

list is given at the end. The first dissertation, on the "progress of metaphysical, ethical, and political philosophy," was by Stewart, who completed his plan only in respect to metaphysics. He had thought it would be easy to adapt the intellectual map or general survey of human knowledge, sketched by Bacon and improved by D'Alembert, to the advanced state of the sciences, while its unrivalled authority would have softened criticism. But on closer examination he found the logical views on which this systematic arrangement was based essentially erroneous; and, doubting whether the time had come for a successful repetition of this bold experiment, he forbore to substitute a new scheme of his own. Sir James Mackintosh characterized this discourse as "the most splendid of Mr Stewart's works, a composition which no other living writer of English prose has equalled" (*Edinburgh Review*, xxvii. 191, September 1816). The second dissertation, "On the progress of mathematics and physics," was by Playfair, who died 19th July 1819, when he had only finished the period of Newton and Leibnitz. The third, by Professor Brande, "On the progress of chemistry from the early middle ages to 1800," was the only one completed. These historical dissertations were admirable and delightful compositions, and important and interesting additions to the *Encyclopædia*; but it is difficult to see why they should form a separate department distinct from the general alphabet. The preface, dated March 1824, begins with an account of the more important previous encyclopædias, relates the history of this to the sixth edition, describes the preparation for the supplement and gives an "outline of the contents," and mentions under each great division of knowledge the principal articles and their authors' names, often with remarks on the characters of both. Among the distinguished contributors were Leslie, Playfair, Ivory, Sir John Barrow, Tredgold, Jeffrey, John Bird Sumner, Blanco White, Hamilton Smith, and Hazlitt. Sir Walter Scott, to gratify his generous friend Constable, laid aside *Waverley*, which he was completing for publication, and in April and May 1814 wrote "Chivalry." He also wrote "Drama" in November 1818, and "Romance" in the summer of 1823. As it seemed to the editor that encyclopædias had previously attended little to political philosophy, he wrote "Balance of Power," and procured from James Mill "Banks for Savings," "Education," "Law of Nations," "Liberty of the Press," and other articles, which, reprinted cheaply, had a wide circulation. McCulloch wrote "Corn Laws," "Interest," "Money," "Political Economy," &c. Mr Ricardo wrote "Commerce" and "Funding System," and Professor Malthus, in his article "Population," gave a comprehensive summary of the facts and reasonings on which his theory rested. In the article "Egypt" Dr Thomas Young "first gave to the public an extended view of the results of his successful interpretation of the hieroglyphic characters on the stone of Rosetta," with a vocabulary of 221 words in English, Coptic, Hieroglyphic, and Enchorial, engraved on four plates. There were about 160 biographies, chiefly of persons who had died within the preceding 30 years. Constable "wished short biographical notices of the first founders of this great work, but they were, in the opinion of my editor, too insignificant to entitle them to the rank which such separate notice, it was supposed, would have given them as literary men, although his own consequence in the world had its origin in their exertions" (*Memoirs*, ii. 326). It is to be regretted that this wish was not carried out, as was done in the latter volumes of Zedler. Arago wrote "Double Refraction" and "Polarization of Light," a note to which mentions his name as author. Playfair wrote "Epinus," and "Physical Astronomy." Biot wrote "Electricity" and "Pendulum." He "gave his assistance with alacrity," though his articles had to be translated. Signatures, on the plan of the *Encyclopédie*, were annexed to each article, the list forming a triple alphabet, A to XXX, with the full names of the 72 contributors arranged apparently in the order of their first occurrence. At the end of vol. vi. are Addenda and Corrigenda, including "Interpolation," by Leslie, and "Polarization of Light," by Arago.

