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VOLUME XII SLICE III

Helmont, Jean to Hernösand

Articles in This Slice

HELMONT, JEAN BAPTISTE VAN (1577-1644), Belgian chemist, physiologist and physician, a member of a noble family, was born at Brussels in 1577.[1] He was educated at Louvain, and after ranging restlessly from one science to another and finding satisfaction in none, turned to medicine, in which he took his doctor's degree in 1599. The next few years he spent in travelling through Switzerland, Italy, France and England. Returning to his own country he was at Antwerp at the time of the great plague in 1605, and having contracted a rich marriage settled in 1609 at Vilvorde, near Brussels, where he occupied himself with chemical experiments and medical practice until his death on the 30th of December 1644. Van Helmont presents curious contradictions. On the one hand he was a disciple of Paracelsus (though he scornfully repudiates his errors was well as those of most other contemporary authorities), a mystic with strong leanings to the supernatural, an alchemist who believed that with a small piece of the philosopher's stone he had transmuted 2000 times as much mercury into gold; on the other hand he was touched with the new learning that was producing men like Harvey, Galileo and Bacon, a careful observer of nature, and an exact experimenter who in some cases realized that matter can neither be created nor destroyed. As a chemist he deserves to be regarded as the founder of pneumatic chemistry, even though it made no substantial progress for a century after his time, and he was the first to understand that there are gases distinct in kind from atmospheric air. The very word "gas" he claims as his own invention, and he perceived that his "gas sylvestre" (our carbon dioxide) given off by burning charcoal is the same as that produced by fermenting must and that which sometimes renders the air of caves irrespirable. For him air and water are the two primitive elements of things. Fire he explicitly denies to be an element, and earth is not one because it can be reduced to water. That plants, for instance, are composed of water he sought to show by the ingenious quantitative experiment of planting a willow weighing 5 ℔ in 200 ℔ of dry soil and allowing it to grow for five years; at the end of that time it had become a tree weighing 169 ℔, and since it had received nothing but water and the soil weighed practically the same as at the beginning, he argued that the increased weight of wood, bark and roots had been formed from water alone. It was an old idea that the processes of the living body are fermentative in character, but he applied it more elaborately than any of his predecessors. For him digestion, nutrition and even movement are due to ferments, which convert dead food into living flesh in six stages. But having got so far with the application of chemical principles to physiological problems, he introduces a complicated system of supernatural agencies like the *archei* of Paracelsus, which preside over and direct the affairs of the body. A central *archeus* controls a number of subsidiary *archei* which move through the ferments, and just as diseases are primarily caused by some affection (*exorbitatio*) of the *archeus*, so remedies act by bringing it back to the normal. At the same time chemical principles guided him in the choice of medicines—undue acidity of the digestive juices, for example, was to be corrected by alkalies and *vice versa*; he was thus a forerunner of the iatrochemical school, and did good service to the art of medicine by applying chemical methods to the preparation of drugs. Over and above the *archeus* he taught that there is the sensitive soul which is the husk or shell of the immortal mind. Before the Fall the *archeus* obeyed the immortal mind and was directly controlled by it, but at the Fall men received also the sensitive soul and with it lost immortality, for when it perishes the immortal mind can no longer remain in the body. In addition to the *archeus*, which he described as "aura vitalis seminum, vitae directrix," Van Helmont had other governing agencies resembling the *archeus* and not always clearly distinguished from it. From these he invented the term *blas*, defined as the "vis motus tam alterivi quam localis." Of *blas* there were several kinds, *e.g. blas humanum* and *blas meteoron*; the heavens he said "constare gas materiâ et blas efficiente." He was a faithful Catholic, but incurred the suspicion of the Church by his tract *De magnetica vulnerum curatione* (1621), which was thought to derogate from some of the miracles. His works were collected and published at Amsterdam as *Ortus medicinae, vel opera et opuscula omnia* in 1668 by his son Franz Mercurius (b. 1618 at Vilvorde, d. 1699 at Berlin), in whose own writings, *e.g. Cabbalah Denudata* (1677) and *Opuscula philosophica* (1690), mystical theosophy and alchemy appear in still wilder confusion.

See M. Foster, *Lectures on the History of Physiology* (1901); also Chevreul in *Journ. des savants* (Feb. and March 1850), and Cap in *Journ. pharm. chim.* (1852). Other authorities are Poultier d'Elmoth, *Mémoire sur J. B. van Helmont* (1817); Rixner and Sieber, *Beiträge zur Geschichte der Physiologie* (1819-1826), vol. ii.; Spiers, *Helmont's System der Medicin* (1840); Melsens, *Leçons sur van Helmont* (1848); Rommelaere, *Études sur J. B. van Helmont* (1860).

1 An alternative date for his birth is 1579 and for his death 1635 (see *Bull. Roy. Acad. Belg.*, 1907, 7, p. 732).

HELMSTEDT, or more rarely Helmstädt, a town of Germany, in the duchy of Brunswick, 30 m. N.W. of Magdeburg on the main line of railway to Brunswick. Pop. (1905) 15,415. The principal buildings are the Juleum, the former university, built in the Renaissance style towards the close of the 16th century, and containing a library of 40,000 volumes; the fine Stephanskirche dating from the 12th century; the Walpurgiskirche restored in 1893-1894; the Marienberger Kirche, a beautiful church in the Roman style, and the Roman Catholic church. The Augustinian nunnery of Marienberg founded in 1176 is now a Lutheran school. The town contains the ruins of the Benedictine abbey of St Ludger, which was secularized in 1803. The educational institutions include several schools. The principal manufactures are furniture, yarn, soap, tobacco, sugar, vitriol and earthenware. Near the town is Bad Helmstedt, which has an iron mineral spring, and the Lübbensteine, two blocks of granite on which sacrifices to Woden are said to have been offered. Near Bad Helmstedt a monument has been erected to those who fell in the Franco-German War; in the town there is one to those killed at Waterloo. Helmstedt originated, according to legend, in connexion with the monastery founded by Ludger or Liudger (d. 809), the first bishop of Münster. There appears, however, little doubt that this tradition is mythical and that Helmstedt was not founded until about 900. It obtained civic rights in 1099 and, although destroyed by the archbishop of Magdeburg in 1199, it was soon rebuilt. In 1457 it joined the Hanseatic League, and in 1490 it came into the possession of Brunswick. In 1576 Julius, duke of Brunswick, founded a university here, and throughout the 17th century this was one of the chief seats of Protestant learning. It was closed by Jerome, king of Westphalia, in 1809.

