter taste and slightly foetid odour, at one time largely employed as a medicine, but now used only in perfumery.

Fossil remains of beavers are found in the peat and other superficial deposits of England and the continent of Europe; while in the Pleistocene formations of England and Siberia occur remains of a giant extinct beaver, *Trogontherium cuvieri*, representing a genus by itself.

For an account of beavers in Norway see R. Collett, in the *Bergens Museum Aarbog* for 1897. See also R.T. Martin, *Castorologia, a History and Traditions of the Canadian Beaver* (London, 1892).

(R. L.*)

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1 The word is descended from the Aryan name of the animal, cf. Sanskrit *babhrús*, brown, the great ichneumon, Lat. *fiber*, Ger. *Biber*, Swed. *bafver*, Russ. *bobr'*; the root *bhru* has given "brown," and, through Romanic, "bronze" and "burnish."

BEAVER (from Fr. *bavière*, a child's bib, from *bave*, saliva), the lower part of the helmet, fixed to the neck-armour to protect the face and cheeks; properly it moved upwards, as the visor moved down, but the word is sometimes used to include the visor. The right form of the word, "baver," has been altered from a confusion with "beaver," a hat made of beaver-fur or a silk imitation, also, in slang, called a "castor," from the zoological name of the beaver family.

BEAVER DAM, a city of Dodge county, Wisconsin, U.S.A., situated in the S.E. part of the state, 63 m. N.W. of Milwaukee, on Beaver Lake, which is 9 m. long and 3 m. wide. Pop. (1890) 4222; (1900) 5128, of whom 1023 were foreign-born; (1905) 5615; (1910) 6758. Most of the population is of German descent. Beaver Dam is served by the Chicago, Milwaukee & St Paul railway. The city is a summer resort, has a public library, and is the seat of Wayland Academy (1855, Baptist), a co-educational preparatory school affiliated with the university of Chicago. Beaver Dam is situated in the midst of a fine farming country; it has a good water-power derived from Beaver Lake, and among its manufactures are woollen and cotton goods, malleable iron, foundry products, gasolene engines, agricultural implements, stoves and beer. The city was first settled about 1841, and was incorporated in 1856.

BEAVER FALLS, a borough of Beaver county, Pennsylvania, U.S.A., on Beaver river, about 3½ m. from its confluence with the Ohio, opposite New Brighton, and about 32 m. N.W. of Pittsburg. Pop. (1890) 9735; (1900) 10,054, of whom 1554 were foreign-born; (1910), census, 12,191. The borough is served by the Pennsylvania and the Pittsburg & Lake Erie railways. It is built for the most part on a plateau about 50 ft. above the river, hemmed in on either side by hills that rise abruptly, especially on the W., to a height of more than 200 ft. Bituminous coal, natural gas and oil abound in the vicinity; the river provides excellent water-power; the borough is a manufacturing centre of considerable importance, its products including iron and steel bridges, boilers, steam drills, carriages, saws, files, axes, shovels, wire netting, stoves, glass-ware, scales, chemicals, pottery, cork, decorative tile, bricks and typewriters. In 1905 the city's factory products were valued at $4,907,536. Geneva College (Reformed Presbyterian, co-educational), established in 1849 at Northwood, Logan county, Ohio, was removed in 1880 to the borough of College Hill (pop. in 1900, 899), 1 m. N. of Beaver Falls; it has a preparatory and a collegiate department, departments of music, oratory and art, and a physical department, and in 1907-1908 had 13 instructors and 235 students. Beaver Falls was first settled in 1801; was laid out as a town and named Brighton in 1806; received its present name a few years later; and in 1868 was incorporated as a borough.

BEAWAR, or Nayanagar, a town of British India, the administrative headquarters of Merwara district in Ajmere-Merwara. It is 33 m. from Ajmere. Pop. (1901) 21,928. It is an important centre of trade, especially in raw cotton, and has cotton presses and the Krishna cotton mills. It was founded by Colonel Dixon in 1835.

BEBEL, FERDINAND AUGUST (1840-), German socialist, was born at Cologne on the 22nd of February 1840; he became a turner and worked at Leipzig. Here he took a

prominent part in the workmen's movement and in the association of working men which had been founded under the influence of Schultz-Delitzsch; at first an opponent of socialism, he came under the influence of Liebknecht, and after 1865 he was a confirmed advocate of socialism. With Liebknecht he belonged to the branch of the socialists which was in close correspondence with Karl Marx and the International, and refused to accept the leadership of Schweitzer, who had attempted to carry on the work after Lassalle's death. He was one of those who supported a vote of want of confidence in Schweitzer at the Eisenach conference in 1867, from which his party was generally known as "the Eisenacher." In this year he was elected a member of the North German Reichstag for a Saxon constituency, and, with an interval from 1881 to 1883, remained a member of the German parliament. His great organizing talent and oratorical power quickly made him one of the leaders of the socialists and their chief spokesman in parliament. In 1870 he and Liebknecht were the only members who did not vote the extraordinary subsidy required for the war with France; the followers of Lassalle, on the other hand, voted for the government proposals. He was the only Socialist who was elected to the Reichstag in 1871, but he used his position to protest against the annexation of Alsace-Lorraine and to express his full sympathy with the Paris Commune. Bismarck afterwards said that this speech of Bebel's was a "ray of light," showing him that Socialism was an enemy to be fought against and crushed; and in 1872 Bebel was accused in Brunswick of preparation for high treason, and condemned to two years' imprisonment in a fortress, and, for insulting the German emperor, to nine months' ordinary imprisonment. After his release he helped to organize, at the congress of Gotha, the united party of Social Democrats, which had been formed during his imprisonment. After the passing of the Socialist Law he continued to show great activity in the debates of the Reichstag, and was also elected a member of the Saxon parliament; when the state of siege was proclaimed in Leipzig he was expelled from the city, and in 1886 condemned to nine months' imprisonment for taking part in a secret society. Although the rules of the Social Democratic party do not recognize a leader or president, Bebel subsequently became by far the most influential member of the party. In the party meetings of 1890 and 1891 his policy was severely attacked, first by the extremists, the "young" Socialists from Berlin, who wished to abandon parliamentary action; against these Bebel won a complete victory. On the other side he was involved in a quarrel with Volmar and his school, who desired to put aside from immediate consideration the complete attainment of the Socialist ideal, and proposed that the party should aim at bringing about, not a complete overthrow of society, but a gradual amelioration. This conflict of tendencies continued, and Bebel came to be regarded as the chief exponent of the traditional views of the orthodox Marxist party. He was exposed to some natural ridicule on the ground that the "Kladderadatsch," which he often spoke of as imminent, failed to make its appearance. On the other hand, though a strong opponent of militarism, he publicly stated that foreign nations attacking Germany must not expect the help or the neutrality of the Social Democrats. His book, *Die Frau und der Socialismus* (1893), which went through many editions and contained an attack on the institution of marriage, identified him with the most extreme forms of Socialism.

See also Mehring, *Geschichte der deutschen Social-Demokratie* (Stuttgart, 1898); *Reports of the Annual Meetings of the Social Democratic Party*, Berlin Vorwarts Publishing Company (from 1890); B. Russell, *German Social-Democracy* (London, 1897).

(J. W. He.)

BECCAFICO (Ital. for "fig-pecker"), a small migratory bird of the warbler (*Sylviidae*) family, which frequents fig-trees and vineyards, and, when fattened, is considered a great delicacy.

BECCAFUMI, DOMENICO DI PACE (1486-1551), Italian painter, of the school of Siena. In the early days of the Tuscan republics Siena had been in artistic genius, and almost in political importance, the rival of Florence. But after the great plague in 1348 the city declined; and though her population always comprised an immense number of skilled artists

and artificers, yet her school did not share in the general progress of Italy in the 15th century. About the year 1500, indeed, Siena had no native artists of the first importance; and her public and private commissions were often given to natives of other cities. But after the uncovering of the works of Raphael and Michelangelo at Rome in 1508, all the schools of Italy were stirred with the desire of imitating them. Among these accomplished men who now, without the mind and inspiration of Raphael or Michelangelo, mastered a great deal of their manner, and initiated the decadence of Italian art, several of the most accomplished arose in the school of Siena. Among these was Domenico, the son of a peasant, one Giacomo di Pace, who worked on the estate of a well-to-do citizen named Lorenzo Beccafumi. Seeing some signs of a talent for drawing in his labourer's son, Lorenzo Beccafumi took the boy into his service and presently adopted him, causing him to learn painting from masters of the city. Known afterwards as Domenico Beccafumi, or earlier as Il Mecarino (from the name of a poor artist with whom he studied), the peasant's son soon gave proof of extraordinary industry and talent. In 1509 he went to Rome and steeped himself in the manner of the great men who had just done their first work in the Vatican. Returning to his native town, Beccafumi quickly gained employment and a reputation second only to Sodoma. He painted a vast number both of religious pieces for churches and of mythological decorations for private patrons. But the work by which he will longest be remembered is that which he did for the celebrated pavement of the cathedral of Siena. For a hundred and fifty years the best artists of the state had been engaged laying down this pavement with vast designs in 602
commesso work,—white marble, that is, engraved with the outlines of the subject in black, and having borders inlaid with rich patterns in many colours. From the year 1517 to 1544 Beccafumi was engaged in continuing this pavement. He made very ingenious improvements in the technical processes employed, and laid down multitudinous scenes from the stories of Ahab and Elijah, of Melchisedec, of Abraham and of Moses. These are not so interesting as the simpler work of the earlier schools, but are much more celebrated and more jealously guarded. Such was their fame that the agents of Charles I. of England, at the time when he was collecting for Whitehall, went to Siena expressly to try and purchase the original cartoons. But their owner would not part with them, and they are now in the Siena Academy and elsewhere. The subjects have been engraved on wood, by the hand, as it seems, of Beccafumi himself, who at one time or another essayed almost every branch of fine art. He made a triumphal arch and an immense mechanical horse for the procession of the emperor Charles V. on his entry into Siena. In his later days, being a solitary liver and continually at work, he is said to have accelerated his death by over-exertion upon the processes of bronze-casting.

BECCARIA, GIOVANNI BATTISTA (1716-1781), Italian physicist, was born at Mondovi on the 3rd of October 1716, and entered the religious order of the Pious Schools in 1732. He became professor of experimental physics, first at Palermo and then at Rome, and was appointed to a similar situation at Turin in 1748. He was afterwards made tutor to the young princes de Chablais and de Carignan, and continued to reside principally at Turin during the remainder of his life. In May 1755 he was elected a fellow of the Royal Society of London, and published several papers on electrical subjects in the *Phil. Trans*. He died at Turin on the 27th of May 1781. Beccaria did much, in the way both of experiment and exposition, to spread a knowledge of the electrical researches of Franklin and others. His principal work was the treatise *Dell' Elettricismo Naturale ed Artificiale* (1753), which was translated into English in 1776.

BECCARIA-BONESANA, CESARE, Marchese de (1735-1794), Italian publicist, was born at Milan on the 15th of March 1735. He was educated in the Jesuit college at Parma, and showed at first a great aptitude for mathematics. The study of Montesquieu seems to have directed his attention towards economic questions; and his first publication (1762) was a tract on the derangement of the currency in the Milanese states, with a proposal for its remedy. Shortly after, in conjunction with his friends the Verris, he formed a literary society,

and began to publish a small journal, in imitation of the *Spectator*, called *Il Caffè*. In 1764 he published his brief but justly celebrated treatise *Dei Delitti e delle Pene* ("On Crimes and Punishments"). The weighty reasonings of this work were expounded with all the additional force of a clear and animated style. It pointed out distinctly and temperately the grounds of the right of punishment, and from these principles deduced certain propositions as to the nature and amount of punishment which should be inflicted for any crime. The book had a surprising success. Within eighteen months it passed through six editions. It was translated into French by Morellet in 1766, and published with an anonymous commentary by Voltaire. An English translation appeared in 1768 and it was translated into several other languages. Many of the reforms in the penal codes of the principal European nations are traceable to Beccaria's treatise. In November 1768 he was appointed to the chair of law and economy, which had been founded expressly for him at the Palatine college of Milan. His lectures on political economy, which are based on strict utilitarian principles, are in marked accordance with the theories of the English school of economists. They are published in the collection of Italian writers on political economy (*Scrittori Classici Italiani di Economia politico.*, vols. xi. and xii.). In 1771 Beccaria was made a member of the supreme economic council; and in 1791 he was appointed one of the board for the reform of the judicial code. In this post his labours were of very great value. He died at Milan on the 28th of November 1794.

BECCLES, a market town and municipal borough, in the Lowestoft parliamentary division of Suffolk, England; on the right bank of the river Waveney, 109 m. N.E. from London by the Great Eastern railway. Pop. (1901) 6898. It has a pleasant, well-wooded site overlooking the flat lands bordering the Waveney. The church of St Michael, wholly Perpendicular, is a fine example of the style, having an ornate south porch of two storeys and a detached bell tower. There are a grammar school (1712), and boys' school and free school on the foundation of Sir John Leman (1631). Rose Hall, in the vicinity, is a moated manor of brick, of the 16th century. Printing works, malting, brick and tile, and agricultural implement works are the chief industries. Beccles was incorporated in 1584. It is governed by a mayor, 4 aldermen and 12 councillors. Area, 2017 acres.

BECERRA, GASPAR (1520-1570), Spanish painter and sculptor, was born at Baéza in Andalusia. He studied at Rome, it is said under Michelangelo, and assisted Vasari in painting the hall of the Concelleria. He also contributed to the anatomical plates of Valverde. After his return to Spain he was extensively employed by Philip II., and decorated many of the rooms in the palace at Madrid with frescoes. He also painted altar-pieces for several of the churches, most of which have been destroyed. His fame as a sculptor almost surpassed that as a painter. His best work was a magnificent figure of the Virgin, which was destroyed during the French war. He became court painter at Madrid in 1563, and played a prominent part in the establishment of the fine arts in Spain.

BÊCHE-DE-MER (sometimes explained as "sea-spade," from the shape of the prepared article, but more probably from the Port, *bicho*, a worm or grub), or TREPANG (Malay, *tripang*), an important food luxury among the Chinese and other Eastern peoples, connected with the production of which considerable trade exists in the Eastern Archipelago and the coasts of New Guinea, and also in California. It consists of several species of echinoderms, generally referred to the genus *Holothuria*, especially *H. edulis*. The creatures, which exist on coral reefs, have bodies from 6 to 15 in. long, shaped like a cucumber, hence their name of "sea-cucumbers." The skin is sometimes covered with spicules or prickles, and sometimes quite smooth, and with or without "teats" or ambulacral feet disposed in rows. Five varieties

are recognized in the commerce of the Pacific Islands, the finest of which is the “brown with teats.” The large black come next in value, followed by the small black, the red-bellied and the white. They are used in the gelatinous soups which form an important article of food in China. They are prepared for use by being boiled for about twenty minutes, and then dried first in the sun and afterwards over a fire, so that they are slightly smoked.

BECHER, JOHANN JOACHIM (1635-1682), German chemist, physician, scholar and adventurer, was born at Spires in 1635. His father, a Lutheran minister, died while he was yet a child, leaving a widow and three children. The mother married again; the stepfather spent the tiny patrimony of the children; and at the age of thirteen Becher found himself responsible not only for his own support but also for that of his mother and brothers. He learned and practised several small handicrafts, and devoting his nights to study of the most miscellaneous description earned a pittance by teaching. In 1654, at the age of nineteen, he published an edition of Salzthal’s *Tractatus de lapide trismegisto*; his *Metallurgia* followed in 1660; and the next year appeared his *Character pro notitia linguarum universali*, in which he gives 10,000 words for use as a universal language. In 1663 he published his *Oedipum Chemicum* and a book on animals, plants and minerals (*Thier- Kräuter- und Bergbuch*). At the same time he was full of schemes, practical and unpractical. He negotiated with the elector palatine for the establishment of factories at Mannheim; suggested to the elector of Bavaria the creation of German colonies in Guiana and the West Indies; and brought down upon himself the wrath of the Munich merchants by planning a government monopoly of cloth manufacture and of trade. He fled from Munich, but found a ready welcome elsewhere. In 1666 he was appointed teacher of medicine at Mainz and body-physician to the archbishop-elector; and the same year he was made councillor of commerce (*Commerzienrat*) at Vienna, where he had gained the powerful support of Albrecht, Count Zinzendorf, prime minister and grand chamberlain of the emperor Leopold I. Sent by the emperor on a mission to Holland, he there wrote in ten days his *Methodus Didactica*, which was followed by the *Regeln der Christlichen Bundesgenossenschaft* and the *Politischer Discurs vom Auj- und Abblühen der Städte*. In 1669 he published his *Physica subterranea*, and the same year was engaged with the count of Hanau in a scheme for settling a large territory between the Orinoco and the Amazon. Meanwhile he had been appointed physician to the elector of Bavaria; but in 1670 he was again in Vienna advising on the establishment of a silk factory and propounding schemes for a great company to trade with the Low Countries and for a canal to unite the Rhine and Danube. He then returned to Bavaria, and his absence bringing him into ill odour at Vienna, he complained of the incompetence of the council of commerce and dedicated a tract on trade (*Commercien-Tractat*) to the emperor Leopold. His *Psychosophia* followed, and “An invitation to a psychological community” (*Einladung zu einer psychologischen Societät*), for the realization of which Duke Gustavus Adolphus of Mecklenburg-Gustrow (d. 1695) offered him in 1674 a site in his duchy. The plan came to nothing, and next year Becher was again busy at Vienna, trying to transmute Danube sand into gold, and writing his *Theses chemicae veritatem transmutationis metallorum evincentes*. For some reason he incurred the disfavour of Zinzendorf and fled to Holland, where with the aid of the government he continued his experiments. Pursued even there by the resentment of his former patron, he crossed to England, whence he visited the mines of Scotland at the request of Prince Rupert. He afterwards went for the same purpose to Cornwall, where he spent a year. At the beginning of 1680 he presented a paper to the Royal Society, *De nova temporis dimetiendi ratione et accurata horologiorum constructione*, in which he attempted to deprive Huygens of the honour of applying the pendulum to the measurement of time. The views of Becher on the composition of substances mark little essential advance on those of the two preceding centuries, and the three elements or principles of salt, mercury and sulphur reappear as the vitrifiable, the mercurial and the combustible earths. When a substance was burnt he supposed that the last of these, the *terra pinguis*, was liberated, and this conception is the basis on which G.E. Stahl founded his doctrine of “phlogiston.” His ideas and experiments on the nature of minerals and other substances are voluminously set forth in his *Physica Subterranea* (Frankfort, 1669); an edition of this, published at Leipzig in 1703, contains two supplements (*Experimentum chymicum novum* and *Demonstratio Philosophica*), proving the truth and possibility of transmuting metals, *Experimentum novum ac curiosum de minera arenaria perpetua*, the paper on timepieces already mentioned and also *Specimen Becherianum*, a summary of his

doctrines by Stahl, who in the preface acknowledges indebtedness to him in the words *Becheriana sunt quae profero*. At Falmouth he wrote his *Laboratorium portabile* and at Truro the *Alphabetum minerale*. In 1682 he returned to London, where he wrote the *Chemischer Glückshafen oder grosse Concordanz und Collection van 1500 Processen* and died in October of the same year.

