

this account. The common name refers to the fact that the animal is fond of lying near the surface of the water, with the upper part of the back exposed.

Basle. See BASEL.

Basnage, JACQUES (1653-1725), French Protestant clergyman; born at Rouen, where he became minister of the Reformed church. At the revocation of the Edict of Nantes he went to Rotterdam, where he was chosen (1691) pastor of the Walloon church; and in 1709 he was transferred, in the same capacity, to the French church at the Hague. He is one of the best of the church historians, his books being accepted by Catholics and Protestants alike. He published *Histoire de la Religion des Eglises Réformées* (1690; much enlarged in 1725), *Histoire de l'Eglise depuis Jésus Christ jusqu'à présent* (1699), and *Histoire des Juifs depuis Jésus Christ* (1706). See Mailhet's *J. Basnage* (1881).

Basoche, or BAZOCHE, a corporation of clerks of the Parliament of Paris, to which, about 1303, Philip the Fair granted special privileges, exempting its members from the jurisdiction of the common law. It survived to the Revolution. See Fabre's *Etudes Historiques sur les Clercs de la Basoche* (1856).

Basque Roads, THE ACTION IN. The French fleet, which had escaped from Brest, was, in April 1809, ranged below the island of Aix, and was there assailed by Lord Cochrane with a British fleet. The boom was broken by one of Cochrane's fireships. The French began hurriedly to get under way, and panic and confusion arising among them, all but two ran aground. The vessels actually destroyed beyond repair were three ships of the line, a 50-gun ship, and a 40-gun frigate. Had Cochrane been properly supported by Gambier (who was

afterwards court-martialled for negligence, but acquitted), all would have been destroyed. See Cochrane's *Autobiography of a Seaman* (1890); Chatterton's *Memorials of Gambier* (1861); *Political History of England*, vol. xi (1906); and Croft's *Britain on and Beyond the Sea* (1909).

Basques (Span. *Vascongados*), a race with a language out of relation to every other European language, whose habitat is now restricted to the west end of the Pyrenees, including, on the south side, the Spanish provinces of Biscaya, Guipuzcoa, and Alava, and the Pamplona district of Navarra; on the north, one-third of Basses-Pyrénées. A language of Basque type was in prehistoric times common to the inhabitants on both sides of the Pyrenees. Euskaldunac, Euskalderia, and Euskara are the native names of the people, country, and language respectively. The primitive Iberians have further, according to latest ethnographic evidence, to be grouped with the Ligurians of Italy, whose original home is traceable to the Mediterranean. The Ligurians, again, are, from evidence of craniology, archæology, etc., concluded to have been prehistorically settled in the valley of the Po and Rhineland. The Ligurians, it is further held, were spread over all Italy, as also Sardinia, Corsica, and Sicily. There are data lending colour to the conclusion that beyond the Garonne the Iberians shared community of race with the Pictones and the British Picts. Professor J. Rhys combines the Iberians and Picts in the term 'Ibero-Pictish.' Gabelenz has (1894) compiled 780 examples of verbal resemblance and structural correspondence between the Basque tongue on the north and the Berber tongue on the south of the Mediterranean. There seems ground, then, for

the assumption that the Basques are descended from the aboriginal race of Europe.

The Basque language belongs to the agglutinative type, modifications of meaning and grammatical relations being denoted, not by inflection nor by prepositions, but by adjunction and postfix. It lacks general and abstract concepts. Basque has only two conjugations—one for the intransitive verb, and to express the verb *to be*; the other for the transitive verb, and to express the verb *to have*. To the European the enunciation is about as hard as the grammar. The tongue is differentiated into as many as twenty-five dialects (L. L. Bonaparte), many mutually unintelligible.

R. Collignon, after most searching investigations, concludes that the physical traits of the Basques, out of all relation to those of any other type, assign them indisputably to the Hamitic branch of the whites, N. African or European (Afro-European). According to E. Reclus, 'there is no Basque type.' Among the Basques there are two forms of physique: the one tall, fair, and long-headed; the other short, dark, and round-headed. The two are blended in a long range of proportions, yet, on the whole, the Basques are rather taller than the average of the people of Spain. The prevailing type has the forehead broad and square, overhanging deeply-set eyes; cheek bones rather broad; the lower half of the face narrowing rapidly towards the pointed chin. The complexion is generally fair; the eyes gray or blue; with blond hair, high-ridged nose, upright figure, square shoulders, strong limbs. The Basques are further distinguished by their vigour and hardihood sobriety and industry, gaiety, proneness to sing, dance, and play games, by their frankness, hospitality, pride, love of

independence, and promptitude to avenge insult. They are noted as the best sailors of Spain. Peculiar are certain usages, such as the *couvade*, the wearing of the *béret* and the *zinta* (belt), etc. The Basque dramas, in large part survivals of the morality plays, still, in spite of curés, are yearly performed and witnessed with great enthusiasm in the French cantons of Tardets and Mauléon. Peculiar are also some of the agricultural implements.

On the seaboard the Basques are engaged in commerce and fishing; inland, in agriculture and pastoral pursuits. The Basque Provinces are the centre of the iron-mining of Spain.

Pamplona (*Pompeïopolis*) testifies to the foundation of this town by Pompeius (74 B.C.). The Romans did not, however, succeed in imposing their language on the Basques. Routed, after a long and obstinate resistance, by the Visigoths about 580, a portion of the Basques sought refuge in Gascony. About 920 the Basque countries were consolidated into the kingdom of Navarra, which was ultimately incorporated in the kingdom of Spain. The Basques still, however, retained their *fueros* or assemblies, one in each province, safeguarding their home rule. When, in 1832, the *fueros* were abolished by the Cortes, the Basques offered such stout resistance as to cause their reinstatement. In the insurrections of 1833-7 and 1873-6 the Basques fought gallantly for Don Carlos, grandfather and grandson. The *fueros* ended with the year 1876. They still, however, retain a certain administrative autonomy and some commercial privileges.

The literature of the Basques is of very narrow compass. A few words in Basque occur in L. Mariño Siculo's *Cosas illustres y excellentes de España* (1539). The

oldest printed relic of the Basque tongue dates from 1545—B. Dechepare's *Linguae Vasconum Primitivæ*. There are some five hundred volumes in the Basque language, nearly all translations from Latin, French, and Spanish. Other Basque books betray the French or Castilian culture of their authors. The Basque dramas—*pastorales*—are, it appears from the discoveries of Mr. W. Webster, editions of French chap-books. The Basque traditional legends, comprising forty-seven stories, have been published (1877) by Mr. W. Webster. There is a collection of wider range published by Vinson, *Le Folk-lore du Pays Basque* (1883). Loyola and Francis Xavier were Basques.

The total population is reckoned at about 610,000, of whom 65,000 are in Bayonne, 60,000 in Mauléon, 150,000 in Navarra, 180,000 in Guipuzcoa, 10,000 in Alava, and 145,000 in Biscay. Of recent years there has been a heavy emigration, especially to the Argentine Republic, Mexico, and Cuba, where Basques are counted to the number of 200,000.

See Michel's *Le Pays Basque: sa Population, sa Langue* (1857); Garat's *Origines des Basques de France et d'Espagne* (1869); J. F. Bladé's *Etudes sur l'Origine des Basques* (1869); Gabelentz's *Die Verwandtschaft des Baskischen mit den Berbersprachen Nordafrikas* (1894); Gèze's 'De Quelques Rapports entre les Langues Berbère et Basque,' in *Mém. Soc. Archéol. du Midi de la France*; 'La Civilisation Primitive dans la Sicilie Orientale,' in *L'Anthropologie* (1897); Cénac-Moncaut's *Hist. des Peuples Pyrénéens* (1874); Vinson's *Les Basques et le Pays Basque* (1882); Mahn's *Denkmäler der Baskischen Sprache* (1857); Prince L. L. Bonaparte's *La Langue Basque et les Langues Finnoises* (1862); Inchauspe's *Le Peuple Basque: sa Langue, son*

Origine, etc. (1894); A. H. Keane's *Man, Past and Present* (1900). See SPAIN.

Basra, BASSORA, or BUSSORAH, tn. and riv. pt. on the Shat-el-Arab, 70 m. from Persian Gulf, Asiatic Turkey; head of navigation for steamers drawing nineteen feet of water. River steamers ply between this port and Bagdad, 300 m. farther N. The district around is marshy and unhealthy. The exports, principally cereals, dates, and wool, are valued at about £2,000,000 per annum; and the imports (cotton, woollen, and silk goods, sugar, wood, etc.) at fully more. Founded in 632 by Caliph Omar, Basra was long one of the most important centres of trade, and a place of historic note in Arabic literature. It was visited by Marco Polo in the 13th century. Pop. 60,000.

Bas-relief (Fr. 'low relief'), or BASSO-RILIEVO (Ital.), in sculpture, a form of relief in which the figures or objects represented are raised upon a flat surface or background, slightly projecting, so that no part of them is entirely detached from it. When the figures stand out half of their proportions, the term used is *mezzo-rilievo* ('middle relief'); and when they project more than half, the words used are *alto-rilievo* ('high relief'). The finest known example of bas-relief is the frieze of the Parthenon, copied in the design of the Athenæum Club in London. Bas-reliefs were invented by the Egyptians, and their use in sculpture extended to India, Media, Persia, Greece, and Rome. See Sir C. Eastlake's *Basso-rilievo*. See also SCULPTURE.

Bass, in music, is the lowest and most important part of all harmony. In earlier times it was common to write the bass notes alone of a composition, and place figures to indicate the construction of each chord: this was

termed a 'figured bass.' Bass is also the name given to the lowest male voice. See VOICE and VOICE PRODUCTION.

Bass, a Scottish term for fibrous door-mats, which are sometimes made from bast; also applied to a mat used for packing bales of goods, and to a mat on which hot dishes are placed at table.

Bass, or **BASSE**, a fish allied to the perch, formerly much esteemed as food. All the European bass are marine, but in America fresh-water species occur. From the more familiar perch all differ in the somewhat smaller scales, the more elongated body, the roughened tongue, and the fact that the dorsal fins are farther apart from one another than in the perch. The common bass (*Labrax lupus*) is exceedingly voracious, and is not uncommon off the Irish coasts and the south coast of England. Together with two other species, it occurs in the Mediterranean. The American marine striped bass, or rock-fish, affords excellent sport to the angler, as also do the two fresh-water black basses. All three are very good eating.

Bass, **GEORGE** (d. 1812), English explorer, was a native of Asworthy, Lincolnshire. After qualifying as a surgeon in London, he was appointed to H.M.S. *Reliance*, in which he served on the Australian coast with Flinders in 1795-1800. The strait between Tasmania and Australia which bears his name was, with Flinders I., charted by the two officers in 1798. See Flinders's *Observations on the Coasts of Van Diemen's Land* (1801).

Bass, **MICHAEL THOMAS** (1799-1884), was a member of the great brewing firm (established in 1777) at Burton-on-Trent, where he was born. As a Liberal he sat in Parliament for Derby (1848-83), and took a lively interest in the

welfare of the working classes. He acted as the friend of the railwaymen in the agitation of 1870.

Bassa, a s. prov. of Northern Nigeria, British W. Africa, lying between 7° and 8° N. and 6° 40' and 8° 30' E., inhabited by nine different tribes. Pop. 525,000, of whom half are Okpotos.

Bassam, or **GRAND BASSAM**, tn. on Ivory Coast, French W. Africa, at mouth of the Comoe; until 1900 the seat of government of the colony; gold dust, palm oil, and ivory. Pop. 2,500.

Bassandyne, or **BASSENDYNE**, **THOMAS** (d. 1577), was a printer and bookseller at the Nether Bow, Edinburgh, who issued the first Bible printed in Scotland. Bassandyne began with the New Testament, which bears his imprint on the title-page, and the date 1576; while the Old Testament bears the name of Arbuthnot, and the date 1579. See Dobson's *Hist. of the Bassandyne Bible* (1887).

Bassano, tn., prov. Vicenza, Italy, 53 m. by rail N.W. of Venice; stands on the high l. bk. of the Brenta, and is still surrounded with walls and dominated by a mediæval castle. It possesses a cathedral, and manufactures wine, straw hats, and silk, and in the vicinity grows olives, and asparagus. Here, in 1796, Napoleon defeated the Austrians. Bassano gave the title of duke to Maret, Napoleon's secretary of state. Pop. 15,000.

Bassano, or **JACOPO DA PONTE** (1510-92), Italian painter, called **IL BASSANO** from his birthplace; noted as the first Italian painter of *genre*, and of landscape treated in the modern spirit. In his Biblical subjects he introduced episodes of contemporary country life; his colouring is of fine Venetian quality; his horizons are bathed in delicate gray twilight. His best work is an altar-piece of *The Nativity*, in Bassano.

Among his other works are—*Rest during Flight* (Ambrosian Library, Milan); *Assumption* (S. Luigi, Rome); *Presentation* (Pinacoteca, Vicenza); *The Good Samaritan*, once belonging to Sir Joshua Reynolds; two portraits in the National Gallery, London; and three pictures in Edinburgh. See Kugler's *Italian Schools of Painting* (Layard ed., 1887).

Basse, or **BAS**, **WILLIAM** (d. 1653), poet, was the author of numerous poems on country life. He lived most of his life near Thame, in Oxfordshire, as the retainer of a nobleman there. He is chiefly known by his *Epitaph on Shakespeare* (1633); and was also the author of *Sword and Buckler* (1602) and *Urania* (1653), though this latter has been assigned to a second William Basse. See Corser's *Collectanea Anglo-Poetica*, i. 199–208 (1860–83).

Bassein. (1.) Tn. and seapt., Thana dist., Bombay Presidency, India, 28 m. N. of Bombay. In 1534 it was ceded to the Portuguese by the king of Gujarat. In 1739 it was taken by the Mahrattas after a protracted siege, and in 1818 came under the British rule. It contains the ruins of a Portuguese fortress and of many churches. Pop. 11,000. (2.) Town in dist. of same name, Pegu div., British Burma, situated on the l. bk. of the Bassein R.; is said to have been founded in 1250 A.D.; has great trade in rice. Pop. 32,000.

Basses-Alpes, dep., S.E. France, on w. slope of Alps, forming the Italian frontier on the N.E. The area is 2,685 sq. m. The whole department is drained by the Durance and Var rivers. On all sides high mountains (reaching 10,000 ft.) surround it. The chief peaks are Chaîne du Parpaillon in the N., Mt. Pélat in the E., Mt. des Trois Evêches in the S. The climate is severe, except in

the lower valleys, where even the olive tree grows. Good pastures are found, but deforestation has spoiled large tracts of mountains. The natural beauties of the department attract many visitors. Pop. 113,000. Cap. Digne. See Feraud's *Histoire des Basses-Alpes* (1890).

Basses-Pyrénées, the most s.w. department of France, forming the boundary of Spain along the ridge of the Pyrenees, and facing the Bay of Biscay for 17 m. between the Adour and the Bidassoa. The ridge of the Pyrenees rises slowly from w. to e.; the principal peaks are Pic du Midi d'Ossau (9,465 ft.) and Pic du Palais (9,765 ft.). Some twenty-six passes lead from France to Spain, including the famous Pass of Roncevaux. The department has about the same limits as the former province of Béarn, but the s.w. is really Pays Basque. The inhabitants, Basques and Béarnais, have for centuries kept their characteristic customs, especially in the mountainous districts. The plain of Béarn is well cultivated. Extensive forests clothe the mountains, and the streams yield abundance of fish. There are copper mines and stone quarries. Pau and Biarritz are noted health resorts. Area, 2,943 sq. m. Pop. 426,000.

Basseterre, seapt., s.w. side of St. Christopher (St. Kitts), Leeward Is., British W. Indies; cap. of island; has good trade, especially in sugar and salt. Pop. 10,000.

Basse-Terre, seapt., s.w. side of Basse-Terre, on w. div. of Guadeloupe, French W. Indies; cap. of island. Pop. 8,600.

Basset Horn (Ital. *corno di bassetto*), a rich-toned wind instrument, invented in Bavaria about 1770. It is similar to and fingered like the clarinet, but has additional low keys and a prolonged bore, which enable it to

sound the octave C, this being equivalent to F below the bass clef, as the instrument is tuned in F.

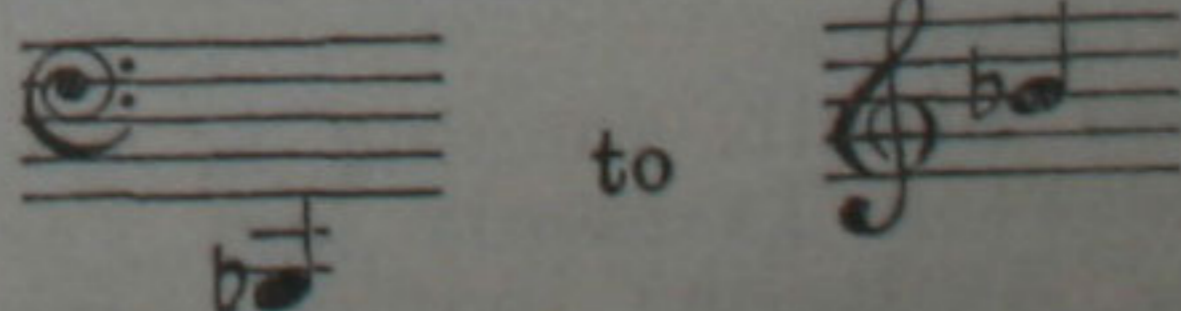
Basset Hound is an importation from France, where it is used to turn game out of cover. Its appearance is not in accord with the accepted standard of sporting requirements in Britain. With a long body, a heavy head, and the shortest and most crooked of legs, it seems to combine the foxhound's body, the bloodhound's head, and the dachshund's legs. It possesses, however, a wonderful scent, and a few packs are kept for hare-hunting in England, where the dog's slowness and inability to overcome obstacles are forgiven on account of its sagacity in the chase, which it wins by the sure, if slow, method of wearing down its quarry. The basset hound is marked like a foxhound, and there are smooth and rough varieties. The recognized points are: head long, narrow, and well peaked; ears of good length, curling inward, and set in low; eyes dark and well set, showing the haws; body long and low, with powerful shoulders and quarters; legs very short, with plenty of bone, the fore legs being crooked; stern carried gaily; colour black, white, and tan. The crook of the fore legs should incline inwards, giving the animal a grossly knock-kneed appearance. In France it is sometimes seen with straight legs, but English fanciers will not allow this formation. Queen Alexandra is a patron and exhibitor of basset hounds, which has doubtless helped to bring the breed into fashion.

Bassia, a genus of tropical trees, found in the E. Indies and Africa, of the order Sapotaceæ. From the seeds of several species a vegetable oil much used in the manufacture of soap is obtained, and their fleshy flowers yield an intoxicating spirit when

distilled. Three varieties of the Indian butter-tree yield useful oils known as butters—*Bassia Parkii*, giving shea butter; *B. butyracea*, ghee butter; and *B. latifolia*, mahwa butter. These substances are used partly as medicines and food, partly for making candles and soap. From the bark, leaves, and oil of some species are extracted remedies for rheumatism and skin diseases. The timber is of excellent quality.

Bassompierre, FRANÇOIS DE (1579-1646), marshal of France and diplomatist, was born at Haroué in Lorraine. As colonel of the Swiss Guards, he served against the Turks in 1603, at the siege of Château Porcien in 1617, and took part in the sieges of Montpellier (1622) and La Rochelle (1628). He was sent on diplomatic missions to Spain (1621), Switzerland (1625), and England (1626). He incurred the suspicion of Richelieu, and was imprisoned in the Bastille from 1631 till the death of the minister, in 1642. While there he wrote his *Journal de ma Vie* (1665; best ed. 1870-7), an interesting review of the years 1598-1631. See De Puymaigre's *Vie de Bassompierre* (1848), and C. Whibley's *Pageant of Life* (1910).

Bassoon, an important orchestral wood wind instrument, the successor of the bombard of the 16th century. It forms the bass of the whole family of wood wind instruments, among which it occupies a position similar to that of the 'cello among the strings. Like the oboe, it is played with a double reed, which is inserted and fixed in the S-shaped neck of the instrument. The compass extends from



though good solo players can bring out higher notes; and some bassoons have the low A, which Wagner has frequently used in his *Ring des Nibelungen*. Its upper notes have some affinity with those of the English horn and the 'cello, and sustained melodies in this part of the register are full of expressiveness. The lower notes are somewhat coarse. In general, the tone of the instrument is telling and peculiar. For the production of grotesque effects it is specially useful, having indeed been called 'the clown of the orchestra' (Prout). Haydn seems to have been the first to discover this quality of the bassoon. The most familiar example of the kind is, however, in the march in Mendelssohn's *Midsummer Night's Dream* music. In orchestral scores bassoon parts are written in the F and C clefs, and the instrument is generally designated by its Italian title, *fagotto*, a name applied to the bassoon from its resemblance to a fagot or bundle of sticks. See Prout's *The Orchestra* (1899).

Bassora. See BASRA.

Basso-Rilievo. See BAS-RELIEF.

Bass Rock, volcanic islet, mouth of the Firth of Forth, Haddingtonshire, Scotland, $3\frac{1}{2}$ m. E.N.E. of North Berwick, opposite the Tantallon Castle of Scott's *Marmion*. Its area is 7 ac., and its culminating point, on N. side, is 350 ft. above sea-level. Favourite resort of solan geese; used in Covenanted times (1671-94) as a state prison. There is a lighthouse on the S. side of the rock. See Hugh Miller's *The Bass Rock: its History, Geology, etc.* (1848), Barbé's *The Bass Rock and its Story* (1904), and R. L. Stevenson's *Catriona*.

Bass Strait, running E. and W. between Tasmania and Victoria, Australia; named after

Surgeon George Bass, of H.M.S. *Reliance*, who surveyed it in 1798. The breadth varies from 80 to 140 m., but navigation is interrupted by many islands and coral reefs.

Basswood, a name applied to the American lime tree, as the chief source of commercial bast.

Bast, in botany, is a structural element in the stem of dicotyledons and gymnosperms. In most plants long, tough, elastic fibres form part of the bast, and it is on this account that it has economic value. The lime tree is specially rich in these fibres; and when the bark is removed the inner portion, or bast, is separated, and dried to form Russian bass or bast mats, which are used by gardeners. Strands of lime bast are also used for tying plants, but not so much as those of Cuban bast, which is derived from a tree of the mallow order. Flax, hemp, and jute are bast fibres of different plants. *Liber* is a term used for bast, but it is becoming obsolete. See Bevan and Cross's *Contributions to the Chemistry of Bast Fibres* (1880).

Basta, GEORG, BARON OF SULT (1550-1607), Austrian general, was born at Rocca, near Taranto, S. Italy, of an aristocratic Albanian family, and entered the Austrian army. After serving under Alexander Farnese in the Netherlands (1589-90), he was sent (1598) to occupy Transylvania. His harsh administration brought about insurrections in 1603 and in 1604, both of which he ruthlessly suppressed.

Bastar, native state, India, at the S. extremity of the Central Provinces; has an area of 13,062 sq. m., is covered with jungle, and more than half the inhabitants are a timid, harmless race of aborigines of Gond origin. Pop. 306,000.

Bastard. By English common law, a child born out of wedlock

of parents domiciled in England is a bastard. By Scots law, a bastard may be rendered legitimate by the subsequent marriage of his parents. England refused this legitimization by the Provisions of Merton (1235). It is an exaggeration to say that a bastard is by law *filius nullius*, for both by Scots and English law he is capable of incest. But for purposes of succession it is true. If he dies intestate, without wife or child, his property passes to the crown; but it is the practice to waive this claim in favour of any one who can establish a moral or equitable claim to the property within twenty years. Such waiver is known as a 'gift of bastardy' (*cf.* Intestates' Estates Act, 1884, and 59 Geo. III. c. 94). Before 1836 a bastard in Scotland could not bequeath movables by will. A child born in wedlock is presumed to be legitimate, but evidence to the contrary may be given, though not by the parents. The Legitimacy Declaration Act, 1858, enables any British subject (under certain conditions) to present a petition to the English Divorce Court, or to commence an action of declarator before the Court of Session in Scotland, claiming a declaration that he is legitimate, or that his marriage is valid. The court may require any interested parties to be cited, and the declaration shall not prejudice any person who is not cited, except the heir-at-law or the next-of-kin of the petitioner. By the Registration Act, 1874, a bastard may not be registered in his father's name, except by his father's consent. See AFFILIATION, ALIMENT, DOMICILE, MARRIAGE.

Bastard Bar, in heraldry, an obsolete and somewhat misleading designation for the symbol of illegitimacy. The figure to which this term is applied is

properly called the *baton*. As the *bar* proper is a horizontal and not a diagonal figure, it can be neither dexter nor sinister, so that a *bar sinister* is, in English heraldry, an impossibility. The size (*i.e.* width) of the baton is half that of the scarp, which in its turn is half that of the bend sinister. See HERALDRY.

Bastard of Orleans. See DUNOIS, JEAN.

Basti, tn., United Provinces, India, 120 m. by rail E. of Lucknow. Pop. 15,000.

Bastia, fort. seapt., Corsica, on the N.E. shore; has a brisk trade in fish, fruit, oil, and marble, and a large export of tanning extract. Here, during the siege of 1794, Nelson lost an eye. Pop. 27,000.

Bastian, ADOLPH (1826-1905), German ethnologist, was born at Bremen. In 1851 he went to Australia as a ship's surgeon, and during the next eight years travelled over a great part of the world. He was appointed keeper of the Ethnological Museum, Berlin, in 1868, and lecturer on ethnology in the university there in 1869. In conjunction with Virchow he founded the *Zeitschrift für Ethnologie*, the organ of the Berlin Anthropological Society. His greatest work is *Die Völker des östlichen Asien* (1866-71), a colossal collection of facts of religious, ethnological, and psychological interest. His other works, huge congeries of facts, without much attempt at order, include *Der Mensch in der Geschichte* (1860), *Die Kulturländer des alten Amerika* (1878-89), *Der Buddhismus in seiner Psychologie* (1882), *Religionsphilosophische Probleme* (1884), *Indonesien* (1884-94), *Kulturhistorische Studien* (1900), *Der Menschheitsgedanke durch Raum und Zeit* (1901), and some fifty other books.

Bastian, HENRY CHARLTON (1837), English physician, born at

Truro; studied at University College, London, and was professor of pathological anatomy there from 1867-87, and professor of medicine from 1887-95. He is an authority on the pathology of the nervous system, and is also known as an advocate of the theory of the spontaneous generation of life among the lower organisms. His publications include *The Modes of Origin of Lowest Organisms* (1871); *The Beginnings of Life* (1872); *Evolution and the Origin of Life* (1874); *Clinical Lectures on the Common Forms of Paralysis from Brain Disease* (1875); *The Brain as an Organ of Mind* (1880); *Paralyses—Cerebral, Bulbar, and Spinal* (1886); *A Treatise on Aphasia* (1898); *Studies in Heterogenesis* (1904); *The Nature and Origin of Living Matter* (1905); and *The Evolution of Life* (1907).

