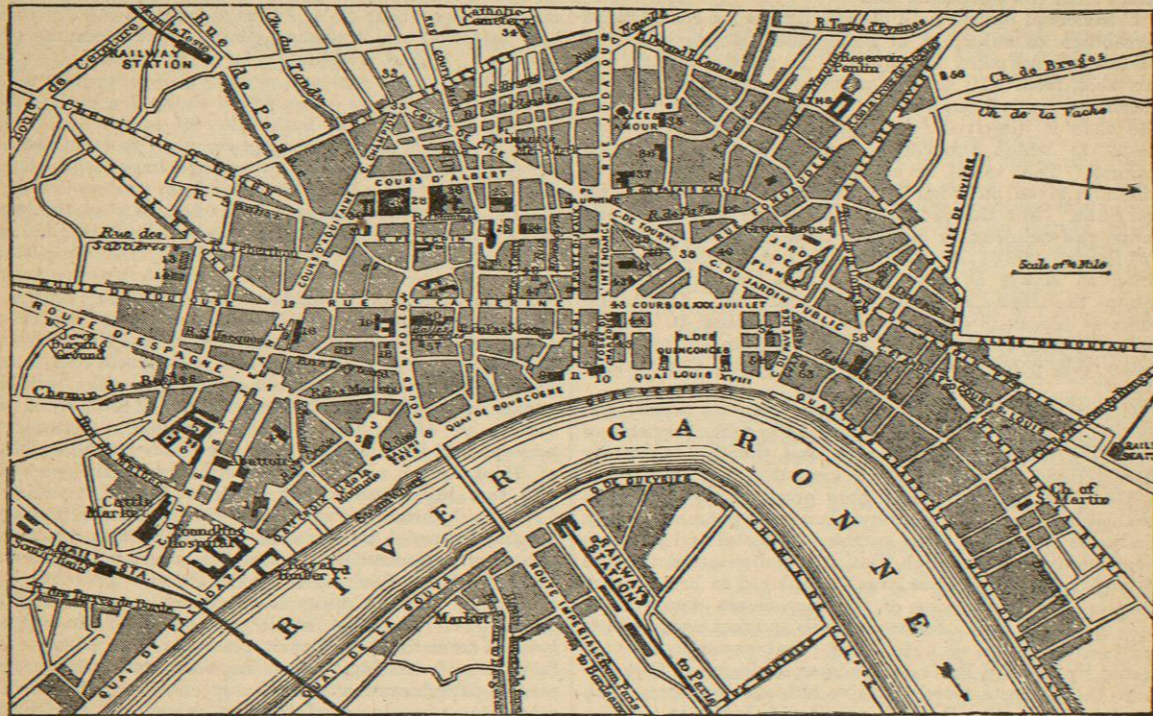


houses, public warehouses, and consulships of some forty different countries. The trade is very extensive, particularly in wines, and has undergone a remarkable development since the introduction of railways and steamships. For a long time Bordeaux was greatly indebted to the Languedoc canal, but this means of communication is now

of minor importance. The total value of the export and import trade is annually about £16,500,000, about a third belonging to Britain. In 1872 the value of Bordeaux wines exported from France was upwards of £5,600,000, and the brandy and liqueurs from Bordeaux itself annually produce about £1,000,000. The other articles exported



Ground-Plan of Bordeaux.