BECHUANA, a South African people, forming a branch of the great Bantu-Negroid family. They occupy not only Bechuanaland, to which they have given their name, and Basutoland, but are the most numerous native race in the Orange River Colony and in the western and northern districts of the Transvaal. It seems certain that they reached their present home later than the Zulu-Xosa [Kaffir] peoples who came down the east coast of the continent, but it is probable that they started on their southward journey before the latter. It would appear that the forerunners of the movement were the Bakalahari and Balala, who were subsequently reduced to the condition of serfs by the later arrivals, and who by intermingling to a certain extent with the aborigines gave rise to the "Kalahari Bushmen" (see KALAHARI DESERT). The Bechuana family may be classed in two great divisions, the western or Bechuana proper, and the eastern or Basuto. The Bechuana proper consist of a large number of tribes, whose early history is extremely confused and involved owing to continual inter-tribal wars and migrations, during which many tribes were practically annihilated. Further confusion was produced by subsequent marauding expeditions by the coast "Kaffirs." An ingenious attempt to disentangle the highly complicated tribal movements which took place in the early 19th century may be found in Stow's *Native Races of South Africa*. One migration of particular interest calls for mention. In the early part of the 19th century a number of Basuto, led by the chief Sebituane, crossed the Zambezi near the Victoria Falls, and, under the name Makololo, established a supremacy over the Barotse and neighbouring tribes on the upper portion of the river, imposing their language on the conquered peoples. After the death of Sekeletu, Sebituane's successor, the vassal tribes arose and exterminated their conquerors. Only a few escaped, whom Sekeletu had sent with David Livingstone to the coast. These established themselves to the south of Lake Nyasa, where they are still to be found. Sesuto speech, however, still prevails in Barotseland. The chief Bechuana tribes were the Batlapin and Barolong (the last including the Baratlou, Bataung, Barapulana and Baseleka), together with the great Bakuena or Bakone people (including the Bahurutsi, Batlaru, Bamangwato, Batauana, Bangwaketse and Bakuena). The clans representing the southern Bakuena were in comparatively recent times welded together to form the Basuto nation, of which the founder was the chief Moshesh (see BASUTOLAND). The Basuto have been not only influenced in certain cultural details (*e.g.* the form of their huts) by the neighbouring Zulu-Xosa [Kaffir] peoples, but have moreover received an infusion of their blood which has improved their physique. They are good riders and make considerable use of their horses in war and the chase.

The Bechuana, though not so tall as Kaffirs, average 5 ft. 6 in. in stature; they are of slender build and their musculature is but moderately developed except where a Kaffir strain is found. Their skin is of a reddish-brown or bronze colour, and their features are fairly regular, though in all cases coarser than those of Europeans. One of their chief peculiarities lies in the fact that each tribe respects (usually) a particular animal, which the members of the tribe may not eat, and the killing of which, if necessary, must be accompanied by profuse apologies and followed by subsequent purification. Many of the tribes take their name from their *siboko*, as the animal in question is called; *e.g.* the Batlapin, "they of the fish"; Bakuena, "they of the crocodile." The *siboko* of the Barolong, who as a tribe are accomplished smiths, is not an animal but the metal iron; other tribes have adopted as their particular emblem respectively the sun, rain, dew, &c. Certain ceremonies are performed in honour of the tribal emblem, hence an inquiry as to the tribe of an individual is put in the form "What do you dance?" In certain tribes the old and feeble and the sickly children were killed, and albinos and the deaf and dumb exposed; those born blind were strangled, and if a mother died in childbirth the infant was buried alive in the same grave. With the extension of British authority these practices were prohibited. Circumcision is universally practised, though there is no fixed age for it. It is performed at puberty, when the boys are secluded for a period in the bush. The operation is accompanied by whipping and even tortures. Girls at puberty must undergo trials of endurance, *e.g.* the holding of a bar of heated iron without crying out. The Bechuana inhabit, for the most part,

towns of considerable size, containing from 5000 to 40,000. Politically they live under a tribal despotism limited by a council of elders, the chief seldom exercising his individual authority independently, though the extent of his power naturally depends on his personality. They have their public assemblies, but only when circumstances, chiefly in reference to war, require. These are generally characterized by great freedom of speech, and there is no interruption of the speaker. The chief generally closes the meeting with a long speech, referring to the subjects which each speaker has either supported or condemned, not forgetting to clear his own character of any imputation. These public assemblies are now, except in Basutoland, of very rare occurrence. The clothing of the men consists of a leather bandage; the women wear a skin apron, reaching to the knee, under which is a fringed girdle. Skin cloaks (*kaross*) are worn by both sexes, with the difference that the male garment is distinguished by a collar. The hair is kept short for the most part; women shave the head, leaving a tuft on the crown which is plastered with fat and earth, and adorned with beads. Beads are worn, and various bracelets of iron, copper and brass.

The Bechuana are mainly an agricultural people, the Bangwaketse and Bakuena excelling as cultivators. Cattle they possess, but these are used chiefly for the purpose of purchasing wives, especially among the Basuto. At the same time they are excellent craftsmen, and show no little skill in smelting and working iron and copper and the preparation of hides and pottery vessels. The most efficient smiths are the Barolong and Bamangwato (the latter were spared by the Matabele chief Umsilikazi on this account); the Bangwaketse excel as potters; the Barolong as wood carvers, and the Bakuena as hut builders. The huts, with the exception of those of the Basuto who have adopted the Kaffir model, are cylindrical, with clay-plastered walls and a conical roof of thatch. In spite of the constant tribal feuds dating from the beginning of the 19th century, the Bechuana cannot be classed as a warlike people, especially when they are compared with the Zulu. Their weapons consist of the throwing assegai, usually barbed, axes, daggers in carved sheaths, and, occasionally, bows and arrows, the last sometimes poisoned. Hide shields of a peculiar shape, resembling a depressed hour-glass, are found except among the Basuto, who use a somewhat different pattern. Hunting usually takes the form of great drives organized in concert, and the game is driven by means of converging fences to a large pitfall or series of pits. Their religious beliefs are very vague; they appear to recognize a somewhat indeterminate spirit of, mainly, evil tendencies, called *Morimo*. The plural form of this word, *Barimo*, is used of the *manes* of dead ancestors, to whom a varying amount of reverence is paid. There is universal belief in charms and witchcraft, and divination by means of dice is common. Witchdoctors, who are supposed to counteract evil magic, play a not insignificant part, and the magician who claims the power of making rain occupies a very important position, as might be expected among an agricultural people inhabiting a country where droughts are not infrequent. They have a great dread of anything connected with death; when an old man is on the point of expiring, a net is thrown over him, and he is dragged from his hut by a hole in the wall, if possible before life is extinct. The dead are buried in a sitting position with their faces to the north, in which direction lies their ancestral home. Under the influence of missionaries, however, large numbers of the Bechuana have become Christianized, and many of the customs mentioned are no longer practised.

Polygamy is the rule, but, except in the case of chiefs, is not found to the same extent as among the Zulu-Xosa [Kaffirs]. The woman is purchased from her father, chiefly by means of cattle, though among the western Bechuana other articles are included, many of which become the property of the girl herself. The wives live in separate huts, and the first is given priority over those purchased subsequently. Chastity after marriage is the rule, and adultery and rape are severely punished, as offences against property. Cannibalism is found, but is rare and confined to certain tribes.

The Bechuana language, which belongs to the Bantu linguistic family, is copious, with but few slight dialectic differences, and is free from the Hottentot elements found in the Kaffir and Zulu tongues. The richness of the language may be judged from the fact that, though only oral until reduced to writing by the missionaries, it has sufficed for the translation of the whole Bible.

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(T. A. J.)

BECHUANALAND (a name given from its inhabitants, the Bechuana, *q.v.*), a country of British South Africa occupying the central part of the vast tableland which stretches north to the Zambezi. It is bounded S. by the Orange river, N.E. and E. by Matabeleland, the Transvaal and Orange River Colony, and W. and N. by German South-West Africa. Bechuanaland geographically and ethnically enjoys almost complete unity, but politically it is divided as follows:—

I. British Bechuanaland, since 1895 an integral part of Cape Colony. Area, 51,424 sq. m. Pop. (1904) 84,210, of whom 9276 were whites.

II. The Bechuanaland Protectorate, the northern part of the country, governed on the lines of a British crown colony. Area (estimated), 225,000 sq. m. Pop. (1904) 120,776, of whom Europeans numbered 1004. The natives, in addition to the Bechuana tribes, include some thousands of Bushmen (Masarwa). Administratively attached to the protectorate is the Tati concession, which covers 2500 sq. m. and forms geographically the south-west corner of Matabeleland.

The Griqualand West province of Cape Colony belongs also geographically to Bechuanaland, and except in the Kimberley diamond mines region is still largely inhabited by Bechuana. (See GRIQUALAND.)

Physical Features.—The average height of the tableland of which Bechuanaland consists is nearly 4000 ft. The surface is hilly and undulating with a general slope to the west, where the level falls in considerable areas to little over 2000 ft. A large part of the country is covered with grass or shrub, chiefly acacia. There is very little forest land. The western region, the Kalahari Desert (*q.v.*), is mainly arid, with a sandy soil, and is covered in part by dense bush. In the northern region are large marshy depressions, in which the water is often salt. The best known of these depressions, Ngami (*q.v.*), lies to the north-west and is the central point of an inland water system apparently in process of drying up. To the north-east and connected with Ngami by the Botletle river, is the great Makari-Kari salt pan, which also drains a vast extent of territory, receiving in the rainy season a large volume of water. The marsh then becomes a great lake, the water surface stretching beyond the horizon, while in the dry season a mirage is often seen. The permanent marsh land covers a region 60 m. from south to north and from 30 to 60 m. east to west. In the south the rivers, such as the Molopo and the Kuruman, drain towards the Orange. Other streams are tributaries of the Limpopo, which for some distance is the frontier between Bechuanaland and the Transvaal.

The rivers of Bechuanaland are, with few exceptions, intermittent or lose themselves in the desert. It is evident, however, from the extent of the beds of these streams and of others now permanently dry, and from remains of ancient forests, that at a former period the country must have been abundantly watered. From the many cattle-folds and walls of defence scattered over the country, and ruins of ancient settlements, it is also evident that at that period stone-dykes were very common. The increasing dryness of the land is partly, perhaps largely, attributable to the cutting down of timber trees both by natives and by whites, and to the custom of annually burning the grass, which is destructive to young wood.

Climate.—The climate is healthy and bracing, except in the lower valleys along the river banks and in the marsh land, where malarial fever is prevalent. Though in great part within the tropics, the heat is counteracted by the dryness of the air. Throughout the year the nights are cool and refreshing; in winter the cold at night is intense. In the western regions the rainfall does not exceed 10 in. in the year; in the east the average rainfall is 26 in. and in places as much as 30 in. The rainy season is the summer months, November to April, but the rains are irregular, and, from the causes already indicated, the rainfall is steadily declining. From December to February violent thunder and hail storms are experienced. In the whiter or dry season there are occasional heavy dust storms.

Geology.—The greater part of Bechuanaland is covered with superficial deposits consisting of the sands of the desert regions of the Kalahari and the alluvium and saliferous marls of the Okavango basin. The oldest rocks, granites, gneisses and schistose sandstones, the Ngami series, rise to the surface in the east and south-east and doubtless immediately underlie much of the sand areas. A sandstone found in the neighbourhood of Palapye is considered to be the equivalent of the Waterberg formation of the Transvaal. The Karroo formation and associate dolerites (*Loalemandelstein*) occur in the same region. A deposit of sinter and a calcareous sandstone, known as the Kalahari Kalk, considered by Dr Passarge to be of Miocene age, overlies a sandstone and curious breccia (*Botletle Schnichten*). These deposits are held by Passarge to indicate Tertiary desert conditions, to which the basin of

the Zambezi is slowly reverting.

Fauna.—Until towards the close of the 19th century Bechuanaland abounded in big game, and the Kalahari is still the home of the lion, leopard, hyena, jackal, elephant, hippopotamus, rhinoceros, buffalo, antelope of many species, ostrich and even the giraffe. Venomous reptiles, *e.g.* puff-adders and cobras, are met with, enormous frogs are common, and walking and flying locusts, mosquitoes, white ants, flying beetles, scorpions, spiders and tarantulas are very numerous. The crocodile is found in some of the rivers. Many of the rivers are well stocked with fish. In those containing water in the rainy season only, the fish preserve life when the bed is dry by burrowing deeply in the ooze before it hardens. The principal fish are the baba or cat-fish (*clarias* sp.) and the yellow-fish, both of which attain considerable size. Bustards (the great kori and the koorhaan) are common.

Flora.—In the eastern district are stretches of grass land, both sweet and sour veld. In the "bush" are found tufts of tall coarse grass with the space between bare or covered with herbaceous creepers or water-bearing tubers. A common creeper is one bearing a small scarlet cucumber, and a species of watermelon called *tsoma* is also abundant. Of the melon and cucumber there are both bitter and sweet varieties. Besides the grass and the creepers the bush is made up of berry-yielding bushes (some of the bushes being rich in aromatic resinous matter), the wait-a-bit thorn and white thorned mimosa. The indigo and cotton plants grow wild. Among the rare big trees—found chiefly in the north-east—are baobab and palmyra and certain fruit trees, one bearing a pink plum. There are remains of ancient forests consisting of wild olive trees and the camel thorn, near which grows the *ngotuane*, a plant with a profusion of fine, strongly scented yellow flowers.

Chief Towns.—The chief town in southern Bechuanaland, *i.e.* the part incorporated in Cape Colony, is Mafeking (*q.v.*), near the headwaters of the Molopo river. It is the headquarters of the Barolong tribe, and although within the Cape border is the seat of the administration of the protectorate. Vryburg (pop., 1904, 2985), founded by Boer filibusters in 1882, and Taungs, are towns on the railway between Kimberley and Mafeking. Taungs has some 22,000 inhabitants, being the chief kraal of the Batlapin tribe. About 7 m. south of Vryburg, at Tiger Kloof, is an Industrial Training Institute for natives founded in 1904 by the London Missionary Society. Upington (2508) on the north bank of the Orange, an agricultural centre, is the chief town in Gordonia, the western division of southern Bechuanaland. Kuruman (*q.v.*) is a native town near the source of the Kuruman river, 85 m. south-west of Vryburg. It has been the scene of missionary labours since the early years of the 19th century. North of Mafeking on the railway to Bulawayo are the small towns of Gaberones and Francistown. The last named is the chief township in the Tati concession, the centre of a gold-mining region, and the most important white settlement in the protectorate. Besides these places there are five or six large native towns, each the headquarters of a distinct tribe. The most important is Serowe, with over 20,000 inhabitants, the capital of the Bamangwato, founded by the chief Khama in 1903. It is about 250 m. north-north-east of Mafeking, and took the place of the abandoned capital Palapye, which in its turn had succeeded Shoshong. The chief centre in the western Kalahari is Lehututu.

Agriculture and Trade.—The soil is very fertile, and if properly irrigated would yield abundant harvests. Unirrigated land laid under wheat by the natives is said to yield twelve bushels an acre. Cereals are grown in many of the river valleys. Maize and millet are the chief crops. The wealth of the Bechuana consists principally in their cattle, which they tend with great care, showing a shrewd discrimination in the choice of pasture suited to oxen, sheep and goats. Water can usually be obtained all the year round by sinking wells from 20 to 30 ft. deep. The "sweet veld" is specially suitable to cattle, and the finer shorter grass which succeeds it affords pasturage for sheep.

Gold mines are worked in the Tati district, the first discoveries having been made there in 1864. There are gold-bearing quartz reefs at Madibi, near Mafeking, where mining began in 1906. Diamonds have been found near Vryburg. The existence of coal near Palapye about 60 ft. below the surface has been proved. The coal, however, is not mined, and much of the destruction of timber in southern Bechuanaland was caused by the demand for fuel for Kimberley. Copper ore has been found near Francistown.

Formerly there was a trade in ostrich feathers and ivory; but this has ceased, and the chief trade has since consisted in supplying the natives with European goods in exchange for cattle, hides, the skins and horns of game, firewood and fencing poles, and in forwarding goods north and south. The protectorate is a member of the South African Customs Union. The value of the goods imported into the protectorate in 1906 was £118,322; the value of the exports was £77,736. The sale of spirits to natives is forbidden.

Communications.—As the great highway from Cape Colony to the north, Bechuanaland has been described as the “Suez canal of South Africa.” The trunk railway from Cape Town to the Victoria Falls traverses the eastern edge of Bechuanaland throughout its length. The railway enters the country at Fourteen Streams, 695 m. from Cape Town, and at Ramaquabane, 584 m. farther north, crosses into Rhodesia. The old trade route to Bulawayo, which skirts the eastern edge of the Kalahari, is now rarely used. Wagon tracks lead to Ngami, 320 m. N.W. from Palapye Road Station, and to all the settlements. From the scarcity of water on the main routes through the Kalahari these roads are known as “the thirsts”; along some of them wells have been sunk by the administration.

Government.—The protectorate is administered by a resident commissioner, responsible to the high commissioner for South Africa. Legislation is enacted by proclamations in the name of the high commissioner. Order is maintained by a small force of semi-military police recruited in Basutoland and officered by Europeans. Revenue is obtained mostly from customs and a hut tax, while the chief items of expenditure have been the police force and a subsidy of £20,000 per annum towards the cost of the railway, a liability which terminated in the year 1908. The average annual revenue for the five years ending the 31st of March 1906 was £30,074; the average annual expenditure during the same period was £80,114. There is no public debt, the annual deficiency being made good by a grant-in-aid from the imperial exchequer. The tribal organization of the Bechuana is maintained, and native laws and customs, with certain modifications, are upheld.

History.—Bechuanaland was visited by Europeans towards the close of the 18th century. The generally peaceful disposition of the tribes rendered the opening up of the country comparatively easy. The first regular expedition to penetrate far inland was in 1801-1802, when John (afterwards Sir John) Truter, of the Cape judicial bench, and William Somerville—an army physician and afterwards husband of Mary Somerville—were sent to the Bechuana tribes to buy cattle. The London Missionary Society established stations in what is now Griqualand West in 1803, and in 1818 the station of Kuruman, in Bechuanaland proper, was founded. In the meantime M.H.K. Lichtenstein (1804) and W.J. Burchell (1811-1812), both distinguished naturalists, and other explorers, had made familiar the general characteristics of the southern part of the country. The Rev. John Campbell, one of the founders of the Bible Society, also travelled in southern Bechuanaland and the adjoining districts in 1812-1814 and 1819-1821, adding considerably to the knowledge of the river systems. About 1817 Mosilikatze, the founder of the Matabele nation, fleeing from the wrath of Chaka, the Zulu king, began his career of conquest, during which he ravaged a great part of Bechuanaland and enrolled large numbers of Bechuana in his armies. Eventually the Matabele settled to the north-east in the country which afterwards bore their name. In 1821 Robert Moffat arrived at Kuruman as agent of the London Missionary Society, and made it his headquarters for fifty years. Largely as the result of the work of Moffat (who reduced the Bechuana tongue to writing), and of other missionaries, the Bechuana advanced notably in civilization. The arrival of David Livingstone in 1841 marked the beginning of the systematic exploration of the northern regions. His travels, and those of C.J. Andersson (1853-1858) and others, covered almost every part of the country hitherto unknown. In 1864 Karl Mauch discovered gold in the Tati district.

Missionary work.