See Ludewig, *Geschichte und Beschreibung der Stadt Helmstedt* (Helmstedt, 1821).

HELMUND, a river of Afghanistan, in length about 600 m. The Helmund, which is identical with the ancient Etymander, is the most important river in Afghanistan, next to the Kabul river, which it exceeds both in volume and length. It rises in the recesses of the Koh-i-Baba to the west of Kabul, its infant stream parting the Unai pass from the Irak, the two chief passes on the well-known road from Kabul to Bamian. For 50 m. from its source its course is ascertained, but beyond that point for the next 50 no European has followed it. About the parallel of 33° N. it enters the Zamindawar province which lies to the N.W. of Kandahar, and thenceforward it is a well-mapped river to its termination in the lake of Seistan. Till about 40 m. above Girishk the character of the Helmund is that of a mountain river, flowing through valleys which in summer are the resort of pastoral tribes. On leaving the hills it enters on a flat country, and extends over a gravelly bed. Here also it begins to be used in irrigation. At Girishk it is crossed by the principal route from Herat to Kandahar. Forty-five miles below Girishk the Helmund receives its greatest tributary, the Arghandab, from the high Ghilzai country beyond Kandahar, and becomes a very considerable river, with a width of 300 or 400 yds. and an occasional depth of 9 to 12 ft. Even in the dry season it is never without a plentiful supply of water. The course of the river is more or less south-west from its source till in Seistan it crosses meridian 62°, when it turns nearly north, and so flows for 70 or 80 m. till it falls into the Seistan hamuns, or swamps, by various mouths. In this latter part of its course it forms the boundary between Afghan and Persian Seistan, and owing to constant changes in its bed and the swampy nature of its borders it has been a fertile source of frontier squabbles. Persian Seistan was once highly cultivated by means of a great system of canal irrigation; but for centuries, since the country was devastated by Timur, it has been a barren, treeless waste of flat alluvial plain. In years of exceptional flood the Seistan lakes spread southwards into an overflow channel called the Shelag which, running parallel to the northern course of the Helmund in the opposite direction, finally loses its waters in the Gaod-i-Zirreh swamp, which thus becomes the final bourne of the river. Throughout its course from its confluence with the Arghandab to the ford of Chahar Burjak, where it bends northward, the Helmund valley is a narrow green belt of fertility sunk in the midst of a wide alluvial desert, with many thriving villages interspersed amongst the remains of ancient cities, relics of Kaiani rule. The recent political mission to Seistan under Sir Henry McMahon (1904-1905) added much information respecting the ancient and

modern channels of the lower Helmund, proving that river to have been constantly shifting its bed over a vast area, changing the level of the country by silt deposits, and in conjunction with the terrific action of Seistan winds actually altering its configuration.

(T. H. H.*)

HELM WIND, a wind that under certain conditions blows over the escarpment of the Pennines, near Cross Fell from the eastward, when a helm (helmet) cloud covers the summit. The helm bar is a roll of cloud that forms in front of it, to leeward.

See "Report on the Helm Wind Inquiry," by W. Marriott, *Quart. Journ. Roy. Met. Soc.* xv. 103.

HELOTS (Gr. εἵλωτες or εἱλῶται), the serfs of the ancient Spartans. The word was derived in antiquity from the town of Helos in Laconia, but is more probably connected with ἕλος, a fen, or with the root of ἑλεῖν, to capture. Some scholars suppose them to have been of Achaean race, but they were more probably the aborigines of Laconia who had been enslaved by the Achaeans before the Dorian conquest. After the second Messenian war (see SPARTA) the conquered Messenians were reduced to the status of helots, from which Epaminondas liberated them three centuries later after the battle of Leuctra (371 B.C.). The helots were state slaves bound to the soil—*adscripti glebae*—and assigned to individual Spartiates to till their holdings (κλῆροι); their masters could neither emancipate them nor sell them off the land, and they were under an oath not to raise the rent payable yearly in kind by the helots. In time of war they served as light-armed troops or as rowers in the fleet; from the Peloponnesian War onwards they were occasionally employed as heavy infantry (ὁπλῖται), distinguished bravery being rewarded by emancipation. That the general attitude of the Spartans towards them was one of distrust and cruelty cannot be doubted. Aristotle says that the ephors of each year on entering office declared war on the helots so that they might be put to death at any time without violating religious scruple (Plutarch, *Lycurgus* 28), and we have a well-attested record of 2000 helots being freed for service in war and then secretly assassinated (Thuc. iv. 80). But when we remember the value of the helots from a military and agricultural point of view we shall not readily believe that the *crypteia* was really, as some authors represent it, an organized system of massacre; we shall see in it "a good police training, inculcating hardihood and vigour in the young," while at the same time getting rid of any helots who were found to be plotting against the state (see further CRYPTEIA).

Intermediate between Helots and Spartiates were the two classes of *Neodamodes* and *Mothones*. The former were emancipated helots, or possibly their descendants, and were much used in war from the end of the 5th century; they served especially on foreign campaigns, as those of Thibron (400-399 B.C.) and Agesilaus (396-394 B.C.) in Asia Minor. The *mothones* or *mothakes* were usually the sons of Spartiates and helot mothers; they were free men sharing the Spartan training, but were not full citizens, though they might become such in recognition of special merit.

See C. O. Müller, *History and Antiquities of the Doric Race* (Eng. trans.), bk. iii. ch. 3.; G. Gilbert, *Greek Constitutional Antiquities* (Eng. trans.), pp. 30-35; A. H. J. Greenidge, *Handbook of Greek Constitutional History*, pp. 83-85; G. Busolt, *Die griech. Staats- u. Rechtsaltertümer*, § 84; *Griechische Geschichte*, i.[2] 525-528; G. F. Schömann, *Antiquities of Greece: The State* (Eng. trans.) pp. 194 ff.

(M. N. T.)