- |                           |   |                                |  |   |
|---------------------------|---|--------------------------------|--|---|
| 1. Hospital for Old Men.  | 14. Church of St Nicholas.                      | 25. Hôtel de Ville.            | 37. Mint.                                  | 49. Hôtel de la Marine.                             |
| 2. Church of St Michel.   | 15. St John's Hospital.                         | 26. Prison Départemental.      | 38. Place de Tourny.                       | 50. Church of the Carmelites.                       |
| 3. Place du Marché Neuf.  | 16. Hospital for Incumbles.                     | 27. Palais de Justice.         | 39. Théâtre des Variétés.                  | 51. Baths.  |
| 4. Grand Séminaire.       | 17. Synagogue.                                  | 28. Place d'Armes.             | 40. Place des Grands Hommes.               | 52. English Protestant Church.                      |
| 5. Petit Séminaire.       | 18. St James's Chapel.                          | 29. St Andrew's Hospital.      | 41. Church of Notre Dame.                  | 53. Protestant Church.                              |
| 6. Asylum for the Insane. | 19. Barracks.                                   | 30. St Raphael's Barracks.     | 42. Hôtel de l'Académie.                   | 54. Entrepôt réel.                                  |
| 7. Place des Capucins.    | 20. Old Palais de Justice and St Paul's Church. | 31. Church of St Eulalie.      | 43. Place de la Comédie.                   | 55. Church of St Louis and Archives du Département. |
| 8. Place Bourgogne.       | 21. Lycée Impérial.                             | 32. Tobacco Manufactory.       | 44. Grand Theatre.                         | 56. Collège de Tyrroll.                             |
| 9. Custom House.          | 22. Old Chapelle des Irlandais.                 | 33. Place Rodesse.             | 45. Hôtel de la Préfecture.                | 57. Church of St Eloi.                              |
| 10. Exchange.             | 23. St Andrew's (Cathedral).                    | 34. Church of St Bruno.        | 46. Old Church of St Rémi.                 | 58. Place Fégère.                                   |
| 11. Place de la Bourse.   | 24. Municipal Barracks.                         | 35. Church of St Saurin.       | 47. Chapelle de Notre Dame de Bon Secours. |   |
| 12. Place d'Aquitaine.    |   | 36. Deaf and Dumb Institution. | 48. Archbishop's Palace.                   |   |
| 13. Military Hospital.    |   |                                |  |   |

comprise corn, fruits, sugar, wood, resin, rags, madder, tartar, gums, indigo, and native manufactures. Shipbuilding is a leading industry, the number of firms in that department being about twenty in 1875. In the same year 220 vessels belonged to the port, with a total tonnage of upwards of 92,000 English tons.

Bordeaux, or *Burdigala*, was originally the chief town of the Bituriges Vivisci. Under the Roman empire it became a flourishing commercial city, and in the 3d century it was made the capital of Aquitania Secunda. Ausonius, a writer of the 4th century, who was a native of the place, describes it as four-square and surrounded with walls and lofty towers, and celebrates its importance as one of the greatest educational centres of Gaul. In the evils that resulted from the disintegration of the empire Bordeaux had its full share, and did not recover its prosperity till the beginning of the 10th century. Along with Guienne it belonged to the English kings for nearly three hundred years (1154-1452), and was for a time the seat of the brilliant court of the Black Prince, whose son Richard was

born in the city. An extensive commerce was gradually developed between the Bordeaux merchants and their fellow subjects in England,—London, Hull, Exeter, Dartmouth, Bristol, and Chester being the principal ports with which they traded. For full details regarding the character of the traffic and its influence on the destinies of the city the reader may consult Francisque Michel's *Histoire du Commerce et de la Navigation de Bordeaux*, 1867. In 1548 the inhabitants resisted the imposition of the salt-tax by force of arms, a pardonable rebellion for which they were punished by Montmorency with merciless severity. At a later period they held out for the Frondeurs against the royal army under Louis XIV. and Richelieu, with an obstinacy that brought the monarch and his minister to a humbler mood. During the Reign of Terror the city suffered almost as severely as Lyons and Marseilles, and its commerce was greatly reduced under Napoleon I. In 1814 it declared for the House of Bourbon; and Louis XVIII. afterwards gave the title of duke of Bordeaux to his grandnephew, better known as the Count de

Chambord. In 1870 the French Government was transferred to Bordeaux from Tours on the approach of the Germans to the latter city. Population, in 1872, 190,682.

Dupré de Saint Maur, *Hist. Curieuse de Bordeaux*, 1760; Devienne, *Hist. de la ville de Bordeaux*, 1771 and 1862; Bernadan, *Hist. de Bordeaux*, 1838-40; O'Reilly, *Hist. complète de Bordeaux*, 1853-60.