The sixth edition, "revised, corrected, and improved," appeared in half volume parts, price 16s. in boards, vol. xx, part ii. completing the work in May 1823. Constable, thinking it not wise to reprint so large a book year after year without correction, in 1820 selected Mr Charles Maclaren (born 7th October 1782) as editor. His attention was chiefly directed to the historical and geographical articles. He was to keep the press going, and have the whole completed in three years. He wrote "America," "Greece," "Troy," &c. Many of the large articles, as "Agriculture," "Chemistry," "Conchology," were new or nearly so; and references were given to the supplement. A new edition in 25 vols. was contemplated, not to be announced till a certain time after the supplement was finished; but Constable's house stopped payment 19th January 1826, and his copyrights were sold by auction. Those of the *Encyclopædia* were bought by contract, 16th July 1828, for £6150, by Thomas Allan, proprietor of the *Caledonian Mercury*, Adam Black, Abram Thomson, bookbinder, and Alexander Wight, banker, who, with the trustee of Constable's estate, had previously begun the seventh edition. Not many years later Mr Black purchased all the shares and became sole proprietor.

The seventh edition, 21 vols. 4to (with an index of 187 pages, compiled by Robert Cox), containing 17,101 pages and 506 plates, edited by Macvey Napier, assisted by James Browne, LL.D., was begun in 1827, and published from March 1830 to January 1842. It was reset throughout and stereotyped. Mathematical diagrams were printed in the text from woodcuts. The first half of the preface was nearly that of the supplement. The list of signatures, containing 167 names, consists of four alphabets with additions, and differs altogether from that in the supplement: many names are omitted, the order is changed, and 103 are added. A list follows of over 300 articles, without signatures, by 87 writers. The dissertations—1st, Stewart's, 289 pages; 2d, "Ethics" (136 pages), by Sir James Mackintosh, whose death prevented the addition of "Political Philosophy"; 3d, Playfair's, 139 pages; 4th, its continuation by Sir John Leslie, 100 pages—and their index of 30 pages, fill vol. i. As they did not include Greek philosophy, "Aristotle," "Plato," and "Socrates" were supplied by Dr Hampden, afterwards bishop of Hereford. Among the numerous contributors of eminence, mention may be made of Sir David Brewster, Prof. Phillips, Prof. Spalding, John Hill Burton, Thomas De Quincey, Patrick Fraser Tytler, Capt. Basil Hall, Sir Thomas Dick Lauder, Antonio Panizzi, John Scott Russell, and Robert Stephenson. Zoology was divided into 11 chief articles, "Mammalia," "Ornithology," "Reptilia," "Ichthyology," "Mollusca," "Crustacea," "Arachnides," "Entomology," "Helminthology," "Zoophytes," and "Animalcule,"—all by James Wilson. The biographical articles, in this as in all the editions of the *Encyclopædia*, do not embrace the names of persons living at the time of publication.

The eighth edition, 1853-60, 4to, 21 vols. (and index of 239 pages, 1861), containing 17,957 pages and 402 plates, with many woodcuts, was edited by Dr Thomas Stewart Traill, professor of medical jurisprudence in Edinburgh University. The dissertations were reprinted, with one on the "Rise, Progress, and Corruptions of Christianity" (97 pages), by Archbishop Whately, and a continuation of Leslie's to 1850, by Professor James David Forbes, 198 pages, the work of nearly three years, called by himself his "magnum opus" (*Life*, pp. 361, 366). Lord Macaulay, Charles Kingsley, Isaac Taylor, Hepworth Dixon, Robert Chambers, Rev. Charles Merivale, Rev. F. W. Farrar, Sir John Richardson, Dr Scoresby, Dr Hooker, Henry Austin Layard, Edw. B. Eastwick, John Crawford, Augustus Petermann, Baron Bunsen, Sir John Herschel, Dr Lankester, Professors Owen, Rankine, William Thomson, Aytoun, Blackie, Daniel Wilson, and Jukes, were some of the many eminent new contributors found among the 344 authors, of whom an alphabetical list is given, with a key to the signatures. In the preface a list of 279 articles by 189 writers, classed under 15 heads, is given, instead of the enumeration of the chief articles and their writers, with critical remarks and explanations, inserted in previous prefaces. It is very much clearer and more useful, though its tabular form excluded all particulars except in notes. This edition was not wholly reset like the seventh, but many long articles were retained almost or entirely intact.