HELPS, SIR ARTHUR (1813-1875), English writer and clerk of the Privy Council, youngest son of Thomas Helps, a London merchant, was born near London on the 10th of July 1813. He was educated at Eton and at Trinity College, Cambridge, coming out 31st wrangler in the mathematical tripos in 1835. He was recognized by the ablest of his contemporaries there as a man of superior gifts, and likely to make his mark in after life. As a member of the Conversazione Society, better known as the "Apostles," a society established in 1820 for the purposes of discussion on social and literary questions by a few young men attracted to each other by a common taste for literature and speculation, he was associated with Charles Buller, Frederick Maurice, Richard Chenevix Trench, Monckton Milnes, Arthur Hallam and Alfred Tennyson. His first literary effort, *Thoughts in the Cloister and the Crowd* (1835), was a series of aphorisms upon life, character, politics and manners. Soon after leaving the university Arthur Helps became private secretary to Spring Rice (afterwards Lord Monteagle), then chancellor of the exchequer. This appointment he filled till 1839, when he went to Ireland as private secretary to Lord Morpeth (afterwards earl of Carlisle), chief secretary for Ireland. In the meanwhile (28th October 1836) Helps had married Bessy, daughter of Captain Edward Fuller. He was one of the commissioners for the settlement of certain Danish claims which dated so far back as the siege of Copenhagen; but with the fall of the Melbourne administration (1841) his official experience closed for a period of nearly twenty years. He was not, however, forgotten by his political friends. He possessed admirable tact and sagacity; his fitness for official life was unmistakable, and in 1860 he was appointed clerk of the Privy Council, on the recommendation of Lord Granville.

His *Essays written in the Intervals of Business* had appeared in 1841, and his *Claims of Labour, an Essay on the Duties of the Employers to the Employed*, in 1844. Two plays, *King Henry the Second, an Historical Drama*, and *Catherine Douglas, a Tragedy*, published in 1843, have no particular merit. Neither in these, nor in his only other dramatic effort, *Oulita the Serf* (1858) did he show any real qualifications as a playwright.

Helps possessed, however, enough dramatic power to give life and individuality to the dialogues with which he enlivened many of his other books. In his *Friends in Council, a Series of Readings and Discourse thereon* (1847-1859), Helps varied his presentment of social and moral problems by dialogues between imaginary personages, who, under the names of Milverton, Ellesmere and Dunsford, grew to be almost as real to Helps's readers as they certainly became to himself. The book was very popular, and the same expedient was resorted to in *Conversations on War and General Culture*, published in 1871. The familiar speakers, with others added, also appeared in his *Realmah* (1868) and in the best of its author's later works, *Talk about Animals and their Masters* (1873).

A long essay on slavery in the first series of *Friends in Council* was subsequently elaborated into a work in two volumes published in 1848 and 1852, called *The Conquerors of the New World and their Bondsmen*. Helps went to Spain in 1847 to examine the numerous MSS. bearing upon his subject at Madrid. The fruits of these researches were embodied in an historical work based upon his *Conquerors of the New World*, and called *The Spanish Conquest in America, and its Relation to the History of Slavery and the Government of Colonies* (4 vols., 1855-1857-1861). But in spite of his scrupulous efforts after accuracy, the success of the book was marred by its obtrusively moral purpose and its discursive character.

The Life of Las Casas, the Apostle of the Indians (1868), *The Life of Columbus* (1869), *The Life of Pizarro* (1869), and *The Life of Hernando Cortes* (1871), when extracted from the work and published separately, proved successful. Besides the books which have been already mentioned he wrote: *Organization in Daily Life, an Essay* (1862), *Casimir Maremma* (1870), *Brevia, Short Essays and Aphorisms* (1871), *Thoughts upon Government* (1872), *Life and Labours of Mr Thomas Brassey* (1872), *Ivan de Biron* (1874), *Social Pressure* (1875).

His appointment as clerk of the Council brought him into personal communication with Queen Victoria and the Prince Consort, both of whom came to regard him with confidence and respect. After the Prince's death, the Queen early turned to Helps to prepare an appreciation of her husband's life and character. In his introduction to the collection (1862) of the Prince Consort's speeches and addresses Helps adequately fulfilled his task. Some years afterwards he edited and wrote a preface to the Queen's *Leaves from a Journal of our Life in the Highlands* (1868). In 1864 he received the honorary degree of D.C.L. from the university of Oxford. He was made a C.B. in 1871 and K.C.B. in the following year. His later years were troubled by financial embarrassments, and he died on the 7th of March 1875.

HELSINGBORG, a seaport of Sweden in the district (*län*) of Malmöhus, 35 m. N. by E. of Copenhagen by rail and water. Pop. (1900), 24,670. It is beautifully situated at the narrowest part of Öresund, or the Sound, here only 3 m. wide, opposite Helsingör (Elsinore) in Denmark. Above the town the brick tower of a former castle crowns a hill, commanding a fine view over the Sound. On the outskirts are the Öresund Park, gardens containing iodide and bromide springs, and frequented sea-baths. On the coast to the north is the royal *château* of Sofiero; to the south, the small spa of Ramlösa. A system of electric trams is maintained. North and east of Helsingborg lies the only coalfield in Sweden, extending into the lofty Kullen peninsula, which forms the northern part of the east shore of the Sound. Potter's clay is also found. Helsingborg ranks among the first manufacturing towns of Sweden, having copper works, using ore from Sulitelma in Norway, india-rubber works and breweries. The artificial harbour has a depth of 24 ft., and there are extensive docks. The chief exports are timber, butter and iron. The town is the headquarters of the first army division.

The original site of the town is marked by the tower of the old fortress, which is first mentioned in 1135. In the 14th century it was several times besieged. From 1370 along with other towns in the province of Skåne, it was united for fifteen years with the Hanseatic League. The fortress was destroyed by fire in 1418, and about 1425 Eric XIII. built another near the sea, and caused the town to be transported thither, bestowing upon it important privileges. Until 1658 it belonged to Denmark, and it was again occupied by the Danes in 1676 and 1677. In 1684 its fortifications were dismantled. It was taken by Frederick IV. of Denmark in November 1709, but on the 28th of February 1710 the Danes were defeated in the neighbourhood, and the town came finally into the possession of Sweden, though in 1711 it was again bombarded by the Danes. A tablet on the quay commemorates the landing of Bernadotte after his election as successor to the throne in 1810.