BOREAS, in Greek Mythology, was a personification of the north wind, and to be like it he was represented as rough, powerful, and accustomed to gain his ends by irresistible force. A favourite instance of this was the story of his carrying off the beautiful Oreithyia, a daughter of Erechtheus, king of Athens, when he found her gathering flowers by the banks of the Ilissus, or at the sources of the Cephissus,—others said the Areopagus, and others, again, the Citadel. He had sought before to woo her in vain, and now carried her to Mount Hæmus in Thrace, where they lived as king and queen of the winds, and had two sons, Zetes and Calais, and two daughters, Cleopatra and Chione. For the loss of Oreithyia the Athenians in after times counted on Boreas's friendliness, and were assured of it when he sent storms which wrecked the Persian fleet at Athos and at Sepias. For this they erected to him a sanctuary, or, as others said, an altar near the Ilissus, and held a festival in his honour. Thuri also, which was a colony of Athens, offered a sacrifice to him every year, because he had destroyed the hostile fleet of Dionysius the elder. Boreas was described as a son of Astræus and Aurora. In works of art he was represented as bearded, powerful, draped against cold, and winged. On the Tower of the Winds at Athens he is figured holding a shell, such as is blown by Tritons. Boreas carrying off Oreithyia is the subject of a beautiful bronze relief in the British Museum, found in the island of Calymna. The same subject occurs frequently on the painted Greek vases.

BORELLI, GIOVANNI ALFONSO, the head of what has been called the iatro-mathematical sect, or that which, misled by the great progress which the application of mathematics had produced in the physical sciences, attempted to secure the same advantage for medicine, by subjecting to calculation the phenomena of the living economy. He was born at Naples, January 28, 1608, taught mathematics for some time at Pisa, and seems afterwards to have held the professorship of medicine at Florence. He was greatly favoured by the princes of the house of Medici; but having been engaged in the revolt of Messina, he was obliged to retire to Rome, where he spent the remainder of his life under the protection of Christina, queen of Sweden, who honoured him with her friendship, and by her liberality softened the rigour of his fortune. He died of pleurisy on the 31st December 1679. Borelli, more judicious than Bellini, restricted the application of his system chiefly to muscular motions, or to those phenomena of the animal economy which are in certain points subject to the laws of mechanics, and was led to the discovery of some principles new in themselves, and directly opposed to the received beliefs of his time. His followers, less cautious, wishing to generalize the application he had made, by hypotheses, to which the return to a sound medical philosophy has done justice, greatly retarded the restoration of the science.

The works of Borelli are,—1. *Della Causa delle Febri maligne*, Pisa, 1658, 4to; 2. *De Renum usu Judicium*, Strasburg, 1664, 8vo; 3. *Euchides Restitutus*, 1628, 4to; 4. *Apollonii Pergæi Conicorum libri v. vi. et vii.* Florence, 1661; 5. *Theoriae Medicorum Planetarum ex Causis Physicis deducta*, Florence, 1666, 4to; 6. *Tractatus de Vi Percussionis*, Bologna, 1667, 4to; 7. *Historia et Meteorologia incendiæ Ethnæ*, Reggio, 1669, 4to; 8. *De Motibus naturalibus a gravitate pendentibus*, Bologna, 1670, 4to; and 9. *De Motu Animalium, opus posthumum*, Rome, 1680, 1681, 4to.

BORGA, or BORGIO, a seaport town of the Russian Grand Duchy of Finland, situated in the province of Nyland, at

the entrance of the River Borgia into the Gulf of Finland, about 25 miles N.W. of Helsingfors, in 60° 22' N. lat. and 25° 45' E. long. It was at one time a wealthy and handsome city, but has greatly decayed. It is still the seat of a Lutheran bishopric which extends over a large part of Finland; and it possesses a beautiful cathedral, a gymnasium (where the well-known Swedish poet Runeberg lectured for many years), and a theatre. The weaving of sail-cloth and the manufacture of tobacco are the principal industries, and the chief articles of trade are wood, butter, and meal. In 1873 the value of the imports, mainly from Germany, England, and Russia, was upwards of £141,000, while that of the exports was rather under £50,000. Borgia was the seat of the Finnish diet in 1809. Population, which is mostly Swedish, in 1867, 3420.