The publication of the ninth edition (the present work) was commenced in January 1875.

A new and enlarged edition of the *Encyclopédie* arranged as a system of separate dictionaries, and entitled *Encyclopédie Méthodique ou par ordre de matières*, was undertaken by Charles Joseph Panckoucke, a publisher of Paris (born at Lille 26th November 1736, died 19th December 1798). His privilege was dated 20th June 1780. The articles belonging to different subjects would readily form distinct dictionaries, although, having been constructed for an alphabetical plan, they seemed unsuited for any system wholly methodical. Two copies of the book and its supplement were cut up into articles, which were sorted into subjects. The division adopted was,—1, mathematics; 2, physics; 3, medicine; 4, anatomy and physiology; 5, surgery; 6, chemistry, metallurgy, and pharmacy; 7, agriculture; 8, natural history of animals, in six parts; 9, botany; 10, minerals; 11, physical geography; 12, ancient and modern geography; 13, antiquities; 14, history; 15, theology; 16, philosophy; 17, metaphysics, logic, and morality; 18, grammar and literature; 19, law; 20, finance; 21, political economy; 22, commerce; 23, marine; 24, art militaire; 25, beaux arts; 26, arts et métiers,—all forming distinct dictionaries entrusted to different editors. The first object of each editor was to exclude all articles belonging to other subjects, and to take care that those of a doubtful nature should not be omitted by all. In some words (such as air, which belonged equally to chemistry,

physics, and medicine) the methodical arrangement has the unexpected effect of breaking up the single article into several widely separated. Each dictionary was to have an introduction and a classified table of the principal articles. History and its minor parts, as inscriptions, fables, medals, were to be included. Theology, which was neither complete, exact, nor orthodox, was to be by the Abbé Bergier, confessor to Monsieur. The whole work was to be completed and connected together by a *Vocabulaire Universel*, 1 vol. 4to, with references to all the places where each word occurred, and a very exact history of the *Encyclopédie* and its editions by Panckoucke. The prospectus, issued early in 1782, proposed three editions—84 vols. 8vo, 43 vols. 4to with 3 columns to a page, and 53 vols. 4to of about 100 sheets with 2 columns to a page, each edition having 7 vols. 4to of 250 to 300 plates each. The subscription was to be 672 livres from 15th March to July 1782, then 751, and 888 after April 1783. It was to be issued in livraisons of 2 vols. each, the first (jurisprudence, vol. i., literature, vol. i.) to appear in July 1782, and the whole to be finished in 1787. The number of subscribers, 4072, was so great that the subscription list of 672 livres was closed 30th April. Twenty-five printing offices were employed, and in November 1782 the 1st livraison (jurisprudence, vol. i., and half vol. each of arts et métiers and histoire naturelle) was issued. A Spanish prospectus was sent out, and obtained 330 Spanish subscribers, with the inquisitor-general at their head. The complaints of the subscribers and his own heavy advances, over 150,000 livres, induced Panckoucke, in November 1788, to appeal to the authors to finish the work. Those *en retard* made new contracts, giving their word of honour to put their parts to press in 1788, and to continue them without interruption, so that Panckoucke hoped to finish the whole, including the vocabulary (4 or 5 vols.), in 1792. Whole sciences, as architecture, engineering, hunting, police, games, &c., had been overlooked in the prospectus; a new division was made in 44 parts, to contain 51 dictionaries and about 124 vols. Permission was obtained, 27th February 1789, to receive subscriptions for the separate dictionaries. Two thousand subscribers were lost by the Revolution. The 50th livraison appeared on July 23, 1792, when all the dictionaries eventually published had been begun except seven—jeux familiers and mathématiques, physics, art oratoire, physical geography, chasses, and pêches; and 18 were finished,—mathematics, games, surgery, ancient and modern geography, history, theology, logic, grammar, jurisprudence, finance, political economy, commerce, marine, arts militaires, arts académiques, arts et métiers, encyclopædiana. Supplements were added to military art in 1797, and to history in 1807, but not to any of the other 16, though required for most long before 1832. The publication was continued by Henri Agasse, Panckoucke's son-in-law, from 1794 to 1813, and then by Mme. Agasse, his widow, to 1832, when it was completed in 102 livraisons or 337 parts, forming 166½ vols. of text, and 51 parts containing 6439 plates. The letter-press issued with the plates amounts to 5458 pages, making with the text 124,210 pages. To save expense the plates belonging to architecture were not published. Pharmacy (separated from chemistry), minerals, education, pont et chaussées had been announced but were not published, neither was the *Vocabulaire Universel*, the key and index to the whole work, so that it is difficult to carry out any research, or to find all the articles on any subject. The original parts have been so often subdivided, and have been so added to by other dictionaries, supplements, and appendices, that, without going into great detail, an exact account cannot be given of the work, which contains 88 alphabets, with 83 indexes, and 166 introductions, discourses, prefaces, &c. Many dictionaries have a classed index of articles:

that of économie politique is very excellent, giving the contents of each article, so that any passage can be found easily. The largest dictionaries are medicine, 13 vols., 10,330 pages; zoology, 7 dictionaries, 13,645 pages, 1206 plates; botany, 12,002 pages, 1000 plates (34 only of cryptogamic plants); geography, 3 dictionaries and 2 atlases, 9090 pages, 193 maps and plates; jurisprudence (with police and municipalities), 10 vols., 7607 pages. Anatomy, 4 vols., 2866 pages, is not a dictionary but a series of systematic treatises. Assemblée Nationale was to be in three parts,—(1) the history of the Revolution, (2) debates, and (3) laws and decrees. Only vol. ii., debates, appeared, 1792, 804 pages, Absens to Aurillac. Ten volumes of a Spanish translation with a vol. of plates were published at Madrid to 1806,—viz., historia natural, i., ii.; grammatica, i.; arte militar, i., ii.; geografia, i.-iii.; fabricas, i., ii., plates, vol. i. A French edition was printed at Padua, with the plates, says Peignot, very carefully engraved. Probably no more unmanageable body of dictionaries has ever been published except Migne's *Encyclopédie Théologique*, Paris 1844-75, 4to, 168 vols., 101 dictionaries, 119,059 pages.

No encyclopædia has been more useful and successful, or more frequently copied, imitated, and translated, than that known as the *Conversations Lexicon* of Brockhaus. It was begun as *Conversations Lexikon mit vorzüglicher Rücksicht auf die gegenwärtigen Zeiten*, Leipzig, 1796 to 1808, 8vo, 6 vols., 2762 pages, by Dr Gotthelf Renatus Löbel (born 1st April 1767 at Thalwitz near Wurzen in Saxony, died 14th February 1799), who intended to supersede Hübner, and included geography, history, and in part biography, besides mythology, philosophy, natural history, &c. Vols. i.-iv. (A to R) appeared 1796 to 1800, vol. v. in 1806. Friedrich Arnold Brockhaus (born at Dortmund 4th May 1772, settled at Amsterdam in 1801-2, where he opened a German bookseller's shop, 15th October 1805, as Relloff and Co., Dutch law not allowing him to use his own name) bought the work with its copyright, 25th October 1808, for 1800 thalers from the printer, who seems to have got it in payment of his bill. The editor, Christian Wilhelm Franke, by contract dated 16th November, was to finish vol. vi. by December 5, and the already projected supplement, 2 vols., by Michaelmas 1809, for 8 thalers a printed sheet. No penalty was specified, but, says his grandson, Brockhaus was to learn that such contracts, whether under penalty or not, are not kept, for the supplement was finished only in 1811. Brockhaus issued a new impression as *Conversations Lexikon oder kurzgefasstes Handwörterbuch*, &c., 1809-11, and on removing to Altenburg in 1811 began himself to edit the 2d edition (1812-19, 10 