HELSINGFORS (Finnish *Helsinki*), a seaport and the capital of Finland and of the province of Nyland, centre of the administrative, scientific, educational and industrial life of Finland. The fine harbour is divided into two parts by a promontory, and is protected at its entrance by a group of small islands, on one of which stands the fortress of Sveaborg. A third harbour is situated on the west side of the promontory, and all three have granite quays. The city, which in 1810 had only 4065 inhabitants, Åbo the then capital having 10,224, has increased with great rapidity, having 22,228 inhabitants in 1860, 61,530 in 1890 and 111,654 in 1904. It is the centre of an active shipping trade with the Baltic ports and with England, and of a railway system connecting it with all parts of the grand duchy and with St Petersburg. Helsingfors is handsome and well laid out with wide streets, parks, gardens and monuments. The principal square contains the cathedral of St Nicholas, the Senate House and the university, all striking buildings of considerable architectural distinction. In the centre is the statue of the Tsar Alexander II., who is looked upon as the protector of the liberties of Finland, the monument being annually decorated with wreaths and garlands. The university has a teaching staff of 141 with (1906) 1921 students, of whom 328 were women. The university is well provided with museums and laboratories and has a library of over 250,000 volumes. Other public institutions are the Athenaeum, with picture gallery, a Swedish theatre and opera house, a Finnish theatre, the Archives, the Senate House, the Nobles' House (*Riddarhuset*) and the House of the Estates, the German (Lutheran) church and the Russian church. Some of the scientific societies of Helsingfors have a wide repute, such as the academy of sciences, the geographical, historical, Finno-Ugrian, biblical, medical, law, arts and forestry societies, as also societies for the spread of popular education and of arts and crafts. There are a polytechnic, ten high schools, navigation and trade schools, institutes for the blind and the mentally deficient, and numerous elementary schools. The general standard of education is high, the publication of books, reviews and newspapers being very active. The language of culture is Swedish, but owing to recent manufacturing developments the majority of the population is Finnish-speaking. Helsingfors displays great manufacturing and commercial activity, the imports being coal, machinery, sugar, grain and clothing. The manufactures of the city consist largely of tobacco, beer and spirits, carpets, machinery and sugar.

HELST, BARTHOLOMAEUS VAN DER, Dutch painter, was born in Holland at the opening of the 17th century, and died at Amsterdam in 1670. The date and place of his birth are uncertain; and it is equally difficult to confirm or to deny the time-honoured statement that he was born in 1613 at Amsterdam. It has been urged indeed by competent authority that Van der Helst was not a native of Amsterdam, because a family of that name lived as early as 1607 at Haarlem, and pictures are shown as works of Van der Helst in the Haarlem Museum which might tend to prove that he was in practice there before he acquired repute at Amsterdam. Unhappily Bartholomew has not been traced amongst the children of Severijn van der Helst, who married at Haarlem in 1607, and there is no proof that the pictures at Haarlem are really his; though if they were so they would show that he learnt his art from Frans Hals and became a skilled master as early as 1631. Scheltema, a very competent judge in matters of Dutch art chronology, supposes that Van der Heist was a resident at Amsterdam in 1636. His first great picture, representing a gathering of civic guards at a brewery, is variously assigned to 1639 and 1643, and still adorns the town-hall of Amsterdam. His noble portraits of the burgomaster Bicker and Andreas Bicker the younger, in the gallery of Amsterdam, of the same date no doubt as Bicker's wife lately in the Ruhl collection at Cologne, were completed in 1642. From that time till his death there is no difficulty in tracing Van der Helst's career at Amsterdam. He acquired and kept the position of a distinguished portrait-painter, producing indeed little or nothing besides portraits at any time, but founding, in conjunction with Nicolaes de Helt Stokade, the painters' guild at Amsterdam in 1654. At some unknown date he married Constance Reynst, of a good patrician family in the Netherlands, bought himself a house in the Doelenstrasse and ended by earning a competence. His likeness of Paul Potter at the Hague, executed in 1654, and his partnership with Backhuysen, who laid in the backgrounds of some of his pictures in 1668, indicate a constant companionship with the best artists of the time. Wagen has said that his portrait of Admiral Kortenaar, in the gallery of Amsterdam, betrays the teaching of Frans Hals, and the statement need not be gainsaid; yet on the whole Van der Helst's career as a painter was mainly a protest against the systems of Hals and Rembrandt. It is needless to dwell on the pictures which preceded that of 1648, called the Peace of Münster, in the gallery of Amsterdam. The Peace challenges comparison at once with the so-called Night Watch by Rembrandt and the less important but not less characteristic portraits of Hals and his wife in a neighbouring room. Sir Joshua Reynolds was disappointed by Rembrandt, whilst Van der Helst surpassed his expectation. But Bürger asked whether Reynolds had not already been struck with blindness when he ventured on this criticism. The question is still an open one. But certainly Van der Helst attracts by qualities entirely differing from those of Rembrandt and Frans Hals. Nothing can be more striking than the contrast between the strong concentrated light and the deep gloom of Rembrandt and the contempt of chiaroscuro peculiar to his rival, except the contrast between the rapid sketchy touch of Hals and the careful finish and rounding of van der Helst. "The Peace" is a meeting of guards to celebrate the signature of the treaty of Münster. The members of the Doele of St George meet to feast and congratulate each other not at a formal banquet but in a spot laid out for good cheer, where de Wit, the captain of his company, can shake hands with his lieutenant Waveren, yet hold in solemn state the great drinking-horn of St George. The rest of the company sit, stand or busy themselves around—some eating, others drinking, others carving or serving—an animated scene on a long canvas, with figures large as life. Well has Bürger said, the heads are full of life and the hands admirable. The dresses and subordinate parts are finished to a nicety without sacrifice of detail or loss of breadth in touch or impast. But the eye glides from shape to shape, arrested here by expressive features, there by a bright stretch of colours, nowhere at perfect rest because of the lack of a central thought in light and shade, harmonies or composition. Great as the qualities of van der Helst undoubtedly are, he remains below the line of demarcation which separates the second from the first-rate masters of art.

His pictures are very numerous, and almost uniformly good; but in his later creations he wants power, and though still amazingly careful, he becomes grey and woolly in touch. At Amsterdam the four regents in the Werkhuys (1650), four syndics in the gallery (1656), and four syndics in the town-hall (1657) are masterpieces, to which may be added a number of fine single portraits. Rotterdam, notwithstanding the fire of 1864, still boasts of three of van der Helst's works. The Hague owns but one. St Petersburg, on the other hand, possesses ten or eleven, of various shades of excellence. The Louvre has three, Munich four. Other pieces are in the galleries of Berlin, Brunswick, Brussels, Carlsruhe, Cassel, Darmstadt, Dresden, Frankfort, Gotha, Stuttgart and Vienna.