BORGERHOUT, a flourishing township of Belgium, in the arrondissement of Antwerp, and on the road from that city to Turnhout. It has bleachfields, dye-works, woollen factories, and corn-mills. Population, 10,787.

BORGHESE, a noble Sienese family, one of whom, on being elected pope in 1605, assumed the name of Paul V., after which the family became among the most powerful of the Roman nobility by their union with the Aldobrandini. Camillo Filippo Ludovico, Prince Borghese (born 1775), married in 1803 Pauline, sister of the Emperor Napoleon, and widow of General Leclerc. In 1806 he was made duke of Guastalla, and for some years acted as governor of the Piedmontese and Genoese provinces. After the fall of Napoleon he fixed his residence at Florence, where he died in 1832. The Borghese palace at Rome is one of the most magnificent buildings in the city, and contains a splendid gallery of pictures.

BORGIA, CÆSAR and LUCRETIA. The history of Cæsar and Lucretia Borgia up to the death of their father has been related under ALEXANDER VI. (vol. i. p. 487). Alexander's sudden decease at an unfavourable conjuncture proved the ruin of Cæsar, who, as he subsequently told Machiavelli, had provided for every contingency except that of his father and himself being disabled at the same time. Though suffering from a dangerous illness, popularly believed to be the effect of poison, he possessed himself of his father's treasures, and exerted sufficient influence in the conclave to procure the election of a friendly pope. The pontificate of Pius III., however, only endured for a few weeks, and his successor, Julius II., the hereditary enemy of the Borgias, threw Cæsar into the prison of St Angelo, where he was detained until he had consented to deliver up all his fortresses. He was then sent to Naples, where the Spanish viceroy, Gonsalvo de Cordova, in violation of his pledge, caused him to be arrested and sent to Spain. After two years' confinement in the castle of Medina del Campo, he escaped and took refuge with his brother-in-law, the king of Navarre, in whose service he was slain before Viana, March 12, 1507. Cæsar possessed considerable abilities, but these are in general much overrated by historians, especially by Lord Macaulay in his essay on Machiavelli. His extraordinary success was not so much owing to the superiority of his qualities as to his utter emancipation from every restraint of conscience and honour. As a ruler he was intelligent and sagacious; his subjects regretted him, and his mercenaries served him with remarkable fidelity. Lucretia Borgia's life, after her marriage to the duke of Ferrara's son, was prosperous and uneventful, or at most only troubled by the not very well attested homage of Cardinal Bembo. She obtained universal respect by her piety and prudence, and her patronage of men of letters, and died in 1520. In fact, although intelligent and highly educated she was essentially a common-place woman, incapable from every point of view of the atrocities imputed to her by libellers in her own

day, and by poets and romancers ever since. She has suffered vicariously for her father and brother. See especially her latest historian, Gregorovius (*Lucretia Borgia*, 1874), whose volumes contain a mass of most interesting information, especially relating to Lucretia's early years, but whose vindication of his heroine might have been much more decided. The English biography by Gilbert is well intended, but devoid of literary or historical value. (R. G.)

**BORGO SAN DONNINO**, a walled town of Italy, in the province of Parma, and capital of a circondario, is situated on the Stirone, a sub-tributary of the Po, about 15 miles W. of Parma on the railway to Milan. Besides its cathedral, a building of the 13th century, in the Lombard style, adorned with rude sculptures, it possesses a castle and fort, a theological seminary, a college, a music school, and a remarkable institution for mendicants. The spinning of hemp and silk and the manufacture of glass are its principal industries. Borgo is identified with *Fidentia*, memorable in ancient history for the siege sustained by M. Lucullus, one of Sulla's generals, against the forces of Carbo. It is mentioned as a *municipium* by Pliny, but seems afterwards to have sunk to a mere village. In 304 it was the scene of the martyrdom of Saint Dominus, from whom it has derived the distinctive part of its modern name. During the Hohenstauffen dynasty it was an imperial possession, and in 1501 it became the seat of a bishop. Population, 10,855.