vols.), and, when vol. iv. was published, the 3d (1814-19). He carried on both editions together until 1817, when he removed to Leipsic, and began the 4th edition as *Allgemeine Deutsche Real Encyclopädie für die gebildeten Stände. Conversations Lexikon*. This double title has ever since been retained. The 5th edition was at once begun, and was finished in eighteen months. Dr Ludwig Hain assisted in editing the 4th and 5th editions until he left Leipsic in April 1820, when Professor F. C. Hasse took his place. The 12,000 copies of the 5th edition being exhausted while vol. x. was at press, a 2d unaltered impression of 10,000 was required in 1820, and a 3d of 10,000 in 1822. The 6th edition, 10 vols., was begun in September 1822. Brockhaus died 20th August 1823. His two eldest sons, Friedrich and Heinrich, who carried on the business for the heirs and became sole possessors in 1829, finished the edition with Hasse's assistance in September 1823. The 7th edition (1827-29, 12 vols., 10,489 pages, 13,000 copies, 2d impression 14,000) was edited by Hasse. The 8th edition (1833-36, 12 vols., 10,689 pages, 31,000 copies to 1842) begun in the autumn of 1832, ended May 1837, was edited



by Dr Karl August Espe (born February 1804, died in the Irrenanstalt at Stötteritz near Leipzig, 24th November 1850) with the aid of many learned and distinguished writers. A general index, *Universal Register*, 242 pages, was added in 1839. The 9th edition (1843-47, 15 vols., 11,470 pages, over 30,000 copies) was edited by Dr Espe. The 10th edition (1851-55, 12,564 pages) was also in 15 vols., for convenience in reference, and was edited by Dr August Kurtzel aided by Oskar Pilz. Friedrich Brockhaus had retired in 1849, and Dr Heinrich Edward, elder son of Heinrich, made partner in 1854, assisted in this edition from the beginning, and Heinrich Rudolf, the younger son, partner since 1863, in the 11th (1864-68, 15 vols. of 60 sheets, 13,366 pages). Kurtzel died 24th April 1871, and Pilz was sole editor until March 1872, when Dr Gustav Stockmann joined, who was alone from April until joined by Dr Karl Wippermann in October. Besides the *Universal Register* of 136 pages and about 50,000 articles, each volume has an index. The supplement, 2 vols., 1764 pages, was begun in February 1871, and finished in April 1873. The 12th edition, begun in 1875, is to be in 15 vols. of 64 sheets, 15,300 pages, to be finished in 1880. The *Conversations Lexicon* is intended, not for scientific use, but to promote general mental improvement by giving the results of research and discovery in a simple and popular form without extended details. The articles, often too brief, are very excellent and trustworthy, especially on German subjects, give references to the best books, and include biographies of living men.