HELSTON, a market town and municipal borough in the Truro parliamentary division of Cornwall, England, 11 m. by road W.S.W. of Falmouth, on a branch of the Great Western railway. Pop. (1901) 3088. It is pleasantly situated on rising ground above the small river Cober, which, a little below the town, expands into a picturesque estuary called Looe Pool, the water being banked up by the formation of Looe Bar at the mouth. Formerly, when floods resulted from this obstruction, the townsfolk of Helston acquired the right of clearing a passage through it by presenting leathern purses containing three halfpence to the lord of the manor. The mining industry on which the town formerly depended is extinct, but the district is agricultural and dairy farming is carried on, while the town has flour mills, tanneries and iron foundries. As Helston has the nearest railway station to the Lizard, with its magnificent coast-scenery, there is a considerable tourist traffic in summer. Some trade passes through the small port of Porthleven, 3 m. S.W., where the harbour admits vessels of 500 tons. On the 8th of May a holiday is still observed in Helston and known as Flora or Furry day. It has been regarded as a survival of the Roman *Floralia*, but its origin is believed by some to be Celtic. Flowers and branches were gathered, and dancing took place in the streets and through the houses, all being thrown open, while a pageant was also given and a special ancient folk-song chanted. This ceremony, after being almost forgotten, has been revived in modern times. The borough is under a mayor, 4 aldermen and 12 councillors. Area, 309 acres.

Helston (Henliston, Haliston, Helleston), the capital of the Meneage district of Cornwall, was held by Earl Harold in the time of the Confessor and by King William at the Domesday Survey. At the latter date besides seventy-three villeins, bordars and serfs there were forty *cervisarii*, a species of unfree tenants who rendered their custom in the form of beer. King John (1201) constituted Helleston a free borough, established a gild merchant, and granted the burgesses freedom from toll and other similar dues throughout the realm, and the cognizance of all pleas within the borough except crown pleas. Richard, king of the Romans (1260), extended the boundaries of the borough and granted permission for the erection of an additional mill. Edward I. (1304) granted the pesage of tin, and Edward III. a Saturday market and four fairs. Of these the Saturday market and a fair on the feast of SS. Simon and Jude are still held, also five other fairs of uncertain origin. In 1585 Elizabeth granted a charter of incorporation under the name of the mayor and commonalty of Helston. This was confirmed in 1641, when it was also provided that the mayor and recorder should be *ipso facto* justices of the peace. From 1294 to 1832 Helston returned two members to parliament. In 1774 the number of electors (which by usage had been restricted to the mayor, aldermen and freemen elected by them) had dwindled to six, and in 1790 to one person only, whose return of two members, however, was rejected and that of the general body of the freemen accepted. In 1832 Helston lost one of its members, and in 1885 it lost the other and became merged in the county.

HELVETIC CONFESSIONS, the name of two documents expressing the common belief of the reformed churches of Switzerland. The first, known also as the Second Confession of Basel, was drawn up at that city in 1536 by Bullinger and Leo Jud of Zürich, Megander of Bern, Oswald Myconius and Grynaeus of Basel, Bucer and Capito of Strassburg, with other representatives from Schaffhausen, St Gall, Mühlhausen and Biel. The first draft was in Latin and the Zürich delegates objected to its Lutheran phraseology.[1] Leo Jud's German translation was, however, accepted by all, and after Myconius and Grynaeus had modified the Latin form, both versions were agreed to and adopted on the 26th of February 1536.

The Second Helvetic Confession was written by Bullinger in 1562 and revised in 1564 as a private exercise. It came to the notice of the elector palatine Friedrich III., who had it translated into German and published. It gained a favourable hold on the Swiss churches, who had found the First Confession too short and too Lutheran. It was adopted by the Reformed Church not only throughout Switzerland but in Scotland (1566), Hungary (1567), France (1571), Poland (1578), and next to the Heidelberg Catechism is the most generally recognized Confession of the Reformed Church.

See L. Thomas, *La Confession helvétique* (Geneva, 1853); P. Schaff, *Creeds of Christendom*, i. 390-420, iii. 234-306; Müller, *Die Bekenntnisschriften der reformierten Kirche* (Leipzig, 1903).

1 Some of the delegates, especially Bucer, were anxious to effect a union of the Reformed and Lutheran Churches. There was also a desire to lay the Confession before the council summoned at Mantua by Pope Paul III.

HELVETII (Ἑλουήτιοι, Ἐλβήττιοι), a Celtic people, whose original home was the country between the Hercynian forest (probably the Rauhe Alp), the Rhine and the Main (Tacitus, *Germania*, 28). In Caesar's time they appear to have been driven farther west, since, according to him (*Bell. Gall.* i. 2. 3) their boundaries were on the W. the Jura, on the S. the Rhone and the Lake of Geneva, on the N. and E. the Rhine as far as Lake Constance. They thus inhabited the western part of modern Switzerland. They were divided into four cantons (*pagi*), common affairs being managed by the cantonal assemblies. They possessed the elements of a higher civilization (gold coinage, the Greek alphabet), and, according to Caesar, were the bravest people of Gaul. The reports of gold and plunder spread by the Cimbri and Teutones on their way to southern Gaul induced the Helvetii to follow their example. In 107, under Divico, two of their tribes, the Tougeni and Tigurini, crossed the Jura and made their way as far as Aginnum (Agen on the Garonne), where they utterly defeated the Romans under L. Cassius Longinus, and forced them to pass under the yoke (Livy, *Epit.* 65; according to a different reading, the battle took place near the Lake of Geneva). In 102 the Helvetii joined the Cimbri in the invasion of Italy, but after the defeat of the latter by Marius they returned home. In 58, hard pressed by the Germans and incited by one of their princes, Orgetorix, they resolved to found a hew home west of the Jura. Orgetorix was thrown into prison, being suspected of a design to make himself king, but the Helvetii themselves persisted in their plan. Joined by the Rauraci, Tulingi, Latobrigi and some of the Boii—according to their own reckoning 368,000 in all—they agreed to meet on the 28th of 254
March at Geneva and to advance through the territory of the Allobroges. They were overtaken, however, by Caesar at Bibracte, defeated and forced to submit. Those who survived were sent back home to defend the frontier of the Rhine against German invaders. During the civil wars and for some time after the death of Caesar little is heard of the Helvetii.