**BORGOGNONE**, AMBROGIO. See FOSSANO.

**BORGU**, or **BARBA**, a large district in the interior of Africa, bounded on the E. by the Niger, on the S. by Yoruba, on the W. by Dahomey, and on the N. by Gurma. It is about thirty days' journey in length and eleven in breadth. It has generally a level surface, though crossed by a considerable range of mountains. The soil is mostly fertile, and tolerably cultivated, producing in abundance corn, yams, plantains, and limes. The cattle are numerous and of excellent breed, and there is a copious supply of all the species of game that prevail in Africa. A considerable inland trade between Haussa and the coast passes through this territory. When Clapperton entered it from Eyeo, he was warned to be on his guard, as the people were the greatest robbers and plunderers in all Africa, but he found this bad report altogether unjust. The people were honest, cheerful, obliging, good-humoured, and communicative. The district of Borgu is divided into a number of states, of which the smaller, such as Boussa, Wawa, Kiama, and Lugu, are dependent on the Fellatah kingdom of Gondo, while Kiti is ruled by a powerful and independent chief, who is frequently spoken of as sultan of Borgu. Wawa and Kiama are important commercial cities. Boussa was the scene of the disastrous fate of Mungo Park in 1805.

**BORING**. The methods and apparatus of boring will be found noticed under the different industries in which it is employed. See ARTESIAN WELLS, BLASTING, COAL, GUNS, &c.

**BORISSOGLIEBSK**, a town of Russia, in the government of Tamboff, 11½ miles S.E. of that city, in 51° 22' N. lat. and 41° 4' E. long., on the left bank of the River Vorona. It was founded in 1646 to defend the southern frontiers from the incursions of the Crim Tatars, and in 1696 was surrounded by wooden fortifications by command of Peter I. The public buildings include four churches, a hospital, and two schools; the principal industries are the preparation of wool, the manufacture of cast-iron, soap-boiling, tallow-melting, and brick-making; and the trade, which is decidedly important, consists in grain, wool, cattle, and leather. There are two annual fairs, and markets twice a week. Population in 1867, 12,254.

**BORKU**, or **BORGU**, a country in the interior of Africa, situated between the 17th and 20th parallels of N. lat., and between 18° and 21° E. long., and forming part of the great Soudan region. It is bounded northwards by the Tibesti Mountains, and is in great measure occupied by lesser elevations belonging to the same system; to the south or rather south-west lies the Bodele basin, from which it is separated by a narrow stretch of higher ground. The climate is much better than that of the neighbouring countries to the south and east; but the eastern trade-winds blow persistently with great violence, being strongest from early morning till about three P.M. The light sand that covers a large part of the country is drifted by it into countless heaps, that change their shape and position from day to day. It is plain, from the fish-skeletons still strewn the ground, that a considerable portion of the south of Borku has at no very distant day been like Bodele and other districts under water. At present the irrigated and fertile portions consist mainly of a number of valleys separated from each other by low and irregular limestone rocks. Of these the most important are Jin, Nguro, Elleboë, and Kirdi in the south, and Bodo, Tiggi, and Jarda in the north. They furnish excellent dates, of about twelve different sorts. The northern valleys and Jin are inhabited by a settled population of about 5000 people, known as the Donosa or Dosa; the others are mainly visited by nomadic tribes. The Uelad Sliman, a powerful Arab tribe, claim the lordship of the land, but have to share their authority with another tribe known as Mgharba which immigrated from Barca about 1860. They do not inhabit the country of Borku, but give proof of their claim to possession by plundering the valleys every three or four years. In the end of 1851 Dr Barth and Dr Oberweg joined an army despatched by the sultan of Bornu for the conquest of the region east of Lake Chad; but the army was defeated and put to flight, and the travellers were disappointed in their expectation of reaching Borku. Dr Nachtigal spent some time in the country in the year 1871, and gives an account of his sojourn in the *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, 1873.