At the time of the first contact of the Bechuana with white men the Cape government was the only civilized authority in South Africa; and from this cause, and the circumstance that the missionaries who lived among and exercised great influence over them were of British nationality, the connexion between Bechuanaland and the Cape became close. As early as 1836 an act was passed extending the jurisdiction of the Cape courts in certain cases as far north as 25° S.—a limit which included the southern part of Bechuanaland. Although under strong British influence the country was nevertheless ruled by its own chiefs, among whom the best-known in the middle of the 19th century were Montsioa, chief of the Barolong, and Sechele, chief of the Bakwena and the friend of Livingstone. At this period the Transvaal Boers were in a very unsettled state, and those living in the western districts showed a marked inclination to encroach upon the lands of the Bechuana. In 1852 Great Britain by the Sand river convention acknowledged the independence of the Transvaal. Save the Vaal river no frontier was indicated, and “boasting,” writes Livingstone in his *Missionary Travels*, “that the English had given up all the blacks into their power ... they (the Boers) assaulted the Bakwains” (Bakwena).

Boer encroachment.

With this event the political history of Bechuanaland may be said to have begun. Not only was Sechele attacked at his capital Kolobeng, and the European stores and Livingstone’s

house there looted, but the Boers stopped a trader named M'Cabe from going northward. Again to quote Livingstone, "The Boers resolved to shut up the interior and I determined to open the country." In 1858 the Boers told the missionaries that they must not go north without their (the Boers') consent. Moffat complained to Sir George Grey, the governor of Cape Colony, through whose intervention the molestation by Transvaal Boers of British subjects in their passage through Bechuanaland was stopped. At a later date (1865) the Boers tried to raise taxes from the Barolong, but without success, a commando sent against them in 1868 being driven off by Montsioa's brother Molema. This led to a protest (in 1870) from Montsioa, which he lodged with a landdrost at Potchefstroom in the Transvaal, threatening to submit the matter to the British high commissioner if any further attempt at taxation were made on the part of the Boers. The Boers then resorted to cajolery, and at a meeting held in August 1870, at which President Pretorius and Paul Kruger represented the Transvaal, invited the Barolong to join their territories with that of the republic, in order to save them from becoming British. Montsioa's reply was short: "No one ever spanned-in an ass with an ox in one yoke." In the following year the claims of the Boers, the Barolong, and other tribes were submitted to the arbitration of R.W. Keate, lieutenant-governor of Natal, and his award placed Montsioa's territory outside the limits of the Transvaal. This attempt of the Boers to gain possession of Bechuanaland having failed, T.F. Burgers, the president of the Transvaal in 1872, endeavoured to replace Montsioa as chief of the Barolong by Moshette, whom he declared to be the rightful ruler and paramount chief of that people. The attacks of the Boers at length became so unbearable that Montsioa in 1874 made a request to the British authorities to be taken under their protection. In formulating this appeal he declared that when the Boers were at war with Mosilikatze, chief of the Matabele, he had aided them on the solemn understanding that they were to respect his boundaries. This promise they had broken. Khama, chief of the Bamangwato in northern Bechuanaland, wrote in August 1876 to Sir Henry Barkly making an appeal similar to that sent by the Barolong. The letter contained the following significant passages:

> "I write to you, Sir Henry, in order that your queen may preserve for me my country, it being in her hands. The Boers are coming into it, and I do not like them." "Their actions are cruel among us black people. We are like money, they sell us and our children." "I ask Her Majesty to defend me, as she defends all her people. There are three things which distress me very much—war, selling people, and drink. All these things I shall find in the Boers, and it is these things which destroy people to make an end of them in the country. The custom of the Boers has always been to cause people to be sold, and to-day they are still selling people."

The statements of Khama in this letter do not appear to have been exaggerated. The testimony of Livingstone confirms them, and even a Dutch clergyman, writing in 1869, described the system of apprenticeship of natives which obtained among the Boers "as slavery in the fullest sense of the word." These representations on the part of the Barolong, and the Bamangwato under Khama, supported by the representations of Cape politicians, led in 1878 to the military occupation of southern Bechuanaland by a British force under Colonel (afterwards General Sir Charles) Warren. A small police force continued to occupy the district until April 1881, but, ignoring the wishes of the Bechuana and the recommendations of Sir Bartle Frere (then high commissioner), the home government refused to take the country under British protection. On the withdrawal of the police, southern Bechuanaland fell into a state of anarchy, nor did the fixing (on paper) of the frontier between it and the Transvaal by the Pretoria convention of August 1881 have any beneficial effect. There was fighting between Montsioa and Moshette, while Massow, a Batlapin chief, invited the aid of the Boers against Mankoroane, who claimed to be paramount chief of the Batlapin. The Transvaal War of that date offered opportunities to the freebooting Boers of the west which were not to be lost. At this time the British, wearied of South African troubles, were disinclined to respond to native appeals for help. Consequently the Boers proceeded without let or hindrance with their conquest and annexation of territory. In 1882 they set up the republic of Stellaland, with Vryburg as its capital, and forthwith proceeded to set up the republic of Goshen, farther north, in spite of the protests of Montsioa, and established a small town called Rooi Grond as capital. They then summoned Montsioa to quit the territory. The efforts of the British authorities at this period (1882-1883) to bring about a satisfactory settlement were feeble and futile, and fighting continued until peace was made entirely on Boer lines. The Transvaal government was to have supreme power, and to be the final arbiter in case of future quarrels arising among the native chiefs. This agreement, arrived at without any reference to the British government, was a breach of the Pretoria convention, and led to an intimation on the part of Great Britain that she could not recognize the new republics. In South Africa, as well as in England, strong feeling was aroused by this

Stellaland and Goshen.

act of aggression. Unless steps were taken at once, the whole of Bechuanaland might be permanently lost, while German territory on the west might readily be extended to join with that of the Boers. In the London convention of February 1884, conceded by Lord Derby in response to the overtures of Boer delegates, the Transvaal boundaries were again defined, part of eastern Bechuanaland being included in Boer territory. In spite of the convention the Boers remained in Stellaland and Goshen—which were west of the new Transvaal frontier, and in April 1884 the Rev. John Mackenzie, who had succeeded Livingstone, was sent to the country to arrange matters. He found very little difficulty in negotiating with the various Bechuana chiefs, but with the Boers he was not so successful. In Goshen the Boers defied his authority, while in Stellaland only a half-hearted acceptance of it was given. At the instance of the new Cape government, formed in May and under control of the Afrikander Bond, Mackenzie, who was accused of being too "pro-Bechuana" and who had been refused the help of any armed force, was recalled on the 30th of July by the high commissioner, Sir Hercules Robinson. In his place Cecil Rhodes, then leader of the Opposition in the Cape parliament, was sent to Bechuanaland.

Rhodes's Mission.

Rhodes's mission was attended with great difficulty. British prestige after the disastrous Boer War of 1881 was at a very low ebb, and he realized that he could not count on any active help from the imperial or colonial authorities. He adopted a tone of conciliation, and decided that the Stellaland republic should remain under a sort of British suzerainty. But in Goshen the Boers would let him do nothing. Commandant P.J. Joubert, after meeting him at Rooi Grond, entered the country and attacked Montsioa. Rhodes then left under protest, declaring that the Boers were making war against Great Britain. The Boers now (10th of September) proclaimed the country under Transvaal protection. This was a breach of the London convention, and President Kruger explained that the steps had been taken in the "interests of humanity." Indignant protest in Cape Town and throughout South Africa, as well as England, led to the despatch in October 1884 of the Warren expedition, which was sent out by the British government to remove the filibusters, to bring about peace in the country, and to hold it until further measures were decided upon. Before Sir Charles Warren reached Africa, Sir Thomas Upington, the Cape premier, and Sir Gordon Sprigg, the treasurer-general, went to Bechuanaland and arranged a "settlement" which would have left the Boer filibusters in possession, but the imperial government refused to take notice of this "settlement." Public opinion throughout Great Britain was too strong to be ignored. The limit of concessions to the Boers had been reached, and Sir Charles Warren's force—4000 strong—had reached the Vaal river in January 1885. On the 22nd of January Kruger met Warren at the Modder river, and endeavoured to stop him from proceeding farther, saying that he would be responsible for keeping order in the country. Warren, however, continued his march, and without firing a shot broke up the republics of Stellaland and Goshen. Bechuanaland was formally taken under British protection (30th of September 1885), and the sphere of British influence was declared to extend N. to 22° S. and W. to 20° E. (which last-mentioned line marks the eastern limit of German South-West Africa).

Warren expedition.

British protectorate.

The natives cheerfully accepted this new departure in British policy, and from this time forward Khama's country was known as the British protectorate of Bechuanaland. That portion lying to the south of the Molopo river was described as British Bechuanaland, and was constituted a crown colony. In 1891 the northern frontier of the protectorate was extended to its present boundaries, and the whole of it placed under the administration of a resident commissioner, a protest being made at the time by the British South Africa Company on the ground that the protectorate was included in the sphere of their charter. Under the able administration (1885-1895) of Sir Sidney Shippard (*q.v.*) peace was maintained among the natives, who have shown great loyalty to British rule.

The history of the country shows how much has been due to the efforts of men like Livingstone, Mackenzie and Rhodes. It is quite clear that had they not represented the true state of affairs to the authorities the whole of this territory would have gradually been absorbed by the Boers, until they had effected a union with the Germans on the west. The great road to the north would thus have been effectually shut against trade and British colonization. With regard to the precise effect of missionary influence upon the natives, opinion will always remain divided. But Livingstone, who was not only a missionary but also an enlightened traveller, stated that a considerable amount of benefit had been conferred upon the native races by missionary teaching. Livingstone was a great advocate of the prohibition of alcohol among the natives, and that policy was always adhered to by Khama.

In 1891 the South African Customs Union was extended to British Bechuanaland, and in 1895 the country was annexed to Cape Colony. At the same time it was provisionally arranged that the Bechuanaland protectorate should pass under the administration of the British South Africa Company (see RHODESIA). Khama and two other Bechuana chiefs came to England and protested against this arrangement. The result was that their territories and those of other petty chiefs lying to the north of the Molopo were made native reserves, into which the importation of alcohol was forbidden. A British resident officer was to be appointed to each of the reserves. A stipulation, however, was made with these chiefs that a strip of country sufficient for the purposes of a railway to Matabeleland should be conceded to the Chartered Company. In December 1895 the occurrence of the Jameson Raid, which started from these territories, prevented the completion of negotiations, and the administration of the protectorate remained in the hands of the imperial government. The administration, besides fostering the scanty material resources of the country, aids the missionaries in their endeavours to raise the Bechuanas in the scale of civilization. The results are full of encouragement. The natives proved staunch to the British connexion during the war of 1899-1902, and Khama and other chiefs gave help by providing transport. Anxiety was caused on the western frontier during the German campaigns against the Hottentots and Herero (1903-1908), many natives seeking refuge in the protectorate. A dispute concerning the chieftainship of the Batawana in the Ngami district threatened trouble in 1906, but was brought to a peaceful issue. The Bechuana were entirely unaffected by the Kaffir rebellion in Natal.

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(F. R. C.; A. P. H.)

BECK, CHRISTIAN DANIEL (1757-1832), German philologist, historian, theologian and antiquarian, one of the most learned men of his time, was born at Leipzig on the 22nd of January 1757. He studied at Leipzig University, where he was appointed (1785) professor of Greek and Latin literature. This post he resigned in 1819 in order to take up the professorship of history, but resumed it in 1825. He also had the management of the university library, was director of the institute for the deaf and dumb, and filled many educational and municipal offices. In 1784 he founded a philological society, which grew into a philological seminary, superintended by him until his death. In 1808 he was made a *Hofrath* by the king of Saxony, and in 1820 a knight of the civil order of merit. His philological lectures, in which grammar and criticism were subordinated to history, were largely attended by hearers from all parts of Germany. He died at Leipzig on the 13th of December 1832. He edited a number of classical authors: *Pedo Albinovanus* (1783), Pindar and the Scholia (1792-1795), Aristophanes (with others, 1794, &c.), Euripides (1778-1788), Apollonius Rhodius (1797), Demosthenes *De Pace* (1799), Plato (1813-1819), Cicero (1795-1807), Titus Calpurnius Siculus (1803). He translated Ferguson's *Fall of the Roman Republic* and Goldsmith's *History of Greece*, and added two volumes to Bauer's Thucydides. He also wrote on theological and historical subjects, and edited philological and bibliographical journals. He possessed a large and valuable library of 24,000 volumes.

See Nobbe, *Vita C.D. Beckii* (1837); and G. Hermann, *Opuscula*, v. 312.

BECK (or BEEK), **DAVID** (1621-1656), Dutch portrait-painter, was born at Arnheim in Guelderland. He was trained by Van Dyck, from whom he acquired the fine manner of pencilling and sweet style of colouring peculiar to that great master. He possessed likewise that freedom of hand and readiness, or rather rapidity of execution, for which Van Dyck was so remarkable, insomuch that when King Charles I. observed the expeditious manner of Beck's painting, he exclaimed, "Faith! Beck, I believe you could paint riding post." He was appointed portrait-painter and chamberlain to Queen Christina of Sweden, and he executed portraits of most of the sovereigns of Europe to adorn her gallery. His death at the Hague was suspected of being due to poisoning.

BECK, JAKOB SIGISMUND (1761-1840), German philosopher, was born at Danzig in 1761. Educated at Königsberg, he became professor of philosophy first at Halle (1791-1799) and then at Rostock. He devoted himself to criticism and explanation of the doctrine of Kant, and in 1793 published the *Erläuternder Auszug aus Kants kritischen Schriften*, which has been widely used as a compendium of Kantian doctrine. He endeavoured to explain away certain of the contradictions which are found in Kant's system by saying that much of the language is used in a popular sense for the sake of intelligibility, *e.g.* where Kant attributes to things-in-themselves an existence under the conditions of time, space and causality, and yet holds that they furnish the material of our apprehensions. Beck maintains that the real meaning of Kant's theory is idealism; that of objects outside the domain of consciousness, knowledge is impossible, and hence that nothing positive remains when we have removed the subjective element. Matter is deduced by the "original synthesis." Similarly, the idea of God is a symbolical representation of the voice of conscience guiding from within. The value of Beck's exegesis has been to a great extent overlooked owing to the greater attention given to the work of Fichte. Beside the three volumes of the *Erläuternder Auszug*, he published the *Grundriss der krit. Philosophie* (1796), containing an interpretation of the Kantian *Kritik* in the manner of Salomon Maimon.

See Ueberweg, *Grundriss der Gesch. der Philos. der Neuzeit*; Dilthey in the *Archiv für Geschichte der Philos.*, vol. ii. (1889), pp. 592-650. For Beck's letters to Kant, see R. Reicke, *Aus Kants Briefwechsel* (Königsberg, 1885).

BECKENHAM, an urban district in the Sevenoaks parliamentary division of Kent, England, 10 m. S.S.E. of London by the South Eastern & Chatham railway. Pop. (1881) 13,045; (1901) 26,331. It is a long straggling parish extending from the western tower of the Crystal Palace almost to the south end of Bromley, and contains the residential suburb of Shortlands. Its rapid increase in size in the last decade of the 19th century was owing to the popularity which it attained as a place of residence for London business men. It retains, however, some of its rural character, and has wide thoroughfares and many handsome residences standing in extensive grounds. King William IV.'s Naval Asylum was endowed by Queen Adelaide for 12 widows of naval officers. The church of St George was built in 1866 on the site of an ancient Perpendicular church. Some 16th-century brasses, an altar tomb and a piscina were removed hither from the old church. The tower of the church was completed in 1903, and furnished with two bells in memory of Cecil Rhodes, in addition to the old bells, one of which dates from 1624.

BECKER, HEINRICH (1770-1822), German actor, whose real name was BLUMENTHAL, was born at Berlin. He obtained, while quite a young man, an appointment in the court theatre at Weimar, at that time under Goethe's auspices. The poet recognized his talent, appointed him stage-manager, entrusted him with several of the leading roles in his dramas and consulted

him in all matters connected with the staging of his plays. For many years Becker was the favourite of the Weimar stage, and although he was at his best in comedy, he played, to Goethe's great satisfaction, Vansen in *Egmont*, and was also seen to great advantage in the leading parts of several of Schiller's plays; notably Burleigh in *Maria Stuart*, Karl Moor in *Die Räuber*, and Antonio in *Torquato Tasso*. Becker left Weimar in the spring of 1809, played for a short time at Hamburg (under Schröder) and at Breslau, and then began a wandering life, now joining travelling companies, now playing at provincial theatres. Broken in health and ruined in fortune he returned in 1820 to Weimar, where he was again cordially received by Goethe, who reinstated him at the theatre. After playing for two short years with indifferent success, he died at Weimar in 1822.

Becker was twice married. His first wife, Christiane Luise Amalie Becker (1778-1797), was the daughter of a theatrical manager and dramatic poet, Johann Christian Neumann, and made her first stage appearance in 1787 at Weimar. Here she received some training from Goethe and from Corona Schröter, the singer, and her beauty and charm made her the favourite both of court and public. She married Heinrich Becker in 1793. She died on the 22nd of September 1797. Her last part was that of Euphrosyne in the opera *Das Petermännchen*, and it is under this name that Goethe immortalized her in a poem which first appeared in Schiller's *Musen Almanack* of 1799.

BECKER, WILHELM ADOLF (1796-1846), German classical archaeologist, was born at Dresden. At first destined for a commercial life, he was in 1812 sent to the celebrated school at Pforta. In 1816 he entered the university of Leipzig, where he studied under Beck and Hermann. After holding subordinate posts at Zerbst and Meissen, he was in 1842 appointed professor of archaeology at Leipzig. He died at Meissen on the 30th of September 1846. The works by which Becker is most widely known are the *Gallus* or *Römische Scenen aus der Zeit Augusts* (1838, new ed. by Göll, 1880-1882), and the *Charicles* or *Bilder altgriechischer Sitte*, (1840, new ed. by Göll, 1877-1878). These two books, which have been translated into English by Frederick Metcalfe, contain a very interesting description of the everyday life of the ancient Greeks and Romans, in the form of a romance. The notes and appendixes are valuable. More important is the great *Handbuch der röm. Alterthümer* (1843-1868), completed after Becker's death by Marquardt and Mommsen. Becker's treatises *De Comicis Romanorum Fabulis* (1837), *De Romae Veteris Muris atque Portis* (1842), *Die römische Topographie in Rom* (1844), and *Zur römischen Topographie* (1845) may also be mentioned.