Under Augustus Helvetia (not so called till later times, earlier *ager Helvetiorum*) proper was included under Gallia Belgica. Two Roman colonies had previously been founded at Noviodunum (Colonia Julia Equestris, mod. *Nyon*) and at Colonia Rauracorum (afterwards Augusta Rauracorum, *Augst* near Basel) to keep watch over the inhabitants, who were treated with generosity by their conquerors. Under the name of *foederati* they retained their original constitution and division into four cantons. They were under an obligation to furnish a contingent to the Roman army for foreign service, but were allowed to maintain garrisons of their own, and their magistrates had the right to call out a militia. Their religion was not interfered with; they managed their own local affairs and kept their own language, although Latin was used officially. Their chief towns were Aventicum (*Avenches*) and Vindonissa (*Windisch*). Under Tiberius the Helvetii were separated from Gallia Belgica and made part of Germania Superior. After the death of Galba (A.D. 69), having refused submission to Vitellius, their land was devastated by Alienus Caecina, and only the eloquent appeal of one of their leaders named Claudius Cossus saved them from annihilation. Under Vespasian they attained the height of their prosperity. He greatly increased the importance of Aventicum, where his father had carried on business. Its inhabitants, with those of other towns, probably obtained the *ius Latinum*, had a senate, a council of *decuriones*, a prefect of public works and flamens of Augustus. After the extension of the eastern frontier, the troops were withdrawn from the garrisons and fortresses, and Helvetia, free from warlike disturbances, gradually became completely romanized. Aventicum had an amphitheatre, a public gymnasium and an academy with Roman professors. Roads were made wherever possible, and commerce rapidly developed. The old Celtic religion was also supplanted by the Roman. The west of the country, however, was more susceptible to Roman influence, and hence preserved its independence against barbarian invaders longer than its eastern portion. During the reign of Gallienus (260-268) the Alamanni overran the country; and although Probus, Constantius Chlorus, Julian, Valentinian I. and Gratian to some extent checked the inroads of the barbarians, it never regained its former prosperity. In the subdivision of Gaul in the 4th century, Helvetia, with the territory of the Sequani and Rauraci, formed the Provincia Maxima Sequanorum, the chief town of which was Vesontio (*Besançon*). Under Honorius (395-423) it was probably definitely occupied by the Alamanni, except in the west,

where the small portion remaining to the Romans was ceded in 436 by Aëtius to the Burgundians.

See L. von Haller, *Helvetien unter den Römern* (Bern, 1811); T. Mommsen, *Die Schweiz in römischer Zeit* (Zürich, 1854); J. Brosi, *Die Kelten und Althelvetier* (Solothurn, 1851); L. Hug and R. Stead, "Switzerland" in *Story of the Nations*, xxvi.; C. Dändliker, *Geschichte der Schweiz* (1892-1895), and English translation (of a shorter history by the same) by E. Salisbury (1899); *Die Schweiz unter den Römern* (anonymous) published by the Historischer Verein of St Gall (Scheitlin and Zollikofer, St Gall, 1862); and G. Wyss, "Über das römische Helvetien" in *Archiv für schweizerische Geschichte*, vii. (1851). For Caesar's campaign against the Helvetii, see T. R. Holmes, *Caesar's Conquest of Gaul* (1899) and Mommsen, *Hist. of Rome* (Eng. trans.), bk. v. ch. 7; ancient authorities in A. Holder, *Altkeltischer Sprachschatz* (1896), *s.v.* Elvetii.

HELVÉTIUS, CLAUDE ADRIEN (1715-1771), French philosopher and littérateur, was born in Paris in January 1715. He was descended from a family of physicians, whose original name was Schweitzer (latinized as Helvetius). His grandfather introduced the use of ipecacuanha; his father was first physician to Queen Marie Leczinska of France. Claude Adrien was trained for a financial career, but he occupied his spare time with writing verses. At the age of twenty-three, at the queen's request, he was appointed farmer-general, a post of great responsibility and dignity worth a 100,000 crowns a year. Thus provided for, he proceeded to enjoy life to the utmost, with the help of his wealth and liberality, his literary and artistic tastes. As he grew older, however, his social successes ceased, and he began to dream of more lasting distinctions, stimulated by the success of Maupertuis as a mathematician, of Voltaire as a poet, of Montesquieu as a philosopher. The mathematical dream seems to have produced nothing; his poetical ambitions resulted in the poem called *Le Bonheur* (published posthumously, with an account of Helvétius's life and works, by C. F. de Saint-Lambert, 1773), in which he develops the idea that true happiness is only to be found in making the interest of one that of all; his philosophical studies ended in the production of his famous book *De l'esprit*. It was characteristic of the man that, as soon as he thought his fortune sufficient, he gave up his post of farmer-general, and retired to an estate in the country, where he employed his large means in the relief of the poor, the encouragement of agriculture and the development of industries. *De l'esprit* (Eng. trans. by W. Mudford, 1807), intended to be the rival of Montesquieu's *L'Esprit des lois*, appeared in 1758. It attracted immediate attention and aroused the most formidable opposition, especially from the dauphin, son of Louis XV. The Sorbonne condemned the book, the priests persuaded the court that if was full of the most dangerous doctrines, and the author, terrified at the storm he had raised, wrote three separate retractations; yet, in spite of his protestations of orthodoxy, he had to give up his office at the court, and the book was publicly burned by the hangman. The virulence of the attacks upon the work, as much as its intrinsic merit, caused it to be widely read; it was translated into almost all the languages of Europe. Voltaire said that it was full of commonplaces, and that what was original was false or problematical; Rousseau declared that the very benevolence of the author gave the lie to his principles; Grimm thought that all the ideas in the book were borrowed from Diderot; according to Madame du Deffand, Helvétius had raised such a storm by saying openly what every one thought in secret; Madame de Graffigny averred that all the good things in the book had been picked up in her own *salon*. In 1764 Helvétius visited England, and the next year, on the invitation of Frederick II., he went to Berlin, where the king paid him marked attention. He then returned to his country estate and passed the remainder of his life in perfect tranquillity. He died on the 26th of December 1771.

His philosophy belongs to the utilitarian school. The four discussions of which his book consists have been thus summed up: (1) All man's faculties may be reduced to physical sensation, even memory, comparison, judgment; our only difference from the lower animals lies in our external organization. (2) Self-interest, founded on the love of pleasure and the fear of pain, is the sole spring of judgment, action, affection; self-sacrifice is prompted by the fact that the sensation of pleasure outweighs the accompanying pain; it is thus the result of deliberate calculation; we have no liberty of choice between good and evil; there is no such thing as absolute right—ideas of justice and injustice change according to customs. (3) All intellects are equal; their apparent inequalities do not depend on a more or less perfect organization, but have their cause in the unequal desire for instruction, and this desire

springs from passions, of which all men commonly well organized are susceptible to the same degree; and we can, therefore, all love glory with the same enthusiasm and we owe all to education. (4) In this discourse the author treats of the ideas which are attached to such words as *genius*, *imagination*, *talent*, *taste*, *good sense*, &c. The only original ideas in his system are those of the natural equality of intelligences and the omnipotence of education, neither of which, however, is generally accepted, though both were prominent in the system of J. S. Mill. There is no doubt that his thinking was unsystematic; but many of his critics have entirely misrepresented him (*e.g.* Cairns in his *Unbelief in the Eighteenth Century*). As J. M. Robertson (*Short History of Free Thought*) points out, he had great influence upon Bentham, and C. Beccaria states that he himself was largely inspired by Helvétius in his attempt to modify penal laws. The keynote of his thought was that public ethics has a utilitarian basis, and he insisted strongly on the importance of culture in national development.