Bastiat, FRÉDÉRIC (1801-50), French political economist, born at Bayonne. He took a lively interest in the struggles of the English 'Anti-Corn Law League,' and in 1844 he published *De l'Influence des Tarifs Français et Anglais sur l'Avenir des Deux Peuples*. He visited England in 1846, and on his return founded at Bordeaux the first free-trade association in France. But on his health failing he retired to Italy. His best-known writings are *Cobden et la Ligue* (1845); *Sophismes Economiques* (1847; latest Eng. trans. 1888); *Propriété et Loi* (1848); *Justice et Fraternité* (1848); *Propriété et Spoliation* (1850); *L'Etat* (1849); *Protectionisme et Communisme* (1849); *Gratuité du Crédit* (1850). *Les Harmonies Economiques* (1850; 10th ed. 1893) was translated into English by Dr. P. J. Stirling. His works, which are strongly antagonistic to all forms of protection and socialism, were collected and published by Paillettet (1881). See Bondurand's *F. Bastiat* (1879).

Bastide, JULES (1800-79), a French republican politician and author, who opposed the Orleans dynasty by sword and pen, was condemned to death in 1832, but escaped to England. After his pardon, in 1834, he returned to Paris, and again engaged in politics, advocating republicanism in the *Revue Nationale*, which he had established. In 1848 he acted as foreign minister for six months. Chief works: *Histoire de l'Assemblée Législative* (1849); *Histoire des Guerres Religieuses en France* (1859).

Bastien-Lepage, JULES (1848-84), French realistic painter, studied at the Ecole des Beaux Arts, Paris, under Cabanel. He served during the war 1870-1 as a *franc-tireur* under the painter Castellani. He loved open-air nature, and painted the rustic life of his childhood. He preferred gray skies and quiet tones, and used a high horizon line. Among his chief works are: *La Petite Communiquante* (1875); *Les Foins* (1878); a portrait of *Sarah Bernhardt* (1879); and *Jeanne d'Arc* (1880). In 1879 he went to London to execute the portrait of the Prince of Wales (1879); and seizing the opportunity to study London street life, he painted the *London Bootblack*, a *London Flower-girl*, and later the *Thames at London* (1882). In 1881 he painted *The Beggar*, one of his best productions; *Love in the Village* in 1883, and *The Forge* in 1884. His influence on modern painting was far-reaching and beneficial. See André Theuriot's *Bastien-Lepage: l'Homme et l'Artiste* (1885; Eng. 1892); Brownell's *French Art* (1902); Julia Ady's (Cartwright) *Bastien-Lepage* (1895); and Fourcauld's *Bastien-Lepage: sa Vie et ses Œuvres* (1885).

Bastille, a term applied in the middle ages to a tower or bastion, and sometimes to the movable wooden tower otherwise called

a *berfry*. In modern times the word has the general sense of a prison; but this signification is derived from the great and dreaded Bastille of Paris, in which, from the time of Richelieu onwards, persons obnoxious to those in high place were summarily incarcerated on the strength of a *lettre de cachet*. It fell before the fury of the mob in 1789. Although in its later days more definitely a prison, the Bastille of Paris was originally a fortress, built in the latter part of the 14th century as one of the fortifications of Paris. For the story of its downfall see Carlyle's *French Revolution* and Dickens's *A Tale of Two Cities*. See also Bingham's *Bastille* (1888), Funck-Brentano's *Légendes et Archives de la Bastille* (new ed. 1900), Bournon's *La Bastille* (1893), and *Archives de la Bastille*, ed. Ravaisson (17 vols. 1866-92). See FRENCH REVOLUTION.

Bastion, a fortification so designed that a flanking fire could be directed along every rampart and ditch from other parts of the same fort. It was introduced in the 15th century to bring a cross-fire to bear on the attackers' artillery; but when the power of guns increased so that they could be withdrawn to a great distance, a cross-fire was no longer possible, and the main object of the bastion disappeared.

Basurhat, tn., dist. of Twenty-four Parganas, Bengal, India, 30 m. E. by N. of Calcutta. Pop. 17,000.

Basutoland, native territory, constituting a British crown colony, on the N.E. of Cape of Good Hope. Area, 10,293 sq. m., with a pop. of (1904) 349,000, of whom all were natives except 900. The whole district is mountainous, and the Maluti ranges, part of the Drakenberg, occupy most of the area. The Basutos are practically autonomous, being governed by

their own chiefs and headmen, under the British Commissioner. In 1868 they were taken under British protection by Sir P. Wodehouse, and then annexed to the Cape in 1871 by Sir H. Barkly. In April 1880 an act was passed for their disarmament; but the Basutos, availing themselves of the natural ramparts of their country, such as Thaba Bossigo, defended themselves vigorously. In 1884 the imperial government took the Basutos over again. Cap. Maseru; pop. 1,300 (200 whites). The wealth of the Basutos lies in their corn, sheep, goats, oxen, and ponies, the latter a very hardy kind. Imports in 1909 amounted to £240,000; exports (stock, grain, and wool) to £193,000. See Widdicombe's *Fourteen Years in Basutoland* (1892); Norris-Newman's *The Basutos and their Country* (1882); Lagden's *The Basutos* (1909); M. Martin's *Basutoland—its Legends and Customs* (1903).

Bat. Bats (*Chiroptera*) are mammals possessing the power of flight, but otherwise nearly related to insectivores. In structure the wing differs markedly from that of a bird, being formed by a membrane stretched over the greatly elongated fingers, and extending between the hind limbs, and even involving the tail in some cases. The thumb is short and clawed, and takes no part in the formation of the wing. As is only to be expected in a flying animal, the shoulder girdle is strongly developed, but the pelvis and hind limbs are weak, and owing to the way in which the latter are involved in the wing membrane, they are not adapted for terrestrial progression, bats being purely aerial forms. Though the brain is not highly developed, the senses are exceedingly acute, and specially sensitive outgrowths of skin are often present on the head, forming 'nose-leaves.' Bats

are widely distributed over the surface of the globe, are nocturnal in habit, and are divided, according to their diet, into two sub-orders—(1) Megachiroptera, large fruit-eating bats, in which the tail, if present, is not involved in the membrane connecting the hind limbs: examples, the flying foxes (*Pteropus*). (2) Microchiroptera, small insect-eating bats, in which the tail, when present, is involved in the membrane connecting the hind limbs—*e.g.* the horse-shoe bats (*Rhinolophus*), the pipistrelle bats (*Vesperugo*), the common bats (*Vespertilio*), and the American vampire bat (*Desmodus rufus*). Of these, the Megachiroptera are confined to the warm regions of the eastern hemisphere, while the Microchiroptera are widely distributed in both hemispheres.

Bataan, or RINCONADA, prov., Luzon I., Philippines, lies w. of the Bay of Manila; has marble quarries, and produces rice, sugar, etc. Area, 436 sq. m.; pop. 48,000. The capital is Balanga, on the E. side (pop. 7,500).

Batac, tn., Ilocos Norte prov., Luzon I., Philippines, 10 m. s. of Laoag; has trade in rice, cotton-cloth, tobacco, and sugar. Pop. 20,000.

Batak, or BATA, people of N.W. Sumatra, E. Indies, belonging ethnologically to the Malay family, and probably one of its oldest divisions. They are taller and more muscular than the Malays generally, democratic in their institutions, and heathens in religion. On certain ceremonial occasions they are addicted to cannibalism; but they show a relatively high civilization, and have books of tree-bark. Their dialect of Malay shows close affinities with the language of the Hovas in Madagascar. They have maintained themselves in independence of the Dutch. At the present time they dwell for the most part on the plateau of Toba

(2,560 ft.). Their total number is probably about 250,000. See the classic work of Junghuhn, *Die Battaländer* (2 vols. 1847); A. C. van Ophuisen, in *Bijdragen tot Land-, Taal-, en Volkenkunde* (1886), with specimens of Batak poetry; J. B. Neumann, in *Tijdschrift of the Amsterdam Geog. Soc.* (1886); and J. von Brenner's *Besuch bei den Kannibalen Sumatras* (1894).

Batala, munic. tn., Gurdaspur dist., Punjab, India, 55 m. N.E. of Lahore. Cotton, silk, and leather goods. Pop. 27,000.

Batalha, tn., dist. Leiria, Portugal, 6 m. s.w. of Leiria; has a famous Dominican monastery, built to commemorate the victory of Aljubarrota (1385). In the church are the tombs of Kings John I. and II., Edward, and Alphonso V., and of Prince Henry the Navigator. Pop. 4,000.

Batan, port on N. coast of Panay I., prov., and 17 m. w. of Capiz, Philippines. Pop. 15,000.

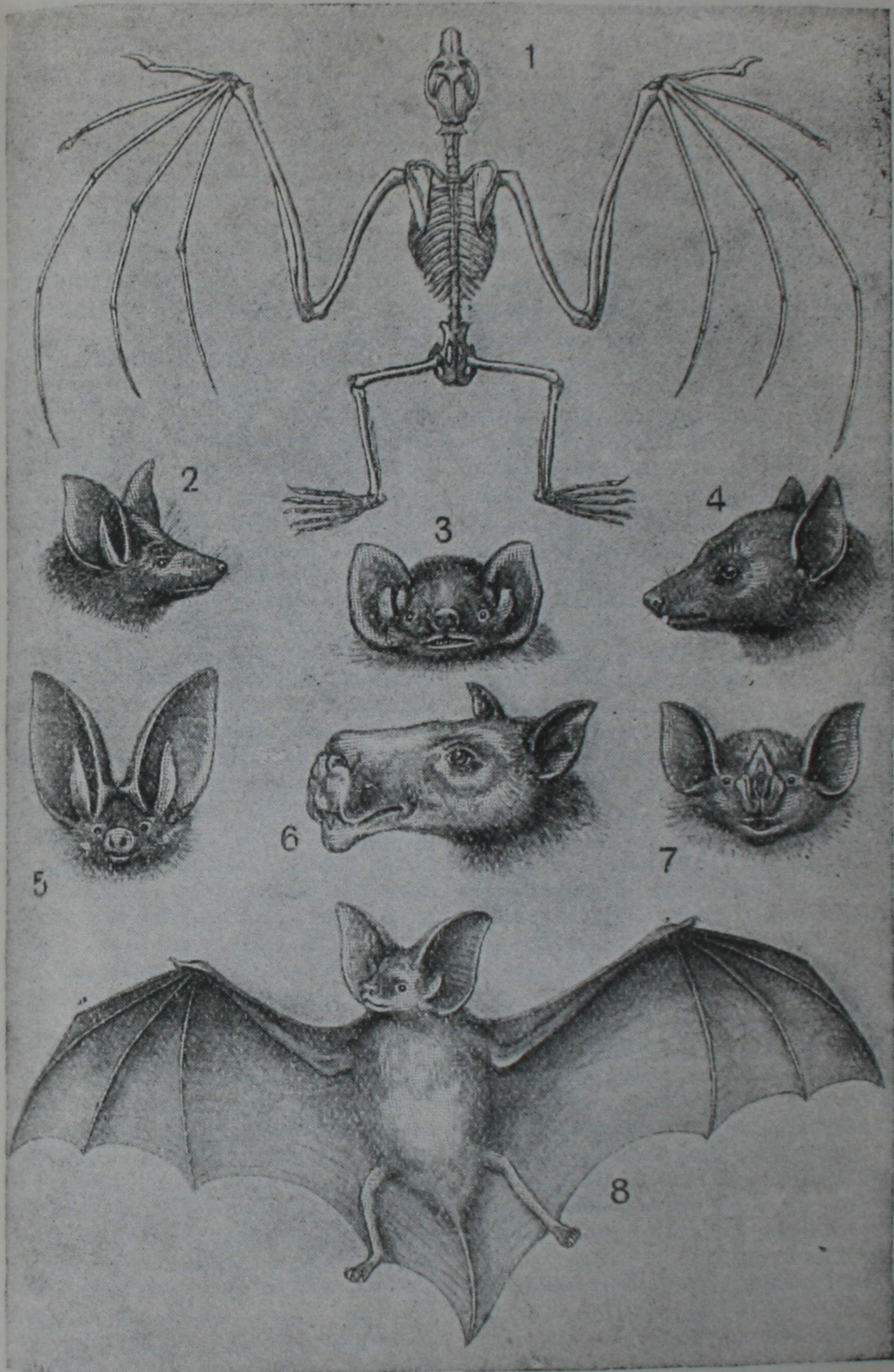
Batang. See BATTAM.

Batangas, prov. (1,108 sq. m.) in s.w. part of Luzon I., Philippines. The productions are cacao, coffee, and rice; the manufactures include cotton, silk, and abaca. Pop. 260,000. The cap., Batangas, in the s.w. of the province, overlooks Batangas Bay, is well built, and has a pop. of about 35,000.

Batatas. See SWEET POTATO.

Batavi, according to some a Celtic, but more probably a German tribe (Tacitus says they were an offshoot of the great German tribe of the Chatti), who originally inhabited the 'island of the Rhine'—*i.e.* the land between the Rhine, the Waal, and the Maas. Eventually they became merged with the Franks.

Batavia. (I.) Province, Java, near the w. extremity; has an area of 2,598 sq. m., and a pop. of 1,300,000, including 12,000 Europeans and over 80,000 Chinese.



Bats.

1. Skeleton of fruit bat (*Pteropus jubatus*). 2. Mouse-coloured bat (*Vespertilio murinus*).
 3. Noctulo (*Vesperugo noctula*). 4. Kalong (*Pteropus adulis*). 5. Long-eared bat (*Plecotus auritis*).
 6. Hammerheaded bat (*Hypsignathus monstrosus*). 7. Greater horse-shoe bat (*Rhinolophus ferrum-
 equinum*). 8. Geoffroy's nyctophile (*Nictophilus Geoffroyi*).

(2.) Cap. of Dutch E. Indies, and chief tn. of Java, on the N. coast of this island, near its w. end, in $106^{\circ} 48'$ E. long. and $6^{\circ} 8'$ S. lat. It consists of an unhealthy old town built in the orthodox Dutch style, and a fairly healthy upper town (Weltevreden), in which are the chief buildings of interest—the governor-general's palace (1828), museum of the Batavian Society of Arts and Sciences, etc. The botanic gardens are among the finest in the world. Pop. 140,000, including 9,000 Europeans and over 28,000 Chinese. Batavia is the principal trading centre of the Dutch possessions in the East. Its port is at Tanjong Priok, 6 m. to the N.E. Batavia was founded by the Dutch in 1619, and from 1811 to 1816 was in the hands of the British. See Buy's *Batavia* (1891). (3.) Cap. of Genesee co., New York, U.S.A., on Tonawanda Creek, 37 m. E.N.E. of Buffalo, and 32 m. S.W. of Rochester; manufactures farm implements, and is the seat of the state Institute for the Blind. Pop. 11,000.

Batavian Republic, the name under which the Netherlands were known from 1795 to 1806, after the invasion by the French under Pichegru.

Batchian. See BATJAN.

Bateman, SIR FREDERIC (1824-1904), English physician, a native of Norfolk, and a graduate (1850) of Aberdeen University. His chief contributions to medical science are *Aphasia, and the Localization of Speech* (1870); *Darwinism tested by Language* (1877); and *The Idiot: his Place in Creation*. He was knighted in 1892.

Bateman, JOHN FREDERIC LA TROBE- (1810-89), British civil engineer whose name is specially associated with the supply of water to large towns. Among the numerous schemes he carried through were reservoirs on the Bann R. in Ireland (1835); the

Manchester water supply from Longdendale in the Pennines (1844), and afterwards from Lake Thirlmere (1879); and the Glasgow water supply from Loch Katrine (1856-60). Bateman also suggested a scheme and surveyed the route for a supply for London from the Severn valley (1865).

Bateman, KATE JOSEPHINE (Mrs. Crowe) (1842), daughter of Sidney F. Bateman, after achieving considerable success on the American stage, came over to England in 1863. In her first venture as Leah in the German play *Deborah*, at the Adelphi, she attracted favourable notice. Later she impersonated Medea (1872), *Lady Macbeth* (with Henry Irving) in 1875, *Queen Mary* (1876), *Lady Kew* in *Colonel Newcombe* (1906), and *Mrs. Dudgeon* in *The Devil's Disciple* (1907). She has conducted for some years a school of dramatic acting, in which many members of the profession have received their earliest training.

Bateman, SIDNEY FRANCES (1823-81), actress, was born in New York; her father was an English actor who had settled in America. She was the author of several plays, and was, with her husband, the predecessor of Henry Irving in the management of the London Lyceum.

Bates, HARRY (1850-99), English sculptor, born at Stevenage; studied at the Lambeth School of Art under Jules Dalou, and later at the Royal Academy schools, where, in 1883, his *Socrates teaching the People* won the gold medal and travelling studentship. This took him to Paris, where he worked under Rodin. His chief works are *Pandora* (Tate Gallery), and statues of Queen Victoria (Dundee) and Lord Roberts (Calcutta).

Bates, HENRY WALTER (1825-92), English naturalist, known especially as the author of *The*

Naturalist on the Amazons, was born at Leicester. Trained for commerce, he early decided to devote his life to the study of natural science. From 1848 to 1859 he was in Brazil, part of the time with his friend Alfred Russel Wallace, exploring the upper Amazon region, and making a vast and valuable collection of specimens, entomological and botanical, of which the greater number (8,000) were new discoveries. Charles Darwin was indebted to him for a wealth of illustration for his theory of natural selection. Bates's *Naturalist* appeared in 1863, and in the following year he was appointed assistant secretary of the Royal Geographical Society, an office which he held till his death. The 1892 edition of his *Naturalist* has a Memoir by Edward Clodd.

Batesar, tn., Agra dist., United Provinces, India, 35 m. S.E. of Agra. An annual fair held here attracts 150,000 persons.

Bath, a handsome city, co., munic., and parl. bor., and wat.-pl. in Somersetshire, England, beautifully situated on the river Avon, 11 m. S.E. of Bristol. The Avon and the Kennet canals connect it with the Thames. From very early times Bath was celebrated for its hot springs. The Romans, as shown by excavations since 1875, founded a city here, to which they gave the name of Aquæ Solis, and erected, in the reign of Claudius, magnificent baths. The Abbey Church, built in 1499, during the reign of Henry VII., stands on the site of a Roman temple dedicated to Minerva. The hot springs are chalybeate and saline, and the daily outflow is nearly 185,000 gallons. Helium and radium are found in the waters. The present pump-room attached to the 'king's bath' was built in 1796, a previous one built under the auspices of Beau Nash having occupied the

same site. Bath, and its life in the 18th and early 19th centuries, are described in the books of Fielding, Smollett, Jane Austen, and Dickens. The title of Bishop of Bath and Wells was adopted by Gilbert in the 12th century, and the bishopric includes nearly the whole county of Somerset; the palace and cathedral, however, are at Wells. The borough returns two members to the House of Commons. Pop. 48,500. See Peach's *Bath, Old and New* (1888), Freeman's *Thermal Baths of Bath* (1888), and Bath Committee's *Handbook to Bath*.

Bath, city, Maine, U.S.A., county seat of Sagadahoc co., situated on the Kennebec R., 12 m. from its mouth. Its principal industry is shipbuilding, and it manufactures marine engines, boilers, cordage, and ship blocks. Pop. 11,000. See Reed's *History of Bath* (1894).

Bath, ORDER OF THE. In 1725 the Most Honourable Order of the Bath was revived by George I. It consisted of a grand-master and 36 companions, and was purely military. In 1815 it was remodelled and made to consist of three classes. (1.) Knights Grand Commanders (G.C.B.). (2.) Knights Commanders (K.C.B.). (3.) Companions (C.B.). In 1847 it was extended by the admission of civil knights, commanders, and companions. At present the ordinary membership is limited to 55 military and 27 civil G.C.B., 145 military and 105 civil K.C.B., 705 military and 283 civil C.B. The badge (larger for Class 2, larger still for Class 1) represents, in gold and enamel, a rose, thistle, and shamrock issuing from a sceptre between three imperial crowns, with the motto of the order (*Tria juncta in uno*) in a red circle. The military badge is cross-shaped, the civil oval. The military G.C.B. badge has a laurel wreath also. The ribbon is red. See Selden's

Titles of Honour (3rd ed. 1672), Nicolas's *British Orders of Knighthood* (1841-2), J. H. L. Archer's *Orders of Chivalry* (1871), C. N. Elvin's *Handbook of Orders of Chivalry* (1894).

Bathbrick, a material used for polishing or scouring metallic vessels, knives, stone, etc.; made into friable bricks at Bridgwater, Somerset, from the fine siliceous sand found in the river Parret.

Bath Club, a social club, which has also swimming and gymnastics for its objects, with premises at 34 Dover Street, London, and at Berkeley Street for ladies. The club was established in 1894, and its membership is 2,500. The subscription is ten guineas for gentlemen, and seven guineas for ladies. The entrance fees are thirty and ten guineas respectively.

Bathgate, par. and tn. in Linlithgowshire, Scotland, 18 m. w.s.w. of Edinburgh. Coal mines and iron and steel works employ most of the inhabitants. Pop., par. 14,000; tn. 7,000.

Bathori, name of an old aristocratic family of Transylvania, who gave to that province several princes, and to Poland one king. STEPHEN (1533-86), after ruling Transylvania for four years (1571-75), was elected king of Poland.—SIGISMUND (1573-1613) became prince on the death of his father, Stephen (1586). He was dominated by the Jesuits, and in 1596 yielded the throne of Transylvania to Rudolf II., emperor of Austria, in exchange for certain possessions in Silesia, the dignity of cardinal, and a life pension.—ELIZABETH (d. 1614), a niece of Stephen Bathori, king of Poland, was reputed to be a werewolf, and during the years before her imprisonment in the fortress of Csejse, in the co. of Nyitra, in 1610, was said to have caused many young girls to be murdered in her dungeons, that she might renew her youth by bathing in

their blood. See Baring-Gould's *Book of Werewolves* (1865).

Bathos, a ridiculous descent from elevated language to commonplace or absurdity; or a ludicrous want of correspondence between a writer's thought and his expression of it. The finest specimens of bathos in English are to be found in the *British Album*, a collection of poems of the Della Cruscan group, compiled by Bell in 1790 from the columns of the *World* newspaper. One of these reads—

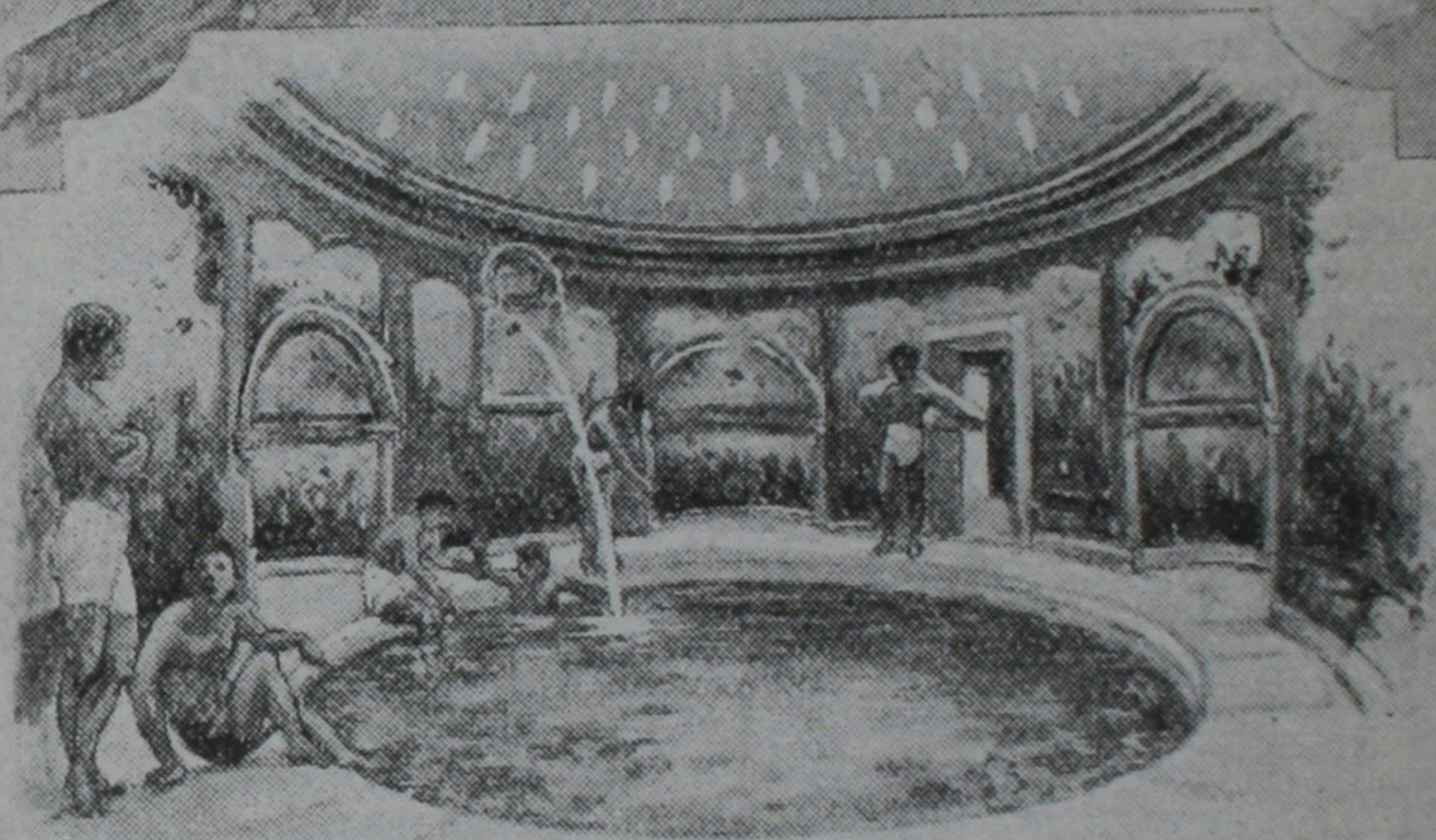
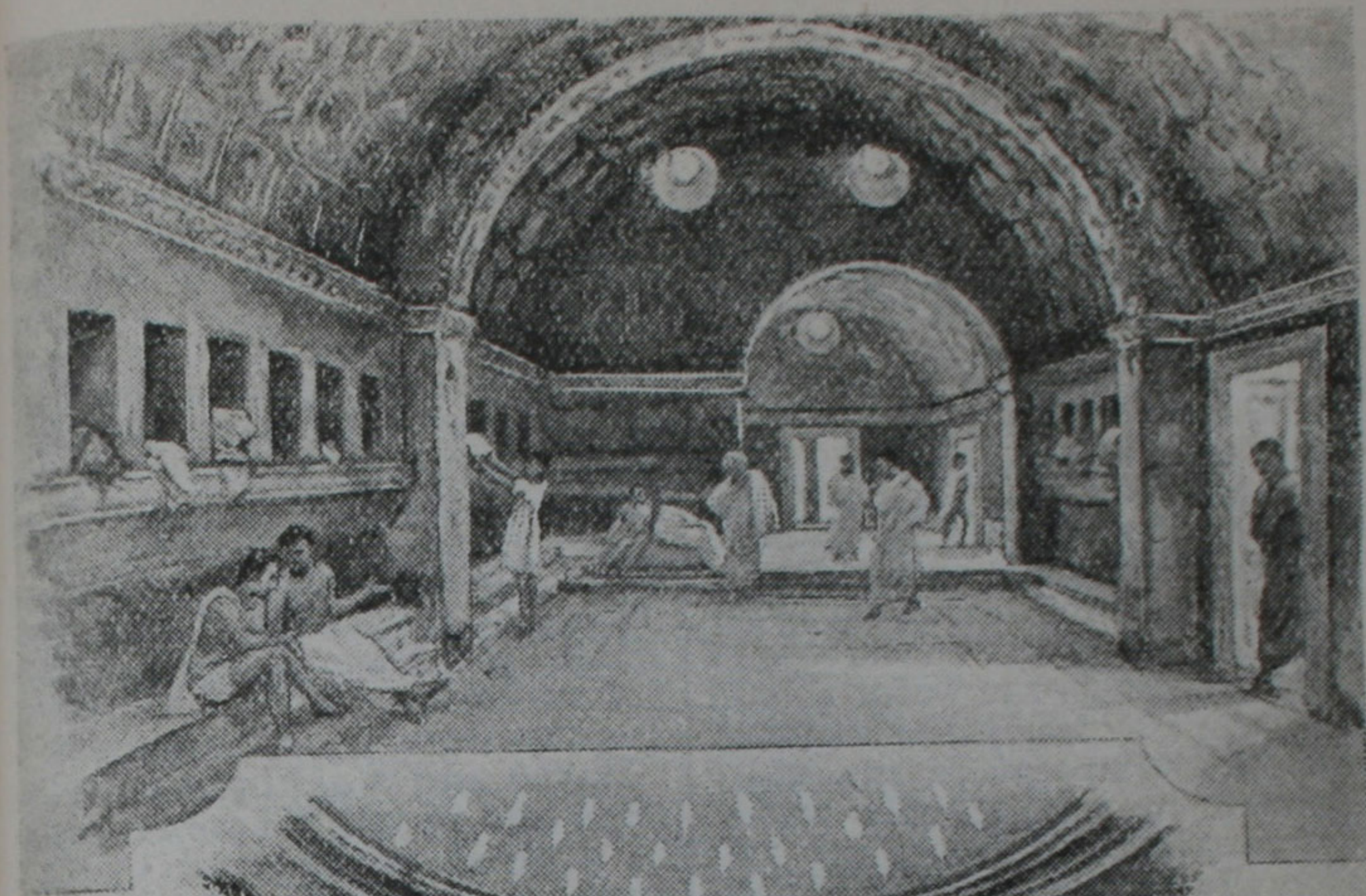
'Disordered, lost, from hill to plain
I run,
And with my mind's thick gloom
obscure the sun.'