BECKET, THOMAS (*c.* 1118-1170), by his contemporaries more commonly called Thomas of London, English chancellor and archbishop of Canterbury under Henry II., was born about the year 1118 in London. His mother was a native of Caen; his father, who came of a family of small Norman landowners, had been a citizen of Rouen, but migrated to London before the birth of Thomas, and held at one time the dignified office of portreeve, although he ended his life in straitened circumstances. The young Thomas received an excellent education. At the age of ten he was put to school with the canons of Merton priory in Surrey. Later he spent some time in the schools of London, which enjoyed at that time a high reputation, and finally studied theology at Paris. Returning at the age of twenty-two he was compelled, through the misfortunes of his parents, to become a notary in the service of a wealthy kinsman, Osbert Huit Deniers, who was of some importance in London politics. About 1142 a family friend brought Thomas under the notice of Archbishop Theobald, of whose household he at once became an inmate. He accompanied the primate to Rome in 1143, and also to the council of Reims (1148), which Theobald attended in defiance of a prohibition from the king. It appears to have been at some time between the dates of these two journeys that he visited Bologna and Auxerre, and began those studies in the canon law to which he was in no small degree indebted for his subsequent advancement and misfortunes. Although the bent of his mind was legal, he never made himself an expert jurist; but he had the art of turning his knowledge, such as it was, to excellent account. In 1151 he was sent to Rome by the archbishop with instructions to dissuade the Curia from

sanctioning the coronation of Stephen's eldest son Eustace. It is said that Thomas distinguished himself by the ability with which he executed his commission; in any case it gave him a claim on the gratitude of the Angevin party which was not forgotten. In 1154 he was promoted to be archdeacon of Canterbury, after first taking deacon's orders. In the following year Henry II., at the primate's recommendation, bestowed on him the important office of chancellor. In this capacity Thomas controlled the issue of royal writs and the distribution of ecclesiastical patronage; but it was more important for his future that he had ample opportunities of exercising his personal fascination upon a prince who was comparatively inexperienced, and thirteen or fourteen years his junior. He became Henry's bosom friend and was consulted in all affairs of state. It had been the hope of Theobald that Becket's influence would be exercised to support the extensive privileges which the Church had wrested from Stephen. But the chancellor, although preserving friendly relations with his old patron, subordinated the interests of the Church to those of his new master. Under his administration the Church was severely taxed for the prosecution of Henry's foreign wars; and the chancellor incurred the reproach "of plunging his sword into the bowels of his mother." Like Wolsey he identified himself with the military aspirations of his sovereign. It was Thomas who organized the Toulouse campaign of 1159; even in the field he made himself conspicuous by commanding a company of knights, directing the work of devastation, and superintending the conduct of the war after the king had withdrawn his presence from the camp. When there was war with France upon the Norman border, the chancellor acted as Henry's representative; and on one occasion engaged in single combat and unhorsed a French knight of reputation. Later it fell to his part to arrange the terms of peace with France. He discharged the duties of an envoy with equal magnificence and dexterity; the treaty of May 1160, which put an end to the war, was of his making.

In 1162 he was transferred to a new sphere of action. Henry bestowed on him the see of Canterbury, left vacant by the death of Theobald. The appointment caused some murmurs; since Becket, at the time when it was made, was still a simple deacon. But it had been desired by Theobald as the one means of averting an attack on clerical privileges which had been impending almost since the accession of Henry II.; and the bishops accepted it in silence. Henry on his side looked to find in Becket the archbishop a coadjutor as loyal as Becket the archdeacon; and anticipated that the Church would once more be reduced to that state of dependence in which she had stood during the latter years of Henry I. Becket, however, disappointed all the conflicting expectations excited by his appointment. He did not allow himself to be made the king's tool; nor on the other hand did he attempt to protect the Church by humouring the king in ordinary matters. He devoted himself to ascetic practices, confined himself to the society of churchmen, and resigned the chancellorship in spite of a papal dispensation (procured by the king) which authorized him to hold that office concurrently with the primacy. By nature a violent partisan, the archbishop now showed himself the uncompromising champion of his order and his see. Hence he was on the worst of terms with the king before a year had elapsed. They came into open conflict at the council of Woodstock (July 1163), when Becket successfully opposed the king's proposal that a land-tax, known as the sheriff's aid, which formed part of that official's salary, should be henceforth paid into the Exchequer. But there were more serious differences in the background. Becket had not shrunk from excommunicating a tenant in chief who had encroached upon the lands of Canterbury, and had protected against the royal courts a clerk named Philip de Brois who was charged with an assault upon a royal officer. These disputes involved questions of principle which had long occupied Henry's attention, and Becket's defiant attitude was answered by the famous Constitutions of Clarendon (*q.v.*), in which the king defined, professedly according to ancient use and custom, the relations of Church and State. Becket and the bishops were required to give these constitutions their approval. Henry's demands were more defensible in substance than might be supposed from the manner in which he pressed them on the bishops. On the most burning question, that of criminous clerks, he offered a compromise. He was willing that the accused should be tried in the courts Christian provided that the punishment of the guilty were left to the lay power. Becket's opposition rested upon a casuistic interpretation of the canon law, and an extravagant conception of the dignity attaching to the priesthood; he showed, moreover, a disposition to quibble, to equivocate, and to make promises which he had no intention of fulfilling. His conduct may be excused on the ground that the bishops were subjected to unwarrantable intimidation. But when he renounced his promise to observe the constitutions his conduct was reprobated by the other bishops, although approved by the pope. It was fortunate for Becket's reputation that Henry punished him for his change of front by a systematic persecution in the forms of law. The archbishop was thus enabled to invoke the pope's assistance, and to quit the country with some show of dignity.

Becket fled to France in November 1164. He at once succeeded in obtaining from Alexander III. a formal condemnation of the constitutions. But Alexander, a fugitive from Italy and menaced by an alliance of the emperor with an antipope, was indisposed to take extreme measures against Henry; and six years elapsed before the king found himself definitely confronted with the choice between an interdict and a surrender. For the greater part of this time the archbishop resided at the Burgundian monastery of Pontigny, constantly engaged in negotiations with Alexander, whose hand he desired to force, and with Henry, from whom he hoped to extract an unconditional submission. In 1166 Becket received from the pope a commission to publish what censures he thought fit; of which he at once availed himself to excommunicate the king's principal counsellors. In 1169 he took the same step against two of the royalist bishops. In more sweeping measures, however, the pope refused to support him, until in 1170 Henry infringed the rights of Canterbury by causing Archbishop Roger of York to crown the young king. In that year the threats of the pope forced Henry to a reconciliation which took place later at Fréteval on the 22nd of July. It was a hollow truce, since the subject of the constitutions was not mentioned; and Thomas returned to England with the determination of riding roughshod over the king's supporters. If he had not given a definite pledge to forgive the bishops who had taken part in the young king's coronation, he had at least raised expectations that he would overlook all past offences. But the archbishop prevailed upon the pope to suspend the bishops, and before his return published papal letters which, in announcing these sentences, spoke of the constitutions as null and void. It was only to be expected that such a step, which was virtually a declaration of war against the king, should arouse in him the strongest feelings of resentment. The archbishop's murder, perpetrated within a month of his return to England (29th December 1170), was, however, the work of over zealous courtiers and regretted by no one more than Henry.

Becket was canonized in 1172. Within a short time his shrine at Canterbury became the resort of innumerable pilgrims. Plenary indulgences were given for a visit to the shrine, and an official register was kept to record the miracles wrought by the relics of the saint. The shrine was magnificently adorned with the gold and silver and jewels offered by the pious. It was plundered by Henry VIII., to whom the memory of Becket was specially obnoxious; but the reformers were powerless to expunge the name of the saint from the Roman calendar, on which it still remains. Even to those who are in sympathy with the principles for which he fought, the posthumous reputation of Becket must appear strangely exaggerated. It is evident that in the course of his long struggle with the state he fell more and more under the dominion of personal motives. At the last he fought not so much for an idea as for the humiliation of an opponent by whom he had been ungenerously treated. William of Newburgh appears to express the verdict of the most impartial contemporaries when he says that the bishop was *zelo justitiae fervidus, utrum autem plene secundum scientiam novit Deus*: "burning with zeal for justice, but whether altogether according to wisdom God knows."

AUTHORITIES.—*Original:*—The correspondence of Becket and most of the contemporary biographies are collected by J.C. Robertson in *Materials for the History of Thomas Becket* (7 vols., Rolls Series, 1875-1885). See also the *Vie de Saint Thomas*, by Garníer de Pont Sainte Maxence (ed. Hippeau, Paris, 1859). For the chronology of the controversy see Eyton's *Itinerary of Henry II.*

Modern:—Morris, *Life and Martyrdom of St Thomas Becket* (London, 1885); Lhuillier, *Saint Thomas de Cantorbéry* (2 vols., Paris, 1891-1892); J.C. Robertson, *Becket* (London, 1859); F.W. Maitland, *Roman Canon Law in the Church of England*, c. iv.; J.A. Froude in his *Short Studies*, vol. iv., and Freeman in his *Historical Essays* (1871), give noteworthy but conflicting appreciations.

(H. W. C. D.)

BECKFORD, WILLIAM (1760-1844), English author, son of Alderman William Beckford (1709-1770), was born on the 1st of October 1760. His father was lord mayor of London in 1762 and again in 1769; he was a famous supporter of John Wilkes, and on his monument in the Guildhall were afterwards inscribed the words of his manly and outspoken reproof to George III. on the occasion of the City of London address to the king in 1770. At the age of eleven young Beckford inherited a princely fortune from his father. He married Lady

Margaret Gordon in 1783, and spent his brief married life in Switzerland. After his wife's death (1786) he travelled in Spain and Portugal, and wrote his *Portuguese Letters* (published 1834, 1835), which rank with his best work. He afterwards returned to England, and after selling his old house, Fonthill Abbey, Wiltshire, began to build a magnificent residence there, on which he expended in about eighteen years the sum of £273,000. His eccentricities, together with the strict seclusion in which he lived, gave rise to scandal, probably unjustified. In 1822 he sold his house, together with its splendid library and pictures, to John Farquhar, and soon after one of the towers, 260 ft. high, fell, destroying part of the villa in the ruins. Beckford erected another lofty structure on Lansdowne Hill, near Bath, where he continued to reside till his death in 1844. His first work, *Biographical Memoirs of Extraordinary Painters* (1780) was a slight, sarcastic *jeu d'esprit*. In 1782 he wrote in French his oriental romance, *The History of the Caliph Vathek*, which appeared in English, translated by the Rev. Samuel Henley, in 1786 and has taken its place as one of the finest productions of luxuriant imagination.

Beckford's wealth and large expenditure, his position as a collector and patron of letters (he bought Gibbon's library at Lausanne), his literary industry, and his reputation as author of *Vathek*, make him an interesting figure in literary history. He had a seat in parliament from 1784 to 1793, and again from 1806 to 1820. He left two daughters, the eldest of whom was married to the 10th duke of Hamilton.

Cyrus Redding's *Memoir* (1859) is the only full biography, but prolix; see Dr R. Garnett's introduction to his edition of *Vathek* (1893).

BECKINGTON (or BEKYNTON), **THOMAS** (*c.* 1390-1465), English statesman and prelate, was born at Beckington in Somerset, and was educated at Winchester and New College, Oxford. Having entered the church he held many ecclesiastical appointments, and became dean of the Arches in 1423; then devoting his time to secular affairs he was sent on an embassy to Calais in 1439, and to John IV., count of Armagnac, in 1442. At this time Beckington was acting as secretary to Henry VI., and soon after his return in 1443 he was appointed lord privy seal and bishop of Bath and Wells. The bishop erected many buildings in Wells, and died there on the 14th of January 1465. The most important results of Beckington's missions to France were one Latin journal, written by himself, referring to the embassy to Calais; and another, written by one of his attendants, relating to the journey to Armagnac.

Beckington's own journal is published in the *Proceedings of the Privy Council*, vol. v., edited by N.H. Nicolas (1835); and the other journal in the *Official Correspondence of Thomas Bekynton*, edited by G. Williams for the Rolls Series (1872), which contains many interesting letters. This latter journal has been translated into English by N.H. Nicolas (1828). See G.G. Perry, "Bishop Beckington and Henry VI.," in the *English Historical Review* (1894).

BECKMANN, JOHANN (1739-1811), German scientific author, was born on the 4th of June 1739 at Hoya in Hanover, where his father was postmaster and receiver of taxes. He was educated at Stade and the university of Göttingen. The death of his mother in 1762 having deprived him of his means of support, he went in 1763 on the invitation of the pastor of the Lutheran community, Anton Friedrich Büsching, the founder of the modern historic statistical method of geography, to teach natural history in the Lutheran academy, St Petersburg. This office he relinquished in 1765, and travelled in Denmark and Sweden, where he studied the methods of working the mines, and made the acquaintance of Linnaeus at Upsala. In 1766 he was appointed extraordinary professor of philosophy at Göttingen. There he lectured on political and domestic economy with such success that in 1770 he was appointed ordinary professor. He was in the habit of taking his students into the workshops, that they might acquire a practical as well as a theoretical knowledge of different processes and handicrafts. While thus engaged he determined to trace the history and describe the

existing condition of each of the arts and sciences on which he was lecturing, being perhaps incited by the *Bibliothecae* of Albrecht von Haller. But even Beckmann's industry and ardour were unable to overtake the amount of study necessary for this task. He therefore confined his attention to several practical arts and trades; and to these labours we owe his *Beiträge zur Geschichte der Erfindungen* (1780-1805), translated into English as the *History of Inventions*—a work in which he relates the origin, history and recent condition of the various machines, utensils, &c., employed in trade and for domestic purposes. This work entitles Beckmann to be regarded as the founder of scientific technology, a term which he was the first to use in 1772. In 1772 Beckmann was elected a member of the Royal Society of Göttingen, and he contributed valuable scientific dissertations to its proceedings until 1783, when he withdrew from all further share in its work. He died on the 3rd of February 1811. Other important works of Beckmann are *Entwurf einer allgemeinen Technologie* (1806); *Anleitung zur Handelswissenschaft* (1789); *Vorbereitung zur Warenkunde* (1795-1800); *Beiträge zur Ökonomie, Technologie, Polizei- und, Kameralwissenschaft* (1777-1791).

BECKWITH, JAMES CARROLL (1852-), American portrait-painter, was born at Hannibal, Missouri, on the 23rd of September 1852. He studied in the National Academy of Design, New York City, of which he afterwards became a member, and in Paris (1873-1878) under Carolus Duran. Returning to the United States in 1878, he gradually became a prominent figure in American art. He took an active part in the formation of the Fine Arts Society, and was president of the National Free Art League, which attempted to secure the repeal of the American duty on works of art. Among his portraits are those of W.M. Chase (1882), of Miss Jordan (1883), of Mark Twain, T.A. Janvier, General Schofield and William Walton. He decorated one of the domes of the Manufactures Building at the Columbian Exposition, Chicago, 1893.

BECKWITH, SIR THOMAS SYDNEY (1772-1831), British general, was the son of Major-General John Beckwith, who was colonel of the 20th regiment (Lancashire Fusiliers) in the charge at Minden. In 1791 he entered the 71st regiment (then commanded by Colonel David Baird), in which he served in India and elsewhere until 1800, when he obtained a company in Colonel Coote Manningham's experimental regiment of riflemen, shortly afterwards numbered as the 95th Rifles and now called the Rifle Brigade. In 1802 he was promoted major, and in the following year lieutenant-colonel. Beckwith was one of the favourite officers of Sir John Moore in the famous camp of Shorncliffe, and aided that general in the training of the troops which afterwards became the Light Division. In 1806 he served in the expedition to Hanover, and in 1807 in that which captured Copenhagen. In 1806 the Rifles were present at Vimeira, and in the campaign of Sir John Moore they bore the brunt of the rearguard fighting. Beckwith took part in the great march of Craufurd to the field of Talavera, in the advanced guard fights on the Coa in 1810 and in the campaign in Portugal. On the formation of the Light Division he was given a brigade command in it. After the brilliant action of Sabugal, Beckwith had to retire for a time from active service, but the Rifles and the brigade he had trained and commanded added to their fame on every subsequent battlefield. In 1812 he went to Canada as assistant quartermaster-general, and he took part in the war against the United States. In 1814 he became major-general, and in 1815 was created K.C.B. In 1827 he was made colonel commandant of the Rifle Brigade. He went to India as commander-in-chief at Bombay in 1829, and was promoted lieutenant-general in the following year. He died on the 15th of January 1831 at Mahableshwar.

His elder brother, Sir George Beckwith (1753-1823), distinguished himself as a regimental officer in the American War of Independence, and served subsequently in high administrative posts and in numerous successful military operations in the West Indies during the French Revolutionary and Napoleonic wars. He was made a K.B. for his capture of Martinique in 1809, and attained the full rank of general in 1814. Sir George Beckwith commanded the forces in Ireland, 1816-1820. He died in London on the 20th of March 1823.

Their nephew, Major-General John Charles Beckwith (1789-1862), joined the 50th regiment in 1803, exchanging in 1804 into the 95th Rifles, with which regiment he served in the Peninsular campaigns of 1808-10. He was subsequently employed on the staff of the Light Division, and he was repeatedly mentioned in despatches, becoming in 1814 a brevet-major, and after the battle of Waterloo (in which he lost a leg) lieutenant-colonel and C.B. In 1820 he left active service. Seven years later an accident drew his attention to the Waldenses, whose past history and present condition influenced him so strongly that he settled in the valleys of Piedmont. The rest of his life was spent in the self-imposed task of educating the Waldenses, for whom he established and maintained a large number of schools, and in reviving the earlier faith of the people. In 1848 King Charles Albert made him a knight of the order of St Maurice and St Lazarus. He was promoted colonel in the British army in 1837 and major-general in 1846. He died on the 19th of July 1862 at La Torre, Piedmont.

BECKX, PIERRE JEAN (1795-1887), general of the Society of Jesus, was born at Sichem in Belgium on the 8th of February 1795, and entered the novitiate of the order at Hildesheim in 1819. His first important post was as procurator for the province of Austria, 1847; next year he became rector of the Jesuit college at Louvain, and, after serving as secretary to the provincials of Belgium and Austria, was elected head of the order in 1853. His tenure of office was marked by an increased zeal for missions in Protestant lands, and by the removal of the society's headquarters from Rome to Fiesole near Florence in 1870. His chief literary work was the often-translated *Month of Mary* (Vienna, 1843). He retired in September 1883, being succeeded by Anthony M. Anderledy, a Swiss, who had seen service in the United States. He died at Rome on the 4th of March 1887.

BECQUE, HENRY FRANÇOIS (1837-1899), French dramatist, was born on the 9th of April 1837 in Paris. He wrote the book of an opera *Sardanapale* in imitation of Lord Byron for the music of M. Victorin Joncières in 1867, but his first important work, *Michel Pauper*, appeared in 1870. The importance of this sombre drama was first realized when it was revived at the Odéon in 1886. *Les Corbeaux* (1882) established Becque's position as an innovator, and in 1885 he produced his most successful play, *La Parisienne*. Becque produced little during the last years of his life, but his disciples carried on the tradition he had created. He died in May 1899.

See his *Querelles littéraires* (1890), and *Souvenirs d'un auteur dramatique* (1895), consisting chiefly of reprinted articles in which he does not spare his opponents. His *Théâtre complet* (3 vols., 1899) includes *L'Enfant prodigue* (Vaudeville Theatre, 6th of Nov. 1868); *Michel Pauper* (Théâtre de la Porte-Saint-Martin, 17th of June 1870); *L'Enlèvement* (Vaudeville, 18th of Nov. 1871); *La Navette* (Gymnase, 15th of Nov. 1878); *Les Honnêtes Femmes* (Gymnase, 1st of Jan. 1880); *Les Corbeaux* (Comédie Française, 14th of Sept. 1882); *La Parisienne* (Théâtre de la Renaissance, 7th of Feb. 1885).

BÉCQUER, GUSTAVO ADOLFO (1836-1870), Spanish poet and romance-writer, was born at Seville on the 17th of February 1836. Left an orphan at an early age, he was educated by his godmother, refused to adopt any profession, and drifted to Madrid, where he obtained a small post in the civil service. He was dismissed for carelessness, became an incorrigible Bohemian, and earned a precarious living by translating foreign novels; he died in great poverty at Madrid on the 22nd of December 1870. His works were published posthumously in 1873. In such prose tales as *El Rayo de Luna* and *La Mujer de piedra*, Bécquer is manifestly influenced by Hoffmann, and as a poet he has analogies with Heine. He dwells in a fairyland of his own, crooning a weird elfin music which has no parallel in

Spanish; his work is unfinished and unequal, but it is singularly free from the rhetoric characteristic of his native Andalusia, and its lyrical ardour is of a beautiful sweetness and sincerity.

BECQUEREL, the name of a French family, several members of which have been distinguished in chemical and physical research.