A sort of supplement to the *De l'esprit*, called *De l'homme, de ses facultés intellectuelles et de son éducation* (Eng. trans. by W. Hooper, 1777), found among his manuscripts, was published after his death, but created little interest. There is a complete edition of the works of Helvétius, published at Paris, 1818. For an estimate of his work and his place among the philosophers of the 18th century see Victor Cousin's *Philosophie sensualiste* (1863); P. L. Lezaud, *Résumés philosophiques* (1853); F. D. Maurice, in his *Modern Philosophy* (1862), pp. 537 seq.; J. Morley, *Diderot and the Encyclopaedists* (London, 1878); D. G. Mostratos, *Die Pädagogik des Helvétius* (Berlin, 1891); A. Guillois, *Le Salon de Madame Helvétius* (1894); A. Piazzi, *Le Idee filosofiche specialmente pedagogiche de C. A. Helvétius* (Milan, 1889); G. Plekhanov, *Beiträge zur Geschichte des Materialismus* (Stuttgart, 1896); L. Limentani, *Le Teorie psicologiche di C. A. Helvétius* (Verona, 1902); A. Keim, *Helvétius, sa vie et son œuvre* (1907).

HELVIDIUS PRISCUS, Stoic philosopher and statesman, lived during the reigns of Nero, Galba, Otho, Vitellius and Vespasian. Like his father-in-law, Thrasea Paetus, he was distinguished for his ardent and courageous republicanism. Although he repeatedly offended his rulers, he held several high offices. During Nero's reign he was quaestor of Achaea and tribune of the plebs (A.D. 56); he restored peace and order in Armenia, and gained the respect and confidence of the provincials. His declared sympathy with Brutus and Cassius occasioned his banishment in 66. Having been recalled to Rome by Galba in 68, he at once impeached Eprius Marcellus, the accuser of Thrasea Paetus, but dropped the charge, as the condemnation of Marcellus would have involved a number of senators. As praetor elect he ventured to oppose Vitellius in the senate (Tacitus, *Hist.* ii. 91), and as praetor (70) he maintained, in opposition to Vespasian, that the management of the finances ought to be left to the discretion of the senate; he proposed that the capitol, which had been destroyed in the Neronian conflagration, should be restored at the public expense; he saluted Vespasian by his private name, and did not recognize him as emperor in his praetorian edicts. At length he was banished a second time, and shortly afterwards was executed by Vespasian's order. His life, in the form of a warm panegyric, written at his widow's request by Herennius Senecio, caused its author's death in the reign of Domitian.

Tacitus, *Hist.* iv. 5, *Dialogus*, 5; Dio Cassius lxvi. 12, lxvii. 13; Suetonius, *Vespasian*, 15; Pliny, *Epp.* vii. 19.

HELY-HUTCHINSON, JOHN (1724-1794), Irish lawyer, statesman, and provost of Trinity College, Dublin, son of Francis Hely, a gentleman of County Cork, was educated at Trinity College, Dublin, and was called to the Irish bar in 1748. He took the additional name of Hutchinson on his marriage in 1751 with Christiana Nixon, heiress of her uncle, Richard Hutchinson. He was elected member of the Irish House of Commons for the borough of Lanesborough in 1759, but after 1761 he represented the city of Cork. He at first attached himself to the "patriotic" party in opposition to the government, and although he afterwards joined the administration he never abandoned his advocacy of popular measures. He was a

man of brilliant and versatile ability, whom Lord Townshend, the lord lieutenant, described as “by far the most powerful man in parliament.” William Gerard Hamilton said of him that “Ireland never bred a more able, nor any country a more honest man.” Hely-Hutchinson was, however, an inveterate place-hunter, and there was point in Lord North’s witticism that “if you were to give him the whole of Great Britain and Ireland for an estate, he would ask the Isle of Man for a potato garden.” After a session or two in parliament he was made a privy councillor and prime serjeant-at-law; and from this time he gave a general, though by no means invariable, support to the government. In 1767 the ministry contemplated an increase of the army establishment in Ireland from 12,000 to 15,000 men, but the Augmentation Bill met with strenuous opposition, not only from Flood, Ponsonby and the habitual opponents of the government, but from the Undertakers, or proprietors of boroughs, on whom the government had hitherto relied to secure them a majority in the House of Commons. It therefore became necessary for Lord Townshend to turn to other methods for procuring support. Early In 1768 an English act was passed for the increase of the army, and a message from the king setting forth the necessity for the measure was laid before the House of Commons in Dublin. An address favourable to the government policy was, however, rejected; and Hely-Hutchinson, together with the speaker and the attorney-general, did their utmost both in public and private to obstruct the bill. Parliament was dissolved in May 1768, and the lord lieutenant set about the task of purchasing or otherwise securing a majority in the new parliament. Peerages, pensions and places were bestowed lavishly on those whose support could be thus secured; Hely-Hutchinson was won over by the concession that the Irish army should be established by the authority of an Irish act of parliament instead of an English one. The Augmentation Bill was carried in the session of 1769 by a large majority. Hely-Hutchinson’s support had been so valuable that he received as reward an addition of £1000 a year to the salary of his sinecure of Alnagar, a major’s commission in a cavalry regiment, and a promise of the secretaryship of state. He was at this time one of the most brilliant debaters in the Irish parliament, and he was enjoying an exceedingly lucrative practice at the bar. This income, however, together with his well-salaried sinecure, and his place as prime serjeant, he surrendered in 1774, to become provost of Trinity College, although the statute requiring the provost to be in holy orders had to be dispensed with in his favour.