Dr. Brewer in his *Dictionary of Phrase and Fable* cites the following well-known lines:—

'And thou, Dalhousie, the great god
of war,
Lieutenant-general to the Earl of
Mar.'

Alexander Pope wrote *A Treatise of the Bathos, or the Art of Sinking in Poetry*; and Swift and Arbuthnot collaborated on a work on the same subject.

Baths and Bathing. The Jews, Mohammedans, and Buddhists observe bathing as a rite; the bath, in religious ceremonial, has always been first inculcated in hot climates, where chiefly it is of sanitary value. The Pentateuch and the Koran are full of references to bathing. Both the *Iliad* and the *Odyssey* speak of the hot bath, and the Greeks are believed to have been the first people to use hot air for bathing purposes. From them the Romans adopted the hot bath, having previously used the swimming bath and cold bath only. The Roman baths were popular lounges; and those of Herculaneum and Pompeii, besides those built by Caracalla in Rome, are examples of the most enduring workmanship of those times. The



Roman Baths at Pompeii (restored).

1. The waiting-room. 2. The cold plunge. 3. The court. 4. The hot bath.

last named provided accommodation for 2,000 bathers.

The very young and the very old cannot bear extremes of temperature, neither can those who suffer from heart disease or a tendency to apoplexy. The cold-water bath (temp. 65° F. and less) is suitable for regular use as a nerve tonic and stimulant for the average adult, but only for a few minutes at a time. Cold baths of longer duration are used, on account of their depressing effect, to lower high temperature. In the case of weakly persons the water should be warm (say 100° F.) at starting, and the temperature gradually lowered by adding cold water. Temperature continues to fall after the long-continued cold bath is ended, so that patients should always be removed when their temperature has dropped to 100° F. The cold bath cleanses no more than the skin surface. The hot-water bath (temp. above 100° F.) acts upon the skin and the cutaneous nerves, and thereby on deeper structures. The special liability to chill after a hot bath should be guarded against, either by finishing with a cold spray or plunge, to restore tone to the capillaries, or by taking the bath immediately before bedtime. Water that cannot be comfortably endured by the nurse's elbow is too hot for any infant. Hot baths are useful for children in convulsions, mustard being added in the proportion of two tablespoonfuls to the gallon, and cold water being poured over the head.

It is probable that the good effect attributed to many fashionable spas and watering-places is due, except in the case of skin diseases, not so much to the local action of salts dissolved in the waters, as to the internal use of the waters, to the change of air and scene, and to more rational diet and

exercise, as well as to the temperature, pressure, and mechanical stimulus of the bath.

In the preparation of artificial baths, salt and mustard are often added. Brine and Tidman's sea salt are used for their stimulating effect on the skin, and mustard is effective in dilating the skin capillaries in order to relieve internal congestion or to reduce fever. See Braun and Weber's *Curative Effects of Baths and Waters* (1875), Macpherson's *Baths and Wells of Europe* (1888). See BALNEOLOGY and NAUHEIM TREATMENT.

Baths and Washhouses Acts, 1846 and 1878. These acts may be adopted in England by any borough governed by the Municipal Corporations Act, 1882, by any metropolitan borough (under the London Government Act, 1899), by the parish meeting of a rural parish (Local Government Act, 1894), and by any urban authority (Public Health Act, 1875). They authorize the erection or purchase of public baths, washhouses, drying-grounds, and open or covered swimming-baths, which may be turned into gymnasia in winter. Certain fees may be charged; and the number of baths for the labouring classes must be twice the number of any higher class of public bath. Rates may be levied. In Scotland, similar provisions may be made in burghs and towns, under the Burgh Police (Scotland) Act, 1892, and the Public Health (Scotland) Act, 1867; and in counties by district committees, under the Local Government (Scotland) Act, 1894. See Cross's *Public Baths and Washhouses* (1906).

Bathsheba ('daughter of the oath'), wife of Uriah the Hittite, afterwards of David, and mother of Solomon. Though the manner of her admission into the royal line was irregular (2 Sam. 11), she rose to great power (1 Kings 1). Some suppose that she

was a granddaughter of Ahithophel (cf. 2 Sam. 11:3 with 23:34), whose desertion of David would then be naturally explained as dictated by revenge for David's crime. See commentaries on 2 Samuel.

Bath-stone, a light yellowish limestone dug from quarries in the Lower Oolite, in Somerset and Wiltshire, England, and much used as building material. The stone is easily quarried and dressed, hardens on exposure to the atmosphere, but it is not of a durable nature.

Bathurst. (1.) Chief tn. of the w. district of New South Wales, on s. bank of Macquarie R. (alt. 2,153 ft.), 145 m. by rail w. by N. of Sydney. The industries include tanning and flour-milling. There are Anglican and Roman Catholic bishops. Pop. 9,000. (2.) Town of W. Africa, cap. of the British colony of Gambia; stands on w. side of the estuary of the Gambia. Not healthy during the rainy season, July to September. Pop. 9,000. (3.) Dist. and tn. in the E. of Cape of Good Hope, lying on the coast between Bushman R. and Great Fish R.

Bathurst, ALLEN BATHURST, FIRST EARL (1684-1775), English politician. He disparaged Marlborough and opposed Walpole, but was a generous patron of literature — *i.e.* of Swift, Addison, Pope, Arbuthnot, Gay, Prior, Congreve, and others. In 1711 he was made Baron Bathurst, and Earl in 1772. HENRY, the second earl (1714-94), was Lord High Chancellor (1771-8). HENRY, the third earl (1762-1834), was Secretary for the Colonies (1812-28). To the same family belonged Henry (1744-1837), bishop of Norwich (1805).

Bathybius, a name given by Huxley to a supposed organism found in some preserved examples of deep-sea ooze obtained by Captain Dayman in 1857, while dredg-

ing in H.M.S. *Cyclops*, in connection with the laying of the Atlantic cable. Huxley's description was published in the *Quarterly Journal of Microscopical Science* in 1868, and greater publicity was given to the subject at the meeting of the British Association in the same year. Eventually it was shown by the *Challenger* that the substance in question was nothing but a precipitate of gelatinous calcium sulphate, thrown down by the addition of strong alcohol to deep-sea ooze, owing to the presence of sea water in the interstices of the ooze—the sea water, of course, containing calcium sulphate. The precipitate so formed bears considerable resemblance to protoplasm, and the fact that some organic substance is present in the ooze rendered the error the more easily made. Haeckel, on the other hand, still holds that organisms analogous to Huxley's bathybius occur in the ocean depths. In 1876, again, Dr. Besseles dredged up from the bottom of Smith Sound a similar substance, to which he gave the name of proto-bathybius.

Bathymetry, the measurement of depths. See OCEAN.

Baticaloa, or BATTICALOA, tn., E. prov. Ceylon, on E. coast, 70 m. S.E. of Trincomali. Good harbour. Pop. 8,000.

Batignolles. See PARIS.

Batik, or BATTIK, a cotton stuff made in India and the E. Indies, on which patterns are impressed by waxing them over and dyeing the unwaxed parts. In Holland the same process is applied to silk, velvet, etc.

Batjan, BATCHIAN, or BATSHIAN, isl., Dutch E. Indies, one of the Moluccas, lies S.W. of Jilolo (Halmahera). Mountainous and well wooded. Gum-copal (damar) and coffee. Area, 1,050 sq. m. Pop. about 12,000.

Batley, par. and munic. bor., W. Riding, Yorkshire, 7 m. S.E.

of Bradford. There are numerous woollen factories. The parish church, All Saints', was founded in 1482. Building-stone and coal are found in the neighbourhood. Pop. of bor. 37,000.

Bâttman, originated in *bât*, a pack-saddle; but, in the army, is applied to an officer's servant.

Batman, JOHN (1800-40), the founder of the colony of Victoria, was born at Paramatta, N.S.W., and first settled in Tasmania as a farmer. He was leader in the negotiations with the natives by which they made over, in 1835, the area on which Melbourne now stands. See Fox-Bourne's *Story of our Colonies* (1838).

Batna, vil., Algeria, 62 m. s.w. of Constantine, on the railway to Biskra, at the base of the Aures Mts. To the s.w. are the great Roman remains of Lambessa. Pop. 8,200 (Europeans, 3,300).

Baton, the stick with which the conductor of a choir or orchestra beats the time. In early days the bandmaster beat time with his foot. Spohr was the first to employ the baton in England, at a philharmonic concert in 1820. For a detailed history of the subject, see *Musical Times*, June 1896. Batons are generally made of maple for lightness, 21 or 22 in. long, and tapering from three-fourths to three-eighths of an inch in diameter. Field-marsals, drum-majors, and policemen also carry batons, though the latter class are more generally known as truncheons.

Baton, **BATTON**, **BASTON**, or **BATTOON**, in heraldry, the mark of illegitimacy, commonly called the bastard bar.

Baton Rouge, city, Louisiana, U.S.A., cap. of the state, situated on the Mississippi, 120 m. by river above New Orleans, on the Yazoo and Mississippi Valley Ry. It is the seat of the state university (1860), and of the state agricultural experiment station. It

has manufactures of cotton-seed products, sugar, artificial ice, and lumber. In 1779 Baton Rouge was taken from the British by the Spaniards; and here, in 1862, the Federals defeated the Confederates. Pop. 23,000.

Batoum. See **BATUM**.

Batrachia, an order of amphibians including frogs, toads, etc. See **AMPHIBIA**.

Batrachomyomachia (Gr. 'the battle of the frogs and mice'), a mock-heroic poem, in hexameters, has been erroneously ascribed to Homer, but is more probably the work of the Carian Pigres, brother of Queen Artemisia. The best editions are Baumeister's (1852), Brandt's (1888), Mitzsche's (1892), D. B. Monro's (1901).

Batshian. See **BATJAN**.

Batta. See **BATAK**.

Battalion is the British tactical unit of infantry. It is commanded by a lieutenant-colonel with a staff of an adjutant and a quarter-master, who relieve him of all minor details. The eight companies are commanded by majors or captains, one of the former being, as a rule, in command of the regimental depot. The peace establishment of a home battalion is based on the facts that it must keep its linked battalion abroad up to practically war strength, and must itself be capable of expansion by calling in the reserves. It amounts to 801 of all ranks. On mobilization, the battalion is raised to a strength of 29 officers, 51 sergeants, and 944 men, with 71 horses and 16 vehicles. Subalterns are detailed as signalling and transport officers, and to command the two machine guns. The vehicles include six small-arm ammunition carts, and wagons for tools and stores. Each company has one pack animal for ammunition, and another for stores.

A battalion of mounted infantry consists of staff and three com-

panies; or, in all, 25 officers and 527 men, with 591 horses and 20 vehicles. See also INFANTRY.

Battam, or **BATANG**, isl., Dutch E. Indies, in the Riouw Archipelago, s.e. of Singapore; is fertile and well wooded, and produces catechu. Area, 160 sq. m.

Battambang, or **PATABANG**, tn. and prov., French Indo-China (till 1907 in Siam), 180 m. E. by s. of Bangkok, and 60 m. W. of the N. end of Lake Tonle Sap.

Battenberg, tn., prov. of Hesse-Nassau, dist. Wiesbaden, Prussia, 16 m. N.W. of Marburg; gives title to Battenberg family. Pop. 1,000.

Battenberg, a title conferred in 1851 on Countess Hauke, daughter of a Polish general of artillery andmorganatic wife of Prince Alexander of Hesse. Of her four children, Princes of Battenberg, **LOUIS ALEXANDER** (1854) is an admiral in the British navy, and personal A.D.C. to the king; **HENRY** (1858-96) married Princess Beatrice, youngest daughter of Queen Victoria, in 1885, and died at sea after a military expedition to W. Africa; **ALEXANDER JOSEPH** (1857-93), born at Verona, was Prince of Bulgaria from 1879 till 1886, when he abdicated.

Battenberg, **PRINCESS HENRY OF**, **PRINCESS BEATRICE** (1857), the youngest daughter and constant companion of Queen Victoria, was married in 1885 to Prince Henry of Battenberg (d. 1896). On the death of her husband, who had formerly held the post, Princess Henry was appointed governor of the Isle of Wight by Queen Victoria. Her four children are Alexander Albert (1886), Victoria Eugénie (1887), married to King Alfonso of Spain (May 31, 1906), Leopold Arthur (1889), and Maurice Victor (1891).

Batter, a backward slope in a wall, to make the batter-rule or plumb-line fall within the base. This is common in railway cuttings and similar works.

Battering-ram, an ancient engine of war, used by the Greeks and Romans, also in use in mediæval times, for making breaches in the walls of cities and forts. It consisted of a beam of wood, sometimes 120 ft. long, with a ponderous mass of iron or bronze at the end. The ram was driven against the wall by the soldiers who carried it, or it was suspended horizontally by ropes, and struck the wall as it was oscillated backward and forward.

Battersea, met. and parl. bor. and civ. par., London, England, on the s. side of the Thames, noted for its park of 199 ac. The special feature of the park is the sub-tropical garden (about 4 ac.). There are many factories, engineering establishments, and foundries in Battersea; and the Shaftesbury Park estate (40 ac.) has been laid out to supply comfortable homes for working-men. In municipal matters it has been one of the most advanced democratic centres in London. It returns two members to the House of Commons. Area, 2,307 ac. Pop. 190,000.

Battersea, **CYRIL FLOWER**, **FIRST BARON** (1843-1907), junior lord of the Treasury under Gladstone's last government (1892), was born at Streatham, Surrey, and educated at Harrow and at Trinity College, Cambridge; was called to the bar (1870); M.P. for Brecknock (1880-5), and for S. Bedfordshire (1885-92); made a peer in 1892. He was a connoisseur in the arts, and a friend of Tennyson, Arnold, and George Meredith.

Battery, in law. See ASSAULT.

Battery. (1.) A battery is commanded by a major, with a captain in charge of the wagon line. It is divided into sections of two guns, with their wagons, under lieutenants, and into subsections of single guns under sergeants. War establishments

of batteries: R.H.A., 5 officers, 203 men, 234 horses, 6 13-pounder guns, 12 ammunition and 2 other wagons; R.F.A., 5 officers, 198 men, 180 horses, 6 18-pounder guns, 12 ammunition and 2 other wagons; howitzer battery, R.F.A., 5 officers, 186 men, 158 horses, 6 5-in. howitzers, 9 ammunition and 2 other wagons; mountain battery, 5 officers, 129 men, 6 10-pounder B.L. guns, 6 ponies, and 188 mules; heavy battery, 5 officers, 166 men, 118 horses, 4 60-pounder guns, 8 ammunition wagons, and 6 other vehicles. (2.) Battery is also a term applied to a work of fortification executed for the protection of ordnance. There are three descriptions. (a) The batteries used in the attack and defence of fortresses are chiefly armed with howitzers, and so can be concealed from the enemy's view by the judicious selection of positions on the reverse slopes of hills. The chance of a direct hit is risked, and the howitzers are merely surrounded by light splinter-proof parapets. (b) The coast battery is generally constructed with thick parapets, and masonry revetments and casemates; but when howitzers are used, the principles mentioned in (a) may be followed. (c) A battery armed with field guns is occasionally made by joining several gun-pits together with lengths of shelter-trench.

Battery, ELECTRIC PRIMARY. See CELL, SECONDARY (or storage). See ACCUMULATORS.

Battery, FLOATING. See FLOATING BATTERY.

Batteux, CHARLES (1713-80), abbé, professor at the Collège de France (1749), and member of the French Academy (1761), is known by his treatise on the *Beaux Arts* (1746), his *Principes de la Littérature* (4 vols. 1750), his edition of *Les Quatres Poétiques d'Aristote, d'Horace, de Vida, de Despréaux* (2 vols. 1771), and his translation

of Horace (1760). Batteux was one of the ablest of the French academic critics.

Batthyanyi, one of the oldest families in Hungary. COUNT CASIMIR BATTHYANYI (1807-54) was minister of foreign affairs of Hungary in 1849. After the defeat at Vilagos he fled, and remained in Turkish territory till 1851.—COUNT LOUIS BATTHYANYI (1809-49) was appointed president of the Hungarian ministry in 1848. He committed suicide before he could be executed by the Austrians in 1849, under a sentence of martial law commonly regarded as unjust.—PRINCE BATTHYANYI (1803-83) won the Derby in 1876.

Battiadæ, a dynasty of eight kings, who reigned at Cyrene from about 630 to 450 B.C.

Battle, a hostile encounter between two or more armies on land or navies on sea. Among the greatest land battles in history were the following:—Marathon (490 B.C.), Syracuse (413), Arbela (331), Metaurus (207), Philippi (42), victory of Arminius over Varus (9 A.D.), Chalons (451), Tours (732), Hastings (1066), Orleans (1429), Lützen (1632), Blenheim (1704), Pultowa (1709), Saratoga (1777), Valmy (1792), Waterloo (1815), Königgrätz or Sadowa (1866), Sedan (1870), Mukden (1905). These include the battles which, according to Sir Edward Creasy (*The Fifteen Decisive Battles of the World*), 'claim our attention, independently of the moral worth of the combatants, on account of their enduring importance.' Of naval engagements the following are among the most important:—Salamis (480 B.C.), Actium (31 B.C.), Lepanto (1571), Spanish Armada (1588), Gibraltar (1607), English victory over the Dutch (1666), St. Vincent (1693), Carthage (1702), Finis-terre (1747), Gibraltar (1782), Ushant (1794), St. Vincent (1797), Camperdown (1797), Trafalgar

(1805), Navarino (1827), Acre (1840), Alexandria (1882), Wei-hai-wei (1895), Santiago (Cuba, 1898), Tsu-shima (1905).

Battle, par. and mrkt. tn., Sussex, England, 6 m. N.W. of Hastings. In 1067 William the Conqueror founded Battle Abbey, in honour of the victory of Senlac. (See HASTINGS, BATTLE OF.) Ac. 8,141. Pop. of par. 3,000.

Battle, TRIAL BY. This was in England a Norman innovation, by which some civil actions, and trials for felony at the private suit of the person wronged, might be decided by personal combat. It was abolished by statute in 1819. See Neilson's *Trial by Combat* (1890).

Battle Abbey, ROLL OF, a list of the barons who fought with William the Conqueror when he defeated Harold of England at Senlac in 1066. The supposed original is reputed to have been burned in 1793 in Cowdray House, near Midhurst, Sussex; but at the time three copies existed—one published by Leland in his *Collectanea*, another in Holinshed's *Chronicle*, and a third printed by Stowe. It has been republished and edited several times, the best being the Duchess of Cleveland's *Battle Abbey Roll*, in 3 vols. (1889). See also Walcott's *History of Battle Abbey* (1867). Modern historians consider the Roll of doubtful authenticity.

Battle-axe, weapon of warfare used from primitive times down to the era of gunpowder, consisting of a blade, diversely shaped, and a handle of varying length. When the latter is long and ends in a spear, pike, or hook, and has a blade like a pick on the side opposite to the blade of the axe, it is called a pole-axe or halberd. The earliest battle-axes had stone heads (celts), and these were succeeded by bronze instruments. Amongst the Greeks and Romans

the battle-axe had either one broad cutting edge or was bipennate, the latter being pre-eminently the weapon of war. In later times the blade varied greatly in shape according to the period, but in the main it was a modification of the tools used by butchers, carpenters, and coopers. The French axe of the middle ages was bipennate with convex cutting edges; the Francisca and Danish axes had but one blade of this kind, sometimes extended behind into a spike.

Battle Creek, city, Calhoun co., Michigan, U.S.A., is situated in the S.W. of the state, 120 m. W. of Detroit, and is the seat of a well-known sanatorium and of Battle Creek College. Has a large output of breakfast and health foods and trade in fruit and live stock. Agricultural implements, engines, and pumps are manufactured. Manufactures tinned foods. Pop. 25,500.

Battledore and Shuttlecock, child's game played with a small racquet and a piece of cork studded with feathers so as to keep it upright when struck into the air. A comedy of 1609 mentions it as a favourite game.

Battleford, tn., prov. Saskatchewan, Canada, at the junction of the Battle and N. Saskatchewan Rs. It was invested by Indians during the North-West rebellion under Louis Riel in 1885, and was relieved by Colonel Otter. Pop. tn. 1,000; electoral division, 18,600.

Battlement, a wall or rampart built round the top of a fortified building, with interstices or embrasures for the discharge of arrows or of guns. The rising parts of the wall are termed *cops* or *merlons*, and the embrasures are styled *crenelles*.

Battleship. See NAVIES.

Battonya, tn., Hungary, in Csanad co., 16 m. N.W. of Arad. Pop. 13,000.

Battue is a way of killing game (chiefly pheasants and hares) by having the birds or animals driven forward to a point where sportsmen are stationed to shoot them down, the driving being accomplished by beating the bushes. The term (from Fr. *battre*, 'to beat') occurs early in the 19th century. See *Badminton Shooting: Field and Covert* (1895).

Batu Khan (d. 1256), Mongol chief, grandson of Jenghiz Khan, led the Mongol hordes who devastated Russia, Poland, and Hungary in 1237-42.

Batum, or **BATOUM**, tn. and port in Transcaucasia, Kutais gov., Russia, at the S.E. corner of the Black Sea. An insignificant town before it came into the possession of Russia in 1878, it is now of importance for the export of oil from Transcaucasia, being the terminus of the railway from Baku and Tiflis, and of the pipe-line to Mikhailov. After petroleum, manganese ore, liquorice root, and wool are the chief exports. Pop. 35,000.

Buang, tn., Luzon, Philippine Is., prov. of and 10 m. N.W. of Batangas. Pop. about 40,000.

Bauchi, a central prov. of N. Nigeria, British W. Africa, extending from 9° 20' to 11° N., and from 8° 40' to 11° 20' E. The bulk of the population, estimated at 400,000, are pagan tribes, and over sixty-four different languages are in use among them.

Baucis. See PHILEMON.

Baudelaire, CHARLES PIERRE (1821-67), French poet, born in Paris; began his literary career as an art critic; later, became editor of a short-lived conservative journal. He translated Poe's tales in three volumes (1856-8). Under the inspiration of De Quincey's *Confessions of an Opium Eater*, he published, in 1861, *Les Paradis Artificiels*, which describes the sensations of an eater of hashish. In 1857 he had pub-

lished a volume of verse, *Les Fleurs du Mal*, which gained notoriety by being made the subject of a criminal prosecution for offence against public morals. Baudelaire is at his best in *Petits Poèmes en Prose*, and a collection of clever critical essays entitled *L'Art Romantique*. He also wrote *Théophile Gautier* (1859), *Richard Wagner et Tannhäuser à Paris* (1861), and *Souvenirs Correspondances*, etc., were published in 1872, after his death. He is still held in esteem by the naturalist and decadent schools of French authors. See Gautier's discriminating introduction to *Œuvres Complètes*, 4 vols. (1869); and Asselineau's *Charles Baudelaire: sa Vie et son Œuvre* (1869).

Baudin, CHARLES (1784-1854), French admiral, captured St. Jean d'Ulloa (1838), commanded in the Mediterranean (1848-9), and was made admiral in 1854.

Baudissin, WOLF HEINRICH, COUNT VON (1789-1878), German translator, was for some years in the diplomatic service of Denmark; settled in Dresden in 1827, and helped Tieck to translate Shakespeare; then he published German versions of Ben Jonson (1836) and other English dramatists, Molière (1865-7), Coppée (1874), and Gozzi and Goldoni (1877), besides modernized versions of poems by Hartmann von der Aue (1845) and Wirnt von Gravenberg (1848).