Antoine César Becquerel (1788-1878), was born at Châtillon sur Loing on the 8th of March 1788. After passing through the École Polytechnique he became *ingénieur-officier* in 1808, and saw active service with the imperial troops in Spain from 1810 to 1812, and again in France in 1814. He then resigned from the army and devoted the rest of his life to scientific investigation. His earliest work was mineralogical in character, but he soon turned his attention to the study of electricity and especially of electrochemistry. In 1837 he received the Copley medal from the Royal Society "for his various memoirs on electricity, and particularly for those on the production of metallic sulphurets and sulphur by the long-continued action of electricity of very low tension," which it was hoped would lead to increased knowledge of the "recomposition of crystallized bodies, and the processes which may have been employed by nature in the production of such bodies in the mineral kingdom." In biological chemistry he worked at the problems of animal heat and at the phenomena accompanying the growth of plants, and he also devoted much time to meteorological questions and observations. He was a prolific writer, his books including *Traité d'électricité et du magnétisme* (1834-1840), *Traité de physique dans ses rapports avec la chimie* (1842), *Éléments de l'électro-chimie* (1843), *Traité complet du magnétisme* (1845), *Éléments de physique terrestre et de météorologie* (1847), and *Des climats et de l'influence qu'exercent les sols boisés et déboisés* (1853). He died on the 18th of January 1878 in Paris, where from 1837 he had been professor of physics at the Musée d'Histoire Naturelle.

His son, Alexandre Edmond Becquerel (1820-1891), was born in Paris on the 24th of March 1820, and was in turn his pupil, assistant and successor at the Musée d'Histoire Naturelle; he was also appointed professor at the short-lived Agronomic Institute at Versailles in 1849, and in 1853 received the chair of physics at the Conservatoire des Arts et Métiers. Edmond Becquerel was associated with his father in much of his work, but he himself paid special attention to the study of light, investigating the photochemical effects and spectroscopic characters of solar radiation and the electric light, and the phenomena of phosphorescence, particularly as displayed by the sulphides and by compounds of uranium. It was in connexion with these latter inquiries that he devised his phosphoroscope, an apparatus which enabled the interval between exposure to the source of light and observation of the resulting effects to be varied at will and accurately measured. He published in 1867-1868 a treatise in two volumes on *La Lumière, ses causes et ses effets*. He also investigated the diamagnetic and paramagnetic properties of substances; and was keenly interested in the phenomena of electrochemical decomposition, accumulating much evidence in favour of Faraday's law and proposing a modified statement of it which was intended to cover certain apparent exceptions. He died in Paris on the 11th of May 1891.

Antoine Henri Becquerel (1852-1908), son of the last-named, who succeeded to his chair at the Musée d'Histoire Naturelle in 1892, was born in Paris on the 15th of December 1852, studied at the École Polytechnique, where he was appointed a professor in 1895, and in 1875 entered the department *des ponts et chaussées*, of which in 1894 he became *ingénieur en chef*. He was distinguished as the discoverer of radioactivity, having found in 1896 that uranium at ordinary temperatures emits an invisible radiation which in many respects resembles Röntgen rays, and can affect a photographic plate after passing through thin plates of metal. For his researches in this department he was in 1903 awarded a Nobel prize jointly with Pierre Curie. He also engaged in work on magnetism, the polarization of light, phosphorescence and the absorption of light in crystals. He died at Croisic in Brittany on the 25th of August 1908.

BED (a common Teutonic word, cf. German *Bett*, probably connected with the Indo-European root *bhodh*, seen in the Lat. *fodere*, to dig; so “a dug-out place” for safe resting, or in the same sense as a garden “bed”), a general term for a resting or sleeping place for men and animals, and in particular for the article of household furniture for that object, and so used by analogy in other senses, involving a supporting surface or layer. The accompaniments of a domestic bed (bedding, coverlets, etc.) have naturally varied considerably in different times, and its form and decoration and social associations have considerable historical interest. The Egyptians had high bedsteads which were ascended by steps, with bolsters or pillows, and curtains to hang round. Often there was a head-rest as well, semi-cylindrical and made of stone, wood or metal. Assyrians, Medes and Persians had beds of a similar kind, and frequently decorated their furniture with inlays or *appliqués* of metal, mother-of-pearl and ivory. The oldest account of a bedstead is probably that of Ulysses which Homer describes him as making in his own house, but he also mentions the inlaying of the woodwork of beds with gold, silver and ivory. The Greek bed had a wooden frame, with a board at the head and bands of hide laced across, upon which skins were placed. At a later period the bedstead was often veneered with expensive woods; sometimes it was of solid ivory veneered with tortoise-shell and with silver feet; often it was of bronze. The pillows and coverings also became more costly and beautiful; the most celebrated places for their manufacture were Miletus, Corinth and Carthage. Folding beds, too, appear in the vase paintings. The Roman mattresses were stuffed with reeds, hay, wool or feathers; the last was used towards the end of the Republic, when custom demanded luxury. Small cushions were placed at the head and sometimes at the back. The bedsteads were high and could only be ascended by the help of steps. They were often arranged for two persons, and had a board or railing at the back as well as the raised portion at the head. The counterpanes were sometimes very costly, generally purple embroidered with figures in gold; and rich hangings fell to the ground masking the front. The bedsteads themselves were often of bronze inlaid with silver, and Elagabalus, like some modern Indian princes, had one of solid silver. In the walls of some of the houses at Pompeii bed niches are found which were probably closed by curtains or sliding partitions. The marriage bed, *lectus genialis*, was much decorated, and was placed in the atrium opposite the door. A low pallet-bed used for sick persons was known as *scimpodium*. Other forms of couch were called *lectus*, but were not beds in the modern sense of the word except the *lectus funebris*, on which the body of a dead person lay in state for seven days, clad in a toga and rich garments, and surrounded by flowers and foliage. This bed rested on ivory legs, over which purple blankets embroidered with gold were spread, and was placed in the atrium with the foot to the door and with a pan of incense by its side. The ancient Germans lay on the floor on beds of leaves covered with skins, or in a kind of shallow chest filled with leaves and moss. In the early middle ages they laid carpets on the floor or on a bench against the wall, placed upon them mattresses stuffed with feathers, wool or hair, and used skins as a covering. They appear to have generally lain naked in bed, wrapping themselves in the large linen sheets which were stretched over the cushions. In the 13th century luxury increased, and bedsteads were made of wood much decorated with inlaid, carved and painted ornament. They also used folding beds, which served as couches by day and had cushions covered with silk laid upon leather. At night a linen sheet was spread and pillows placed, while silk-covered skins served as coverlets. Curtains were hung from the ceiling or from an iron arm projecting from the wall. The Carolingian MSS. show metal bedsteads much higher at the head than at the feet, and this shape continued in use till the 13th century in France, many cushions being added to raise the body to a sloping position. In the 12th-century MSS. the bedsteads appear much richer, with inlays, carving and painting, and with embroidered coverlets and mattresses in harmony. Curtains were hung above the bed, and a small hanging lamp is often shown. In the 14th century the woodwork became of less importance, being generally entirely covered by hangings of rich materials. Silk, velvet and even cloth of gold were much used. Inventories from the beginning of the 14th century give details of these hangings lined with fur and richly embroidered. Then it was that the tester bed made its first appearance, the tester being slung from the ceiling or fastened to the walls, a form which developed later into a room within a room, shut in by double curtains, sometimes even so as to exclude all draughts. The space between bed and wall was called the *ruelle*, and very intimate friends were received there. In the 15th century beds became very large, reaching to 7 or 8 ft. by 6 or 7 ft. Viollet-le-Duc says that the mattresses were filled with pea-shucks or straw—neither wool nor horsehair is mentioned—but feathers also were used. At this time great personages were in the habit of carrying most of their property about with them, including beds and bed-hangings, and for this reason the bedsteads were for the most part mere frameworks to be covered up; but about the beginning of the 16th century bedsteads were made lighter and more decorative, since the lords remained in the same place for longer periods. In the

museum at Nancy is a fine bedstead of this period which belonged to Antoine de Lorraine. It has a carved head and foot as well as the uprights which support the tester. Another is in the Musée Cluny ascribed to Pierre de Gondi, very architectural in design, with a bracketed cornice, and turned and carved posts; at the head figures of warriors watch the sleeper. Louis XIV. had an enormous number of sumptuous beds, as many as 413 being described in the inventories of his palaces. Some of them had embroideries enriched with pearls, and figures on a silver or golden ground. The carving was the work of Proux or Caffieri, and the gilding by La Baronnière. The great bed at Versailles had crimson velvet curtains on which "The Triumph of Venus" was embroidered. So much gold was used that the velvet scarcely showed. Under the influence of Madame de Maintenon "The Sacrifice of Abraham," which is now on the tester, replaced "The Triumph of Venus." In the 17th century, which has been called "the century of magnificent beds," the style *à la duchesse*, with tester and curtains only at the head, replaced the more enclosed beds in France, though they lasted much longer in England. In the 18th century feather pillows were first used as coverings in Germany, which in the fashions of the bed and the curious etiquette connected with the bedchamber followed France for the most part. The beds were *à la duchesse*, but in France itself there was great variety both of name and shape—the *lit à alcove, lit d'ange*, which had no columns, but a suspended tester with curtains drawn back, *lit à l'Anglaise*, which looked like a high sofa by day, *lit en baldaquin*, with the tester fixed against the wall, *lit à couronne* 613
with a tester shaped like a crown, a style which appeared under Louis XVI., and was fashionable under the Restoration and Louis Philippe, and *lit à l'impériale*, which had a curved tester, are a few of their varieties. The *lit en baldaquin* of Napoleon I. is still at Fontainebleau, and the Garde Meuble contains several richly carved beds of a more modern date. The custom of the "bed of justice" upon which the king of France reclined when he was present in parliament, the princes being seated, the great officials standing, and the lesser officials kneeling, was held to denote the royal power even more than the throne. Louis XI. is credited with its first use, and the custom lasted till the end of the monarchy. From the habit of using this bed to hear petitions, &c., came the usage of the *grand lit*, which was provided wherever the king stayed, called also *lit de parement* or *lit de parade*, rather later. Upon this bed the dead king lay in state. The beds of the king and queen were saluted by the courtiers as if they were altars, and none approached them even when there was no railing to prevent it. These railings were apparently placed for other than ceremonial reasons originally, and in the accounts of several castles in the 15th century mention is made of a railing to keep dogs from the bed. In the *chambre de parade*, where the ceremonial bed was placed, certain persons, such as ambassadors or great lords, whom it was desired to honour, were received in a more intimate fashion than the crowd of courtiers. The *petit lever* was held in the bedroom itself, the *grand lever* in the *chambre de parade*. At Versailles women received their friends in their beds, both before and after childbirth, during periods of mourning, and even directly after marriage—in fact in any circumstances which were thought deserving of congratulation or condolence. During the 17th century this curious custom became general, perhaps to avoid the tiresome details of etiquette. Portable beds were used in high society in France till the end of the *ancien régime*. The earliest of which mention has been found belonged to Charles the Bold (see *Memoirs* of Philippe de Comines). They had curtains over a light framework, and were in their way as fine as the stationary beds. Iron beds appear in the 18th century; the advertisements recommend them as free from the insects which sometimes infested wooden bedsteads, but one is mentioned in the inventory of the furniture of the castle of Nerac in 1569, "un lit de fer et de cuivre, avec quatre petites colonnes de laiton, ensemble quatre satyres de laiton, quatre petits vases de laiton pour mettre sur les colonnes; dedans le dit lit il y a la figure d'Olopherne ensemble de Judith, qui sont d'albâtre." In Scotland, Brittany and Holland the closed bed with sliding or folding shutters has persisted till our own day, and in England—where beds were commonly quite simple in form—the four-poster, with tester and curtains all round, was the usual citizen's bed till the middle of the 19th century. Many fine examples exist of 17th-century carved oak bedsteads, some of which have found their way into museums. The later forms, in which mahogany was usually the wood employed, are much less architectural in design. Some exceedingly elegant mahogany bedsteads were designed by Chippendale, Hepplewhite and Sheraton, and there are signs that English taste is returning to the wooden bedstead in a lighter and less monumental form.

(J. P.-B.)

BED, in geology, a term for certain kinds of rock usually found to be arranged in more or less distinct layers; these are the beds of rock or strata. Normally, the bedding of rocks is horizontal or very nearly so; when the upper and lower surfaces of a bed are parallel, the bedding is said to be regular; if it is thickest at one point and thins away thence in every direction, the bedding is lenticular. Beds may be thick (50 ft. or more) or so thin as to be like sheets of paper, *e.g.* paper shales, such thin beds being often termed layers or laminae; intermediate regular varieties may be called flags, flagstones or tilestones. In fine-grained rocks the bedding is usually thinner and more regular than in coarser rocks, such as sandstones and grits. Bedding is confined to rocks which have been formed under water or by the agency of wind; these are the “stratified” rocks.

The deposition of rock material by moving water is not as a rule uniform, slight changes in the velocity produce an immediate change in the size of the particles deposited upon a given area; thus a coarse sand layer may be succeeded by a finer sand or a mud, or two sandy layers may be separated by a thin layer of muddy shale. Bedding is most often induced by a change in the nature of the contiguous strata; thus a sandstone is followed by a shale or vice versa—changes which may be due to the varying volume or velocity of a current. Or the nature of the deposit may be influenced by chemical actions, whereby we get beds of rock-salt or gypsum between beds of marl. Or again, organic activities may influence the deposit, beds of coal may succeed layers of shale, iron-stone may lie between limestones or clays, a layer of large fossils or of flints may determine a bedding plane in massive limestones. Flaky minerals like mica frequently assist in the formation of bedding planes; and the pressure of superincumbent strata upon earlier formed deposits has no doubt often produced a tendency in the particles to arrange themselves normal to the direction of pressure, thus causing the rock to split more readily along the same direction.

Where rapidly-moving currents of water (or air) are transporting or depositing sand, &c., the bedding is generally not horizontal, but inclined more or less steeply; this brings about the formation of what is variously called “cross-bedding,” “diagonal bedding”, “current bedding” or improperly “false-bedding.” Igneous materials, when deposited through the agency of water or air, exhibit bedding, but no true stratification is seen in igneous rocks that have solidified after cooling, although in granites and similar rocks the process of weathering frequently produces an appearance resembling this structure. Miners not infrequently describe a bed of rock as a “vein,” if it is one that has some economic value, *e.g.* a “vein of coal or ironstone.”

(J. A. H.)

BEDARESI, YEDAIAH (1270-1340), Jewish poet, physician and philosopher of Provence. His most successful work was an ethical treatise, *Behinath ‘Olam* (Examination of the World), a didactic poem in thirty-seven short sections. The work is still very popular. It was translated into English by Tobias Goodman.

BÉDARIEUX, a town of southern France, in the department of Hérault, on the Orb, 27 m. N.N.W. of Béziers by rail. Pop. (1906) 5594. The town has a 16th-century church, a board of trade arbitration, a chamber of arts and manufactures, a communal college and a school of drawing. Bédarieux was at one time a notable manufacturing centre. Its cloth-weaving industry, carried on under a special royal privilege from the end of the 17th century to the Revolution, employed in 1789 as many as 5000 workmen, while some thousand more were occupied in wool and cotton spinning, &c. In spite of the introduction of modern machinery from England, the industries of the place declined, mainly owing to the loss of the trade with the Levant; but of late years they have somewhat revived, owing partly to the opening up of coal mines in the neighbourhood. Besides cloth factories and wool-spinning mills, there are now numerous tanneries and leather-dressing works. There is some trade in timber, wool and agricultural produce.

BEDDGELERT (“Gelert’s grave”), a village in Carnarvonshire, North Wales, at the foot of Snowdon. The tradition of Gelert, Llewelyn’s hound, being buried there is old in Wales; and common to it and India is the legend of a dog (or ichneumon) saving a child from a beast of prey (or reptile), and being killed by the child’s father under the delusion that the animal had slain the infant. The English poet, W.R. Spencer, has versified the tale of Llewelyn, king of Wales, leaving Gelert and the baby prince at home, returning to find Gelert stained with the blood of a wolf, and killing the hound because he thought his child was slain. Sir W. Jones, the Welsh philologist and linguist, gives the Indian equivalent (Lord Teignmouth’s *Life of Jones*, ed. Rev. S.C. Wilkes, editor’s supplement). A Brahmin, leaving home, left his daughter in charge of an ichneumon, which he had long cherished. A black snake came up and was killed by the ichneumon, mistakenly killed, in its turn, by the Brahmin on his coming back. Another version is the medieval romance in *The Seven Wise Masters of Rome*. In the edition printed by Wynkyn de Worde it is told by “the first master”—a knight had one son, a greyhound and a falcon; the knight went to a tourney, a snake attacked the son, the falcon roused the hound, which killed the serpent, lay down by the cradle, and was killed by the knight, who discovered his error, like Llewelyn, and similarly repented (Villon Society, British Museum reprint, by Gomme and Wheatley).

On the west of Beddgelert is Moel Hebog (Bare-hill of the falcon), a hiding-place of Owen Glendower. Here, in 1784, was found a brass Roman shield. Near is the famous Aberglaslyn Pass, dividing Carnarvon and Merioneth. In the centre is Cadair Rhys Goch o’r Eryri, a rock named as the chair of Rhys Goch, a bard contemporary with Glendower (died traditionally, 1429). Not far hence passed the Roman road from Uriconium to Segontium (see CARNARVON).

BEDDOES, THOMAS (1760-1808), English physician and scientific writer, was born at Shiffnall in Shropshire on the 13th of April 1760. After being educated at Bridgnorth grammar school and at Pembroke College, Oxford, he studied medicine in London under John Sheldon (1752-1808). In 1784 he published a translation of L. Spallanzani’s *Dissertations on Natural History*, and in 1785 produced a translation, with original notes, of T.O. Bergman’s *Essays on Elective Attractions*. He took his degree of doctor of medicine at Oxford in 1786, and, after visiting Paris, where he became acquainted with Lavoisier, was appointed reader in chemistry at Oxford University in 1788. His lectures attracted large and appreciative audiences; but his sympathy with the French Revolution exciting a clamour against him, he resigned his readership in 1792. In the following year he published *Observations on the Nature of Demonstrative Evidence*, and the *History of Isaac Jenkins*, a story which powerfully exhibits the evils of drunkenness, and of which 40,000 copies are reported to have been sold. About the same time he began to work at his project for the establishment of a “Pneumatic Institution” for treating disease by the inhalation of different gases. In this he was assisted by Richard Lovell Edgeworth, whose daughter, Anna, became his wife in 1794. In 1798 the institution was established at Clifton, its first superintendent being Humphry Davy, who investigated the properties of nitrous oxide in its laboratory. The original aim of the institution was gradually abandoned; it became an ordinary sick-hospital, and was relinquished by its projector in the year before his death, which occurred on the 24th of December 1808. Beddoes was a man of great powers and wide acquirements, which he directed to noble and philanthropic purposes. He strove to effect social good by popularizing medical knowledge, a work for which his vivid imagination and glowing eloquence eminently fitted him. Besides the writings mentioned above, he was the author of *Political Pamphlets* (1795-1797), a popular *Essay on Consumption* (1799), which won the admiration of Kant, an *Essay on Fever* (1807), and *Hygeia, or Essays Moral and Medical* (1807). He also edited John Brown’s *Elements of Medicine* (1795), and *Contributions to Physical and Medical Knowledge, principally from the West of England* (1799).

A life of Beddoes by Dr John E. Stock was published in 1810.