**BORLASE**, WILLIAM, a learned antiquary and naturalist, was born at Pendeen in Cornwall, of an ancient family, February 2, 1696. He was educated at Exeter College, Oxford, where he took his degree as master of arts. In 1720 he was ordained as priest; he was instituted in 1722 to the rectory of Ludgvan, and in 1732 was presented to the vicarage of St Just, his native parish. In the parish of Ludgvan are rich copper works, abounding with mineral and metallic fossils, of which he made a collection, and thus was led to study somewhat minutely the natural history of the county. In 1750 he was admitted a fellow of the Royal Society; and in 1753 he published, in folio, at Oxford, his *Antiquities of Cornwall*, a second edition of which was published at London, 1769, with the title of *Antiquities, Historical and Monumental, of the County of Cornwall; consisting of several Essays on the Ancient Inhabitants, Druid Superstition, Customs, and Remains of the most remote Antiquity in Britain and the British Isles, exemplified and proved by Monuments now extant in Cornwall and the Scilly Islands; with a Vocabulary of the Cornish-British Language*. His next publication was *Observations on the Ancient and Present State of the Islands of Scilly, and their importance to the trade of Great Britain*, Oxford, 1756, 4to, which had previously been printed in the *Phil. Trans.* In 1758 appeared his *Natural History of Cornwall*, Oxford, folio. He presented to the Ashmolean Museum a variety of fossils and antiquities, which he had described in his works, and for his benefactions received the thanks of the university, and the degree of LL.D. He died August 31, 1772. Borlase was well acquainted with

most of the leading literary men of the time, more particularly with Pope, with whom he kept up a long correspondence, and for whose grotto at Twickenham he furnished the greater proportion of the fossils and minerals. His letters to Pope, St Aubyn, and others, with answers, fill several volumes of MS. There are also MS. notes on Cornwall, and a complete unpublished treatise *Concerning the Creation and Deluge*. Some account of these MSS., with extracts from them, will be found in the *Quarterly Review*, October, 1875. Borlase's memoirs of his own life were published in Nichol's *Literary Anecdotes*, vol. v.

**BORN**, **IGNATIUS**, **BARON VON**, an eminent mineralogist and metallurgist, was born of a noble family, at Karlsburg in Transylvania, in 1742. He was educated in a Jesuit college at Vienna, and entered that order, which, however, after sixteen months, he quitted. After studying law at Prague he travelled into Germany, Holland, and France. On his return to Prague he engaged in the study of mineralogy. Austria produces various metals in considerable abundance, and the administration of the revenue arising to Government from this source is conducted by local boards, under the control of the chamber of mines at Vienna. This administration offers a field of some preference; and Von Born was received into the department of the mines and mint at Prague in 1770. About this time he met with an accident which nearly proved fatal, in the course of a journey through Transylvania. Having entered a mine at Felso-Bánya, whilst the air was charged with arsenical vapour, he was stupified for fifteen hours, and long afterwards suffered from a cough and general pain. Some time after this accident he was affected with violent colics, and in the latter part of his life was deprived of the use of both legs. These calamities, however, did not repress the activity of his mind. He had to give up his assessorship of the mining council, but continued to produce works on mineralogy which won him a European reputation. He met with much opposition in attempting to introduce amalgamation in Hungary, in place of smelting and cupellation, for extracting silver from the ores. His opponents endeavoured to prove his process inferior to that already in use; and, after it had been tried successfully, pronounced it to be merely the old Spanish process of amalgamation. The emperor, however, ordered that his method should be employed in mines belonging to Government, and that he should receive a third part of the savings arising from the improvement during the first ten years, and 4 per cent. of this third part for the next twenty years. In 1766 he was appointed by Maria Theresa to arrange the imperial museum at Vienna, where he was made councillor of state, and continued to reside until his death. Von Born attempted satire with no great success. The *Staats Perucke*, a tale published without his knowledge in 1772, and an attack on Father Hell, the Jesuit, and king's astronomer at Vienna, are two of his satirical works. Part of a satire, entitled *Monachologia*, in which the monks are described in the technical language of natural history, is also ascribed to him. Von Born was well acquainted with Latin and the principal modern languages of Europe, and with many branches of science not immediately connected with metallurgy and mineralogy. He took an active part in the political changes in Hungary. After the death of Joseph, the diet of the states of Hungary rescinded many innovations of that scheming ruler, and conferred the rights of denizen on several persons who had been favourable to the cause of the Hungarians, and, amongst others, on Von Born. At the time of his death in 1791, he was employed in writing a work entitled *Fasti Leopoldini*, probably relating to the prudent conduct of Leopold II., the successor of Joseph, towards the Hungarians.