Baudrillart. (1.) JACQUES JOSEPH (1774-1832), French authority on forestry and arboriculture; author of *Dictionnaire de l'Aménagement des Forêts* (1821), and a *Traité général des Eaux et Forêts* (1821-34). (2.) HENRI JOSEPH LÉON (1821-92), son of Jacques, French political economist, taught at the Collège de France (1866) and the school of the Ponts et Chaussées (1881,) and was editor of *Le Journal des Economistes*

(1855) and of *Le Constitutionnel* (1868). Among his numerous works are *Histoire du Luxe* (1878-80); *Manuel d'Economie Politique* (1857); *Rapports de la Morale et de l'Economie Politique* (1860).

Baudry, PAUL JACQUES AIMÉ (1828-86), French painter and pupil of Drölling. His imaginative mural decorations are to be seen in the Cour de Cassation (1881), Chantilly (1883), and in the foyer of the Grand Opera, Paris (1864-74). *La Perle et la Vague* (1863) is an exquisite piece of nude painting. His *Supplice d'une Vestale* (1857) is at Lille, and his *Fortune et la Jeune Enfant* (1853) in the Luxembourg. See *Modern French Masters*, by J. C. Van Dyck (1896).

Bauer, BRUNO (1809-82), German theological and political critic, was born at Eisenberg in Saxe-Altenburg. As professor at Bonn he published critical works on the Gospel of John (1840) and the Synoptic Gospels (1841-2), in which he stigmatized the evangelical sources as mere fabrications. In consequence of these views the Prussian government dismissed him from his chair, and thenceforth Bauer played the part of a theological Ishmaelite. In his *Kritik der paulinischen Briefe* (1850-2) he denies the authenticity of all the epistles of Paul. His theories regarding the Pauline epistles have been almost unanimously rejected. Two of his works possess special interest for Englishmen—*Einfluss des englischen Quäkertums auf die Deutsche Kultur u. auf das Englisch-Russische Projekt einer Weltkirche* (1878), and *Disraelis romantischer und Bismarcks sozialistischer Imperialismus* (1881). See Lichtenberger, *German Theol. in 19th Century* (1889), p. 374 f.

Bauer, CAROLINE (1807-78), a German actress who in 1829, in London, contracted a morganatic marriage with Prince Leopold of Coburg, afterwards king of the

Belgians. A separation following in 1830, she returned to the stage, from which she finally retired in 1844, on her marriage with the Polish count Ladislas of Broël-Plater. In addition to two volumes of theatrical reminiscences, dealing largely with court life in Berlin (1825-35), a posthumous volume of her *Life* was issued in 1878 (English, 1884), denouncing King Leopold and his confidential adviser, Baron Stockmar.

Bauernfeld, EDUARD VON (1802-90), Austrian dramatist and poet, served in the Austrian civil service, but retired in 1848. He is best known as the author of light comedies of Viennese life, such as *Leichtsinn und Liebe* (1831), *Bekenntnisse* (1834), *Bürgerlich und Romantisch* (1835), *Grossjährig* (1846), *Der Kategorische Imperativ* (1851), *Aus der Gesellschaft* (1866), *Moderne Jugend* (1868); though he also wrote poems and novels. His *Gesammelte Schriften* were issued in 12 vols. in 1871-2. There is a *Life* by Horner (1900); and his *Tagebücher, 1819-79*, were published in 1895-6.

Baugé, dist. tn., dep. Maine-et-Loire, France, 22 m. E.N.E. of Angers. Woollen weaving, canvas, clogs, oil, and horn utensils. The English, under the Duke of Clarence, were defeated here by the French in 1421. Pop. 3,500.

Bauhin, KASPAR (1550-1624), Swiss botanist, the first to adopt orderly methods of diagnosing the characters of plants. He was careful to distinguish genus and species, anticipated the binary nomenclature of Linnæus, and was, in fact, the Linnæus of the 16th century. His great work of forty years was the *Pinax*, in which he recorded all species of plants known to him, and their synonyms as given by his predecessors. The Bauhinia genus of plants was named after Bauhin and his brother John.

Bauhinia (named after the Swiss botanists Kaspar and John Bauhin), a genus of about one hundred and fifty species of tropical plants of the order Leguminosæ, many of which are lianas with flattened, twisted wooden stems which reach the tops of the highest trees. Ropes are made from the fibres of some Indian species.

Baukau, coal-mining vil., Prussia, prov. of Westphalia, near Bochum. Pop. 11,000.

Baul, tn., Venezuela, 150 m. s. w. of Caracas. Pop. abou. 10,000.

Baumann, OSKAR (1864-99), Austrian geographer and traveller, born at Vienna. He accompanied, in 1885, Oskar Lenz in his exploration of the Congo as far as the Stanley Falls. In 1886 he explored the island of Fernando Po, in the Gulf of Guinea; in 1890, Usambara and the adjoining territories on the mainland; and in 1893-5, the Victoria Nyanza. After 1896 he was Austrian consul at Zanzibar. He published *Fernando Pó und die Bube* (1888), *Usambara und seine Nachbargebiete* (1891), *Durch Massailand zur Nilquelle* (1894), and *Der Sansibar-Archipel* (1896-9). After his death appeared *Afrikanische Skizzen* (1900).

Baumbach, RUDOLF (1840-1905), German minor poet, who has written the epic *Zlatarog* (1877), *Lieder eines fahrenden Gesellen* (1878-80), *Spielmannslieder* (1881), and various *Märchen* (1881 to 1896).

Baumgarten, ALEXANDER GOTTLIEB (1714-62), German philosopher, was born at Berlin; studied at Halle, and was appointed professor of philosophy at Frankfort-on-the-Oder in 1740. His *Asthetik* is an elaboration of the system of Wolff as modified by Leibniz. His principal works are *Metaphysica* (1739; 7th ed. 1779); *Ethica Philosophica* (1740); *Æsthetica* (1750-8); *Jus Naturæ* (1765); *Philosophia Generalis* (1770).

Baumgarten-Crusius, LUDWIG FRIEDRICH OTTO (1788-1842), German theologian, was born at Merseburg; studied theology and philosophy at Leipzig, and in 1817 was appointed professor of theology at Jena. He shows himself a learned historian of dogma in his *Kompendium der Christlichen Dogmengeschichte* (1840-6). Amongst his other works are *Philosophia Generalis* (1870), *Ethica* (1740), and *Jus Naturæ* (1765).

Baumgärtner, ANDREAS FREIHERR VON (1793-1865), Austrian natural philosopher, born at Friedberg, Bohemia. Professor of physics (1817-33), then director of factories (1833-46), he was (1847) head director of railway construction, afterwards minister of public works (1848) and of finance (1851). The *Zeitschrift für Physik* was founded by him (1826-37). Other works are *Mechanik in ihrer Anwendung auf Künste u. Gewerbe* (1824) and *Naturlehre* (1823; 8th ed. 1845).

Baumgärtner, GALLUS JACOB (1797-1869), Swiss politician, born at Altstätten. He took a prominent part in the revision (1831) of the constitution of the cantons. His works include *Die Schweiz von 1830-50* (1853-66) and *Geschichte ... St. Gallens* (1868-90).

Baumgärtner, KARL HEINRICH (1798-1886), German physician, born at Pforzheim; clinical professor in Freiburg (1824-62). His studies in embryology and physiology, which were important contributions to the modern cell theory, are developed in *Nähere Begründung der Lehre von der Embryoanlage durch Keimspaltungen* (1854), *Anfänge zu einer physiologischen Schöpfungsgeschichte* (1855), *Schöpfungsgedanken* (1856-9), and other works.

Baur, FERDINAND CHRISTIAN (1792-1860), German theologian, was born near Stuttgart. He was appointed (1817) one of the professors in the theological

seminary at Blaubeuren. D. F. Strauss was one of his pupils. Influenced by Schleiermacher's writings, he wrote *Symbolics and Mythology* (3 vols. 1824-5), in which the principles of modern religious philosophy are made to elucidate the history of ancient religions. This work led to his appointment as professor of historical theology in Tübingen (1826), where he laboured most assiduously till his death. The rest of his writings, on the New Testament and early church history, were dominated by the postulates of Hegel's philosophy. Of Paul's epistles he accepted as genuine only Romans, Galatians, and those to the Corinthians, pronouncing the canonical gospels to be late productions. Among his works are *Paul the Apostle* (1873), *Hist. of the Church in the First Three Centuries* (1873), *Die christliche Lehre von der Versöhnung* (1838), and *Die christliche Lehre von der Dreieinigkeit* (1841-3). His followers became known as the 'Tübingen School.' See Mackay's *The Tübingen School and its Antecedents* (1863); Lichtenberger's *Hist. of German Theology* (1889); Pfeiderer's *Theological Development in Germany* (1890); Christlieb's *Modern Doubt* (1865); A. B. Bruce, *Present-Day Tracts* (No. 38, 1883).

Bautain, LOUIS EUGÈNE MARIE (1796-1867), French theologian, born at Paris. Professor of philosophy at Strassburg (1816), he took orders (1828). Appointed (1838) dean of the faculty of letters in Strassburg, he became (1849) vicar-general, and (1854) professor of moral theology in Paris. His many works include *Psychologie Expérimentale* (1839), *Philosophie Morale* (1842), and *La Morale de l'Évangile* (1855).

Bautzen, tn. in the kingdom of Saxony, stands on an eminence above the Spree, 37 m. by rail E. by N. of Dresden, and is the chief tn. in the Wendish dist. of Upper

Lusatia (Lausitz). Bautzen manufactures hosiery, gloves, cloth, and machinery. Here, on May 20 and 21, 1813, Napoleon defeated the allied Prussians and Russians. Pop. 30,000. See Reymann's *Geschichte der Stadt Bautzen* (1902).

Bauxite, an earthy mineral, white to red in colour, and composed of impure aluminium hydroxide. It is found at Baux, near Arles, in France, in Ireland, and in the United States (Arkansas, Georgia, and Alabama), and is a valuable source of alum and aluminium, and useful for firebricks, etc.

Bavaria (Ger. *Baiern*), a kingdom of the German empire, consisting of two detached portions—the smaller being on the w. of the Rhine, between Alsace-Lorraine, Rhineland, and Hesse-Darmstadt; the larger E. of the Rhine, between Bohemia, Austria, Switzerland, Würtemberg, Baden, Hesse-Darmstadt, Hesse-Nassau, and various Thuringian states. Area, 29,286 sq. m. Pop. about 7,000,000.

South of the Danube, Bavaria consists of a plateau backed by the N. foothills of the Alps. Among these is the Zugspitze, the highest elevation (9,725 ft.) in Germany. On the N. side there are two plateau regions, with the Bavarian Forest, the Bohemian Forest, and Fichtelgebirge to the E., the Franconian and Thuringian Forests to the N., the Rhön Mts., Spessart, and Odenwald to the N.W., and in the S. the Swabian Jura. The Main is the chief river in the N. region, and is connected with the Danube (the chief waterway of the south and centre) by the Ludwig Canal. In the Palatinate the most prominent orographical feature is the Haardt Mts., and the most prominent hydrographical the Rhine.

Upper Bavaria, which is drained by the Iller, Lech, Isar, and Inn, furnishes good pasturage, and many of the moors are being re-

claimed. Of the entire area 60 per cent. is arable land. Barley and hops are important because of the vast brewing industry of Bavaria. Wine is extensively produced in the vicinity of Würzburg and in the Palatinate, some 55,000 acres yielding over 14,000,000 galls. annually. Fruit is a valuable crop in various districts, and cattle-breeding is of great importance. Forests cover 33 per cent. of the surface. The minerals include coal, iron, and salt (Reichenhall, Berchtesgaden, Traunstein, and Rosenheim); graphite, lithographic stones (Solnhofen), lead, and copper are also extracted. Kissingen, Berchtesgaden, and Reichenhall have mineral springs. The chief industries are the manufacture of iron and steel, machinery, musical instruments, gold and silver wares, glass, porcelain, cottons, linens, silks, chemicals and dyes, pencils, and toys. Brewing is of great importance, the busiest centres being Munich, Erlangen, Kulmbach, and Nuremberg.

Over seventy per cent. of the population are Roman Catholics, and 29 per cent. Protestants. There are two Roman Catholic archbishoprics and six bishoprics.

Bavaria has three universities—Munich, Würzburg, and Erlangen; also one technical high school at Munich. The chief towns are Munich (the capital), Augsburg, Nuremberg, Würzburg, Ludwigshafen, Fürth, Kaiserslautern, Ratisbon, Bamberg, Hof, Pirmasens, Bayreuth, and Erlangen. Bavaria forms a hereditary constitutional monarchy, the legislative power being invested in the king and two legislative chambers. The kingdom has six votes in the federal council, and sends forty-eight members to the Imperial Diet. The army, of three army corps since 1900, forms part of the Imperial army, but is num-

bered separately and administered independently. Its peace footing stands at about 70,000 men.

History.—Baiern, or Boiaria, land of the Boii, overrun by Rome of the early empire, was divided into three provinces—Rhaetia (Tyrol), Vindelicia (between Iller and Inn), and Noricum, west of these—Augsburg and Salzburg being chief towns, and Regensburg and Passau frontier forts. On the break-up of the Roman power, the country, occupied by the Teutonic tribe of Bajuvarians (Bavarians) at the close of the 5th century, was ruled by dukes, first elective, then hereditary. After a struggle of two hundred years, Bavaria, absorbed by the Franks, was ruled by Charlemagne, who left his descendants as margraves (788-900) to hold the marches against Hun and Bohemian.

The title of duke was restored (920) for services rendered to the empire, and Bavaria helped the Emperor Otto I. to defeat the Huns at Augsburg. In the middle ages there were constant quarrels between duke and emperor; and the towns, which were either imperial or free (Augsburg, Nuremberg), ecclesiastical (Bamberg) or ruled by princes (Baireuth), rose into importance through the transit of Italian trade northwards, and again declined owing to the development of sea-borne commerce.

In 1180 Frederic Barbarossa conferred the duchy on Otto, Count of Wittelsbach, founder of the present royal house. Maximilian I. (1598-1623) was made elector, and received the northern half of Bavaria, owing to Tilly's victory over the Elector Palatine. The French defeat of Blenheim (1704) was shared by Bavaria, but after the treaty of Utrecht (1713) the elector was reinstated in his dominions. Thereafter Bavaria oscillated between

the French and German alliance, being invaded (1796) by Moreau, who occupied Munich; siding with Napoleon I., who created Maximilian Joseph I. a king (1805-6); and subsequently, secured in her new dignity by the allies, helping to overthrow her benefactor (1813). Four kings have reigned since then—Louis I. (1825-48), Maximilian II. (1848-64), Louis II. (1864-86), and Otto Wilhelm Luitpold (1886).

In 1818 (May 26) Maximilian I. granted his country a constitution, abolished serfdom, and established religious liberty. Louis I. restored the cathedrals of Bamberg and Regensburg, built a national Walhalla, adorned Munich with palaces and art galleries, obtained the crown of the Hellenes for his son Otho, and resigned (1848). To Maximilian II., patron of arts and commerce, succeeded Louis II., who shared Austria's defeat by Prussia (1866), but in 1870 helped the latter against France. He was Wagner's patron. He died by his own hand.

On the extinction of the elder branch of the house of Wittelsberg the junior acceded (1777), thus reuniting the Rhenish Palatinate to Bavaria. It is here that the liberal party is strongest; while old Bavaria is the home of Catholic conservatism, and of a romantic and artistic race, probably of Celtic-Italic origin—characteristic Bavarians, as opposed to Teutons proper. See Seguin's *The Country of the Passion Play* (1890); Götz's *Geographisch-historisches Handbuch von Bayern* (2 vols. 1894-8); Faber's *Zur Hydrographie des Maingebietes* (1895); and Bronner's *Bayrisches Land und Volk* (1898). See GERMANY.

Bavaria, STATUE OF, a colossal statue in bronze at Munich, personifying Bavaria, raised (1850) by Ludwig I.; designed by Schwanthaler.

Bavarian Alps. See TYROL.

Baviad, THE, a satire (1794) by William Gifford, which, along with the *Mæviad* (1795), attacked the insipid and nonsensical poetry of the Della Crusicans; so called from the two inferior poets, Bavius and Mævius, mentioned by Virgil in his Third Eclogue (v. 90).

Bawian, or BAWEAN, populous isl. of Dutch E. Indies, N. of Madura, in Java Sea, produces rice, etc. Cap. Sengka Pura, on S. side. Pop. of isl. 33,000.

Bax, ERNEST BELFORT (1854), English journalist and author, lived some time in Germany, and has identified himself prominently with the literary treatment of socialism, as in his *Jean Paul Marat* (1878; new ed. 1901), *Religion of Socialism* (1886-7; 6th ed. 1902), *Ethics of Socialism* (1889; 5th ed. 1902), *Outspoken Essays on Social Subjects* (1897), *Socialism and Individualism* (1904), and *Essays on Socialism* (1906). In 1885 he joined the poet William Morris in founding the Socialist League, and later was an active member of the Social Democratic Federation, of which he has been delegate to various international congresses. In history he has written *German Society at the Close of the Middle Ages* (1894), *The Peasants' War in Germany* (1899), *The Rise and Fall of the Anabaptists* (1903), and *The Roots of Reality* (1907).

Baxar, or BUXAR, munic. tn. situated on the r. bk. of the Ganges, in Shahabad dist., Bengal, India, 65 m. N.E. of Benares; scene of the defeat, in 1764, of the nawab of Murshidabad—a victory which secured Lower Bengal for the British. It is also a sacred place. Pop. 46,000.

Baxter, SIR DAVID (1793-1872), a linen manufacturer in Dundee, was a native of that town. In 1826 he became partner in the manufacturing firm of Baxter Brothers, the success of which

has contributed much in advancing Dundee's high commercial position. He was created a baronet in 1863. See W. Norrie's *Dundee Celebrities of the 19th Century* (1873).

Baxter, RICHARD (1615-91), English nonconformist divine, was a native of Shropshire, and chiefly self-taught. Entering the church in 1637, he acted, on the outbreak of the civil war, as chaplain to one of the parliamentary regiments. When in ill-health he wrote the first part of his famous work, *The Saints' Everlasting Rest*, which was published in 1650. Recovering his health, he laboured for fourteen years in Kidderminster. On the Restoration, Baxter, although he had greatly modified his views in the direction of Presbyterianism, was appointed one of Charles II.'s chaplains, and took a prominent part in the Savoy Conference. He declined the bishopric of Hereford; was driven out of the church by the Act of Uniformity of 1662; and settled at Acton, in Middlesex, until the Act of Indulgence in 1672 left him free to go to London. In 1685 he was tried for alleged sedition by the brutal Judge Jeffreys, who sentenced him to fine and imprisonment. After eighteen months spent in prison he was released. Baxter was an able, earnest, and eloquent writer and preacher. Among his writings may be mentioned *The Reformed Pastor* (1656), *Call to the Unconverted* (1657), and *Now or Never* (1663). The main authority for Baxter's life is his autobiography, entitled *Reliquiæ Baxterianæ* (1696). See also Bishop Hall's *Life*, Calamy's *Life* (1702), Orme's *Life and Times of Richard Baxter* (1830), and *Lives* by G. D. Boyle (1883) and J. H. Davies (1887).

Baxterians, a name applied to the followers of Richard Baxter,

the nonconformist divine, prominent among whom were Isaac Watts and Philip Doddridge.

Bay (Fr. *bais*, 'berry'), first applied to the fruit of certain plants, and then to the plants themselves. The sweet bay tree (*Laurus nobilis*) of cottage gardens is the true laurel of the Romans, the *Daphne* of the Greeks, the victor's laurel and poet's laurel of romance. The plant was introduced into England from S. Europe in the 16th century. The long, pointed, lance-shaped leaves have many culinary uses, on account of their aromatic properties; but as they contain prussic acid, they must be used with care. The bay tree bears inconspicuous yellow flowers in spring, and these are followed by purple berries in autumn, when fertilization has occurred. Propagation may be effected by means of seeds or cuttings. In order to obtain good bushes, the leading shoots of the young plants should be shortened in spring during the first few years. Red bay is a laurel of the southern parts of the United States; white bay and poison bay are two species of the magnolia order in the same region. The cherry laurel is wrongly named bay laurel; it belongs to the plum and almond genus. Its leaves are larger and of a lighter green than those of sweet bay.

Bayaderes, a class of women in India who follow the profession of dancers or pantomimic artistes. They are divided into two great classes—the *devādasi*, themselves of two divisions, who are more or less closely associated with the worship of the Hindu deities; and the *nautchis*, the 'dancing girls' of Anglo-Indian literature, who are not attached to a temple, but travel about the country, in bands, for hire. The first rank of the former are exclusively of the Vaisya caste; the latter are recruited

from the low-caste natives, or are slave-girls.

Bayamo, or SAN SALVADOR, tn., prov. Santiago, Cuba, 69 m. N.W. of Santiago de Cuba; one of the oldest cities in Cuba; near it is a celebrated cave. Pop. 4,000.

Bayard, common name for several famous horses of legend and story—*e.g.* in the story of the *Four Sons of Aymon*; the horse of Fitzjames, in Scott's *Lady of the Lake*; and under the Italian form of Bayardo, in Tasso's *Rinaldo*. It is also the name of a horse in a legend current in many parts of England, the horse being famous for a prodigious leap.

Bayard, PIERRE DU TERRAIL, CHEVALIER DE (1475–1524), born in Dauphiné, 'the knight without fear and without reproach,' was the most chivalrous hero of the middle ages. His chief exploits were at Fornuovo (1495), at the Garigliano and Venosa against the Genoese in 1507; and at Agnadello and Brescia (1509) against the Venetians. After being for some time governor of Dauphiné he fought at Marignano, on which field he had the honour of knighting Francis I. (1515). In 1521 he successfully defended Mézières against Charles V. In 1524 he was mortally wounded in a skirmish with the Milanese. His *Life* by 'Le Loyal Serviteur' (Jacques de Maitres) is a 16th-century literary masterpiece. It has been published by the Soc. de l'Hist. de France. Trans. by Sara Coleridge (1825) and E. C. Kindersley (1848).

Bayard, THOMAS FRANCIS (1828–98), an American Democrat, statesman, and orator, was born at Wilmington. He acted as United States minister to the court of St. James from 1893 to 1897, when he gained great popularity in Britain. He was twice proposed for the presidency (1880 and 1884), and acted as secretary of state (1885–9). See *Life* by Spencer (1880).

Bayazid, or BAYAZET, fort. tn., Armenia, Asia Minor, near Persian frontier, 150 m. E.S.E. of Erzerum. Pop. 2,000; of dist. 52,000. See also BAJAZET.

Baybay, tn. on W. side of Leyte I., Philippines, 35 m. S.W. of Tacloban. It has a good harbour, and a large trade in hemp. Pop. 23,000.

Bayberry (*Pimenta acris*), a plant belonging to the myrtle order. In the W. Indies it is the source of bay rum, an aromatic liquid obtained by distilling rum with the leaves of this plant, or by mixing various oils, as the oil of myrica, of orange peel, or of pimenta, with alcohol. It is used as a cosmetic and perfume.

Bay City, city, Michigan, U.S.A., co. seat of Bay co., situated in the E. part of the Lower Peninsula, on the Saginaw R., near its mouth. Its principal trade is in lumber, fish, and salt, and its manufactures are of considerable importance. There are beet-sugar and coal interests. West Bay City was incorporated with it in 1905. Pop. 45,000.

Bayer, JOHANN (1572–1625), German astronomer, a native of Bavaria. He was ennobled by the emperor, and distinguished as the *Os Protestantium*. He introduced the Greek and Roman letters into astronomic nomenclature. His *Uranometria* (1603), in 51 sheets, was at that date the most complete chart of the heavens.

Bayern. See BAVARIA.

Bayeux (anc. *Bajocasses*), dist. tn. and seat of a bishop, dep. Calvados, France, 7 m. from the sea, 18 m. W.N.W. of Caen. The cathedral of Bayeux, with parts dating from the 11th century, is one of the most beautiful buildings of Normandy. The small museum contains the celebrated tapestry of Bayeux (see below). There are industries of lace, china, earthenware, etc. The town was burned by Normans, English, or French

in 1106, 1356, 1450, 1563. Pop. 7,700.

Bayeux Tapestry. This unique piece of handiwork, described in 1743 (*Palæographica Britannica*) as 'the noblest monument of English antiquity abroad,' represents scenes connected with the conquest of England by William of Normandy, culminating in the battle of Hastings. It is embroidered on a piece of linen 207 ft. long and 20 in. wide, the part occupied by the historical scenes having a breadth of about 13 in., with a narrow ornamented margin on each side. The scenes number in all seventy-two, and over each is a short description in Latin. The first historical mention of the tapestry is in 1369, in an inventory of the goods belonging to the cathedral of Bayeux. Although annually exhibited in the church for eight days at the feast of St. John, it was practically unknown beyond the town till 1724, when a description, based on a drawing of a part of the work, was presented to the Académie des Inscriptions by M. Lancelot. The discovery of the tapestry itself was due to Bernard de Montfaucon, who published representations of it in his *Monumens de la Monarchie Française* (1729-33). See F. R. Fowke, *The Bayeux Tapestry* (1898); Rev. J. C. Bruce, *The Bayeux Tapestry Elucidated* (1885); Jules Comte, *La Tapisserie de Bayeux*, with photogravures (1879); *Vetusta Monumenta* (1819), vol. vi. (contains beautifully coloured drawings by C. Stothard); *Archæologia*, vols. xvii.-xix.

Bay Islands, a group in the E. of Honduras, to the N. of Honduras, ceded by Great Britain to Honduras in 1859. Roatan, the largest, is 30 m. long by 9 m. broad. The trade is principally in bananas and cocoanuts with New Orleans and New York. Pop. 5,000.

Bayle, PIERRE (1647-1706), French philosopher and critic, the son of a Calvinistic preacher, was born at Carlat, Languedoc; he withdrew to Geneva to escape threatened prosecution by the Catholics. In 1675 he was appointed to the chair of philosophy at the University of Sedan, and in 1681 to the chair of philosophy and history at Rotterdam. Here he published (1682) his famous *Pensées Diverses sur la Comète*, and in 1684 his *Critique Générale de l'Histoire du Calvinisme de M. Maimbourg*; the latter was severely criticised by his colleague Jurieu. In 1684 he began the publication of the *Nouvelles de la République des Lettres*, a journal of literary criticism, successfully carried on until 1698, and continued after his death to 1720. On the revocation of the Edict of Nantes, Bayle wrote his *Commentaire Philosophique sur ces Paroles de Jésus-Christ: 'Contrains-les d'entrer,'* also attacked by Jurieu as unorthodox; and, after a prolonged controversy, Bayle was deposed (1693) from his professorship. He then applied himself to the completion of the *Dictionnaire Historique et Critique* (1696), his masterpiece, which shows to perfection his extensive information, fluency of style, and sceptical spirit. This work, condemned by his adversaries and censured by the Rotterdam consistory, met with widespread success, and exercised considerable influence upon the narrow dogmatism of the Reformed churches. His *Œuvres Diverses* were published at the Hague (1725-31). See *Lives* by Desmazières (1730) and Feuerbach (2nd ed. 1848), and Damiron's *Philosophie en France au XVII^e Siècle* (1846).