BEDDOES, THOMAS LOVELL (1803-1849), English dramatist and poet, son of the

physician, Thomas Beddoes, was born at Clifton on the 20th of July 1803. His mother was a sister of Maria Edgeworth, the novelist. He was sent to Bath grammar school and then to the Charterhouse. At school he wrote a good deal of verse and a novel in imitation of Fielding. In 1820 he was entered at Pembroke College, Oxford, and in his first year published *The Improvisatore*, afterwards carefully suppressed, and in 1822 *The Bride's Tragedy*, which showed him as the disciple of the later Elizabethan and Jacobean dramatists. The play found a small circle of admirers, and procured for Beddoes the friendship of Bryan Waller Procter (Barry Cornwall). Beddoes retired to Southampton to read for his degree, and there Procter introduced him to a young lawyer, Thomas Forbes Kelsall, with whom he became very intimate, and who became his biographer and editor. At this time he composed the dramatic fragments of *The Second Brother* and *Torrismond*. Unfortunately he lacked the power of constructing a plot, and seemed to suffer from a constitutional inability to finish anything. Beddoes was one of the first outside the limited circle of Shelley's own friends to recognize Shelley's genius, and he was certainly one of the earliest imitators of his lyrical method. In the summer of 1824 he was summoned to Florence by the illness of his mother, but she died before he arrived. He remained some time in Italy, and met Mrs Shelley and Walter Savage Landor before he returned to England. In 1825 he took his degree at Oxford, and in that year he began what he calls (*Letters*, p. 68) "a very Gothic styled tragedy" with "a jewel of a name." This work was completed in 1829 as the fantastic and incoherent drama, *Death's Jest Book or The Fool's Tragedy*; but he continued to revise it until his death, and it was only published posthumously. On leaving Oxford he decided to study anatomy and physiology, not, however, without some hope that his studies might, by increasing his knowledge of the human mechanism, further his efforts as a dramatist. In the autumn of 1825 he entered on his studies at Göttingen, where he remained for four years. In 1829 he removed to Würzburg, and in 1832 obtained his doctorate in medicine, but his intimate association with democratic and republican leaders in Germany and Switzerland forced him to leave Bavaria without receiving his diploma. He settled in Zürich, where he practised for some time as a physician, and was even elected to be professor of comparative anatomy at the university, but the authorities refused to ratify his appointment because of his revolutionary views. He frequently contributed political poems and articles to German and Swiss papers, but none of his German work has been identified. The years at Zürich seem to have been the happiest of his life, but in 1839 the anti-liberal riots in the town rendered it unsafe for him, and early in the next year he had to escape secretly. From this time he had no settled home, though he stored his books at Baden in Aargau. His long residence in Germany was only broken by visits to England in 1828 to take his master of arts degree, in 1835, in 1842 and for some months in 1846. He had adopted German thought and manners to such an extent that he hardly felt at home in England; and his study of the German language, which he had begun in 1825, had almost weaned him from his mother-tongue; he was, as he says in a letter, "a non-conductor of friendship"; and it is not surprising that his old friends found him much changed and eccentric. In 1847 he returned to Frankfort, where he lived with a baker called Degen, to whom he became much attached, and whom he persuaded to become an actor. He took Degen with him to Zürich, where he chartered the theatre for one night to give his friend a chance of playing Hotspur. The two separated at Basel, and in a fit of dejection (May 1848) Beddoes tried to bleed himself to death. He was taken to the hospital, and wrote to his friends in England that he had had a fall from horseback. His leg was amputated, and he was in a fair way to recovery when, on the first day he was allowed to leave the hospital, he took curare, from the effects of which he died on the 26th of January 1849. His MSS. he left in the charge of his friend Kelsall.

In one of his letters to Kelsall Beddoes wrote:—"I am convinced the man who is to awaken the drama must be a bold, trampling fellow—no creeper into worm-holes—no reviser even—however good. These reanimations are vampire cold. Such ghosts as Marloe, Webster, &c., are better dramatists, better poets, I dare say, than any contemporaries of ours—but they are ghosts—the worm is in their pages" (*Letters*, p. 50). In spite of this wise judgment, Beddoes was himself a "creeper into worm-holes," a close imitator of Marston and of Cyril Tourneur, especially in their familiar handling of the phenomena of death, and in the remoteness from ordinary life of the passions portrayed. In his blank verse he caught to a certain degree the manner of his Jacobean models, and his verse abounds in beautiful imagery, but his *Death's Jest Book* is only finished in the sense of having five acts completed; it remains a bizarre production which appeals to few minds, and to them rather for the occasional excellence of the poetry than as an entire composition. His lyrics show the influence of Shelley as well as the study of 17th-century models, but they are by no means mere imitations, and some of them, like the "Dirge for Wolfram" ("If thou wilt ease thy heart"), and "Dream Pedlary" ("If there were dreams to sell"), are among the most exquisite of 19th-century lyrics.

Kelsall published Beddoes' great work, *Death's Jest Book: or, The Fool's Tragedy*, in 1850. The drama is based on the story that a certain Duke Boleslaus of Münsterberg was stabbed by his court-fool, the "Isbrand" of the play (see C.F. Floegel, *Geschichte der Hofnarren*, Leipzig, 1789, pp. 297 et seq.). He followed this in 1851 with *Poems of the late Thomas Lovell Beddoes*, to which a memoir was prefixed. The two volumes were printed together (1851) with the title of *Poems, Posthumous and Collected*. All these volumes are very rare. Kelsall bequeathed the Beddoes MSS. to Robert Browning, with a note stating the real history of Beddoes' illness and death, which was kept back out of consideration for his relatives. Browning is reported to have said that if he were ever Professor of Poetry his first lecture would be on Beddoes, "a forgotten Oxford poet." Mr Edmund Gosse obtained permission to use the documents from Browning, and edited a fuller selection of the *Poetical Works* (2 vols., 1890) for the "Temple Library," supplying a full account of his life. He also edited the *Letters of Thomas Lovell Beddoes* (1894), containing a selection from his correspondence, which is full of gaiety and contains much amusing literary criticism. See also the edition of Beddoes by Ramsay Colles in the "Muses' Library" (1906).

BEDE, Beda, or Bæda (672 or 673-735), English historian and theologian. Of Bæda, commonly called "the Venerable Bede," almost all that we know is contained in the short autobiographical notice which he has appended to his *Ecclesiastical History*:—"Thus much concerning the ecclesiastical history of Britain, and especially of the race of the English, I, Baeda, a servant of Christ and priest of the monastery of the blessed apostles St Peter and St Paul, which is at Wearmouth and at Jarrow, have with the Lord's help composed, so far as I could gather it, either from ancient documents, or from the tradition of the elders, or from my own knowledge. I was born in the territory of the said monastery, and at the age of seven I was, by the care of my relations, given to the reverend Abbot Benedict (Biscop), and afterwards to Ceolfrid, to be educated. From that time I have spent the whole of my life within that monastery devoting all my pains to the study of the scriptures; and amid the observance of monastic discipline, and the daily charge of singing in the church, it has ever been my delight to learn or teach or write. In my nineteenth year I was admitted to the diaconate, in my thirtieth to the priesthood, both by the hands of the most reverend Bishop John (of Hexham), and at the bidding of Abbot Ceolfrid. From the time of my admission to the priesthood to my (present) fifty-ninth year, I have endeavoured, for my own use and that of my brethren, to make brief notes upon the Holy Scripture, either out of the works of the venerable fathers, or in conformity with their meaning and interpretation." Then follows a list of his works, so far as, at that date, they had been composed. As the *Ecclesiastical History* was written in 731, we obtain the following dates for the principal events in Bede's uneventful life:—birth, 672-673; entrance into the monastery, 679-680; ordination as deacon, 691-692; as priest, 702-703.

The monastery of Wearmouth was founded by Benedict Biscop in 674, and that of Jarrow in 681-682. Though some 5 or 6 m. apart, they were intended to form a single monastery under a single abbot, and so Bede speaks of them in the passage given above. It is with Jarrow that Bede is chiefly associated, though no doubt from the close connexion of the two localities he would often be at Wearmouth. The preface to the prose life of Cuthbert proves that he had stayed at Lindisfarne prior to 721, while the Epistle to Egbert shows that he had visited him at York in 733. The tradition that he went to Rome in obedience to a summons from Pope Sergius is contradicted by his own words above, and by his total silence as to any such visit. In the passage cited above, "monastic discipline, the daily charge of singing in the church, learning, teaching, writing," in other words devotion and study make up the even tenor of Bede's tranquil life. Anecdotes have been preserved which illustrate his piety both in early and in later years; of his studies the best monument is to be found in his writings. As a little boy he would take his place among the pupils of the monastic school, though he would soon pass to the ranks of the teachers, and the fact that he was ordained deacon at nineteen, below the canonical age, shows that he was regarded as remarkable both for learning and goodness.

For the rest, it is in his works that we must chiefly seek to know him. They fall into three main classes: (1) scientific; (2) historical; (3) theological. The first class comprises works on grammar, one on natural phenomena, and two on chronology and the calendar. These last were inspired largely by the Paschal Question, which was the subject of such bitter controversy between the Roman and Celtic Churches in the 7th century. They form a natural

transition to the second class. In this the chief place is held by the *Ecclesiastical History of the English Nation*. By this Bede has justly earned the title of the Father of English History. By this almost exclusively he is known to others than professed students. It is indeed one of the most valuable and one of the most beautiful of historical works. Bede has the artist's instinct of proportion, the artist's sense for the picturesque and the pathetic. His style too, modelled largely, in the present writer's opinion, on that of Gregory in the *Dialogues*, is limpid and unaffected. And though it would be wrong to call Bede a critical historian in the modern sense of the words, he shows a very unusual conscientiousness in collecting his information from the best available sources, and in distinguishing between what he believed to be fact, and what he regarded only as rumour or tradition. Other historical works of Bede are the *History of the Abbots* (of Wearmouth and Jarrow), and the lives of Cuthbert in verse and prose. The *History of the Abbots* and the prose life of Cuthbert were based on earlier works which still survive. In the case of the latter it cannot honestly be said that Bede has improved on his original. In the *History of the Abbots* he was much nearer to the facts, and could make additions out of his own personal knowledge. The Epistle to Egbert, though not historical in form, may be mentioned here, because of the valuable information which it contains as to the state of the Northumbrian Church, on which the disorders and revolutions of the Northumbrian kingdom had told with disastrous effect. It is probably the latest of Bede's extant works, as it was written in November 734, only six months before his death. The third or theological class of writings consists mainly of commentaries, or of works which, if not commentaries in name, are so in fact. They are based largely on the works of the four great Latin Fathers, SS. Augustine, Jerome, Ambrose and Gregory; though Bede's reading is very far from being limited to these. His method is largely allegorical. For the text of scripture he uses both the Latin versions, the Itala and the Vulgate, often comparing them together. But he certainly knew Greek, and possibly some Hebrew. Indeed it may be said that his works, scientific, historical and theological, practically sum up all the learning of western Europe in his time, which he thus made available for his countrymen. And not for them only; for in the school of York, founded by his pupil Archbishop Ecgberht, was trained Alcuin (Ealhwine) the initiator under Charles the Great of the Frankish schools, which did so much for learning on the continent. And though Bede makes no pretensions to originality, least of all in his theological works, freely taking what he needed, and (what is very rare in medieval writers) acknowledging what he took, "out of the works of the venerable Fathers," still everything he wrote is informed and impressed with his own special character and temper. His earnest yet sober piety, his humility, his gentleness, appear in almost every line. "In history and in science, as well as in theology, he is before all things the Christian thinker and student." (Plummer's *Bede*, i. 2.) Yet it should not be forgotten that Bede could hardly have done what he did without the noble library of books collected by Benedict Biscop.

Several quaint and beautiful legends have been handed down as to the origin of the epithet of "venerable" generally attached to his name. Probably it is a mere survival of a title commonly given to priests in his day. It has given rise to a false idea that he lived to a great age; some medieval authorities making him ninety when he died. But he was not born before 672 (see above); and though the date of his death has been disputed, the traditional year, 735, is most probably correct. This would make him at most sixty-three. Of his death a most touching and beautiful account has been preserved in a contemporary letter. His last hours were spent, like the rest of his life, in devotion and teaching, his latest work being to dictate, amid ever-increasing bodily weakness, a translation into the vernacular of the Gospel of St John, a work which unhappily has not survived. It was a fitting close to such a life as his.

BIBLIOGRAPHY.—The above sketch is largely based on the present writer's essay on Bede's Life and Works, prefixed to his edition of Bede's *Historia Ecclesiastica, &c.* (2 vols., Clarendon Press, 1896). *Beda der Ehrwurdige und seine Zeit*, by Dr Karl Werner (Vienna, 1875), is excellent. Gehle, *Disputatio ... de Bedae vita et Scriptis* (Leiden, 1838), is still useful. Dr William Bright's *Chapters of Early English Church History* (3rd ed., Clarendon Press, 1897) is indispensable. See also Ker, *Dark Ages*, pp. 141 ff. Of the collected works of Bede the most convenient edition is that by Dr Giles in twelve volumes (8vo., 1843-1844), which includes translations of the *Historical Works*. The Continental folio editions (Basel, 1563; Cologne, 1612 and 1688) contain many works which cannot by any possibility be Bede's. The edition of Migne, *Patralogia Latina* (1862 ff.) is based on a comparison of the Cologne edition with Giles and Smith (see below), and is open to the same criticism. On the chronology and genuineness of the works commonly ascribed to Bede, see Plummer's ed., i., cxlv-clix.

On the MSS. early editions and translations of the *Historia Ecclesiastica*, see Plummer, *u.s.*, i., lxxx-cxxxii. The edition of Whelock (Cambridge, fol. 1643-1644) is noteworthy as the first English edition of the Latin text, and as the *editio princeps* of the Anglo-Saxon version

ascribed to King Alfred (see ALFRED THE GREAT). Smith's edition (Cambridge, fol. 1722) contained not only these, but also the other historical works of Bede, with notes and appendices. It is a monument of learning and scholarship. The most recent edition is that with notes and introduction by the present writer, u.s. It includes also the *History of the Abbots*, and the Epistle to Egbert. Of books iii. and iv. only, there is a learned edition by Professors Mayor and Lumby of Cambridge (3rd ed., 1881). A cheap and handy edition of the text alone is that by A. Holder (Freiburg im Breisgau, 1882, &c.). The best-known modern English translation is that by the Rev. L. Gidley (1870). Of the minor historical works a good edition was edited by Rev. J. Stevenson for the Eng. Hist. Soc. in 1841; and a translation by the same hand was included in *Church Historians of England*, vol. i., part ii. (1853). See also Plummer's edition, pp. cxxxii-cxlii.

(C. PL.)

BEDE, CUTHBERT, the pen-name of Edward Bradley (1827-1889), English author, who was born at Kidderminster on the 25th of March 1827. He entered University College, Durham, in 1845, and later studied at Oxford, where he made the acquaintance of J.G. Wood, the naturalist. He took holy orders, and eventually became rector of Stretton in Rutlandshire. Here he gained a reputation as a humorist and numbered among his friends Cruikshank, Frank Smedley, Mark Lemon and Albert Smith. He wrote for various magazines and, in the pages of the *Illustrated London News*, introduced the double acrostic. He is chiefly known as the author of *The Adventures of Mr Verdant Green, an Oxford Freshman* (1853), which he also illustrated and of which a third part appeared in 1856. Several well-known Oxford characters of the time are depicted in its pages, such as Dr Plumptre the vice-chancellor, Dr Bliss the registrar, and the waiter at the Mitre. The book abounds in innocent fun. In 1883 he was given the living of Lenton, or Lavington, Lincolnshire, where he died on the 12th of December 1889.

BEDELL, WILLIAM (1571-1642), Anglican divine, was born at Black Notley in Essex, in 1571. He was educated at Cambridge, became fellow of Emmanuel in 1593, and took orders. In 1607 he was appointed chaplain to Sir H. Wotton, then English ambassador at Venice, where he remained for four years, acquiring a great reputation as a scholar and theologian. He translated the *Book of Common Prayer* into Italian, and was on terms of closest friendship with the reformer, Sarpi (Fra Paolo). In 1616 he was appointed to the rectory of Horningsheath (near to Bury St Edmunds, where he had previously laboured), which he held for twelve years. In 1627 he became provost of Trinity College, Dublin, and, in 1629, bishop of Kilmore and Ardagh. He set himself to reform the abuses of his diocese, encouraged the use of the Irish language, and personally undertook the duties generally discharged by the bishop's lay chancellor. In 1633 he resigned his see. In 1641, when the Protestants were being massacred, Bedell's house was not only left untouched, but became the place of refuge for many fugitives. In the end, however, the rebels insisted upon the dismissal of all who had taken shelter in his house, and on the bishop's refusal he was seized and imprisoned with some others in the ruined castle of Loughboughter. Here he was detained for several weeks, and when released, rapidly sank from the effects of exposure, and died on the 7th of February 1642.

His life was written by Bishop Gilbert Burnet in 1685, and also by his elder son (ed. T.W. Jones, for the Camden Society, 1872).

BEDESMAN, or BEADSMAN (Med. Eng. *bede*, prayer, from O. Eng. *biddan*, to pray; literally "a man of prayer"), generally a pensioner or almsman whose duty it was to pray for his

benefactor. In Scotland there were public almsmen supported by the king and expected in return to pray for his welfare and that of the state. These men wore long blue gowns with a pewter badge on the right arm, and were nicknamed Blue Gowns. Their number corresponded to the king's years, an extra one being added each royal birthday. They were privileged to ask alms throughout Scotland. On the king's birthday each bedesman received a new blue gown, a loaf, a bottle of ale, and a leathern purse containing a penny for every year of the king's life. On the pewter badge which they wore were their name and the words "pass and repass," which authorized them to ask alms. In 1833 the appointment of bedesmen was stopped. In 1863 the last payment was paid to a bedesman. In consequence of its use in this general sense of pensioner, "bedesman" was long used in English as equivalent to "servant." The word had a special sense as the name for those almsmen attached to cathedral and other churches, whose duty it was to pray for the souls of deceased benefactors. A relic of pre-Reformation times, these old men still figure in the accounts of English cathedrals.

BEDFORD, EARLS AND DUKES OF. The present English title of duke of Bedford comes from a line of earls and dukes in the Russell family. In January 1550 John, Baron Russell, was created earl of Bedford, and in May 1694 his descendant, William, the 5th earl, became duke of Bedford. The Russell line is dealt with in the later part of this article. The title of duke of Bedford had, however, been previously held, notably by the third son of Henry IV.; and the earlier creations may first be considered here.