The most copious German encyclopædia is Ersch and Gruber's *Allgemeine Encyclopædie der Wissenschaften und Künste*, Leipzig, 1818-75, 151 vols., 69,893 pages, and about 360 plates, being perhaps three-fifths of the work. It was designed and begun in 1813 by Professor Johann Samuel Ersch (born at Gross Glogau, 23d June 1766, chief librarian at Halle, died 16th January 1828) to satisfy the wants of Germans, only in part supplied by foreign works. It was stopped by the war until 1816, when Professor Hufeland (born at Dantzig 19th October 1760) joined, but died, 25th November 1817, while the specimen part was at press. The work is in three sections:—(1), A to G, 95 vols. 1818-75, 44,379 pages (A to Guano), edited to vol. xvii., 1828 (Chioc-Boya to Claytonia), by Ersch, who carried on nearly all the correspondence, and to vol. liv. (Gargano to Gauhe), by Professor J. G. Gruber, who joined on Hufeland's death, and was succeeded in 1851 by M. H. E. Meier, and since 1856 to vol. lxxii. (Gerson to Geschlecht) by Hermann Brockhaus (third son of Friedrich Arnold, born at Amsterdam 28th Jan. 1806, professor of Sanskrit at Leipzig); (2) H to N, 31 vols., 1827-55, 14,447 pages (H to Izzo), begun by W. Müller, librarian at Dessau, who died in September 1827, and was succeeded by Professor A. G. Hoffmann of Jena; (3) O to Z, 25 vols., 11,067 pages (O to Phyxios), edited by Meier. All articles bear the authors' names, those not ready in time were placed at the end of their letter. The longest is Griechenland, vols. 80-87, 3668 pages, with a table of contents. It began to appear after vol. 73 (Götze to Gondouin), and hence does not come in its proper place, which is in vol. 91. Gross Britannien contains 700 pages, and Indien by Benfey 356. As may be expected in a work designed by a bibliographer so renowned and industrious as Ersch, the titles of books and lists of authorities and references are very full and accurate. Among the contributors are the most learned Germans of the last 60 years. It contains much original research and many of its articles rank among the best authorities on their respective subjects.

The *Encyclopædia Metropolitana* (London, 1845, 4to, 28 vols., issued in 59 parts in 1817-45, 22,426 pages, 565 plates) professed to give sciences and systematic arts entire

and in their natural sequence, as shown in the introductory treatise on method by S. T. Coleridge. "The plan was the proposal of the poet Coleridge, and it had at least enough of a poetical character to be eminently unpractical" (*Quarterly Review*, cxiii., 379). However defective the plan, the excellence of many of the treatises by Archbishop Whately, Sir John Herschel, Professors Barlow, Peacock, De Morgan, &c., is undoubted. It is in four divisions, the last only being alphabetical:—I. *Pure Sciences*, 2 vols., 1813 pages, 16 plates, 28 treatises, includes grammar, law, and theology; II. *Mixed and Applied Sciences*, 8 vols., 5391 pages, 437 plates, 42 treatises, including fine arts, useful arts, natural history and its "application," the medical sciences; III. *History and Biography*, 5 vols., 4458 pages, 7 maps, containing biography (135 essays) chronologically arranged (to Thomas Aquinas in vol. 3), and interspersed with (210) chapters on history (to 1815), as the most philosophical, interesting, and natural form (but modern lives were so many that the plan broke down, and a division of biography, to be in 2 vols., was announced but not published); IV. *Miscellaneous*, 12 vols., 10,338 pages, 105 plates, including geography, a dictionary of English (the first form of Richardson's), and descriptive natural history. It is not easy to see why geography and natural history, so essentially systematic, were thus treated, or why annuities, brewing, bridges, &c., are less systematic than sculpture, agriculture, and carpentry. The index, 364 pages, contains about 9000 articles. A re-issue in 38 vols. 4to, was announced in 1849. Of a second edition, 42 vols. 8vo, 14,744 pages, belonging to divisions i. to iii., were published in 1849-58.

The very excellent and useful *English Cyclopædia* (London, 1854-62, 4to, 23 vols., 12,117 pages; supplements, 1869-73, 4 vols., 2858 pages), conducted by Charles Knight, based on the *Penny Cyclopædia* (London, 1833-46, 4to, 29 vols., 15,625 pages), of which he had the copyright, is in four divisions all alphabetical, and evidently very unequal as classes:—1, geography; 2, natural history; 3, biography (with 703 lives of living persons); 4, arts and sciences. History is given under geography, but very slightly; the nomenclature of natural history is partly popular and partly scientific; and the work contains much valuable matter, but also much that is undigested and imperfectly edited. The synoptical index, 168 pages, has four columns on a page, one for each division, so that the order is alphabetical and yet the words are classed.