Bayliss, SIR WYKE (1835-1906), English painter and author, born at Madeley, Salop, and studied at the Royal Academy. In 1853

he entered an architect's office, and from that time his artistic bent was towards ecclesiastical art, of which he was a distinguished interpreter. He was elected president of the Royal Society of British Artists in 1888, and was knighted in 1897. His paintings of great European cathedrals include *La Sainte Chapelle* (1865); *St. Mark's, Venice* (1880); *Vespers in St. Peter's, Rome* (1888); *The Golden Duomo and Pisa* (1892). He wrote *The Witness of Art* (1876), *The Higher Life in Art* (1879), *The Enchanted Island* (1888), *Rex Regum: a Painter's Study of the Likeness of Christ* (1898), and *Seven Angels of the Renaissance* (1906).

Baylor University, at Waco, Texas, is under the auspices of the Baptist body. It received its charter in 1845, and from that year until 1882 was established at Independence, Texas. The faculty number 45, and the students over 1,100.

Bayly, ADA ELLEN. See LYALL, EDNA.

Bayly, THOMAS HAYNES (1797-1839), English lyrical poet and miscellaneous writer, a native of Bath; wrote a number of pieces for the stage (notably *Perfection*, in which Madame Vestris appeared) and several novels; but his fame rests entirely on his songs, some of which, such as *The Soldier's Tear*, *We met—'twas in a Crowd*, and *She wore a Wreath of Roses*, are still popular. A Memoir by his widow is prefixed to his *Ballads and other Poems* (1844). See A. Lang's *Essays in Little* (1893).

Baynes, THOMAS SPENCER (1823-87), English man of letters, born at Wellington, Somerset; became a pupil, at Edinburgh University, of Sir William Hamilton, whose class assistant he was from 1851 to 1855. He was one of the literary editors of the short-lived *Edinburgh Guardian*. In 1857 he went to London, where he became

assistant-editor of the *Daily News* and (1857-63) examiner in logic and mental philosophy in London University. From 1864 till his death he filled the chair of logic, rhetoric, and metaphysics in Andrews University. In 1873 he was appointed editor of the ninth edition of the *Encyclopædia Britannica*, to which he contributed a notable article on *Shakespeare*, reprinted in his volume, *Shakespeare Studies* (1894). But from about 1882 the chief burden of the editorial work was borne by Robertson Smith. Baynes translated the *Port Royal Logic* (1851), and wrote *The New Analytic of Logical Forms* (1852).

Bay of Islands, a deep harbour, 11 m. across, sheltered by numerous islands, on the N.E. coast of the North Island of New Zealand, 128 m. from Auckland.

Bayonet. The modern bayonet is a short sword, the blade of which in the 1908 pattern is seventeen inches long, which fits on to the end of the rifle, and which is given to the foot soldier as a weapon for use in hand-to-hand fighting. The old bayonet was considerably longer, was triangular in section, and tapered very much towards the point. The latest pattern is fixed to the extension of the stock and not to the barrel, so as not to affect the shooting. The bayonet is very useful in enabling infantry to resist the attack of cavalry, when rushing the enemy's position in the final stages of the assault, and in night fighting. When not fixed on the rifle, it is carried in a scabbard attached to the left side of the soldier's belt. See ARMS.

Bayonne. (1.) Fortified tn. and episc. see, dep. Basses-Pyrénées, on the Adour, 3 m. from the Bay of Biscay, 125 m. by rail s.s.w. of Bordeaux, with interesting buildings, such as the 13th century cathedral, the 15th century church of St. Esprit, and the old castle.

There are shipbuilding, leather-dressing, and distilling industries, and manufactures of pottery and chocolate; large trade in hams. Turpentine, sulphate of lime, chemicals, resins, and pit-wood are exported. Bayonne is the ancient *Lapurdum*. From 1152 to 1451 it was in the possession of the English. Its citadel, which dominated the city, is a masterpiece of Vauban. In May 5, 1808, Charles IV. signed here his renunciation of the throne of Spain in favour of Napoleon, who proclaimed, also here, on July 6, 1808, a new Spanish constitution. Laffitte (1767-1844) was born here. Pop. 26,000. See Ducéré's *Bayonne sous l'Ancien Régime* (1903); and *Bayonne, Historique et Pittoresque* (1893). (2.) City of Hudson co., New Jersey, U.S.A., situated at the end of the peninsula between Newark Bay and New York Harbour. Oil refining is an important industry, and there are large manufactures of chemicals, colours, paints, etc., and vast coal-shipping interests. Pop. 56,000.

Bayou, a name for a stream or a canal connecting other streams or rivers in the southern United States. It is not fed by natural springs. The state of Mississippi is known as the 'Bayou State,' from the large number of bayous it contains.

Bay Psalm Book, the earliest version of the Psalms printed and published in the New England States (1640), and the first book printed in N. America, was produced by Richard Mather, Thomas Welde, and John Eliot.

Bayreuth, or BAIREUTH, tn., Bavaria, dist. Upper Franconia, on the Red Main, 58 m. by rail N.E. of Nuremberg; famous for Richard Wagner's theatre (1876), and for the festivals in which his operas are produced. Jean Paul Richter lived at Bayreuth, and Franz Liszt was buried there.

There are also the palace of Duke Alexander of Würtemberg, the opera-house, and the dwelling-houses of Wagner (Villa Wahnfried) and Jean Paul. The suburb of St. George is the seat of cotton, linen, and thread manufactures. Bayreuth dates from the 12th century. Pop. 32,000. See Meyer's *Das Stadtbuch von Baireuth* (1896); Barry's *Bayreuth* (1887); and *Manual for Visitors* (1894); also works cited under WAGNER.

Bay Rum. See BAYBERRY.

Bay State, a popular name for the state of Massachusetts, U.S.A., originally known as the Massachusetts Bay Colony.

Bayswater, a dist. of London and a chapelry in Paddington par., Middlesex, 3½ m. W. of St. Paul's. It adjoins Hyde Park and Kensington Gardens. It was originally called Baynard's Water.

Bayuda Steppe, a vast desert in the Egyptian Sudan, in the bend of the Nile N. of Khartum.

Bay Window, a term used for a window which projects beyond the line of the front of a house, generally constructed in the form either of a semi-hexagon or a semi-octagon. Strictly speaking, a *bay* window rises from the ground or basement of a house, an *oriel* window is supported by means of a bracket or corbel, and a *bow* window is invariably a segment of an arch; but the three words and their use are now practically synonymous.

Baza, tn., prov. Granada, Spain, 55 m. E.N.E. of Granada, on railway to Murcia. An ancient city, originally founded by the Goths, it contains many picturesque old buildings, Moorish, Gothic, and mediæval. There are many mineral springs in the neighbourhood, and mines of quicksilver, lead, etc., which are little worked. Pop. 13,000.

Bazaar, a Persian word designating in the East a market-place, where people also gather to-

gether to hear the news and discuss politics; in general a street, or series of streets, occupied by shops. There are special bazaars of the respective trades, and a general bazaar. The most noted are those of Ispahan, Tabriz, Cairo, and Constantinople. The modern bazaar in the West is a sale of miscellaneous articles contributed gratuitously, and sold for the benefit of some charitable, religious, or public institution. The hall in which the bazaar is held is usually fancifully decorated, and the goods are set out on stalls presided over by ladies. Raffling, though illegal, is commonly practised at bazaars.

Bazaine, FRANÇOIS ACHILLE (1811-88), marshal of France, saw service in Algeria, Spain, Morocco, and the Crimea. In the Italian war of 1859 he commanded a division, and in 1863 he succeeded Forey in the supreme command of the Mexican expedition. In 1870 Bazaine was entrusted with the 3rd Army Corps, lying near Metz. After the battles of Wörth and Spichern he commanded the main French armies, and on Aug. 14, 1870, began a retreat from Metz. Defeated at Vionville, Mars-la-Tour, and Gravelotte, he threw his army into Metz, and was at once besieged by Prince Frederick Charles. Foiled in his efforts to break the lines of investment, he capitulated (October 27), and laid down his arms, 3 marshals and over 6,000 officers and 170,000 men becoming prisoners of war. Denounced as a traitor by the voice of the nation, a court-martial in 1873 degraded him and sentenced him to death; but the sentence was commuted to twenty years' imprisonment. In August 1874 Bazaine managed to escape from his prison on the Ile Sainte-Marguërite, and reached Madrid, where he died fourteen years

later. Though a dilatory general and enmeshed in politics, he was undeniably brave, and has not lacked apologists. His own defence will be found in his *Rapport Sommaire* and his *Episodes* (1888). For another vindication, see *Légende de Metz* (1888).

Bazalgette, SIR JOSEPH WILLIAM (1819-91), English civil engineer, of French extraction; was appointed (1855-89) engineer to the newly-constituted Metropolitan Board of Works; and under his guidance were carried through two public undertakings of great utility — (1) a general sewage scheme for London (1858-88), in which 90 m. of sewers were constructed, at a cost of £8,000,000; and (2) the Victoria, Albert, and Chelsea sections of the Thames Embankment (1862-74). He was knighted in 1874.

Bazard, ST. AMAND (1791-1832), French revolutionary and socialist, took part in the defence of Paris in 1815. He was the founder of a secret society (Amis de la Vérité) on the model of the Carbonari societies of Italy, but its premature and unsuccessful outbreak at Belfort forced him to go into hiding. In 1825 he became a convert to the teachings of Saint-Simon, and soon shared with Enfantin the leadership of the movement. In 1828 he delivered a series of lectures, afterwards published as the first volume of *L'Exposition de la Doctrine de St. Simon* (1828-30), the second volume being written by Enfantin. Their objects were defined in the little work *Religion Saint-Simoniennne* (1830). In 1831 the two leaders quarrelled over the question of the relation of the sexes, and Bazard withdrew from the society.

Bazardjik, or DOBRIC, tn., Bulgaria, 28 m. N. by W. of Varna, on trib. of Danube. Pop. about 10,000.

Bazar Valley, dist. on borders of India and Afghanistan, 30 m. W. of Peshawar, occupied by

Zakka Khels, against whom a military expedition had to be sent in Feb. 1908.

Bazeilles, vil., Ardennes, France, near R. Meuse, $2\frac{1}{2}$ m. S.E. of Sedan. Here a battle between the Prussians and the French was fought on Sept. 1, 1870, previous to the surrender at Sedan. Pop. 1,300.

Bazigars, tribe scattered over India, and variously known as Bazigars, Kunjra, Panchpiri, and Nats. Most of them are nomadic and exclusive Mohammedans. Skilful in gymnastic feats, the men make good jugglers, and the women dancers. In customs, features, and language they resemble the gypsies.

Bazin, RENÉ (1853), French novelist, educated at Angers and the University of Paris. He published his first novel in 1884, and was elected to the French Academy in 1903. He has written many books of travel and criticism. The following are his chief works: *La Terre qui meurt* (1899), *L'Isolée* (1905), *Le Blé qui lève* (1907), and *Mémoires d'une vieille fille* (1908).

Bdellium, a name given to several myrrhlike gum-resins of various origin, still used, though not so much as formerly, in pharmaceutical practice. This term occurs twice in the Old Testament (Gen. 2:12 and Num. 11:7; rendered in Greek *anthrax* in the former, and *crystallos* in the latter), and denotes probably a gem.

Beach, SIR MICHAEL EDWARD HICKS-. See ST. ALDWYN, VISCOUNT.

Beach, THOMAS MILLER. See LE CARON, MAJOR.

Beaches, RAISED. A raised beach is usually a horizontal terrace of varying width, some distance above the present seashore. It may consist of naked rock, but is more frequently covered with sand and gravel; and when overgrown with grass or trees, it may

form so slight a feature of the scenery as to escape the casual observer. Such old, grass-grown raised beaches can be traced for miles along the shores of Scotland, in places narrow and almost destroyed, but here and there expanding into broad level terraces on which are built many coast towns—*e.g.* Nairn, Fortrose, Cromarty, Bridge of Allan. In favourable situations, three or even more of these terraces may be found one below the other; and geologists recognize three raised beaches in Scotland, indicating three successive shore-levels, as the land was gradually elevated during Pleistocene times. Sometimes at the inner margin of the beach-terrace a rocky cliff is found, in which caves may still testify to the former action of the breakers (Crail, Kintyre, Buckhaven, and Fortrose). Shells are occasionally found in the lower beach deposits, though usually they have been dissolved by percolating water. There is often much drifted wood mixed with the gravel, sand, and mud, especially near the mouths of the rivers. Similar beaches are known in the north of England. The raised beaches of Norway have long been famous; some of them are 600 ft. above the sea. In Jamaica, Chile, New Zealand, and many other places there are raised beaches. Surveys of the great lakes of N. America have demonstrated the existence of raised beaches there. Apparently the entire basin of the great lakes is being elevated in the north-east, and depressed in the south-west. See Chambers's *Ancient Sea Margins* (1848); Darwin's *Voyage of the 'Beagle'* (new ed. 1901); Lyell's *Principles of Geology* (12th ed. 1875); Suess's *Das Antlitz der Erde* (1883-8), Eng. trans. by Sollas.

Beachy Head, cape on S. coast of Sussex, England, 3 m. W. of Eastbourne, the E. extremity of

the S. Downs, the chalk cliffs here rising to a perpendicular height of 564 ft. On the w. cliff—Belle Tote—a lighthouse visible for 23 m. was erected in 1831. The BATTLE OF BEACHY HEAD was fought, June 30, 1690, between an Anglo-Dutch fleet of 56 sail of the line, under Admiral Arthur, Earl of Torrington, and Cornelis Evertsen the youngest, and a French fleet of 68 ships of the line, under Comte de Tourville. The allied van, composed of the Dutch, and the rear, under Vice-Admiral Sir Ralph Delavall, fought on the 29th June very closely and gallantly; the allied centre engaged less warmly. The tide then carried the French out of gunshot of the allies. At that time only one ship, a Dutch one, had been lost. During Torrington's subsequent retreat up channel before the French, he lost or sacrificed eight or nine more, and then took ignominious refuge in the Thames. The action is known by the French as the battle of Béveziers. For a discussion of Torrington's action, see *Quart. Rev.*, Oct. 1893, and Clowes's *The Royal Navy*, vol. ii. (1897).

Beacon, anything designed to act as a signal or indicator. In the 10th-century Anglo-Saxon poem of *Beowulf*, 'beacon' is used with the meaning of 'ensign' or 'standard;' and this particular signification was current in English as late as the end of the 15th century. Long before that time, however, the word had begun to develop its more special meaning of 'fire-signal;' for an Act of Edward III. (c. 1340) ordains that beacons 'should be high standards *with their pitch-pots.*' By this is indicated the cresset or fire-basket, which was not only carried by soldiers, watchmen, and servants at the top of poles, but was very frequently fixed on the ramparts of mediæval castles (as may yet be

seen at Edinburgh Castle); and it was also fastened to the inner walls of baronial halls, or suspended from the vaulted roof, for ordinary purposes of illumination. It was also fixed at the outer end of a harbour wall, to guide incoming boats at night. At the present day, however, the word 'beacon' is chiefly held to denote a fire-signal, such as the beacons erected in a long chain from Cornwall to the Cheviots, whose successive flare announced to the whole of England the advent of the Spanish Armada, or the beacons scattered all over the British Isles in the early part of the 19th century, as a precaution against the threatened French invasion. Beacon fires were lighted on the occasion of the diamond jubilee of Queen Victoria (1897), and at the coronation of King Edward VII. (1902). In some cases the name 'beacon' has become attached to a hill itself. Dunkery Beacon on Exmoor is an example of this; also the Airly Beacon of Kingsley's song. For beacons in the modern sense of marks for navigation on coasts, in rivers, and in estuaries, see BUOY.

Beaconsfield. (1.) Market town and par. in Buckinghamshire, England, 2½ m. N.E. of Loudwater stn., on the G.W. and G.C. joint railways, and 23 m. W.N.W. of London. Disraeli derived his title from the town. Pop. 1,600. (2.) A suburb of Kimberley, Cape Colony, with which it is connected by tramway. There are diamond mines. Pop. 9,500 (whites, 2,800).

Beaconsfield, BENJAMIN DISRAELI, EARL OF (1804–81), prime minister of England, politician, and novelist, was the second of the four children of Isaac Disraeli. Benjamin was born in London, and was received into the Jewish Church, but was baptized when his father and mother became members of the Church

of England in 1817. Privately educated, he learned most in his father's library. At his father's table he met Croker, Rogers, and other writers of the day; and though he was constrained at seventeen to enter a solicitor's office with a view to the bar, literature claimed him. When he was twenty-one (1826) he published his first (semi-autobiographical) novel, *Vivian Grey*, which was the book of the season. Then his health broke down, and the second part of *Vivian* (1827) and *The Young Duke* (1831) were disappointing. But he presently produced three brilliant satires—*Ixion in Heaven*, *The Infernal Marriage*, and *Popanilla* (all 1828), the latter a skit on the British constitution. In 1830 and 1831 he travelled—saw Spain, the Mediterranean, Greece, Turkey, and the Holy Land. A second autobiographical novel, *Contarini Fleming*, followed in 1832, *Alroy* in 1833, and *The Rise of Iskander* in 1834. *The Revolutionary Epic*, published in 1834, proved to him that he was not a poet, and he decided that politics was to be his rôle. Affecting extreme foppery in dress—he was determined to be distinguished somehow—he started as a Radical; wooed in 1832 the electors of High Wycombe in a laced shirt and pink-lined coat, and was rejected. But he succeeded in making himself notorious, and by the time the Radicals had sickened of the Reform Parliament he was done with them, and joined Peel. As a Tory candidate for Taunton he came into collision with O'Connell, and more notoriety was the result. The *Times* published his *Letters of Runnymede*, attacking the Whig leaders in the style of Junius; and to the 1837 Parliament he was easily returned for Maidstone, as the colleague of his friend Mr.

Wyndham Lewis, whose widow he married in the following year. His first speech was shouted down by the other side; but the House heard him say, 'I will sit down now, but the time will come when you will hear me.' He took Shiel's advice to be commonplace for a session, and was listened to. Marriage saved him from financial shipwreck. In 1841 he took his seat for Shrewsbury, which in 1847 he exchanged for Buckinghamshire. He hit hard in the House, and made himself respected, if not feared. Associating himself with some of the younger Tories—the party of Young England, as they called themselves—he wrote more novels, embodying their views on the salvation of England by the aristocracy. *Henrietta Temple* and *Venetia*, love stories, which appeared in 1837, were followed by the political *Coningsby* (1844), *Sybil* (1845), and *Tancred* (1847). The writer of these works was uninfluenced by the movement that was sweeping Peel towards free trade; and when Peel abandoned protection in 1846, Disraeli, by a series of fierce attacks on his old chief, made himself the leader of the Tories, with a nominal chief in Lord George Bentinck, whose *Life* he wrote in 1852. For a quarter of a century he led the Conservatives in the House of Commons, 'educating,' in his own phrase, the men who slowly and reluctantly submitted to his indispensable dominance. He was three times Chancellor of the Exchequer (in 1852, 1858-9, and 1866), and prime minister in 1868 and 1874-80. Disraeli educated the party to the pitch of passing the Reform Act of 1867. When he attained real power in 1874, he showed that imperialism and a spirited foreign policy had taken the place in his heart of the earlier enthusiasm for social reform. But though he had in 1872:

protested against the Liberals' neglect of the colonies, he did nothing to bind the empire together. In 1876 he made Queen Victoria Empress of India, bought the Suez Canal shares, and became Earl of Beaconsfield; and in 1878 he loosened the grasp of Russia on the throat of Turkey, and brought back 'peace with honour' from the Berlin Congress. His greatest novel, *Lothair*, was published in 1870; his last, *Endymion*, in 1880. He was buried at Hughenden, leaving directions that his *Life* should be written by Lord Rowton. Disraeli was one of the greatest of British parliamentarians, but the time has not come for an appreciation of him as a politician. His novels are unique. No one has portrayed with such fidelity the English aristocracy at its best, or the inner life of politics. *An Unfinished Novel*, by him, appeared serially in the *Times* during Jan. and Feb. 1905. See Sir T. Martin's *Life of the Prince Consort* (1880), and *Life of Lord Lyndhurst* (1883); *Greville Memoirs* (1875); *Croker Papers* (2nd ed. 1885); T. P. O'Connor's *Lord Beaconsfield* (6th ed. 1884); *Sketch* by Georg Brandes (Eng. ed. 1880); and *Biographies* by T. E. Kebbel (1888), J. A. Froude (1890), Harold Gorst (1897), Sir W. Fraser (1891), Wilfrid Meynell (1903), and Walter Sichel (1904). The first vol. of the official *Life*, by Mr. W. F. Monypenny, which has been seven years in preparation, was published in 1910.

Beadle, Bedel, or Bedellus, a functionary, bearing a mace or a wand of office, who precedes civic, university, or ecclesiastical dignitaries. The English parish beadle, however, is practically a constable. In Scotland he is distinctively a church officer who attends on the clergyman on the occasion of divine worship. In ancient Egypt the church beadles or temple police (*sāsh*) preceded

the procession of priests, as portrayed at Abydos and Bubastis. At the latter place they were of dwarf race. See BEDEL.

Beads. Beads were among the earliest ornaments: they have been found in Egyptian tombs; glass beads, used by the Phoenicians for trade, are still treasured by African chiefs; and at the present day beads are a common medium of exchange with uncivilized tribes. Birmingham is the centre of the industry in England, but Venetian beads are the most noted for their variety and beauty. In making glass beads, a mass of glass is blown into a bulb, and this is drawn out into a long tube. This tube is cut into pieces about one foot long, and these, after being annealed, are cut into beads. The beads are then placed in a rotating drum, with charcoal and plaster, and heated over a furnace. By the rubbing together in the drum the pieces of soft glass receive a round shape, the charcoal and plaster preventing them from sticking together.

Beagle, in appearance a miniature foxhound, is the smallest dog used for hunting purposes. It would appear to be of ancient origin, for a pair are mentioned at the time of Queen Elizabeth. The present-day beagle varies in height from 10 to 16 in. It possesses an extraordinarily keen scent, acute intelligence, and admirable perseverance. A pack in full cry runs so closely that it might sometimes be covered with a sheet, and the dogs give forth a sonorous music quite amazing for such small beasts. There are forty-four packs of beagles in the United Kingdom, and for hare-hunting in a mountainous country they afford excellent sport. Their points are: skull fairly long and wide, and slightly domed; stop well defined; muzzle short and rather tapering; nose large, with nos-

trils well open; ears long, thin, and hanging in folds; eyes rather full, and very soft; neck fairly long and muscular, and free from dewlap; shoulders strong and sloping, and set rather wide apart; chest very deep in proportion to size; ribs deep and round; body well ribbed up; loin very muscular; hind quarters wide and strong; hocks well bent; fore legs straight, and with good bone; feet round and cat-like; stern gay and lashing; coat close, dense, and flat, and of any hound colour. The rough variety differs from the smooth only in texture of coat.

Beagle, the British sloop on which Charles Darwin made his famous voyage (1831-6).

Beak, in birds. See BILL.

Beaked, in heraldry, a term applied to birds (not being birds of prey) which have the beak of a colour different from that of the body. When the legs and talons are similarly coloured, the term 'membered' or 'armed' is used.

Beaker. (1.) A thin cylindrical or conical vessel made of glass, used in chemical operations to heat liquids, collect precipitates, etc. (2.) A large drinking vessel; from Low Lat. *bicarium*, whence Ital. *bichiere*, a tumbler.

Beal, SAMUEL (1825-89), Oriental scholar, studied at Cambridge, went through the China war as a navy chaplain, and ultimately became professor of Chinese at University College, London. Among his works, in which he brought to light much valuable information on the history of early Buddhism, are: *The Catena of Buddhist Scriptures from the Chinese* (1872), *The Romantic Legend of Buddha* (1876), *Texts from the Buddhist Canon, Dhammapada* (1878), a *Life of Buddha*, and a *Life of Hienen-Tsiang* (1888).

Beale, DOROTHEA (1831-1906), late principal of the Cheltenham Ladies' College since 1858, was born in London. She was probably the best known of English headmistresses, and was the author of text-books and articles in magazines on literary and educational subjects. See *Life* by Elizabeth Raikes (1908).

Beale, LIONEL SMITH (1828-1906), English physiologist, was born in London; studied at King's College, where he became professor successively of anatomy and physiology (1853), pathology, and medicine, retiring in 1896. Among his works are: *The Microscope in its Application to Practical Medicine* (4th ed. 1878); *How to work with the Microscope* (ill. ed. 1861); *Protoplasm, or Life, Force, and Matter* (1870); *The Mystery of Life* (1871); *Vitality and Natural Religion* (1900); and *Vitality and Natural Science* (1900).

Beale, ROBERT (1541-1601), English diplomatist and antiquary, was engaged by Elizabeth in negotiations with continental princes, and with the Queen of Scots (1581-4) at Sheffield. He was present at the massacre of St. Bartholomew, and carried (1586) to Fotheringay the warrant for the execution of Mary. He has left an account of both events. He was M.P. for Totnes (1572), Dorchester (1585-6, 1588), and Lostwithiel (1592), and served under Leicester in the attempt to relieve Sluys (1587). See Strype's *Annals*, iii. (1709); his *Whitgift* (1718), and *Parker* (1711).

Beam, WHITE (*Pyrus aria*), a tree about 30 ft. high, belonging to the pear genus of Rosaceæ; is found in Europe and Asia, and grows in mountainous woods in Britain. The leaves are simple, elliptical, with serrated edges, and either whole or cut into lobes; the under surface is white with

downy hairs. The flowers resemble those of the rowan; the fruit is like an enlarged haw or miniature apple, and is slightly acid and astringent. It is sometimes mistaken for the service tree. The wood is yellowish white, hard, close-grained, and takes on a high polish; it is very suitable for turning.

Beam. See SHIPBUILDING; STEEL AND IRON CONSTRUCTION.

Beamish, NORTH LUDLOW (1797-1872), military writer and antiquary; served at the viceregal court of Hanover; published *Instructions for the Field Service of Cavalry, from the German of Count von Bismarck* (1825); *History of the King's German Legion* (1834-7); *On the Uses and Application of Cavalry in War* (1855); *Discovery of America by the Northmen* (1841).