**BÖRNE**, **LUDWIG**, German political writer and satirist, of Jewish family, was born 18th May 1786, at Frankfurt-on-the-Main, where his father, Jakob Baruch, carried on the business of a banker. He studied first at Berlin, where he became acquainted with Schleiermacher and the famous Henrietta Herz, and afterwards at Halle, intending to enter the medical profession. His inclinations for pure literature proved too powerful to allow him to carry out this design, and in 1806 he removed to Heidelberg in order to study financial and political economy. Two years later he took his degree at Giessen, and in 1811 he received an appointment in the bureau of police in his native town. The reconstitution of Frankfurt as a free city after the fall of Napoleon's power in Germany soon deprived him of a situation which was but little suited to his tastes or abilities. He then devoted himself to literature, and for a time edited a newspaper entitled *Staats-Ristretto*, which was quickly suppressed by the Government on account of its liberal tone and the boldness of its criticisms. The same fate attended his next venture, *Die Zeitschwingen*, which appeared for only four months. In 1817 he renounced his Jewish faith and took the name of Börne, by which he is always known. From 1818 to 1821 he edited *Die Wage*, a paper particularly distinguished by its lively political articles, and by its powerful but sarcastic theatrical criticisms. For some years after the suppression of his paper, Börne resided principally in Paris, Hamburg, and Frankfurt. After the July revolution (1830) he hurried to Paris, expecting to find the newly constituted state of society somewhat in accordance with his own philosophic views; but in this hope he was completely disappointed, and the bitterness of his anger lent additional force to the satirical letters he began to publish in his last literary venture, *La Balance*. While advocating his favourite scheme of a closer union between France and Germany, he assailed with unsparing sarcasm and polished wit the German dynasties, whom he looked upon as the great opponents of liberalism. He died at Paris in 1837. Börne's works are remarkable for brilliancy of style and for a thoroughly French vein of satire. His most elevated piece of criticism is the *Denkrede auf Jean Paul*, in which he shows himself fully able to appreciate the great German humourist. The *Menzel der Franzosenfresser* may be taken as a specimen of his unrivalled powers of sarcasm. There have been several complete editions of his writings, the latest being that of 1862, 12 vols., Leipsic; his life has been written by Gutzkow, 1840.

**BORNEO**, one of the largest islands of the world, is situated about the middle of the East Indian Archipelago, and lies immediately under the equator, between 7° N. and 4° 20' S. lat., and between 109° and 118° E. long. It forms a kind of irregular hexagon, and its area is estimated by Engelhardt at 289,000 Eng. square miles (more than double the area of the United Kingdom). Its coast-line is much less broken than that of most of the neighbouring islands; and though there are some extensive bays, such as Maludu in the north and Sarawak in the west, none of them are so deep as greatly to interfere with the regularity of its contour. A large proportion of the seaboard is of alluvial formation; and in various districts the deposition of new land is very perceptibly going on. The whole of the ground, for example, to the west of the Kandang Mountains in the kingdom of Landak has been gained from the sea during the last four centuries, and it is evident that many smaller islands which fringed the coast in former times have been incorporated with the mainland. This process of extension goes on all the more rapidly, because the neighbouring sea is very shallow, except on the eastern side.

Of the interior of the island a considerable part has been only partially explored, so that the physical features can