*Chambers's Encyclopædia* (Edinburgh, W. and R. Chambers) 1860-68, 8vo, 10 vols., 8283 pages, edited in part by the publishers, but under the charge of Dr Andrew Findlater as "acting editor" throughout, was founded on the 10th edition of Brockhaus. A revised edition appeared in 1874, 8320 pages. In the list of 126 contributors are J. H. Burton, Emmanuel Deutsch, Prof. Goldstücker, &c. The index of matters not having special articles contains about 1500 headings. The articles are generally excellent, more especially on Jewish literature, folk-lore, and practical science; but as in Brockhaus the scope of the work does not allow extended treatment.

The *New American Cyclopædia*, New York (Appleton & Co.), 1858-63, 16 vols., 12,752 pages, is the work of the editors, George Ripley and Charles Anderson Dana, and 364 contributors, chiefly American. A supplementary work, *The American Annual Cyclopædia*, a yearly 8vo vol. of about 800 pages and 250 articles, has been published since 1861. In a new edition, *The American Cyclopædia*, 1873-76, 8vo, 16 vols., 13,484 pages, by the same editors, 4 associate editors, 31 revisers, and a librarian, each article passed through the hands of 6 or 8 revisers. It is, for its extent, one of the very best encyclopædias, particularly on American subjects. (P.A.L.)

ENDIVE, *Cichorium Endivia*, L., an annual esculent plant of the natural order *Compositæ*, commonly reputed to have been introduced into Europe from the East Indies, but, according to some authorities, more probably indigenous to Egypt. There are numerous varieties of the endive, forming two groups, namely, the curled or narrow-leaved (*C. E. crispata*), and the Batavian or broad-leaved (*C. E. latifolia*), the leaves of which are not curled. The former varieties are those most used for salads, the latter being grown chiefly for culinary purposes. The plant requires a light, rich, and dry soil, in an unshaded situation. In the climate of England, sowing for the main crop should commence about the second or third week in June; but for plants required to be used young it may be as early as the latter half of April, and for winter crops up to the middle of August. The seed should be finely spread in drills 4 inches asunder, and then lightly covered. After reaching an inch in height, the young plants are thinned; and when about a month old they may be placed out at distances of 12 or 15 inches, in drills 3 inches in depth, care being taken in removing them from the seed-bed to disturb their roots as little as possible. The Batavian require more room than the curled-leaved varieties. Transplantation, where early crops are required, has been found inadvisable. Rapidity of growth is promoted by the application of liquid manures. The bleaching of endive, in order to prevent the development of the natural bitter taste of the leaves, and to improve their appearance, is begun about three months after the sowing, and is best effected either by tying the outer leaves around the inner, or, as in damp seasons, by the use of the bleaching-pot. The bleaching may be completed in ten days or so in summer, but in winter it takes three or four weeks. For late crops, protection from frost is requisite; and to secure fine winter endive, it has been recommended to take up the full-grown plants in November, and to place them under shelter, in a soil of moderately dry sand or of half-decayed peat earth. Where forcing-houses are employed, endive may be sown in January, so as to procure by the end of the following month plants ready for use.

ENDOR, an ancient town of Palestine, originally belonging to the Philistines, and chiefly memorable as the abode of the sorceress whom Saul consulted on the eve of the battle of Gilboa, in which he perished. Although situated in the territory of the tribe of Issachar, it was assigned to Manasseh. In the time of Eusebius and Jerome it still existed as a large village 4 miles south of mount Tabor; and at the same distance, on the northern slope of the lower ridge of Hermon, there is still a village of this name.