Bean, a name applied to certain seeds, chiefly of the order Leguminosæ. (1.) Seeds of Leguminosæ.—The *Vicia Faba* of Linnæus includes broad beans and their garden varieties, and field beans, which are used for feeding horses. Other varieties are scarlet-runner beans, haricot kidney beans, French or haricot beans, and the scimitar-podded kidney or sugar beans, also known as Lima haricot beans. Three species of *Phaseolus* are natives of India—the moth or aconite-leaved kidney bean, the three-lobed kidney bean, and the green gram or mung. Calabar bean is the ordeal bean of Calabar. (2.) Plants of other orders.—Bean-capers are the flower-buds of a plant in the guaiacum order, and are used as substitutes for true capers. Bog-bean, or buck-bean, is a British species of the gentian order. Water-bean, or sacred bean, is the name of the fruit which is supposed to be the sacred lotus of Egypt.

The beans commonly grown in English gardens are the broad bean (*Vicia Faba*, or *Faba vul-*

garis), the climbing scarlet runner (*Phaseolus multiflorus*), and the dwarf French, haricot, or kidney bean (*P. vulgaris*). The broad bean is the species referred to by Greek and Roman authors, and is the bean which the ancient Egyptians held to be evil and unclean. The Romans made use of it as an instrument of the ballot in their municipal elections, and they also prepared it in various ways for human food. The broad bean was early introduced into Britain, and is referred to by Chaucer. The kidney bean, on the other hand, was only introduced at the beginning of the 16th century, and the scarlet runner nearly a century later. Kidney beans are mentioned by Beaumont and Fletcher.

Beans are highly nitrogenous; dried haricots contain 23 per cent. of legumin and other proteids. They also contain over half their weight of starch.

Beans, like most other vegetables, thrive in a light, warm, deeply-dug soil, well enriched with manure. For the earliest supply of broad beans, a sowing of Mazagan may be made in November, followed by a sowing of early Lepod in February. Others may be sown in March, and for late crops a sowing of old broad Windsor may be made towards the end of April. Sow in drills three inches deep, allowing eighteen inches between the rows, and nine inches between the plants in the row. French beans and scarlet runners are much more tender, and susceptible to frost. The earliest sowing of French beans in the open may be made about the beginning of April, ne-plus-ultra being a good variety. About the beginning of May, a sowing of triumph or progress may follow; about the end of May, Canadian wonder may be sown. The distance between the plants should be the same as

advised above for broad beans. Scarlet runners are sown in the same way, but six or more feet must be left between the rows, the intervening space being utilized for dwarf crops. The first sowing should be made early in May. Good varieties are champion runner, best-of-all, and Chelsea giant. The newer climbing French beans should be treated in a similar way, but being a little hardier may be sown a fortnight earlier. See Wythe's *Book of Vegetables* (1901); Vilmorin's *The Vegetable Garden* (1885); De Candolle's *Origin of Cultivated Plants* (1884).

Bean Feast, a social festival observed in some European countries on the eve of Twelfth Day—*i.e.* the twelfth day after Christmas, Jan. 6—as in the Netherlands, where Jordaens and Steen have painted the revels. The mock king of the feast was he who got the piece of the 'twelfth-cake' which was found to contain a bean that had been baked in it; hence the name. This pagan festival, which not improbably reaches back to the Roman Saturnalia, has sometimes been confused with Epiphany, which occurs on the same date. The name 'bean feast' is now generally applied to a festival given by employers, especially in and near London, to their work-people.

Bean Tree, a name given to various trees because of the similarity of their fruit to a bean. In Australia, the Moreton Bay chestnut, *Castanospermum australe*, is so called; and in the United States and W. Indies there are four or five species so named, of which the best known are the *Catalpa bignonioides* and the Jamaican *Erythrina corallodendron*. The wood of the *Catalpa* is a hard, useful timber, the bark has tonic and antiseptic properties, but the honey made from the handsome 'trumpet flowers' is poisonous.

Bear. Bears are a well-defined group of mammals which, together with some smaller animals—such as otter, stoat, skunk, and others—constitute a section (*Arctoidea*) of the order Carnivora. Bears differ from the more typical carnivores, such as cat and dog, in the nature of the teeth, which are such as to render a mixed diet possible; in the broad feet, which are plantigrade—*i.e.* the whole sole is applied to the ground in walking (contrast cats and dogs); and in certain minor points, such as that the skull is long, the body large and massive, the movements relatively slow, as compared with those of cats and dogs. The fur is generally long and soft. The common brown bear (*Ursus arctos*) is, or was, widely distributed in Europe and Asia, and feeds on roots, fruits, honey, insects, and, at times, small mammals. Of the Arctic region the characteristic species is the polar bear (*Ursus maritimus*), while the American forms are the well-known grizzly bear (*U. horribilis*), believed to be closely related to the brown bear, and the black bear (*U. americanus*), together with the spectacled bear (*U. ornatus*) of the slopes of the Andes. Africa south of the Atlas Mts. has no bear—a somewhat remarkable fact—while India and the Malay Peninsula contain several peculiar species.

Most bears are adepts at climbing, and owing to the mobile plantigrade hind limbs, which are longer than the fore limbs, are capable of standing upright and using the fore limbs as weapons. In the more familiar forms these fore limbs are used in the deadly 'hug,' which is one of the bear's favourite modes of attack. Though all bears live, at least partially, on vegetable food, all are, to some extent, predatory animals. The brown

bear, for example, is fiercely carnivorous in the early spring.

Bear (CONSTELLATION). See URSA.

Bear-baiting. The baiting of bears with dogs was a favourite sport of the Romans, who imported bears from Britain, Syria, and elsewhere for the purpose; and until comparatively recent times it was common all over Europe. It existed in England as early as the 12th century, and was, in the reign of Elizabeth, a popular and fashionable amusement. A noted centre in London was Paris Gardens, on the Bankside in Southwark. In the 17th century it was repressed by the Puritans, and was finally prohibited by law in 1835.

Bearberry (*Arctostaphylos*), a genus of the heath order (Ericaceæ), found chiefly in America. Two species occur in the British Isles on mountain slopes. *A. alpina*, with deciduous leaves and black berries, is very rare, and is found only in the Highlands of Scotland. *A. uva-ursi* is more common: its small, leathery, dark green, obovate leaves are evergreen; the plant has a low, dense, trailing habit; the flowers are pink, and appear soon after the snow melts from the hills; the fruit is red. In both species the fruit is about as large as a cranberry. In continental regions it is eaten by bears, and in Britain by grouse and other birds.

Beard. See HAIR.

Beard, GEORGE MILLER (1839-83), American physician, born in Connecticut. Assistant surgeon (1863-4) in the navy during the civil war, on its conclusion he began (1866) practice in New York, and devoted himself especially to nervous diseases, on which (1868) he was appointed university lecturer. His works treat of *American Nervousness* (1881), *The Study of Trance* (1882), and *Nervous Exhaustion, Neurasthenia* (1880).

Beard, JOHN (1717-91), English actor and tenor singer, made his first appearance in Handel's representation of *Acis and Galatea*, *Alexander's Feast*, and *Atalanta*. He afterwards appeared at Drury Lane and Covent Garden, becoming manager of the latter in 1761. For him Handel composed the great tenor parts in *Israel in Egypt*, *Messiah*, *Samson*, *Judas Maccabæus*, and *Jephthah*. See *Gent. Mag.* for 1791.

Beard, THOMAS (d. 1632) Puritan divine, and headmaster of Huntingdon grammar school, where he had Oliver Cromwell for a pupil. Beard's work, *The Theatre of God's Judgments* (1597), contains the earliest account of the death of Marlowe.

Beard Grass, a name applied to two rare species of grass (*Polygonon*) found near the sea from Norfolk to Hants, in England.

Beard Moss, a lichen (*Usnea barbata*) which hangs like tangled tresses of hair from the branches of trees in Britain and other countries of the temperate regions.

Beardsley, AUBREY VINCENT (1872-98), a notable and original black-and-white artist, was born at Brighton. His drawings in black and white for the *Pall Mall Magazine* and the *Pall Mall Budget* began to attract public attention. His illustrations in Messrs. Dent's edition of *La Morte d'Arthur*, published 1893, may be said to have given him a definite reputation. When the *Yellow Book* was started in 1894, he was appointed art editor, and was next associated with Mr. Arthur Symons in the production of the short-lived *Savoy*. Illustrations, or decorative designs, for Oscar Wilde's *Salome*, for *The Rape of the Lock*, for *Mademoiselle de Maupin*, and for *Pierrot of the Minute*, followed; and when Beardsley died of consumption, at Mentone, he had just completed a series of

initials for an edition of *Volpone*. His work was admirable and highly accomplished in a technical sense, the line was marked by precision and style, and the black-and-white masses were used very adroitly and with wonderful decorative effect; but he was not free from affectation, he was over-fond of the grotesque and even the unsavoury. See Ross's *Aubrey Beardsley* (1908).

Bearer Company, until recently a separate unit; but now, with the Field Hospital, merged into the Field Ambulance (see **AMBULANCE**). Bearer subdivisions collect the wounded and bring them to the dressing stations, where their work terminates.

Bearing. To builders the bearing of a piece of timber means the unsupported part between two fixed extremities or supports, which are likewise called bearings. The term is more correctly applied to the distance or length of the beam beyond the line or face of support, or extent of the beam surface which actually lies on, or is supported by, the wall, which latter becomes then the 'bearing wall' or 'partition.' The supported wall, if built in the same direction, is said to have a 'solid bearing;' if built in a transverse direction, as in the case of sills, a 'false bearing,' or as many false bearings as there are intervals below the wall or partition. Timbers or lintels let into a wall have usually a bearing of 9 in. at each end; stone steps should also have a bearing of 9 in. The bearing of joists or other beams supported at both ends is regulated by the resistance of the supporting material to crushing. A bearing of 4½ in. on the sleepers or wall plates is generally considered sufficient in ordinary dwelling-houses. In applied mechanics a bearing is the support of a moving part of a machine. Bearings have a double part to

play: they not only furnish a support, but permit the part of the machine supported to perform the motion or motions required of it. Such motions are either turning or sliding. To reduce frictional losses, and to prevent the destruction of the moving surfaces, special forms of bearings have been designed. (See **FRICTION**; **BALL BEARINGS**.) The bearing of a vehicle is one of the pieces supporting the framework and resting on the axle. In railroad engineering, a bearing is the element that holds up the framework of a railway carriage or truck, and rests on the journal of the axle outside the wheel. In nautical language, bearing connotes the position of any object with regard to the observer's ship as determined by compass.

Bear Lake, **GREAT**, lake, in the Mackenzie district, Canada; length, 175 m.; breadth, 25 to 45 m.; area, 11,821 sq. m. It discharges into the Mackenzie R. by the Great Bear R. Its waters abound with fish, and are frozen over nine months in the year. Fort Confidence, at the N.E. end, and Fort Franklin, at the W. end, are the two chief trading stations.

Béarn, an old prov. of France, forming part of the deps. of Basses-Pyrénées and the Landes, and inhabited by Gascons of Basque origin. Cap. Pau. In 1620 Louis XIII. formally made Béarn a part of France. See Marca's *Historie de Béarn* (1894).

Bear River, W. United States, rises on the N. slope of the Uinta Mts., Utah, flows through parts of Wyoming and Idaho, and discharges into Great Salt Lake, after a circuitous course of about 450 m.

Bear's Breech. See **ACANTHUS**.

Bear's Foot. See **HELLEBORE**.

Beas (the *Hyphasis* of the Greeks; Sans. *Vipasa*), one of the five rivers of the Punjab, rises in the Himalaya Mts., and after a

course of 300 m. joins the Sutlej, 35 m. S.S.E. of Amritsar.

Beat, in music. (1.) A name formerly given to certain graces or ornaments. (2.) The movement of the hand or baton by which the rhythm of a piece of music is indicated; also, by analogy, the different divisions of a bar or measure with respect to their relative accent. (3.) The wavy effect produced when two notes, which are nearly but not quite in unison, are sounded simultaneously.

Beatenberg, St. See ST. BEATENBERG.

Beath (Gael. 'birch tree'), par. of S.W. Fifeshire, Scotland, 5 m. E.N.E. of Dunfermline; contains the mining villages of Hill of Beath (one of the first in Scotland to adopt the Gothenburg public-house system), Cowdenbeath, Kelty, Oakfield, and Lassodie. Area of par. 6,343 ac. Loch Fitty lies within the S.W. boundary. Coal is extensively worked. Pop. 16,000.

Beaton, DAVID, CARDINAL (1494-1546), primate of Scotland. At the University of Paris he became intimate with the Scottish regent, the Duke of Albany, who in 1519 appointed him resident for Scotland at the French court. In 1525 Beaton became abbot of Arbroath; in 1528, lord privy seal; in 1538 he was created a cardinal; and in 1539 he succeeded his uncle, James Beaton, as archbishop of St. Andrews. On the death of James V., in 1542, he sought to seize the infant queen of Scots, and to obtain the regency by means of a forged will; but the scheme failed, and he was arrested and imprisoned. After his release, he became, in 1543, chancellor of Scotland. He then persecuted the Protestants with great cruelty and rigour. Among his victims was the famous preacher George Wishart. His rule became intolerable, a

conspiracy was formed against him, and he was assassinated at St. Andrews on May 29, 1546. See Burton's *Hist. of Scot.*; Knox's *Hist.*; Pinkerton's *Iconographia Scotica* (1796); G. Cook's *Hist. of the Reformation in Scot.* (2nd ed. 1819); Tytler's *Original Letters* (1839); and Herkless's *Cardinal Beaton, Priest and Politician* (1891).

Beaton, or BETHUNE, JAMES (d. 1539), uncle of the preceding, archbishop of Glasgow (1509) and St. Andrews (1522), was one of the commission of regency during the minority of James V.; and, by securing the marriage of James with Magdalen of France, successfully thwarted Wolsey's plan of an alliance between England and Scotland. His rigorous policy against the reformation led to the burning of Patrick Hamilton (1528) and three other reformers. Beaton founded the new divinity college at St. Andrews. See Keith's *Hist. of Scot., Civil and Ecclesiastical* (1886); Spottiswoode's *Hist.* (1677).

Beaton, or BETHUNE, JAMES (1517-1603), last R.C. archbishop of Glasgow (1552), nephew of the cardinal, retired to Paris after the death (1560) of the queen regent. Beaton was one of Queen Mary's most active correspondents. See Cosmo Innes's *Sketches of Early Scot. Hist.* (1861).

Beatrice, city, Nebraska, U.S.A., co. seat of Gage co., 40 m. S. of Lincoln; manufactures flour, bricks, and agricultural machinery. Pop. 8,000.

Beatrice, the angelic lady who was the heroine of Dante's *Vita Nuova*, of his *Divina Commedia*, and of his life. It has been supposed by some that she was a purely symbolic figure; but it is now certain that the object of his adoration was an actual Beatrice, a Florentine lady, daughter of one Folco Portinari, who married a certain Simone de'

Bardi. After her untimely death in 1290, Dante married (1291) Gemma de' Donati. See DANTE.

Beattie, JAMES (1735-1803), Scottish poet and miscellaneous writer, born at Laurencekirk, Kincardine; died at Aberdeen, where he was (1760) professor of moral philosophy in Marischal College. He published a volume of miscellaneous poems in 1761, and in 1765 a poem, *The Judgment of Paris*. His once celebrated *Essay on Truth* (1770), for which he received a pension of £200 a year from George III., was a refutation of Hume's scepticism; but its main contents had been anticipated by Reid's *Inquiry* (1764). In 1771 he published the first book of *The Minstrel, or the Progress of Genius*, the work on which his fame rests; the second book appeared in 1774. Written in the Spenserian stanza, it abounds in beautiful descriptive passages, and is notable for the harmony of its versification. Among his other works are a *Dissertation on Poetry and Music* (1776), *Evidences of the Christian Religion* (1786), and *Elements of Moral Science* (1790-93). See his *Life* by Sir W. Forbes (1806), and the ed. of his poems by Alex. Dyce for the Aldine Ser. (1866).

Beattie, WILLIAM (1793-1875), Scottish physician and author, studied medicine at Edinburgh (1812), and practised in Edinburgh (1820), subsequently in Cumberland (1821), and afterwards with great success in London (1827-45). He was a friend of Thomas Campbell the poet, whose life he wrote (1849). A series of descriptive and historical works on Switzerland, the Danube, the castles and abbeys of England, etc., appeared in 1835-6, illustrated by W. H. Bartlett.

Beattock, vil., Dumfriesshire, Scotland, 2 m. s. of Moffat. It is an important junction on the Caledonian Ry.

Beucaire, tn., dep. Gard, France, on r. bk. of Rhone, at the head of the Canal de Beaucaire, 14 m. E. of Nîmes, with manufactures of silk, cloth, wool, leather, etc. Pop. 8,800. See Eyssette's *Histoire de Beaucaire* (1884-8).

Beauce. (1.) District, France, round Chartres, part of the deps. Eure-et-Loir and Loir-et-Cher; a large and very fertile calcareous plateau especially suited for wheat. (2.) County of Quebec, Canada, on the s. side of the St. Lawrence, bordering the United States. It returns one member to the Dominion House. Pop. 45,000. Cap. St. François.

Beauchamp, ALPHONSE DE (1767-1832), French historian, was born at Monaco, and died in Paris. At seventeen years of age he took service with the king of Sardinia; but in 1792 he refused to fight against France, and after a short imprisonment proceeded to Paris, where he obtained employment in the office of the Committee of Public Safety, and a little later in that of the minister of police. The publication of his *Histoire de la Vendée et des Chouans* in 1806 cost him his office and banishment to Rheims, from which he was recalled five years later. He also compiled numerous biographical sketches (e.g. *Moreau* in 1814, and *Louis XVIII.* in 1824).

Beauchamp, WILLIAM MARTIN (1830), American clergyman and ethnologist, archæologist of New York State Museum, born at Coldenham, New York; has held charges at Northville, New York (1863-5), Baldwinsville, New York (1865-1900), and in 1886 became examining chaplain for Central New York. In 1889 he surveyed the Iroquois territory in New York and Canada, and has made an extensive study of the Iroquois tribes. Among his works are *The Iroquois Trail* (1892), *Indian Names in New York* (1893), *Aboriginal Chipped Stone Imple-*

ments of New York (1897), *Aboriginal Occupation of New York* (1900), *Bone and Horn Articles used by the New York Indians* (1902), and *History of the New York Iroquois* (1905).

Beauclerk, TOPHAM (1739-80), great-grandson of Charles II. and Nell Gwynne. Bennet Langton introduced him to Johnson, and so began the friendship by which Beauclerk is chiefly remembered. See Boswell's *Life of Johnson*, and Birkbeck Hill's *Dr. Johnson: his Friends and his Critics* (1878).

Beaufort. (1.) Town and summer resort, N. Carolina, U.S.A., co. seat of Carteret co., situated on the S.E. coast, at the mouth of Newport R. It has a fine harbour, on the shore of which is Fort Macon. There is a large output of fish-oil. Pop. 2,200. (2.) Town, S. Carolina, U.S.A., the co. seat of Beaufort co., on Port Royal inlet, 14 m. from the ocean. It exports 'sea island' cotton, phosphate of lime, lumber, and rice. Pop. 4,000.

Beaufort, SIR FRANCIS (1774-1857), British rear-admiral. Entering the navy (1787), he was present (1794) in the *Aquilon* at Lord Howe's action of June 1. In 1800 he was severely wounded in cutting out a Spanish ship. In the same year he was promoted to be commander, and in 1810 became a captain. Hydrographer to the Admiralty (1832-55).

Beaufort, HENRY, CARDINAL (1377-1447), was the natural son (afterwards legitimized) of John of Gaunt and Catherine Swynford. Educated at Oxford and Aix-la-Chapelle, he was in 1398 appointed bishop of Lincoln, and translated to Winchester in 1405. Three times (1403-4, 1413, 1424-6) he held the Great Seal of England. In 1426 he was created a cardinal by Pope Martin V. He opposed the war tax on the clergy proposed by Henry V., but lent the king large sums out of his private

purse. The failure of his crusade against the Hussites in Germany, and the diversion to other objects of moneys granted by Rome for specific purposes, brought him under papal displeasure. In 1444 he succeeded in making a truce between England and France. Beaufort died at Winchester in 1447, shortly after his great rival, the Duke of Gloucester, in whose death it was falsely said he had been implicated. Though ambitious and haughty, and not without avarice, he was a far-sighted and patriotic statesman, who desired to uphold the crown by the advice and support of the estates of the realm. The course of after events is the best testimony to his political wisdom and constitutional zeal. See Creighton's *Hist. of the Papacy* (new ed. 1897), Stubbs's *Const. Hist.* (1866), the *Chronicles of Monstrelet* (1810), and *Life* by L. R. Radford (1908).

Beaufort-en-Vallée, tn., dep. Maine-et-Loire, France, 20 m. E. of Angers, with a trade in fruit, corn, linen, oil, cattle. The castle belonging to the Duke of Lancaster gave the family name of Beaufort to his natural children by Catherine Swynford. Pop. 4,000.

Beaufort Testimonial, a prize, in the form of an instrument or technical books, awarded annually to the naval officer who, qualifying for the rank of lieutenant, passes at the Royal Naval College the best examination in navigation. It was founded in 1860 to commemorate the services of Sir Francis Beaufort.

Beaufort West, tn. and dist. on the Great Karroo, Cape of Good Hope. The district has large sheep runs, and the town, which is on the railway from Cape Town to Kimberley, is the largest in that part of the Karroo. It is supplied with water from a skilfully-constructed dam. Pop. of dist., about 10,000; of town, about 5,500.

Beaugency, tn., dep. Loiret, France, on r. bk. of the Loire, 17 m. s.w. of Orleans; has manufactures of wool, and a trade in wheat, vinegar, flour, etc. Built on the site of a Roman station, the town was strongly fortified during the middle ages, and was held by the English (1359-1428), when it fell before Joan of Arc. The Germans, under the Grand-duke of Mecklenburg, here defeated the French under Chanzy (Dec. 7-10, 1870). Pop. 3,600.

Beauharnais, ALEXANDRE, VICOMTE DE (1760-94), French general, son of the Marquis Beauharnais; born at Martinique; married, in 1779, Josephine Tascher de la Pagerie, afterwards wife of Napoleon I. After serving in the American war, he came to France, embraced republican principles, and was one of the first nobles to join the Third Estate. Beauharnais became secretary to the Assembly, and afterwards to the military committee; and was president of the Assembly when Louis XVI. fled from the capital (June 21, 1791). In May 1793 he succeeded Custine as general-in-chief of the army of the Rhine. The decree for the exclusion of the nobility from military employment led to his retirement; and shortly afterwards he was accused before the revolutionary tribunal of having contributed to the loss of Mayence, and was condemned and executed on the same day.

Beauharnais, EUGÈNE, MARQUIS DE (1781-1824), better known as Prince Eugène, the son of Alexandre Beauharnais and Josephine, afterwards consort of Napoleon, was born at Paris. Entering the army, he accompanied Napoleon to Egypt, and became general of brigade in 1804, and in the following year received the title of prince, and was appointed viceroy of Italy. On Jan. 16, 1806, he married the Princess Royal of

Bavaria, and immediately after was formally adopted by Bonaparte as his son. During the war with Austria, in 1809, he was commander-in-chief of the army of Italy, and shared in the honours of Wagram. In the later wars of Napoleon he took a very active share, especially in the campaigns of 1812-13. Disappointed of the crown of Italy, he retired, after the downfall of Napoleon, to Bavaria, and died at Munich. See Baron Darnay, *Notices Historiques sur..... le Prince Eugène* (1830); Du Casse, *Mémoires et Correspondance du Prince Eugène* (10 vols. 1858-60); Weil, *Prince Eugène et Murat* (1902).

Beauharnois, co. of Quebec, Canada, on the s. side of the St. Lawrence, above Lachine; returns one member to the Dominion House. Pop. 22,000.

Beaujolais, part of the former prov. of Lyonnais, France, now in depts. Rhône and Loire; famous for its vineyards, producing the Burgundy known as Beaujolais.

Beaulieu, par., Hampshire, England, at the head of the estuary of Beaulieu R., 4 m. s.s.w. of Southampton. Its abbey, now in ruins, was founded by King John, and became the asylum of Margaret of Anjou after the battle of Barnet. It also sheltered Perkin Warbeck. Pop. 800.

Beaulieu, winter resort, France, on the Mediterranean, 8 m. E. by N. of Nice. Pop. 1,500.

Beaully, vil. in Kilmorack par., Inverness-shire, Scotland, 10 m. w. of Inverness, at the head of the Beaully Firth, a s.w. extension of the Moray Firth. Pop. 900.

Beaumarchais, PIERRE AUGUSTIN CARON DE (1732-99), French dramatist and politician, was born in Paris. Marrying the widow of a court dignitary, he obtained before long his patent of nobility (1761), and assumed the name of De Beaumarchais.

An acquaintance with the financier Duverney was the foundation for him of a large fortune. He was employed by the king on behalf of Madame du Barry, against whom a party was actively carrying on a pamphleteering warfare from England. Shortly after this he wrote the two comedies, *Le Barbier de Seville* and *Le Mariage de Figaro*, on which his fame mainly rests. The former was produced in 1775, the latter in 1784, and their life has been further prolonged by their adaptation as the libretti of operas by Rossini and Mozart. Beaumarchais had, earlier in his career, written two sentimental plays, *Eugénie* (1768) and *Les Deux Amis* (1770), and subsequently wrote two other comedies, *Tarare* (1787) and *La Mère Coupable* (1792). During the Revolution, which his satirical writings had helped to bring about, his wealth and position made him the mark of much attack; and an accusation of treason to the republic caused him for some time to seek refuge abroad. He wrote his experiences of this period under the title of *Mes Six Epoques* (1793). See his *Collected Works* (7 vols. 1809), and *Beaumarchais et son Temps* by Loménie (Eng. tr. by H. Edwards, 1856).

Beaumaris ('fair marsh'), a munic. bor. and spt., chief tn. of Anglesey, 6 m. N.E. of Bangor, on Beaumaris Bay. The town grew up around the castle founded here by Edward I. about 1284. The parish church of St. Mary dates in part from the 13th century. The town is a quiet sea-bathing resort, with golf links. Pop. 2,400.

Beaumont, city, Texas, U.S.A., the co. seat of Jefferson co., on Neches R., 30 m. from the Gulf of Mexico; has a great rice-cleaning industry, and is in the centre of a rich oil field (discovered in 1900). Pop. 25,000.