John Plantagenet, duke of Bedford (1389-1435), third son of Henry IV., king of England, was born on the 20th of June 1389. He received various dignities after his father became king in 1399, and gained his early experiences in warfare when he undertook the office of warden of the east marches of Scotland in 1404; he was fairly successful in this command, which he held until September 1414. In the previous May his brother, the new king Henry V., had created him duke of Bedford, and after resigning the wardenship he began to take a leading part in the royal councils. He acted as lieutenant of the kingdom during Henry's expedition to France in 1415, and in August 1416 commanded the ships which defeated the French fleet at the mouth of the Seine, and was instrumental in relieving Harfleur. Again appointed lieutenant in July 1417, he marched against the Scots, who abandoned the siege of Berwick at his approach; and on his return to London he brought Sir John Oldcastle to trial and was present at his execution. He appears to have governed the country with considerable success until December 1419, when he resigned his office as lieutenant and joined the king in France. Returning to England, he undertook the lieutenancy for the third time in June 1421, and in the following May conducted the queen to join Henry in Normandy. He then took his brother's place and led the English troops to the relief of Cosne, but on hearing of the king's serious illness he left the army and hurried to his side. Henry's last wish was that Bedford should be guardian of the kingdom and of the young king, and that Philip the Good, duke of Burgundy, should act as regent in France. But when Philip declined to undertake this office, it too was assumed by Bedford, who, after the death of the French king Charles VI. in October 1422, presided at a session of the parlement of Paris, and compelled all present to take an oath of fidelity to King Henry VI. Meanwhile the English parliament had decided that Bedford should be "protector and defender" of the kingdom, and that in his absence the office should devolve upon his brother Humphrey, duke of Gloucester. Confining himself to the conduct of affairs in France the protector took up Henry V.'s work of conquest, captured Meulan and other places, and sought to strengthen his position by an alliance with Philip of Burgundy. This task was rendered more difficult as Gloucester had just married Jacqueline, countess of Holland and Hainaut, a union which gave the English duke a claim on lands which Philip hoped to secure for himself. Bedford, however, having allayed Philip's irritation, formed an alliance with him and with John VI., duke of Brittany, at Amiens in April 1423, and himself arranged to marry Anne, a sister of the Burgundian duke. This marriage was celebrated at Troyes in the following June, and the war against Charles, the dauphin of France, was prosecuted with vigour and success. Bedford sought to restore prosperity to the districts under his rule by reforming the debased coinage, granting privileges to merchants and manufacturers, and removing various abuses. He then granted some counties to Philip to check the growing hostility between him and Gloucester, and on the 17th of August 1424 gained a great victory over a combined army of French and Scots at Verneuil. But in spite of the efforts of the protector the good

understanding between England and Burgundy was partially destroyed when Gloucester invaded Hainaut in October 1424. The ambition of his brother gave Bedford trouble in another direction also; for on his return from Hainaut Gloucester quarrelled with the chancellor, Henry Beaufort, bishop of Winchester, and the council implored Bedford to come to England to settle this dispute. He reached London in January 1426, and after concluding a bond of alliance with Gloucester effected a reconciliation between the duke and the chancellor; and knighted the young king, Henry VI. Bedford then promised to act in accordance with the will of the council, and in harmony with the decision of this body raised a body of troops and returned to France in March 1427. Having ordered Gloucester to desist from a further attack on Hainaut, he threatened Brittany and compelled Duke John to return to the English alliance; and the success of his troops continued until the siege of Orleans, to which he consented with reluctance, was undertaken in October 1428. Having assured himself that Philip was prepared to desert him, Bedford sent orders to his army to raise the siege in April 1429. He then acted with great energy and judgment in attempting to stem the tide of disasters which followed this failure, strengthened his hold upon Paris, and sent to England for reinforcements; but before any engagement took place he visited Rouen, where he sought to bind the Normans closer to England, and after his return to Paris resigned the French regency to Philip of Burgundy in accordance with the wish of the Parisians. Retaining the government of Normandy Bedford established himself at Rouen and directed the movements of the English forces with some success. He did not interfere to save the life of Joan of Arc. He was joined by Henry VI. in April 1430, when the regency was temporarily suspended, and he secured Henry's coronation at Paris in December 1431. In November 1432 his wife Anne died, and in April 1433 he was married at Therouanne to Jacqueline, daughter of Pierre I., count of St Pol. But notwithstanding Bedford's vigour the English lost ground steadily; and the death of Anne and this marriage destroyed the friendly relations between England and Burgundy. Negotiations for peace had no result, and when the duke returned to England in June 1433 he told parliament that he had come home to defend himself against the charge that the losses in France were caused by his neglect, and demanded that his detractors should make their accusations public. The chancellor replied that no such charges were known to the king or the council, and the duke was thanked for his great services. His next act was to secure an inquiry into the national finances; and when asked by the parliament to stay in England he declared that his services were at the king's disposal. As chief councillor he offered to take a smaller salary than had been previously paid to Gloucester, and undertook this office in December 1433, when his demands with regard to a continual council were conceded. Bedford, who was anxious to prosecute the war in France, left England again in 1434, but early in 1435 was obliged to consent to the attendance of English r epresentatives at a congress held to arrange terms of peace at Arras. Unable to consent to the French terms the English envoys left Arras in September, and Philip of Burgundy made a separate treaty with France. Bedford only lived to see the ruin of the cause for which he struggled so loyally. He died at Rouen on the 14th of September 1435, and was buried in the cathedral of that city. He left a natural son, Richard, but no legitimate issue. Bedford was a man of considerable administrative ability, brave and humane in war, wise and unselfish in peace. He was not responsible for the misfortunes of the English in France, and his courage in the face of failure was as admirable as his continued endeavour to make the people under his rule contented and prosperous.

The chief contemporary authorities for Bedford's life are: *Vita et gesta Henrici Quinti*, edited by T. Hearne (Oxford, 1727); E. de Monstrelet, *Chronique*, edited by L.D. d'Arcq. (Paris, 1857-1862); William of Worcester, *Annales rerum Anglicarum*, edited by J. Stevenson (London, 1864). See also *Proceedings and Ordinances of the Privy Council of England*, edited by J.R. Dasent (London, 1890-1899); W. Stubbs, *Constitutional History*, vol. iii. (Oxford, 1895); P.A. Barante, *Histoire des ducs de Bourgogne* (Paris, 1824).

In 1470 George Nevill (*c.* 1457-1483), son of John, earl of Northumberland, was created duke of Bedford; but after his father's attainder and death at the battle of Barnet in 1471 he was degraded from the peerage.

The next duke of Bedford was Jasper Tudor (*c.* 1430-1495), half-brother of King Henry VI. and uncle of Henry VII. He was made earl of Pembroke in 1453. Having survived the vicissitudes of the Wars of the Roses he was restored to his earldom and created duke of Bedford in 1485. The duke, who was lord-lieutenant of Ireland from 1486 to 1494, died without legitimate issue on the 21st of December 1495.

John Russell, 1st earl of Bedford (*c.* 1486-1555), was a son of James Russell (d. 1509). Having travelled widely, he attained some position at the court of Henry VII., and was subsequently in great favour with Henry VIII. In 1513 he took part in the war with France,

and, having been knighted about the same time, was afterwards employed on several diplomatic errands. He was with Henry at the Field of the Cloth of Gold in 1520, and, returning to military service when the French war was renewed, lost his right eye at the siege of Morlaix in 1522. He was soon made knight marshal of the royal household, and in 1523 went secretly to France, where he negotiated a treaty between Henry and Charles, duke of Bourbon, who was anxious to betray the French king Francis I. After a short visit to England Russell was sent with money to Bourbon, joining the constable at the siege of Marseilles. In 1524 he visited Pope Clement VII. at Rome, and, having eluded the French, who endeavoured to capture him, was present at the battle of Pavia in February 1525, returning to England about the close of the year. In January 1527 he was sent as ambassador to Clement, who employed him to treat on his behalf with Charles de Lannoy, the general of Charles V. The next few years of Russell's life were mainly spent in England. He was member of parliament for Buckingham in the parliament of 1529, and although an opponent of the party of Anne Boleyn, retained the favour of Henry VIII. He took an active part in suppressing the Pilgrimage of Grace in 1536, and was one of the commissioners appointed to try the Lincolnshire prisoners. Honours now crowded upon him. His appointment as comptroller of the king's household in 1537 was followed by that of a privy councillor in 1538; then he was made lord high admiral, high steward of the duchy of Cornwall and a knight of the garter. In March 1539 he was created Baron Russell of Chenies, and in 1542 became high steward of the university of Oxford, and keeper of the privy seal. In 1539, when Charles V. and Francis I. were threatening to invade England, he was sent into the west, and crossed to France when Henry attacked Francis in 1544. He was in command of an army in the west of England in 1545, and when Henry died in January 1547 was one of the executors of his will. Under Edward VI. Russell was lord high steward and keeper of the privy seal, and the defeat which he inflicted on the rebels at Clyst St Mary near Exeter in August 1549, was largely instrumental in suppressing the rising in Devonshire. In January 1550 he was created earl of Bedford, and was one of the commissioners appointed to make peace with France in this year. He opposed the proposal to seat Lady Jane Grey on the throne; supported Queen Mary, who reappointed him lord privy seal; and assisted to prevent Sir Thomas Wyat's rising from spreading to Devonshire. In 1554 he went to Spain to conclude the marriage treaty between Mary and Philip II., and soon after his return died in London on the 14th of March 1555. By extensive acquisitions of land Bedford was the founder of the wealth and greatness of the house of Russell. Through his wife, Anne (d. 1550), daughter of Sir Guy Sapcote, whom he married in 1526, he obtained Chenies, and in 1539 was granted the forest of Exmoor, and also Tavistock, and a number of manors in Devon, Cornwall and Somerset, which had formerly belonged to the abbey of Tavistock. In 1549 he received Thorney, the abbey of Woburn, and extensive lands in the eastern counties; and in 1552 Covent Garden and seven acres of land in London, formerly the property of the protector Somerset. He left an only son, Francis, who succeeded him in the title.

See *Letters and Papers of Henry VIII.* (London, 1862-1901); *State Papers during the Reign of Henry VIII.* (London, 1831-1852); *Calendar of State Papers, Edward VI. and Mary* (London, 1861); J.H. Wiffen, *Historical Memoirs of the House of Russell* (London, 1833); J.A. Froude, *History of England, passim* (London, 1881 fol.).

Francis Russell, 2nd earl of Bedford (*c.* 1527-1585), was educated at King's Hall, Cambridge. He accompanied his father to the French war in 1544, and from 1547 to 1552 was member of parliament for Buckinghamshire, being probably the first heir to a peerage to sit in the House of Commons. He assisted to quell the rising in Devonshire in 1549, and after his father had been created earl of Bedford in January 1550, was known as Lord Russell, taking his seat in the House of Lords under this title in 1552. Russell was in sympathy with the reformers, whose opinions he shared, and was in communication with Sir Thomas Wyat; and in consequence of his religious attitude was imprisoned during the earlier part of Mary's reign. Being released he went into exile; visited Italy; came into touch with foreign reformers; and fought at the battle of St Quentin in 1557. Afterwards he seems to have enjoyed some measure of the royal favour, and was made lord-lieutenant of the counties of Devon, Cornwall and Dorset early in 1558. When Elizabeth ascended the throne in November 1558 the earl of Bedford, as Russell had been since 1555, became an active figure in public life. He was made a privy councillor, and was sent on diplomatic errands to Charles IX. of France and Mary queen of Scots. From February 1564 to October 1567 he was governor of Berwick and warden of the east marches of Scotland, in which capacity he conducted various negotiations between Elizabeth and Mary. He appears to have been an efficient warden, but was irritated by the vacillating and tortuous conduct of the English queen. When the northern insurrection broke out in 1569, Bedford was sent into Wales, and

he sat in judgment upon the duke of Norfolk in 1572. In 1576 he was president of the council of Wales, and in 1581 was one of the commissioners deputed to arrange a marriage between Elizabeth and Francis, duke of Anjou. Bedford, who was made a knight of the garter in 1564, was lord warden of the Stannaries from 1553 to 1580. He appears to have been a generous and popular man, and died in London on the 28th of July 1585. He was buried at Chenies. His first wife was Margaret (d. 1562), daughter of Sir John St John, by whom he had four sons and three daughters. His three eldest sons predeceased their father. His second wife was Bridget (d. 1601), daughter of John, Lord Hussey. He was succeeded as 3rd earl by his grandson, Edward (1572-1627), only son of Francis, Lord Russell (*c.* 1550-1585). The 3rd earl left no children when he died on the 3rd of May 1627, and was succeeded by his cousin.

Francis Russell, 4th earl of Bedford (1593-1641), was the only son of William, Lord Russell of Thornhaugh, to which barony he succeeded in August 1613. For a short time previously he had been member of parliament for the borough of Lyme Regis; in 1623 he was made lord-lieutenant of Devonshire; and in May 1627 became earl of Bedford by the death of his cousin, Edward, the 3rd earl. When the quarrel broke out between Charles I. and the parliament, Bedford supported the demands of the House of Commons as embodied in the Petition of Right, and in 1629 was arrested for his share in the circulation of Sir Robert Dudley's pamphlet, "Proposition for His Majesty's service," but was quickly released. The Short parliament meeting in April 1640 found the earl as one of the king's leading opponents. He was greatly trusted by John Pym and Oliver St John, and is mentioned by Clarendon as among the "great contrivers and designers" in the House of Lords. In July 1640 he was among the peers who wrote to the Scottish leaders refusing to invite a Scottish army into England, but promising to stand by the Scots in all legal and honourable ways; and his signature was afterwards forged by Thomas, Viscount Savile, in order to encourage the Scots to invade England. In the following September he was among those peers who urged Charles to call a parliament, to make peace with the Scots, and to dismiss his obnoxious ministers; and was one of the English commissioners appointed to conclude the treaty of Ripon. When the Long parliament met in November 1640, Bedford was generally regarded as the leader of the parliamentarians. In February 1641 he was made a privy councillor, and during the course of some negotiations was promised the office of lord high treasurer. He was essentially a moderate man, and seemed anxious to settle the question of the royal revenue in a satisfactory manner. He did not wish to alter the government of the Church, was on good terms with Archbishop Laud, and, although convinced of Stafford's guilt, was anxious to save his life. In the midst of the parliamentary struggle Bedford died of smallpox on the 9th of May 1641. Clarendon described him as "a wise man, and of too great and plentiful a fortune to wish the subversion of the government," and again referring to his death said that "many who knew him well thought his death not unseasonable as well to his fame as his fortune, and that it rescued him as well from some possible guilt as from those visible misfortunes which men of all conditions have since undergone." Bedford was the head of those who undertook to drain the great level of the fens, called after him the "Bedford level." He spent a large sum of money over this work and received 43,000 acres of land, but owing to various jealousies and difficulties the king took the work into his own hands in 1638, making a further grant of land to the earl. Bedford married Catherine (d. 1657), daughter of Giles, 3rd Lord Chandos, by whom he had four sons and four daughters. His eldest son, William (1613-1700), succeeded him as 5th earl, fought first on the side of the parliament and then on that of the king during the Civil War, and in 1694 was created marquess of Tavistock and duke of Bedford.

See Clarendon, *History of the Rebellion, passim* (Oxford, 1888); J.H. Wiffen, *Historical Memoirs of the House of Russell* (London, 1833); J.L. Sanford, *Studies and Illustrations of the Great Rebellion* (London, 1858).

The first duke, who married Anne (d. 1684), daughter of Robert Carr, earl of Somerset, was succeeded in the title by his grandson Wriothesley (1680-1711), who was a son of Lord William Russell (*q.v.*) by his marriage with Rachel, daughter of Thomas Wriothesley, 4th earl of Southampton, and who became second duke in 1700. Eleven years later the second duke was succeeded by his eldest son Wriothesley (1708-1732), who died without issue in October 1732, when the title passed to his brother John.

John Russell, 4th duke of Bedford (1710-1771), second son of Wriothesley Russell, 2nd duke of Bedford, by his wife, Elizabeth, daughter and heiress of John Howland of Streatham, Surrey, was born on the 30th of September 1710. Known as Lord John Russell, he married in October 1731 Lady Diana Spencer, daughter of Charles, 3rd earl of Sunderland; became duke of Bedford on his brother's death a year later; and having lost his first wife in 1735,

married in April 1737 Lady Gertrude Leveson-Gower (d. 1794), daughter of John, Earl Gower. In the House of Lords he joined the party hostile to Sir Robert Walpole, took a fairly prominent part in public business, and earned the dislike of George II. When Carteret, now Earl Granville, resigned office in November 1744, Bedford became first lord of the admiralty in the administration of Henry Pelham, and was made a privy councillor. He was very successful at the admiralty, but was not equally fortunate after he became secretary of state for the southern department in February 1748. Pelham accused him of idleness; he was constantly at variance with the duke of Newcastle, and resigned office in June 1751. Instigated by his friends he was active in opposition to the government, and after Newcastle's resignation in November 1756, became lord-lieutenant of Ireland in the ministry of William Pitt and the duke of Devonshire, retaining this office after Newcastle, in alliance with Pitt, returned to power in June 1757. In Ireland he favoured a relaxation of the penal laws against Roman Catholics, but did not keep his promises to observe neutrality between the rival parties, and to abstain from securing pensions for his friends. His own courtly manners and generosity, and his wife's good qualities, however, seem to have gained for him some popularity, although Horace Walpole says he disgusted everybody. In March 1761 he resigned this office. Having allied himself with the earl of Bute and the party anxious to bring the Seven Years' War to a close, Bedford was noticed as the strongest opponent of Pitt, and became lord privy seal under Bute after Pitt resigned in October 1761. The cabinet of Bute was divided over the policy to be pursued with regard to the war, but pacific counsels prevailed, and in September 1762 Bedford went to France to treat for peace. He was considerably annoyed because some of the peace negotiations were conducted through other channels, but he signed the peace of Paris in February 1763. Resigning his office as lord privy seal soon afterwards, various causes of estrangement arose between Bute and Bedford, and the subsequent relations of the two men were somewhat virulent. The duke refused to take office under George Grenville on Bute's resignation in April 1763, and sought to induce Pitt to return to power. A report, however, that Pitt would only take office on condition that Bedford was excluded, incensed him and, smarting under this rebuff, he joined the cabinet of Grenville as lord president of the council in September 1763. His haughty manner, his somewhat insulting language, and his attitude with regard to the regency bill in 1765 offended George III., who sought in vain to supplant him, and after this failure was obliged to make humiliating concessions to the ministry. In July 1765, however, he was able to dispense with the services of Bedford and his colleagues, and the duke became the leader of a political party, distinguished for rapacity, and known as the "Bedford party," or the "Bloomsbury gang." During his term of office he had opposed a bill to place high import duties on Italian silks. He was consequently assaulted and his London residence attacked by a mob. He took some part in subsequent political intrigues, and although he did not return to office, his friends, with his consent, joined the ministry of the duke of Grafton in December 1767. This proceeding led "Junius" to write his "letter to the duke of Bedford," one of especial violence. Bedford was hostile to John Wilkes, and narrowly escaped from a mob favourable to the agitator at Honiton in July 1769. His health had been declining for some years, and in 1770 he became partially paralysed. He died at Woburn on the 15th of January 1771, and was buried in the family burying place at Chenies. His three sons all predeceased him, and he was succeeded in the title by his grandson, Francis. The duke held many public offices: lord-lieutenant of Bedfordshire and Devonshire, and chancellor of Dublin University among others, and was a knight of the garter. Bedford was a proud and conceited man, but possessed both ability and common-sense. The important part which he took in public life, however, was due rather to his wealth and position than to his personal taste or ambition. He was neither above nor below the standard of political morality of the time, and was influenced by his duchess, who was very ambitious, and by followers who were singularly unscrupulous.

See *Correspondence of John, 4th Duke of Bedford*, edited by Lord John Russell (London, 1842-1846); J.H. Wiffen, *Historical Memoirs of the House of Russell* (London, 1833); W.E.H. Lecky, *History of England*, vol. iii. (London, 1892); Horace Walpole, *Memoirs of the Reign of George II.* (London, 1847), and *Memoirs of the Reign of George III.*, edited by G.F.R. Barker (London, 1894.)