ENDOWED SCHOOLS ACTS. Since the beginning of the present reign a number of statutes have been passed dealing with the endowed grammar schools of England. The Act 3 and 4 Vict. c. 77, which notices in the preamble the great number of grammar schools in England, both of royal and private foundation, and remarks that the term "grammar" had been construed to mean Greek and Latin, and that the governors and trustees of such schools were unable to establish any other education than that expressly provided for by the foundation, empowered courts of equity to make decrees or orders extending the systems of instruction and the right of admission to any school, and to establish schemes for the application of its revenues, having due regard to the intentions of the founder. The Act 23 Vict. c. 11 enabled and required the trustees and governors of endowed schools to make such order as, without interfering with the religious teaching of the other scholars or authorizing any new religious teaching, should admit children of other denominations than that to which the foundation belongs, except where the foundation

expressly requires the children to be instructed according to the formularies of such denomination. The most important public schools—Eton, Harrow, Westminster, &c.—were expressly exempted from the operation of both of these Acts. The Act 31 and 32 Vict. c. 23 annexed certain conditions to the appointment of officers in endowed schools. The most important Act of the series was the 32 and 33 Vict. c. 56 (The Endowed Schools Act 1869) which authorized the appointment of commissioners, with power "in such manner as may render any educational endowment most conducive to the advancement of the education of boys and girls, and either of them, to alter and add to any existing, and to make new trusts, directions, and provisions in lieu of any existing trusts, directions, and provisions which affect such endowment and the education promoted thereby." The powers of the commissioners extend to all school endowments other than those specified in section 8 of the Act, which, *inter alia*, excludes schools under the Public Schools Act 1868, voluntary schools, schools aided by parliamentary grant, endowments not necessarily educational, &c. The 36 and 37 Vict. c. 87 continues and amends in various particulars the Act of 1869. The 37 and 38 Vict. c. 87 transfers the powers of the Endowed Schools Commissioners to the Charity Commissioners (see CHARITIES). The Public Schools Act 1868, above referred to, deals with the following schools only—Eton, Winchester, Westminster, Charterhouse, Harrow, Rugby, and Shrewsbury.

ENDYMION. In the genealogy of the Iapetids Endymion is said to be the son of Aethlius, who is the son of Zeus by Protogeneia, the daughter of Deucalion and Pyrrha. The legend of Endymion was localized in Elis, the westernmost land in the Peloponnesus, where his tomb was shown in the days of Pausanias. The simplest form of the story is perhaps that of Apollodorus (i. 7, 5), who merely says that Selene (the moon) loved him, and that Zeus left him free to choose anything that he might desire, his choice being an everlasting sleep, in which he might remain youthful for ever. This is simply a reversing of the myth of Eos (the morning), who forgot to ask eternal youth for her husband Tithonus, whose decrepit form she was glad to hide in a cave. In other versions Endymion is a beautiful youth, whom Selene visits while he lies asleep in the cave of Latmus. She thus becomes the mother of his fifty daughters, who have been supposed by Preller (*Griechische Mythologie*, i. 384) to denote the fifty moons of the Olympian festival cycle, but who in their number must be compared with the fifty sons or daughters of Ægyptus, Danaus, or Priam. As the parent of these children, Selene is called Asterodia, the being whose path is among the stars. These names of themselves show that this myth was so transparent that it could never be more than thinly disguised. Endymion is, in short, as his name denotes, simply the sun setting opposite to the rising moon, the word being formed in a manner analogous to Hyperion, a name signifying the ascending or high soaring Helios or sun. The Latmian cave is the cave of forgetfulness or sleep, into which the sun plunges beneath the sea. Hence he is naturally spoken of as the son of Aethlius (the child of Protogeneia, the early dawn), who struggles and toils through his long journey across the heaven. There is nothing in the myth which warrants the idea that Endymion is a personification of sleep. Hypnus, the true god of slumber, is a conqueror whom none can resist; Endymion is simply one who cannot shake off his own sleep, a sleep so profound that they who are vexed in heart may well envy it (*Theocr.*, *Idyll.* iii. 49).

ENERGY may be defined as the power of doing work, or of overcoming resistance. A bent spring possesses energy, for it is capable of doing work in returning to its