Beaumont, FRANCIS (1584-1616), English dramatist, was son of Francis Beaumont, a judge, and younger brother of Sir John Beaumont. From Broadgates Hall (now Pembroke College), Oxford, he went (1600) to the Inner Temple. He first appeared as a poet in 1602, although it is not clear that the ascription to him of the Ovidian narrative poem, *Salmacis and Hermaphrodite*, which appeared in that year, is correct. His close literary and personal relation with John Fletcher began about 1607, and he probably had a share, often a large one, in about half a dozen of the plays generally included in editions of Beaumont and Fletcher. In 1613 he wrote the masque produced jointly by the Inner Temple and Gray's Inn, on the marriage of the Princess Elizabeth with the Elector Palatine. About the same time he married Ursula Isley, and apparently gave up writing for the stage. On his death, in 1616, he was buried in Westminster Abbey. The *Works* of Beaumont and Fletcher were edited by Bell and Bullen (1903, etc.). See his *Poems* (1640, 1653), including much that is not his; G. C. Macaulay's *Francis Beaumont* (1883); and A. W. Ward's *English Dramatic Literature*, vol. ii. (1875).

Beaumont, SIR GEORGE HOWLAND (1753-1827), connoisseur, patron of art and landscape painter, encouraged and befriended many of the poets and artists of his time, including Coleridge, Haydon, Jackson, Wilkie, Landseer, and the sculptor Gibson. The formation of a national gallery was largely owing to his efforts, and in 1826 he presented sixteen pictures to the nation.

Beaumont, JEAN BAPTISTE ELIE DE (1798-1874), French geologist, born at Canon (Calvados), professor at the Ecole des Mines (1829), and at the Collège de France

(1832), and perpetual secretary of the Académie des Sciences, Paris, in 1856. With Pierre Dufrénoy he published the great *Carte Géologique de France* (1840; 2nd ed. 1855), begun in 1825.

Beaumont, SIR JOHN (1583-1627), English poet, was son of Francis Beaumont, a judge, and brother of Francis Beaumont the dramatist. He was born at Grace Dieu, Leicestershire, and after leaving Oxford, entered the Inner Temple, but gave up the law on succeeding to the family estates. The best of his poetry is serious and even religious in temper. See his *Collected Works* (ed. A. B. Grosart, 1869).

Beaumont, JOSEPH (1616-99), English poet. His principal work is an allegorical epic entitled *Psyche* (1648), written in a six-line heroic stanza, and describing the progress of the soul through the temptations of life into eternal happiness. He was canon of Ely (1636); master of Jesus College, Cambridge (1662); and master of Peterhouse (1663). See Grosart's ed., privately printed, with memoir (1880).

Beaumontague, putty used by carpenters and joiners for filling up cracks in bad joinery. The word is derived from Jean de Beaumont.

Beaune, tn., dep. Côte d'Or, France, 23 m. s.s.w. of Dijon; is celebrated for the wines of the district, and gives its name to a well-known Burgundy. The town also trades in vinegar, corn, and cattle. Pop. 13,500.

Beauregard, PIERRE GUSTAVE TOUTANT (1818-93), Confederate general, was born in New Orleans. He graduated at West Point in 1838, served in the Engineer corps during the Mexican war (1846-8), and at its close was charged with the supervision of fortifications and harbours on the Gulf coast. On the secession of the Southern States in 1861, he

offered his services to the Confederates, and was entrusted with the defence of Charleston. He received the surrender of Fort Sumter, and took part in the battles of Bull Run and Shiloh, and in other engagements. Beauregard (now general) was again placed in command at Charleston in 1863. He gained a victory at Drury's Bluff, and in 1865 joined General J. Johnston, and with him surrendered to General Sherman. He was the author of *Principles and Maxims of the Art of War* (1863), and *Report of the Defence of Charleston* (1864). See Roman's *Military Operations of General Beauregard* (1884).

Beau Seant, the banner of the Knights Templars. It was half white, half black.

Beausobre, ISAAC DE (1659-1738), French Huguenot pastor and writer, born at Niort. After the revocation of the Edict of Nantes he took refuge in Rotterdam. Chaplain (1686) to the Princess of Anhalt-Dessau, he repaired on the death of the prince (1693) to Berlin, where he was appointed pastor of the French church, king's chaplain, and councillor of the upper consistory. Frederick II. calls him a 'man of honour, probity, and learning.' His *Histoire Critique du Manichéisme* (1734-9) is notable.

Beauvais, cap. of dep. Oise, France, on R. Thérain, 55 m. by rail N.N.W. of Paris, on the route from Paris to Calais. It is specially noted for its cathedral and its tapestry factory. The lofty cathedral, of Gothic architecture, begun in 1247, consists only of choir and transept. The tapestry factory, founded in 1664, belongs to the state. Cloths, rugs, and carpets, gold and silver lace, buttons, and brushes are also manufactured. It resisted the English and Burgundians in 1472. In Roman times it was the capital of the Bellovaci. Pop. 20,000.

See Labaude's *Histoire de Beauvais* (1892), Beaumanoir's *Coutumes de Beauvais* (1899-1900).

Beaver (*Castor fiber*), the name applied to a social rodent, formerly widely distributed over Europe and N. America. Now very sparsely represented on the former continent, it is said to be also in imminent danger of extermination in the latter, where it has hitherto been abundantly represented. Among the structural peculiarities should be noticed the strongly webbed hind feet, which are used in swimming; the scaly, horizontally flattened tail, used as a rudder in swimming; the small ears, which can be laid back to close the auditory passage; and the short, thick fur, which has considerable commercial value. Near the anus lie two glands which secrete a fatty substance known as castoreum, used in medicine. The body varies in length from two and a half to three feet.

The great interest of the beavers lies in the ingenuity which they manifest in the construction of their houses or 'lodges,' and in the building of dams where the water in the vicinity of their dwellings tends to become so shallow as to impede their movements. These structures are, in America, produced by the joint activity of the members of a colony; but in Europe the few remaining beavers are mostly solitary, and do not build to the same extent as their transatlantic allies. The diet consists of the leaves and bark of trees, especially willow and poplar, and it is these trees which are by preference used in building. In felling trees, the incisor teeth are the instruments used, and the beavers have been known to bite through trees two feet in diameter. The dwelling is excavated in the banks of streams, and often has an entrance passage made of interlacing brushwood. In addition, Canadian beavers construct

'lodges' in the middle of expanses of shallow water, consisting of tree trunks, turf, and other materials, and containing food reserves in addition to dwelling chambers. See Martin's *Castorologia* (1892).

Beaver Dam, tn., Wisconsin, U.S.A., at outlet of Beaver Lake, 65 m. w.n.w. of Milwaukee; has numerous factories for woollen and cotton goods, and is the seat of Wayland Academy. Pop. 5,000.

Beaver Falls, bor. in Beaverco., Pennsylvania, U.S.A., situated in the w. part of the state, on the Beaver R., near its junction with the Ohio, 30 m. n.w. of Pittsburg. It is the seat of Geneva College (1848). It manufactures iron goods, wire, etc. Pop. 10,000.

Beaver Rat, the Australian name for a family of rodents, Muridæ, of the genus *Hydromys*; similar in appearance and habits to the water-vole of Europe and the musk-rat of America.

Beaver Tree, or SWAMP SASSAFRAS, growing in peaty or swampy soil, is the *Magnolia glauca* of N. America. Its bark has medicinal properties like those of cinchona.

Beawar, tn., Ajmere-Merwara prov., Rajputana, India, 35 m. s.w. of Ajmere. Pop. 20,000.

Beazley, CHARLES RAYMOND (1868), born in London, English student of geographical and historical subjects, professor of history, University of Birmingham, late fellow of Merton College, Oxford. His chief publications are *James of Aragon* (1890), *Henry the Navigator* (1895), *Dawn of Modern Geog.* (2 vols. 1897 and 1901), *John and Sebastian Cabot* (1898), *Azurara's Chronicle of the Discovery of New Guinea* (trans. 2 vols. 1896 and 1899), *Carpini and Rubruquis, Friar Travellers, 1245-1255* (1903), and *Voyages of Elizabethan Seamen* (1907). He has contributed numerous geographical articles to this work.

Bebeeru, BEBERINE. See GREENHEART.

Bebek, bay and tn. on Bosphorus, 6 m. N.E. of Constantinople, Turkey; contains one of the Sultan's palaces. The bay is one of the loveliest in Europe.

Bebel, FERDINAND AUGUST (1840), German social democrat, born at Cologne. A turner by trade, he early adopted socialistic principles, and presided over the labour congress of 1868, shortly afterwards launching, with Liebknecht, the *Demokratisches Wochenblatt*. Elected (1867) to the N. German Diet, and (1871) to the Imperial Reichstag, he was (1872) condemned, on a charge of high treason, to two years' imprisonment. His repeated imprisonments since have increased his influence among his party, which in 1881 returned him also to the Saxon Diet. A ready speaker, he has written *Unsere Ziele* (10th ed. 1893), *Der Deutsche Bauernkrieg* (1876), *Die Frau u. der Sozialismus* (33rd ed. 1902), *Die Sonntagsarbeit* (1888), *Charles Fourier* (1888), etc. At the first public congress of the German Social Democracy, Oct. 12-18, 1890, Bebel was an outstanding figure. In 1891 he joined the staff of the *Vorwärts*. At the general election of 1903 the Social Democrats returned eighty-two members to the Reichstag, under his leadership; but in the general election of 1907 his party suffered a considerable setback.

Bec Abbey, in dep. Eure, Normandy, France, 13 m. N.E. of Bernay; Benedictine; founded by Hellouin in 1034. Lanfranc and Anselm were both priors here during the 11th century, and made it one of the most noted seats of learning in the west of Europe.

Beccafico, the name given to a small bird found in considerable abundance in S. Europe. Though in its specific meaning it

is applied to the garden warbler, which is a summer visitor to England, the name is also used to denote the several species of warblers (Sylviidæ) common in the region named. Its favourite food is the fig, from which characteristic its name is derived. It forms a favourite delicacy.

Beccaria, CESARE BONESANA, MARQUIS DE (1735-94), Italian jurist and economist, was born at Milan, and spent practically the whole of his life in his native city. His first published work was an essay on the coinage of Milan, in 1762; but the work on which his fame rests is the *Treatise on Crimes and Punishments*, which appeared in 1764. It is a protest against the nameless barbarities which disgraced the criminal codes of the day, and an advocacy of reasoned and merciful treatment of offenders. It undoubtedly had a great influence on Bentham, and through him on the world; though its influence was also direct. The cavillings of his enemies were silenced by his appointment in 1768 as professor of political economy at the Academy in Milan.

Beccles, par., munic. bor., and mrkt. tn., Suffolk, England, on riv. Waveney, 8 m. w. of Lowestoft, on G.E.R. The most interesting buildings are the church of St. Michael, with a detached tower; and a grammar school, founded in 1712. There are large printing works, maltings, and brick and earthenware factories. Pop. of bor. 7,000.

Becerra, GASPAR (1520-70), Spanish sculptor, who studied in Italy, and was also architect, painter, and author. Philip II. employed him in the Alcazar and Pardo Palaces, Madrid. The high altar of Astorga cathedral is by him. He also drew the illustrations for I. de Valverde's *Book of Anatomy* (1556). See Leader Scott's *Sculpture* (1886).

Bêche de Mer (Fr.), or **TREPANG** (Malay), a holothurian or sea slug, much used, when dried, as an article of food in China. The animals, of which there are several varieties, are obtained off the coasts of N. Australia and the E. Indies. Boiled and split open, they are dried by smoking or by the sun. The shape somewhat resembles that of a cucumber, and the body is from 6 in. to 2 ft. long. About 2,500 tons, valued at £250,000, are exported annually.

Becher, **JOHANN JOACHIM** (1635-82), German chemist, born at Spire. Professor at Mainz (1666), he established a large laboratory at Munich. He then worked at Würzburg, Haarlem, and London. His work showed a remarkable anticipation of later discoveries with regard to the relation of chemistry to physics.

Bechstein, **KARL** (1826-1900), German pianoforte-maker, born in Gotha; founded at Berlin, in 1856, the firm which still bears his name. The instruments are of singularly full and powerful tone.

Bechuanaland, the land of the Bechuanas, on the N. of Cape of Good Hope, divided into British Bechuanaland and the Bechuanaland Protectorate. **BRITISH BECHUANALAND** has an area of 51,500 sq. m., and lies on the high plateaus, about 4,000 ft. above the level of the sea. It is bounded on the N. by the Molopo R. It was annexed by Britain in 1885, and in 1895 was transferred to the Cape. Pop. 85,000, of whom 10,000 are whites. The chief towns are Mafeking (2,700), noted for its siege in the Boer war, Vryburg (3,000), Kuruman (1,800), and Taungs (an important native centre).

BECHUANALAND PROTECTORATE is the vast stretch of territory N. of British Bechuanaland, consisting of monotonous plateaus. It reaches up to the Zambezi R.; its boundaries are Matabeleland and the Transvaal on the E., and

German S.W. Africa on the W. Area, 275,000 sq. m. The most important tribes inhabiting the country are the Bakhatla, under Lenchwe; the Bakwena, under Sepele; the Bangwaketse, under Bathoen; the Bamaliti, under Ikaneng; and the Bamangwato, under the Christian and enlightened chief Khama, whose capital is in the Choping Hills, at Palapye, or Palachwe, the chief architectural feature of which is the church. These chiefs rule under the tribal system, and are superintended by a resident commissioner: the residency is at Mafeking. A hut-tax is collected, which yields about £30,000 per annum, and no licences for the sale of spirits are allowed. There is a mounted police force. The natives are peaceful cattle-breeders and farmers. The protectorate is a member of the S. African Customs Union. Total pop. about 130,000 natives and 1,000 whites. Here were formed the two short-lived Boer republics of Stellaland and Goshen (1882-84). Kolobeng was the residence, at one time, of David Livingstone. The character of the land is finely depicted in such a work as Anderson's *Lake Ngami* (1855). The **KALAHARI DESERT**, a vast and undefined waste, with occasional salt-pans and 'vleis,' lies partially within Bechuanaland. See J. D. Hepburn, *Twenty Years in Khama's Country* (1895); E. Lloyd, *Three African Chiefs* (1895); and Mackenzie, *Bechuanaland* (1887).

Beck Case, a case of mistaken identity which aroused considerable excitement in 1904. The salient facts of the case are as follows:—In 1877 John Smith was sentenced to five years' penal servitude for robbing women. Nineteen years later a series of similar crimes was committed, and Adolf Beck, a Swede, was arrested and tried. The constable who arrested Smith in 1877 swore

positively that Beck was Smith, and the common serjeant ruled that the question whether the prisoner was or was not the man convicted in 1877 was inadmissible. Beck received seven years' penal servitude, and his prison clothing bore marks indicating the previous conviction in 1877. While in jail Beck discovered that Smith was a Jew. This fact was known to the prison authorities in 1879, and by them communicated to the Home Office. The public prosecutor and the police, however, were ignorant of it until 1904. On examination it appeared that Beck was not a Jew. The Home Office then ordered the removal of the marks from Beck's clothing; but he served his time, and was released in 1901. In April 1904 the crimes occurred once more, and again Beck was arrested, tried, and convicted, but sentence was reserved. Before it was passed Smith had been arrested *in flagrante delicto*. Investigation revealed Beck's innocence both in 1896 and in 1904, and he received a 'free pardon' and an offer of monetary compensation. This he refused, and demanded an inquiry, which took place. The committee criticised the Home Office for the lack of co-ordination between the office of the public prosecutor and the police. It advised the strengthening of the legal element in the Home Office, and recommended that when reference was made to the judge who tried a particular case, it should also extend to all officially connected with it. The anomaly of pardoning an innocent man should be abolished; the conviction should be quashed, and a record of acquittal entered on the rolls. Further, the ruling of the common serjeant could not be supported, and judges should be compelled to state a case on good cause shown. Beck afterwards received £5,000 in

compensation, but died in 1909 in poor circumstances. The establishment of the Court of Criminal Appeal in 1907 was partly due to this investigation. See APPEALS.

Becke, GEORGE LOUIS (1848), novelist, native of New South Wales; gained, while trading in the South Seas (1870-93), the experience which he has turned to good account in his stories of adventure: *By Reef and Palm* (1893); *The Ebbing of the Tide* (1896); *Pacific Tales* (1897); *The South Sea Pearler* (1900); *By Rock and Pool* (1901); *Breachley Black Sheep* (1902); *Under Tropic Skies* (1904); *Notes from my South Sea Log* (1905); and *Sketches from Normandy* (1906). He has occasionally worked in collaboration with Walter Jeffery.

Beckenham, par. and tn., W. Kent, England, 7 m. S.E. of London. Pop. tn. 32,000.

Becker, KARL FERDINAND (1775-1849), philologist, born in the old electorate of Treves. From 1823 head of an educational institute at Offenbach, his views on language enjoyed much vogue till superseded by J. Grimm's epoch-making works. His *German Grammar* reached its 11th edition in 1876.

Becker, WILHELM ADOLF (1796-1846), German classical scholar, was born at Dresden, and became professor of archæology (1837) at Leipzig. His *Gallus* (1838; new ed. 1880-82) and *Charicles* (1840; new ed. 1888) are brilliant imaginative studies of the social life of ancient Rome and Greece respectively. These, and his *Handbuch der Römischen Alterthümer* (1843-46), were his chief productions.

Beckerath, HERMANN VON (1801-70), German politician. Having founded (1838) a successful bank, he was returned (1848) to the national assembly, where he strenuously supported the cause of Prussia's hegemony. To

the Prussian policy of German unity he was also a zealous adherent. From 1849 a member of the Prussian second chamber, he did his best to save constitutional liberty against reaction. His last public act was his successful defence at Munich of Prussia's commercial policy. See Kopstadt, *H. v. Beckerath* (1874).

Becket, or **A BECKET**, THOMAS (1118-70), Archbishop of Canterbury, canonized (1173) as a saint. He entered (about 1142) the service of Theobald, Archbishop of Canterbury, and early showed zeal on behalf of Henry of Anjou, who in 1155 appointed Becket his chancellor. In this position he lived sumptuously, and maintained an establishment which outshone that of the king. In 1162 Henry II. created Becket Archbishop of Canterbury, and he became as ascetic as he had formerly been luxurious. He at once championed the rights of the church, and threatened to excommunicate the English bishops who had submitted to the king in the matter of the Constitutions of Clarendon. In 1164 Becket took refuge in France. He returned (1170) to England, to find himself the idol of the people, and continued to champion popular rights and ecclesiastical privileges until his assassination by four of Henry's knights while at the altar, Dec. 29, 1170. In 1220 Becket's bones were enshrined in a chapel of the cathedral, where they long formed a favourite object of pilgrimage, as described in Chaucer's *Canterbury Tales* (1383). See the *Life of Becket* by Canon Morris and by Canon Robertson, also by W. H. Hutton (1910), and Tennyson's play, *Becket*.

Beckford, WILLIAM (1709-70), twice lord mayor of London, was born in Jamaica; became a successful merchant in London, and in 1762 was elected lord mayor. During the following year he was

closely associated with Wilkes, editor of the *North Briton*; and during his second term of office, in 1770, twice presented a strongly-worded petition and remonstrance to the king. See Woodcock's *Illustrious Lord Mayors* (1846).

Beckford, WILLIAM (1760-1844), author of *Vathek*, was born at Fonthill, Wiltshire. After a private education, he made the 'grand tour' on the Continent. His letters relating to his travels were published anonymously in 1783, as *Dreams, Waking Thoughts, and Incidents*. His famous Oriental romance *Vathek* was published in French in 1782, and an English version surreptitiously in London (in 1784) by Beckford's friend, Rev. S. Henley. The story, fostered by Beckford, that *Vathek* was written at a single sitting of three days and two nights, has been shown by Dr. Garnett (in his 1893 edition of *Vathek*) to be fabulous. He sat as M.P. for Wells (1784-90), and for Hindon (1806-20). In 1796 he retired to Fonthill, where he squandered his fortune on extravagant building operations. Eventually, in 1822, he was compelled to sell the Fonthill estate and remove to Bath, where he died. His other works are: *Memoirs of Extraordinary Painters* (1777); *Modern Novel Writing* (under pseudonym 'Lady Harriet Marlow,' 1796); *Azemia* (under pseudonym 'Jacquetta Agneta Mariana Jenks,' 1798); *Italy* (1834); *Recollections of an Excursion* (1835). His *Life*, by Cyrus Redding (1859), is inaccurate. See *Life and Letters* by L. Melville (1910).

Beckmann, JOHANN (1739-1811), German naturalist and economist, for nearly forty years (from 1770) professor of rural economy and commercial science at Göttingen. He is chiefly known for his *History of Inventions* (5 vols. Leipzig, 1780-1805; London,

1814). See Exner's *J. Beckmann* (1878).

Beckum, tn., Westphalia, Germany, 20 m. S.E. of Münster. Strontianite is mined. Pop. 7,000.

Beckwith, JOHN CHARLES (1789-1862), missionary to the Waldenses; born at Halifax, Nova Scotia; served in the Peninsular campaign, and lost a leg at Waterloo. Retiring from active service in 1820, he devoted himself (from 1834) to ameliorating the condition of the Waldensian people. He settled among them in 1841, founded over 120 schools, married Caroline Valle, a Waldensian, and died at La Torre, among the people of his adoption. See Worsfold's *The Valley of Light* (1899).

Becque, HENRI FRANÇOIS (1837-99), French dramatist, was a Parisian by birth. His earliest dramatic effort was an operatic libretto, *Sardanapale*, in 1867. During the next year his first play, *L'Enfant Prodigue*, was produced, and met with some success, owing to the vigour of its dialogue. He followed this with *Michel Pauper* in 1870, *L'Enlèvement* in 1871; in 1878, with *La Navette*; by *Les Honnêtes Femmes* in 1880, and *Les Corbeaux* in 1882. The latter play met with a stormy reception, and was severely criticised for its uncompromising realism. The author's bitter and forcible style gained him the name of founder of 'le théâtre cruel;' and was again exemplified in *La Parisienne* (1885). He also wrote *Querelles Littéraires* (1886) and *Souvenirs d'un Auteur Dramatique* (1895). His *Théâtre Complet* appeared in 1898.

Becquer, GUSTAVO ADOLFO (1836-70), Spanish man of letters, was a wayward genius of the romantic period greatly influenced by Heine and Byron. His picturesque prose legends, though morbid, are very fine, and his

verse is in many instances exquisite in its peculiar way. See his *Obras*, ed. Correa (5th ed. 1898); Garcia Blanco's *Lit. Española en el Siglo XIX* (1891-4); Hubbard's *Hist. de la Lit. Contemp. en Espagne* (1874).

Becquerel, ANTOINE CÉSAR (1788-1878), French physicist, was born at Châtillon-sur-Loing. An officer of Engineers (1808-14), he became inspector of the Ecole Polytechnique, and, working along with Ampère, Biot, and other eminent scientists, made many important discoveries in the electric conductivity of metals, in magnetism, and in electro-chemistry. In 1829 he was admitted a member of the Académie des Sciences. His principal works are *Traité de l'Électricité et du Magnétisme* (1834-40; new ed. 1855), *Éléments de Physique Terrestre et de Météorologie* (1847), and *Des Forces Physico-chimiques et de leur Intervention dans la Production des Phénomènes naturels* (1875).—His son, ALEXANDRE EDMOND (1820-91), worked in collaboration with his father. In 1851 he received the cross of the Legion of Honour, and in 1852 was appointed professor of physics. His principal work, dealing with the theory of light, is *La Lumière: ses Causes et ses Effets* (1867-8).—His son ANTOINE HENRI (1852-1908) was born in Paris, and became professor at the Natural History Museum (1892), chief of the Ponts et Chaussées department (1894), and professor at the Polytechnic School. He was the discoverer (1896) of the Becquerel rays, and carried on investigations in phosphorescence, spectrum analysis, and the absorption of light. In 1903 he was awarded one-half of the Nobel prize for physics. He wrote *Electrochimie* (1881), *Recherches sur la Phosphorescence* (1882-97), and *Découverte des Radiations Invisibles émises par l'Uranium* (1896-97).

Becquerel Rays. See RADIO-ACTIVITY.

Becse, O, tn., Hungary. See O BECSE.

Becskerek, NAGY, tn., co. Torontal, Hungary, on l. bk. of Bega, and connected by Bega Canal with Temesvar, 45 m. N.E. Trades in corn and cattle. Pop. 26,000.

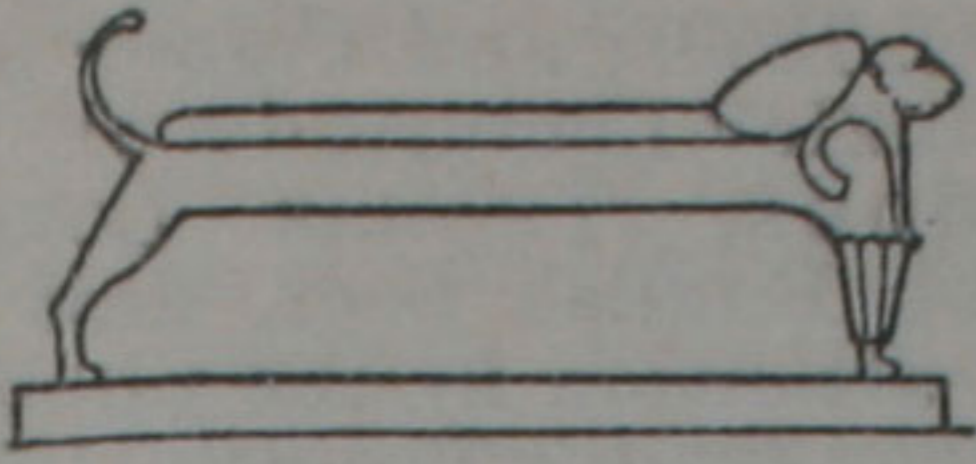
Bective Abbey. See TRIM.