Francis Russell, 5th duke of Bedford (1765-1802), eldest son of Francis Russell, marquess of Tavistock (d. 1767), by his wife, Elizabeth (d. 1768), daughter of William Keppel, 2nd earl of Albemarle, was baptized on the 23rd of July 1765. In January 1771 he succeeded his grandfather as duke of Bedford, and was educated at Westminster school and Trinity College, Cambridge, afterwards spending nearly two years in foreign travel. Regarding Charles James Fox as his political leader, he joined the Whigs in the House of Lords, and became a member of the circle of the prince of Wales, afterwards George IV. Having

overcome some nervousness and educational defects, he began to speak in the House, and soon became one of the leading debaters in that assembly. He opposed most of the measures brought forward by the ministry of William Pitt, and objected to the grant of a pension to Edmund Burke, an action which drew down upon him a scathing attack from Burke's pen. Bedford was greatly interested in agriculture. He established a model farm at Woburn, and made experiments with regard to the breeding of sheep. He was a member of the original board of agriculture, and was the first president of the Smithfield club. He died at Woburn on the 2nd of March 1802, and was buried in the family burying-place at Chenies. The duke was never married, and was succeeded in the title by his brother, John.

See Lord Holland, *Memoirs of the Whig Party* (London, 1854); J.H. Wiffen, *Historical Memoirs of the House of Russell* (London, 1833): E. Burke, *Letter to a Noble Lord* (Edinburgh, 1837); and Earl Stanhope, *Life of Pitt* (London, 1861-1862).

John Russell, 6th duke of Bedford (1766-1839), was succeeded as seventh duke by his eldest son, Francis (1788-1861), who had an only son, William (1809-1872), who became duke on his father's death in 1861. When the eighth duke died in 1872, he was succeeded by his cousin, Francis Charles Hastings (1819-1891), who was member of parliament for Bedfordshire from 1847 until he succeeded to the title. The ninth duke was the eldest son of Major-General Lord George William Russell (1790-1846), who was a son of the sixth duke. He married Elizabeth, daughter of George John, 5th Earl de la Warr, and both his sons, George William Francis Sackville (1852-1893), and Herbrand Arthur (b. 1858), succeeded in turn to the title.

BEDFORD, a municipal and parliamentary borough, and the county town of Bedfordshire, England, 50 m. north-north-west of London by the Midland railway; served also by a branch of the London & North-Western. Pop. (1901) 35,144. It lies in the fertile valley of the Ouse, on both banks, but mainly on the north, on which stands the mound which marks the site of the ancient castle. The church of St Paul is Decorated and Perpendicular, but its central tower and spire are modern; it contains the tomb of Sir William Harper or Harpur (*c.* 1496-1573), lord mayor of London, a notable benefactor of his native town of Bedford. St Peter's church has in its central tower masonry probably of pre-Conquest date; that of St Mary's is in part Norman, and that of St John's Decorated; but the bodies of these churches are largely restored. There are some remains of a Franciscan friary of the 14th century. The Congregational chapel called Bunyan's or the "Old Meeting" stands on the site of the building in which John Bunyan preached from 1656 onward. His chair is preserved here, and a tablet records his life in the town, where he underwent a long but in part nominal imprisonment. He was born at Elstow, 1½ m. from Bedford, where, while playing on the green, he believed himself to have received the divine summons to renounce sin. In the panels of a fine pair of bronze doors in the chapel are scenes illustrative of Bunyan's *Pilgrim's Progress*. Bedford is noted for its grammar school, founded by Edward VI. in 1552, and endowed by Sir William Harper. The existing buildings date from 1891, and have been increased since that date, and the school is one of the important public schools of England. Harper's endowment includes land in London, and is now of great value, and the Harper Trust supports in addition modern and elementary schools for boys and girls, a girls' high school, and almshouses. The grammar school annually awards both entrance exhibitions and two exhibitions to a university or other higher educational institution. The old grammar school buildings are used as a town hall; and among other modern buildings may be mentioned the shire hall and county hospital. There are statues of John Bunyan (1874) and John Howard (1894) the philanthropist (1726-1790), who founded the Congregational chapel which bears his name, and resided at Cardington in the vicinity. There are two parks. Bedford has a large trade as a market town for agricultural produce, and extensive engineering works and manufactures of agricultural implements. The parliamentary borough returns one member. The municipal borough is under a mayor, 6 aldermen and 18 councillors. Area, 2223 acres.

Bedford (Bedcanforda, Bedanforda, Bedeford) is first mentioned in 571, when Cuthwulf defeated the Britons here. It subsequently became a Danish borough, which in 914 was captured by Edward the Elder. In Domesday, as the county town, it was entered apart from the rest of the shire, and was assessed at half a hundred for the host and for ship service. The prescriptive borough received its first charter from Henry II., who gave the town to the

burgesses to hold at a fee-farm rent of £40 in lieu of all service. The privileges included a gild-merchant, all tolls, and liberties and laws in common with the citizens of Oxford. This charter was confirmed by successive sovereigns down to Charles II. During the 15th century, owing to the rise of other market towns, Bedford became less prosperous, and the fee-farm rent was finally reduced to £20 by charter of Henry VII. Henry VIII. granted a November fair to St Leonard's hospital, which was still held in the 19th century at St Leonard's farm, the site of the hospital. Mary granted two fairs, one in Lent and one on the Feast of the Conception, and also a weekly market. A 17th century pamphlet on river navigation in Bedfordshire mentions the trade which Bedford carried on in coal, brought by the Ouse from Lynn and Yarmouth. The town was also one of the earliest centres of the lace trade, to the success of which French refugees in the 17th and 18th centuries largely contributed.

Bedford was represented in the parliament of 1295, and after that date two members were returned regularly, until by the Redistribution of Seats Act in 1885 Bedford lost one of its members. The unlimited power of creating freemen, an inherent right of the borough, led to great abuse, noticeably in 1769 when 500 freemen[1] were created to support the political interest of Sir Robert Barnard, afterwards recorder of the borough.

Bedford castle, of which mention is first heard during Stephen's reign (1136), was destroyed by order of Henry III. in 1224. The mound marking its site is famous as a bowling-green.

1 Called "guinea-pigs."

BEDFORD, a city and the county-seat of Lawrence county, Indiana, U.S.A., in the south-central part of the state, about 60 m. north-west of Louisville, Kentucky. Pop. (1890) 3351; (1910) 8716. It is served by the Baltimore & Ohio Southwestern, the Chicago, Indianapolis & Louisville, the Southern Indiana, and (for freight from the Wallner quarries about 5 m. distant) the Bedford & Wallner railways. It is the shipping point of the Bedford Indiana (oolitic) limestone, which is found in the vicinity and is one of the most valuable and best known building stones in the United States—of this stone were built the capitols of Indiana, Georgia, Mississippi and Kentucky; the state historical library at Madison, Wisconsin; the art building at St Louis, Missouri; and many other important public buildings. The city has large cement works, foundries and machine shops (stone-working machinery being manufactured), and the repair shops of the Southern Indiana railway. Bedford was settled in 1826 and received a city charter in 1889.

BEDFORD, a borough and the county-seat of Bedford county, Pennsylvania, U.S.A., on the Raystown branch of the Juniata river, about 35 m. south by west of Altoona. Pop. (1890) 2242; (1910) 2235. Bedford is served by the Bedford branch of the Pennsylvania railway. It lies in a beautiful valley. In the borough are some interesting old houses, erected in the latter part of the 18th century, an art gallery and a soldiers' monument. There are deposits of hematite and limestone near the borough, and less than 2 m. south of it are the widely-known Bedford Mineral Springs—a magnesia spring, a limestone spring, a sulphur spring, and a "sweet-water" spring—which attract many visitors during the summer season. There are also chalybeate and other less important springs about the same distance east of the borough, and a white sulphur spring 10 m. south-west of it. Bedford has a large wholesale grocery trade, manufactures flour, dressed lumber, kegs and handles, and is situated in a fine fruit-growing district, especially known for its apples and plums. The borough owns and operates the water works. A temporary settlement was made on or near the site of the present borough about 1750 by an Indian trader named Ray, and for a few years the place was known as Raystown; the present name was adopted not later than 1759. In July 1758 Fort Bedford, for many years an important military post on the frontier, was constructed, and here, later in the year, General John Forbes brought together his troops preparatory to

advancing against Fort Duquesne. The town of Bedford was laid out in 1769, and in 1771 it was made the county-seat of Bedford county which was organized in that year. The borough was incorporated in 1795, and received a new charter in 1817. Washington came here in 1794 to review the army sent to quell the Whisky Insurrection, and the Espy house, which he then occupied, is still standing.

BEDFORDSHIRE [abbreviated Beds], a south midland county of England, bounded N.E. by Huntingdonshire, E. by Cambridgeshire, S.E. by Hertfordshire, W. by Buckinghamshire and N.W. by Northamptonshire. It is the fourth smallest English county, having an area of 466.4 sq. m. It lies principally in the middle part of the basin of the river Ouse, which, entering in the north-west, traverses the rich and beautiful Vale of Bedford with a serpentine course past the county town of Bedford to the north-eastern corner near St Neots. North of it the land is undulating, but low; to the south, a well-wooded spur of the Chiltern Hills separates the Vale of Bedford from the flat open tributary valley of the Ivel. A small part of the main line of the Chilterns is included in the south of the county, the hills rising sharply from the lowland to bare heights exceeding 600 ft. above Dunstable. In this neighbourhood the county includes the headwaters of the Lea, and thus a small portion of it falls within the Thames basin. In the north a few streams are tributary to the Nene.

Geology.—The general trend of the outcrops of the various formations is from south-west to north-east; the dip is south-easterly. In the northern portion of the county, the Middle Oolites are the most important, and of these, the Oxford Clay predominates over most of the low ground upon which Bedford is situated. At Ampthill a development of clay, the Ampthill clay, represents the Corallian limestones of neighbouring counties. The Cornbrash is represented by no more than about 2 ft. of limestone; but the Kellaways Rock is well exposed near Bedford; the sandy parts of this rock are frequently cemented to form hard masses called “doggers.” The Great Ouse, from the point where it enters the county on the west, has carved through the Middle Oolites and exposed the Great Oolite as far as Bedford; their alternating limestones and clays may be seen in the quarries not far from the town. From Woburn through Ampthill to Potton a more elevated tract is formed by the Lower Greensand. These rocks are sandy throughout. At Leighton Buzzard they are dug on a large scale for various purposes. Beds of fuller’s earth occur in this formation at Woburn. At Potton, phosphatized nodules may be obtained, and here a hard bed, the “Carstone,” lies at the top of the formation. Above the Lower Greensand comes the Gault Clay, which lies in the broad vale south-east of the former and north-west of the Chalk hills. The Chalk rises up above the Gault and forms the high ground of Dunshill Moors and the Chiltern Hills. At the base of the Chalk is the Chalk Marl, above this is the Totternhoe Stone, which, on account of its great hardness, usually stands out as a well-marked feature. The Lower Chalk, which comes next in the upward succession, is capped in a similar manner by the hard Chalk Rock, as at Royston and elsewhere. The upper Chalk-with-Flints occurs near the south-eastern boundary. Patches of glacial boulder clay and gravel lie upon the older rocks over most of the area. Many interesting mammalian fossils, rhinoceros, mammoth, &c., with palaeolithic implements, have been found in the valley gravels of the river Ouse and its tributaries.

Industries.—Agriculture is important, nearly nine-tenths of the total area being under cultivation. The chief crop is wheat, for which the soil in the Vale of Bedford is specially suited; while on the sandy loam of the Ivel valley, in the neighbourhood of Biggleswade, market-gardening is extensively carried on, the produce going principally to London, whither a considerable quantity of butter and other dairy-produce is also sent. The manufacture of agricultural machinery and implements employs a large number of hands at Bedford and Luton. Luton, however, is specially noted for the manufacture of straw hats. Straw-plaiting was once extensively carried on in this neighbourhood by women and girls in their cottage homes, but has now almost entirely disappeared owing to the importation of Chinese and Japanese plaited straw. Another local industry in the county is the manufacture of pillow-lace. Many of the lace designs are French, as a number of French refugees settled in and near Cranfield. Mechlin and Maltese patterns are also copied.

Communications are provided in the east by the Great Northern main line, passing Biggleswade, and in the centre by that of the Midland railway, serving Ampthill and Bedford. The Bletchley and Cambridge branch of the London & North-Western railway crosses these main lines at Bedford and Sandy respectively. The main line of the same company serves Leighton Buzzard in the south-west, and there is a branch thence to Dunstable, which, with

Luton, is also served by a branch of the Great Northern line. A branch of the Midland railway south from Bedford connects with the Great Northern line at Hitchin, and formerly afforded the Midland access to London over Great Northern metals.

Population and Administration.—The area of the ancient county is 298,494 acres, with a population in 1891 of 161,704 and in 1901 of 171,240. The area of the administrative county is 302,947 acres. The municipal boroughs are Bedford (pop. 35,144), Dunstable (5157) and Luton (36,404). The other urban districts are—Ampthill (2177), Biggleswade (5120), Kempston, connected with Bedford to the south-west (4729), and Leighton Buzzard (6331). Potton (2033), Shefford (874), and Woburn (1129) are lesser towns, and local centres of the agricultural trade. The county is the midland circuit, and assizes are held at Bedford. It has one court of quarter-sessions, and is divided into eight petty sessional divisions. The boroughs of Bedford, Dunstable and Luton have separate commissions of the peace, and Bedford has a separate court of quarter-sessions. There are 133 civil parishes. Bedfordshire forms an archdeaconry in the diocese of Ely, with 125 ecclesiastical parishes and parts of 6 others. The county has two parliamentary divisions, Northern (or Biggleswade), and Southern (or Luton), each returning one member; and Bedford is a parliamentary borough, returning one member. The principal institution, apart from those in the towns, is the great Three Counties asylum (for Bedfordshire, Hertfordshire and Huntingdonshire), in the south-east of the county near Arlesey.

History.—Although the Saxon invaders were naturally attracted to Bedfordshire by its abundant water supply and facilities for agriculture, the remains of their settlements are few and scattered. They occur, with one exception, south of the Ouse, the most important being a cemetery at Kempston, where two systems—cremation and earth-burial—are found side by side. Early reference to Bedfordshire political history is scanty. In 571 Cuthwulf inflicted a severe defeat on the Britons at Bedford and took four towns. During the Heptarchy what is now the shire formed part of Mercia; by the treaty of Wedmore, however, it became Danish territory, but was recovered by King Edward (919-921). The first actual mention of the county comes in 1016 when King Canute laid waste to the whole shire. There was no organized resistance to the conqueror within Bedfordshire, though the Domesday survey reveals an almost complete substitution of Norman for English holders. In the civil war of Stephen’s reign the county suffered severely; the great Roll of the Exchequer of 1165 proves the shire receipts had depreciated in value to two-thirds of the assessment for the Danegeld. Again the county was thrown into the barons’ war when Bedford Castle, seized from the Beauchamps by Falkes de Breaute, one of the royal partisans, was the scene of three sieges before it was demolished by the king’s orders in 1224. The peasants’ revolt (1377-1381) was marked by less violence here than in neighbouring counties; the Annals of Dunstable make brief mention of a rising in that town and the demand for and granting of a charter. In 1638 ship-money was levied on Bedfordshire, and in the Civil War that followed, the county was one of the foremost in opposing the king. Clarendon observes that here Charles had no visible party or fixed quarter.

Bedfordshire is divided into nine hundreds, Barford, Biggleswade, Clifton, Flitt, Manshead, Redbornestoke, Stodden, Willey and Wiscamtree, and the liberty, half hundred or borough of Bedford. From the Domesday survey it appears that in the 11th century there were three additional half hundreds, viz. Stanburge, Buchelai and Weneslai, which had by the 14th century become parts of the hundreds of Manshead, Willey and Biggleswade respectively. Until 1574 one sheriff did duty for Bedfordshire and Buckinghamshire, the shire court of the former being held at Bedford. The jurisdiction of the hundred courts, excepting Flitt, remained in the king’s possession. Flitt was parcel of the manor of Luton, and formed part of the marriage portion of Eleanor, sister of Henry III. and wife of William Marshall. The burgesses of Bedford and the prior of Dunstable claimed jurisdictional freedom in those two boroughs. The *Hundred Rolls* and the *Placita de quo warranto* show that important jurisdiction had accrued to the great over-lordships, such as those of Beauchamp, Wahull and Caynho, and to several religious houses, the prior of St John of Jerusalem claiming rights in more than fifty places in the county.

With regard to parliamentary representation, the first original writ which has been discovered was issued in 1290 when two members were returned for the county. In 1295 in addition to the county members, writs are found for two members to represent Bedford borough. Subsequently until modern times two county and two borough members were returned regularly.

Owing to its favourable situation Bedfordshire has always been a prominent agricultural rather than manufacturing county. From the 13th to the 15th century sheep farming flourished, Bedfordshire wool being in request and plentiful. Surviving records show that in

assessments of wool to the king, Bedfordshire always provided its full quota. Tradition says that the straw-plait industry owes its introduction to James I., who transferred to Luton the colony of Lorraine plaiters whom Mary queen of Scots had settled in Scotland. Similarly the lace industry is associated with Catherine of Aragon, who, when trade was dull, burnt her lace and ordered new to be made. As late as the 19th century the lace makers kept “Cattern’s Day” as the holiday of their craft. The Flemings, expelled by Alva’s persecutions (1569), brought the manufacture of Flemish lace to Cranfield, whence it spread to surrounding districts. The revocation of the edict of Nantes, and consequent French immigration, gave further impetus to the industry. Defoe writing in 1724-1727 mentions the recent improvements in the Bedfordshire bone-lace manufacture. In 1794 further French refugees joined the Bedfordshire lace makers.

Woburn Abbey, belonging to the Russells since 1547, is the seat of the duke of Bedford, the greatest landowner in the county. The Burgoynes of Sutton, whose baronetcy dates from 1641, have been in Bedfordshire since the 15th century, whilst the Osborn family have owned Chicksands Priory since its purchase by Peter Osborn in 1576. Sir Phillip Monoux Payne represents the ancient Monoux family of Wootton. Other county families are the Crawleys of Stockwood near Luton, the Brandreths of Houghton Regis, and the Orlebars of Hinwick.

With the division of the Mercian diocese in 679 Bedfordshire fell naturally to the new see of Dorchester. It formed part of Lincoln diocese from 1075 until 1837, when it was finally transferred to Ely. In 1291 Bedfordshire was an archdeaconry including six rural deaneries, which remained practically unaltered until 1880, when they were increased to eleven with a new schedule of parishes.

Antiquities.—The monastic remains in Bedfordshire include the fine fragment of the church of the Augustinian priory at Dunstable, serving as the parish church; the church (also imperfect) of Elstow near Bedford, which belonged to a Benedictine nunnery founded by Judith, niece of William the Conqueror; and portions of the Gilbertine Chicksands Priory and of a Cistercian foundation at Old Warden. In the parish churches, many of which are of great interest, the predominant styles are Decorated and Perpendicular. Work of pre-Conquest date, however, is found in the massive tower of Clapham church, near Bedford on the north, and in a door of Stevington church. Fine Norman and Early English work is seen at Dunstable and Elstow, and the later style is illustrated by the large cruciform churches at Leighton Buzzard and at Felmersham on the Ouse above Bedford. Among the Perpendicular additions to the church last named may be noted a very beautiful oaken rood-screen. To illustrate Decorated and Perpendicular the churches of Clifton and of Marston Moretaine, with its massive detached campanile, may be mentioned; and Cople church is a good specimen of fine Perpendicular work. The church of Cockayne Hatley, near Potton, is fitted with rich Flemish carved wood, mostly from the abbey of Alne near Charleroi, and dating from 1689, but brought here by a former rector early in the 19th century. In medieval domestic architecture the county is not rich. The mansion of Woburn Abbey dates from the middle of the 18th century.

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