Bed. Originally a bed was the skin of an animal laid on the floor, and afterwards it consisted of bags filled with rushes, leaves, or straw, like the modern palliasse, but not upholstered or squared with modern neatness. We have very full information relative to the beds and bedding in use by the Romans. In the earlier times of the republic they had beds of the same kind as those used by the Greeks. They borrowed from Asia those larger carved bedsteads, gilt and plated with ivory, whereon were piled cushions of wool and feathers, with counterpanes of furs and other rich materials. The Roman customs were handed down to the Gauls and to the Franks. With the irruptions of the Saxons and Danes into Britain, there was a relapse into the semi-barbarism of the earlier times previous to the Roman invasion. Illuminated MSS. preserve specimens of Anglo-Saxon beds, some of which had testers and footboards; some had posts, with a canopy resembling the roof of a house; while some had solid cornices all round, and large, thick hanging curtains attached to big rings. A bed of this sort is represented on the frieze of Edward the Confessor's chapel at Westminster. The illustrations of beds and bedding in the time of the Normans and afterwards do not differ essentially from those of the later Anglo-Saxon times. In the reign of Henry III. we find a bed of rather modern appearance, with a tester and curtains. In the 15th

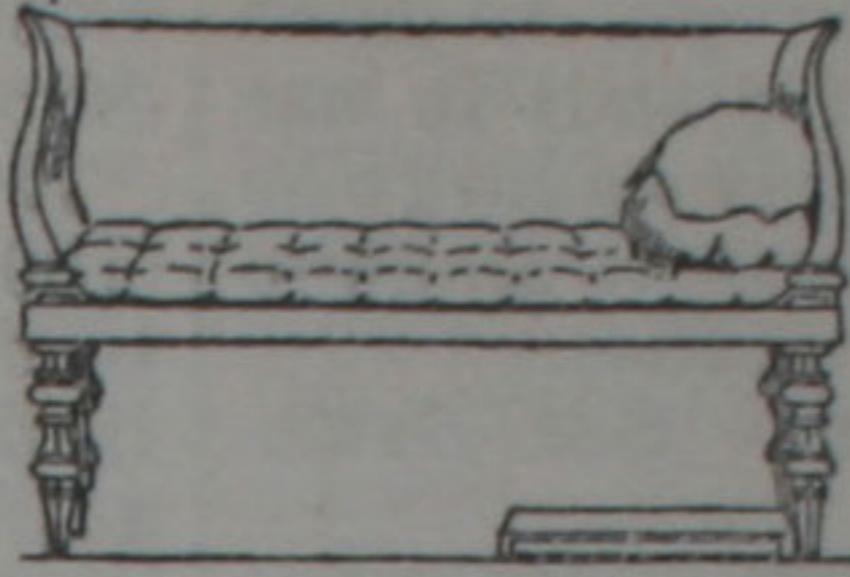
century large square-post bedsteads came into fashion in England. Another common bed of the period was the truckle or trundle bed. This was a double bed, a smaller bed running underneath the larger one, which was drawn out for use at night. In the English universities the master of arts had his pupil to sleep in his truckle bed, and at an earlier period it was the place of the *valet de chambre*. Paul Hentzner, in his visit to Windsor Castle in 1598, noticed particularly the beds belonging to former princes 'as measuring eleven feet square, covered with quilts shining with gold and silver. Queen Elizabeth's bed, however, he says, was not so large as the others. The Great Bed of Ware, referred to by Shakespeare, and now in Rye House, is a bed twelve feet square, and capable of accommodating a dozen sleepers. It is assigned by tradition to Warwick the Kingmaker. Of the beds and their furniture in the 17th and 18th centuries there are choice specimens in different parts of the country. In Naworth Castle, Cumberland, there is the bed of Belted Will, the famous warden of the marches; and Cawdor Castle, Haddon and Hardwicke Halls, Blickling, and Cothill contain some choice illustrations of the beds of our ancestors. Bedsteads of iron and brass have now largely taken the place of these.

Among Eastern nations the bed is often nothing but a carpet, the bedclothes consisting of a rug or plaid. Even in very cold countries, such as Russia, the beds are closely allied to the Eastern carpet, the houses being kept so warm by stoves that much bed covering is no more required in winter than during the heats of summer.

As the traveller proceeds further northwards, the size of the beds seems to decrease, dwindling down



Egyptian.



Greek and Roman.



Anglo-Saxon



Anglo-Saxon.



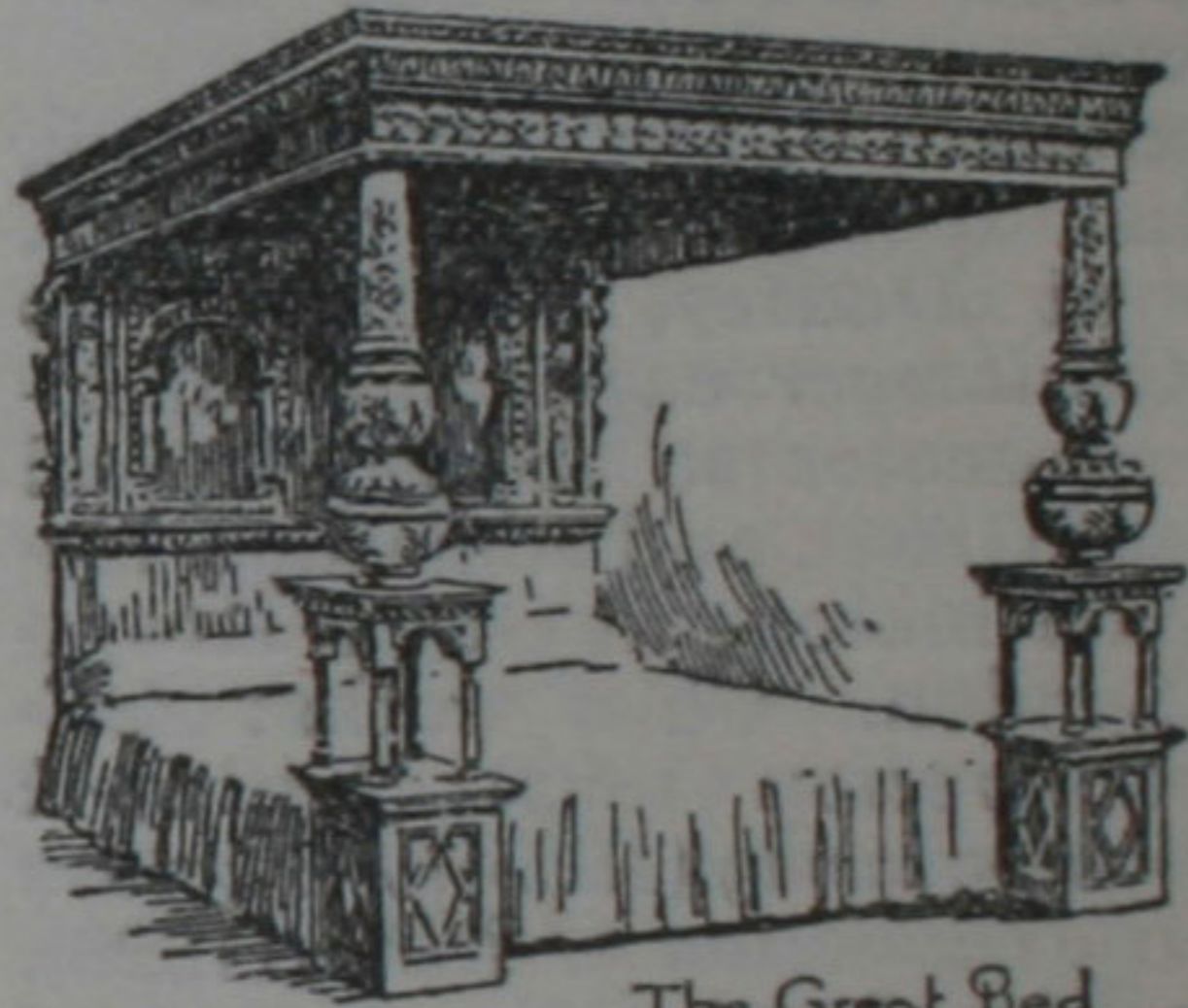
Norman



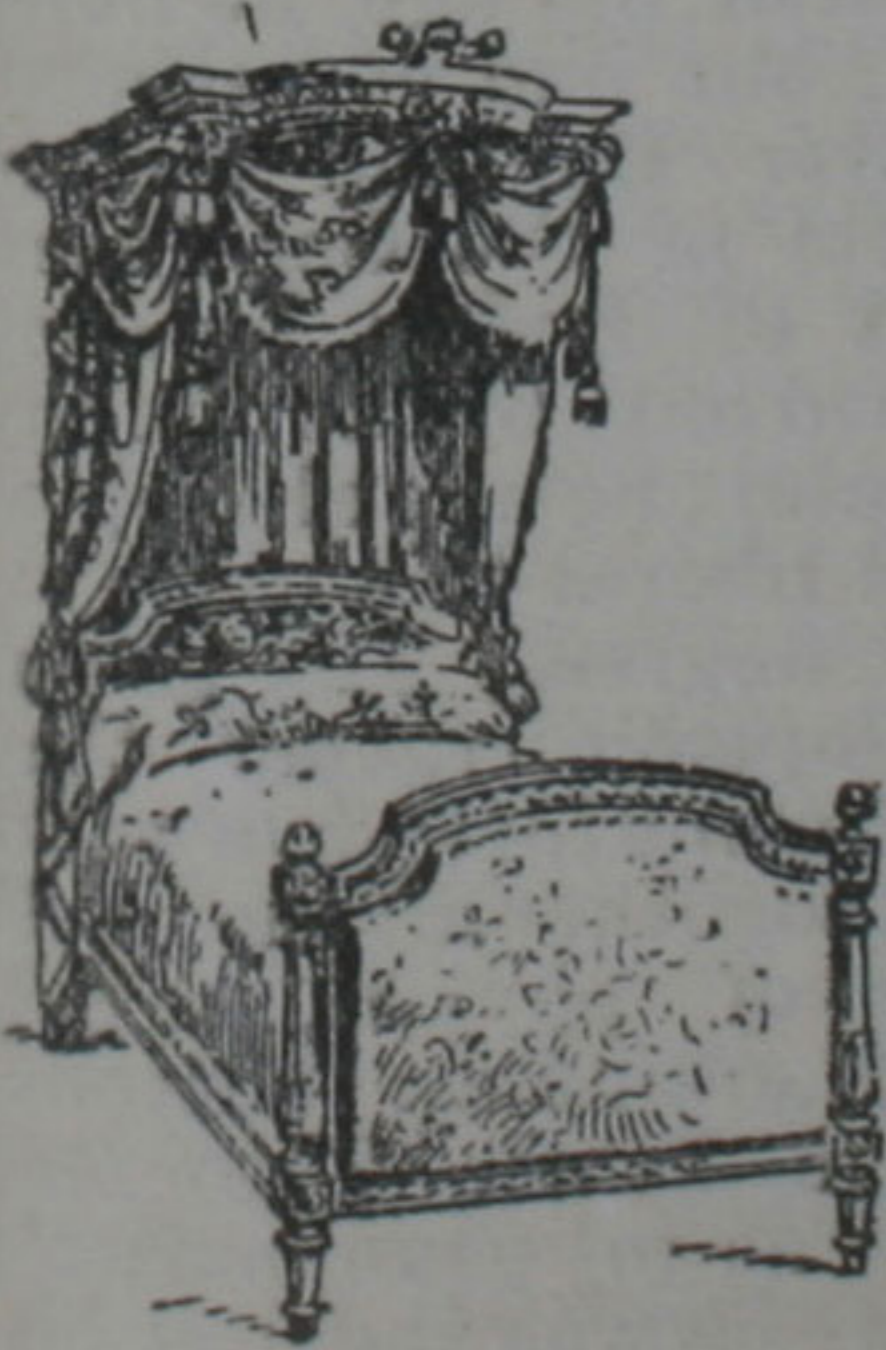
Medieval.
(with Hatch.)



Medieval.



The Great Bed
of Ware



Marie Antoinette's
Bed
(Versailles)



A State Bedstead.



Seventeenth Century.
(Hampton Court)

Ancient Types of Bed.

to the smallest possible size in the northern parts of Europe. In parts of N. Italy there are still in use enormous beds nearly as large as the Bed of Ware, one at Lugano measuring ten feet across.

Bed, GEOLOGICAL. See STRATUM.

Bédarieux, tn., dep. Hérault, France, 35 m. w. of Montpellier; manufactures fine cloth, hats, and wool, and has tanneries and distilleries. Pop. 6,000.

Bedchamber, LORDS AND LADIES OF THE. See HOUSEHOLD, ROYAL.

Bedchamber Question. See HOUSEHOLD, ROYAL.

Bedda Nuts. See MYROBALANS.

Beddard, FRANK EVERS (1858), English zoologist and biologist, born at Dudley, naturalist to the *Challenger* expedition (1882-84); prosector to the Zoological Society (1884), and sometime lecturer on biology at Guy's Hospital, London. Chief works: *Animal Coloration* (1892); *Text-book of Zoogeography* (1895); *Structure and Classification of Birds* (1898).

Beddgelert ('the grave of Gelert'), par. and vil. on the borders of Carnarvonshire and Merionethshire, Wales, near pass of Aberglaslyn, 13 m. S.E. of Carnarvon. Here is shown the stone variously said to mark the grave of Llewellyn's hound, or of a British saint. The place is a great tourist resort, and a starting-place for the ascent of Snowdon. It is the scene of Southey's *Madoc*. There are slate quarries and copper mines in the vicinity. Pop. 1,200.

Beddoe, JOHN (1826), English physician and anthropologist, born at Bewdley, served on the civil medical staff during the Crimean war, and afterwards practised (1857-91) at Clifton. Among his works are *Essay on the Origin of the English Nation* (1868); *The Races of Britain* (1885); *Anthro-*

pological Hist. of Europe (Rhind Lectures, 1893); and *Colour and Race* (Huxley Lecture, 1906).

Beddoes, THOMAS LOVELL (1803-49), English poet, first attracted attention by the publication of *The Bride's Tragedy* (1822), a play directly inspired by the influence of Webster and Tourneur, the only work published by himself. He studied and practised medicine on the Continent; but his violent democratic sympathies led to frequent changes of residence. His principal work, *Death's Jest-Book, or the Fool's Tragedy*, was published (1850) by his friend T. F. Kelsall, followed next year by a volume of *Poems by the late Thomas Lovell Beddoes*, with Memoir. See also Colles's ed. of *Beddoes's Poems* (1907), Memoir prefixed to E. Gosse's ed. of *Beddoes's Poetical Works* (1890), and *Beddoes's Correspondence* (ed. Gosse, 1894).

Bede, or BÆDA, THE VENERABLE (c. 673-735), 'a servant of God, and priest of the monastery of the blessed apostles Peter and Paul, which is at Wearmouth and Jarrow.' Although the most learned man of his age, he never left Jarrow, but had correspondents all over England and in several parts of the Continent. The extent of Bede's learning was surpassed only by the nobility of his character; he was also open-minded and liberal to a quite extraordinary degree. His genius was encyclopædic rather than original. In some forty-five works he gathered together all the world then knew of physics, music, philosophy, grammar, rhetoric, arithmetic, medicine. They may be classified as (a) grammatical; (b) scientific—he was the first historian to arrange his material by the years from the Incarnation; (c) historical and biographical; (d) theological—chiefly commentaries, made up largely of allegorical exegesis. His great work

is the *Historia Ecclesiastica Gentis Anglorum*. For Bede's complete works, see Dr. Giles's edition in 12 vols. (1843-4), and the indispensable Migne (*Patrologiæ Cursus Completus*, xc.-xcv., 1844). The West Saxon vernacular of *Historia Ecclesiastica*, containing the beautiful story of Caedmon, has been edited by Miller for the Early English Text Society. The standard edition of the Latin text is Plummer's (1896). For life and criticism, see Morley's *Eng. Writers*, vol. ii., and Stopford Brooke's *Eng. Lit. to the Norman Conquest* (1898).

Bedegar, or BEDEGUAR, the reddish mossy growth that appears as a gall on sweet brier and other wild roses. It is caused by the punctures of insects—notably the *Cynips rosæ*—which deposit their eggs, and thus cause irritation. See GALLS.

Bedel, or BEDELL, another form of beadle (A.S. *béodan*, 'announce,' 'command,' 'bid'), title of certain officers in Oxford and other mediæval universities. They are attached to certain faculties (in Oxford, law, medicine, arts, and divinity), to apportion the schools, announce the days and hours of lectures, publish and carry out decrees, and carry the mace before certain dignitaries. They are of two classes—esquire and yeoman. See BEADLE.

Bedell, WILLIAM (1571-1642), bishop of Kilmore and Ardagh, was chaplain to the British embassy at Venice (1607-11), where he was intimate with Fra Paolo Sarpi, then defying the papacy. Appointed provost of Trinity College, Dublin (1627), and bishop (1629), Bedell devoted himself to the redress of ecclesiastical abuses. The translation of the Bible into Irish was completed under his supervision. See *Life and Death of Bishop Bedell*, by his son, ed. for the Camden Society (1872) by Jones.

Bedesman, or BEADSMAN, one who is authorized to pray ('to tell his beads') for others. In Scotland, the king's bedesmen were licensed beggars, by royal favour. See the character of Edie Ochiltree in Scott's *Antiquary*.

Bedford, parl. and munic. bor. and mrkt. tn., Bedfordshire, England, on the Ouse, 48 m. N.W. of London. The town extends on both sides of the Ouse, a fine promenade and new park being on the N. bank. The principal buildings are the Bunyan Meeting-house (1850), on the site of the chapel in which John Bunyan preached; the Howard Chapel, named after the philanthropist; new law courts, town hall, and corn exchange. The site of the jail in which Bunyan was imprisoned is now occupied by houses. There are bronze statues to Bunyan and Howard. The Harpur Trust (Sir William Harpur, 1556) administers four secondary schools at an annual cost of about £33,000. Engine and agricultural implement works, notably the Britannia Iron Works, give employment to many of the people. The town has also a large trade in grain. It returns one member to the House of Commons. The town is reputed to be the burial-place of Offa, king of Mercia. Pop. 42,000. ELSTOW ('Helen's Stowe'), vil., 1 m. S. of Bedford, is notable as the birthplace of Bunyan (1628).

Bedford, a British cruiser (9,800 tons, 23 knots) launched at Fairfield 1901. The ship-name has figured in the navy since 1702, and is associated with Rooke's victory at Vigo (1702), the action off Cape Spartel (1703), Rooke's victory off Malaga (1704), the capture of Louisbourg (1758), Rodney's action off St. Vincent (1780), Rodney's action with De Grasse (1782), Toulon (1793), Hotham's

action off Genoa (1795), the capture of the *Censeur* (1795), and the battle of Camperdown (1797).

Bedford, HERBRAND ARTHUR RUSSELL, K.G., ELEVENTH DUKE OF (1858). He succeeded to the title in 1893, served in the Egyptian campaign, and was aide-de-camp to Lord Dufferin when Viceroy of India (1884-88). He is chairman of the Bedfordshire County Council, and president of the Zoological Society of London. At his residence (Woburn Abbey) there is a noteworthy gallery of pictures and statuary, and in the park a fine zoological collection.

Bedford, JOHN OF LANCASTER, DUKE OF (1389-1435), third son of Henry IV. by his first wife, Mary of Bohun. He was created Duke of Bedford (1414) by his brother, Henry V. After Henry's death, in 1422, he became regent of England; and in the struggle for the French crown which followed the death of Charles VI., he commanded the English army in France, proclaimed Henry VI., then a child of nine months, at Paris, and defeated the French at Verneuil (Aug. 17, 1424). His success was checked by the rise of Joan of Arc, and the desertions of the dukes of Brittany and Burgundy. He died at Rouen. (See *The Wars of the English in France*, and Blondel's *De Reductione Normanniæ*, 1449-50, both published by the Master of the Rolls; Stubbs's *Const. Hist.*, vol. iii., 1866.) The title was also conferred by Henry VII. on his uncle, Jasper Tudor, Earl of Pembroke (?1431-95), in October 1485. On the fall of the Lancastrians in 1470 he fled with his young nephew to Brittany, and returned with him to London in 1485, when Henry was crowned.

Bedford Level, a tract of land known as the Great Level of the Fens, and afterwards as the Bed-

ford Level, consisting of 95,000 ac., and situated in the counties of Lincoln, Norfolk, Suffolk, Huntingdon, Northampton, and Cambridge. It was granted to the Earl of Bedford and his co-adventurers in 1634, as a recompense for draining it. The Bedford Level is now managed under the Bedford Level Act, 1663, by a governor, twenty conservators, and six bailiffs, who have power to levy taxes for keeping up the drains.

Bedfordshire, inland co., S. Midlands, England, 36 m. in length by 21 m. broad. The surface nowhere reaches any great elevation; highest point, 800 ft., in Dunstable Downs, a continuation of the Chiltern Hills of Buckinghamshire. The county is drained chiefly by the Great Ouse, with its tributary the Ivel. Limestone, coprolites (for phosphate), fuller's earth, and brick clay are the principal minerals. Market-gardening is important. Manufactures are limited: straw-plaiting in the S.; pillow lace, a domestic industry; bricks and coarse earthenware are made, and also rush mats. The county returns two members to Parliament (Biggleswade and Luton divisions), and the borough of Bedford one. Railway communication is provided by the Midland, G.N., and L. & N.W. Rys. The chief towns are Bedford, Biggleswade, Leighton Buzzard, Dunstable, and Luton. Area, 480 sq. m. Pop. 186,000. See Thos. Fisher's *Collections, Historical, etc.* (1812-16-40); G. A. Cooke's *Topographical and Statistical Description* (1836); and Skeat's *Place-names of Bedfordshire* (1906).

Bedivere, SIR, the earliest knight of Arthur's Round Table, survived the great battle with Mordred, and nursed the king until he was borne away to Avilon. See Malory's *Morte d'Arthur* (ed.

1886) and Tennyson's *Idylls of the King* (1869).

Bedlam (corruption of 'Bethlehem'), Hospital of St. Mary's of Bethlehem at Bishopsgate Without, London, was originally founded in 1247 as a priory, but afterwards used as a lunatic asylum. It was transferred to Moorfields in 1676, and it is to this place that Hogarth's picture refers. Since 1815 it has been situated at St. George's Fields, Lambeth.

Bedlington, par. and vil., Northumberland, England, on R. Blyth, 5 m. S.E. of Morpeth; has coal mines, ironworks, and chain and nail making. Pop. 20,000.

Bedlington Terrier, a Northumberland dog, which derives its name from the village of Bedlington. It is a thoroughly game dog, and very active and plucky. It is probably derived from a cross with the Dandie Dinmont terrier. Points: skull narrow and domed, and adorned with a silky top-knot; jaws extremely punishing; lips tight; nose large, and either black or flesh-coloured according to the shade of the coat; eyes small, and rather deeply sunk, their colour following that of the body; ears filbert-shaped, fine, tipped with soft hair, and carried flat to the sides of the head; neck long, and shoulders sloping; body rather narrow at the chest, but deep at this point; ribs flat; slightly arched at the loins, which should be powerful; legs straight; feet of fair size; hind-quarters graceful-looking, and not too heavy; tail tapering neatly from the root, and scimitar-shaped; coat hard, and close below; colour blue, liver, or sandy, or any of them mixed with tan; weight, 18 lbs. to 25 lbs.

Bedloe's Island, or LIBERTY ISLAND, in harbour of New York, U.S.A., 1½ m. S.W. of the Battery.

On it stands Bartholdi's colossal bronze statue of Liberty enlightening the World, presented (1886) by France to the United States.

Bedmar, ALFONSO DE LA CUEVA, MARQUIS DE (1572-1655), Spanish diplomatist, was sent in 1607 as Spanish ambassador to Venice, where he originated a conspiracy for the subjugation of the republic. The plot (1618), however, was discovered, and Bedmar was at once recalled. He was made a cardinal in 1622, and later became bishop of Oviedo. His conspiracy forms the subject of Otway's play, *Venice Preserved* (1682).

Bed of Justice (Fr. *lit de justice*), properly the cushioned throne on which the French king sat in parliament to enforce the registration of his edicts. The king was assumed to wield an authority transcending the delegated authority of parliament, and the registration was enacted without discussion. 'Why a bed of justice?' 'Because,' says Fontenelle, 'justice there went to sleep.' The last was held by Louis XVI. (Nov. 19, 1787) at Versailles.

Bedouins (properly *Bedāwi*, pl. *Bedāwin*; from Ar. *badw*, 'desert'; hence 'dwellers in the desert'), nomadic Arabs; at first nomads of the Arabian deserts, in contradistinction to the settlers in towns. With the spread of Arabian Bedouins over the Syrian and Egyptian deserts, into Mesopotamia, etc., and finally, following the Mohammedan conquest of the 7th century, into Africa, the name of 'Bedouin' underwent commensurate extension. Their utmost range reaches to Persia, Turkestan, the mountains of Kurdistan on the one side, and the Atlantic and the negro states of the Sudan on the other. Many nomads in Africa, really Hamitic, but Mohammedans, and in part speaking Arabic, are usually comprehended

under the name of 'Bedouins.' Haunting deserts, they have preserved the character, given to them over three thousand years ago, of a wild people dwelling in tents, their hands against every man, and every man's hands against them. In Arabia they are reckoned at one-seventh of the population. The notorious Anese in Arabia alone number over 300,000. Altogether the Bedouins are calculated at less than 500,000. Each tribe dwells by itself; each village under a sheik; forty to fifty villages under a kadi. Their weapons are the long lance, firearms, and the yataghan. Expert horsemen, living in the open, they despise townspeople. Below middle stature, they are lean, wiry, hardy, with 'long, narrow heads, and short, straight noses;' of brown complexion; they are disposed to contemplation, and delight in extravagant tales. Their tribes are commonwealths, and if any of a tribe lose cattle in a foray, the loss is made up by a general contribution. Hospitality is with them a religion. See Burckhardt's *Notes on Bedouins and Wahabys* (1830); Blunt's *Bedouin Tribes of the Euphrates* (1879); Hill Gray's *With the Bedouins* (1890). See also *Bibliographie des Ouvrages relatifs à l'Afrique et à l'Arabie* (1875). See MOORS and ARABIA.

Bed-sores are commonly the result of constant pressure on bony points, when the intervening tissues have lost vitality. The prevention of bed-sores depends upon careful nursing. An invalid who cannot move must be shifted frequently. The skin over any threatened point should be kept clean and dry, and the bedding must never be left damp from perspiration or any other cause. The points pressed upon must be washed daily with soap and water, and very carefully and thoroughly

dried; and every day some methylated spirit, whisky, or brandy should be gently rubbed in, to harden the cuticle. A draw-sheet must be used if there is any risk of the under-bedding getting wet and crumbs, creases, etc., must be guarded against. A firm hair mattress is preferable to a feather bed, and a water bed is better still, or its equivalent, a circular air-cushion. A non-paralytic patient generally complains of discomfort before a bed-sore occurs. The sore usually shows first as a dark-red patch on the skin. The colour darkens almost to black, and soon a slough forms, reaching at times to the bone, and at last comes away, leaving a deep ulcer. Once a sore has fully formed it must be treated antiseptically, every care as to position, etc., being still observed. If all pressure be removed, and if the sore be washed with antiseptic fluid, and protected with dry dressings, it may give no further trouble, unless far advanced. If a slough has formed, some recommend excising it, scraping the surface, and applying pure carbolic acid; others treat it antiseptically until the slough comes away. Guaiamar, a derivative of phenol, has been recommended as a dressing, with balsam of Peru and benzoated zinc oxide ointment.

Bedstraw (*Galium*), a genus of the order Rubiaceæ (the coffee and cinchona order). The species are numerous, chiefly in temperate regions, and ten are found in Britain; they are all herbs, with four or more leaves in a whorl. The flowers are minute, honeyed, and sweet-smelling, and often in conspicuous clusters. Yellow or lady's bedstraw (*G. verum*) was formerly used for curdling milk; and a yellow dye was obtained from the flowers by boiling them in an alum solution. A red colour is also got from the roots.