For this great academic position Hely-Hutchinson was in no way qualified, and his appointment to it for purely political service to the government was justly criticized with much asperity. His conduct in using his position as provost to secure the parliamentary representation of the university for his eldest son brought him into conflict with Duigenan, who attacked him in *Lacrymae academicae*, and involved him in a duel with a Mr Doyle; while a similar attempt on behalf of his second son in 1790 led to his being accused before a select committee of the House of Commons of impropriety as returning officer. But although without scholarship Hely-Hutchinson was an efficient provost, during whose rule material benefits were conferred on Trinity College. He continued to occupy a prominent place in parliament, where he advocated free trade, the relief of the Catholics from penal legislation, and the reform of parliament. He was one of the very earliest politicians to recognize the soundness of Adam Smith’s views on trade; and he quoted from the *Wealth of Nations*, adopting some of its principles, in his *Commercial Restraints of Ireland*, published in 1779, which Lecky pronounces “one of the best specimens of political literature produced in Ireland in the latter half of the 18th century.” In the same year, the economic condition of Ireland being the cause of great anxiety, the government solicited from several leading politicians their opinion on the state of the country with suggestions for a remedy. Hely-Hutchinson’s response was a remarkably able state paper (MS. in the Record Office), which also showed clear traces of the influence of Adam Smith. The *Commercial Restraints*, condemned by the authorities as seditious, went far to restore Hely-Hutchinson’s popularity which had been damaged by his greed of office. Not less enlightened were his views on the Catholic question. In a speech in parliament on Catholic education in 1782 the provost declared that Catholic students were in fact to be found at Trinity College, but that he desired their presence there to be legalized on the largest scale. “My opinion,” he said, “is strongly against sending Roman Catholics abroad for education, nor would I establish Popish colleges at home. The advantage of being admitted into the university of Dublin will be very great to Catholics; they need not be obliged to attend the divinity professor, they may have one of their own; and I would have a part of the public money applied to their use, to the support of a number of poor lads as sizars, and to provide premiums for persons of merit, for I would have them go into examinations and make no distinction between them and the Protestants but such as merit might claim.” And after sketching a scheme for increasing the number of diocesan schools where Roman Catholics might receive free education, he went on to urge that “it is certainly a matter of importance that the education of their priests

should be as perfect as possible, and that if they have any prejudices they should be prejudices in favour of their own country. The Roman Catholics should receive the best education in the established university at the public expense; but by no means should Popish colleges be allowed, for by them we should again have the press groaning with themes of controversy, and subjects of religious disputation that have long slept in oblivion would again awake, and awaken with them all the worst passions of the human mind."[1]

In 1777 Hely-Hutchinson became secretary of state. When Grattan in 1782 moved an address to the king containing a declaration of Irish legislative independence, Hely-Hutchinson supported the attorney-general's motion postponing the question; but on the 16th of April, after the Easter recess, he read a message from the lord lieutenant, the duke of Portland, giving the king's permission for the House to take the matter into consideration, and he expressed his personal sympathy with the popular cause which Grattan on the same day brought to a triumphant issue (see GRATTAN, HENRY). Hely-Hutchinson supported the opposition on the regency question in 1788, and one of his last votes in the House was in favour of parliamentary reform. In 1790 he exchanged the constituency of Cork for that of Taghmon in County Wexford, for which borough he remained member till his death at Buxton on the 4th of September 1794.

In 1785 his wife had been created Baroness Donoughmore and on her death in 1788, his eldest son Richard (1756-1825) succeeded to the title. Lord Donoughmore was an ardent advocate of Catholic emancipation. In 1797 he was created Viscount Donoughmore,[2] and in 1800 (having voted for the Union, hoping to secure Catholic emancipation from the united parliament) he was further created earl of Donoughmore of Knocklofty, being succeeded first by his brother John Hely-Hutchinson (1757-1832) and then by his nephew John, 3rd earl (1787-1851), from whom the title descended.

See W. E. H. Lecky, *Hist. of Ireland in the Eighteenth Century* (5 vols., London, 1892); J. A. Froude, *The English in Ireland in the Eighteenth Century* (3 vols., London, 1872-1874); H. Grattan, *Memoirs of the Life and Times of Henry Grattan* (8 vols., London, 1839-1846); *Baratariana*, by various writers (Dublin, 1773).

(R. J. M.)

1 *Irish Parl. Debates*, i. 309, 310.

2 It is generally supposed that the title conferred by this patent was that of Viscount Suirdale, and such is the courtesy title by which the heir apparent of the earls of Donoughmore is usually styled. This, however, appears to be an error. In all the three creations (barony 1783, viscountcy 1797, earldom 1800) the title is "Donoughmore of Knocklofty." In 1821 the 1st earl was further created Viscount Hutchinson of Knocklofty in the peerage of the United Kingdom. The courtesy title of the earl's eldest son should, therefore, apparently be either "Viscount Hutchinson" or "Viscount Knocklofty." See G. E. C. *Complete Peerage* (London, 1890).

HELYOT, PIERRE (1660-1716), Franciscan friar and historian, was born at Paris in January 1660, of supposed English ancestry. After spending his youth in study, he entered in his twenty-fourth year the convent of the third order of St Francis, founded at Picpus, near Paris, by his uncle Jérôme Helyot, canon of St Sepulchre. There he took the name of Père Hippolyte. Two journeys to Rome on monastic business afforded him the opportunity of travelling over most of Italy; and after his final return he saw much of France, while acting as secretary to various provincials of his order there. Both in Italy and France he was engaged in collecting materials for his great work, which occupied him about twenty-five years, *L'Histoire des ordres monastiques, religieux, et militaires, et des congrégations séculières, de l'un et de l'autre sexe, qui ont été établies jusqu'à présent*, published in 8 volumes in 1714-1721. Helyot died on the 5th of January 1716, before the fifth volume appeared, but his friend Maximilien Bullot completed the edition. Helyot's only other noteworthy work is *Le Chrétien mourant* (1695).

The *Histoire* is a work of first importance, being the great repertory of information for the general history of the religious orders up to the end of the 17th century. It is profusely illustrated by large plates exhibiting the dress of the various orders, and in the edition of 1792 the plates are coloured. It was translated into Italian (1737) and into German (1753). The material has been arranged in dictionary form in Migne's *Encyclopédie théologique*, under the title "Dictionnaire des orders religieux" (4 vols., 1858).

HEMANS, FELICIA DOROTHEA (1793-1835), English poet, was born in Duke Street, Liverpool, on the 25th of September 1793. Her father, George Browne, of Irish extraction, was a merchant in Liverpool, and her mother, whose maiden name was Wagner, was the daughter of the Austrian and Tuscan consul at Liverpool. Felicia, the fifth of seven children, was scarcely seven years old when her father failed in business, and retired with his family to Gwrych, near Abergele, Denbighshire; and there the young poet and her brothers and sisters grew up in a romantic old house by the sea-shore, and in the very midst of the mountains and myths of Wales. Felicia's education was desultory. Books of chronicle and romance, and every kind of poetry, she read with avidity; and she also studied Italian, Spanish, Portuguese and German. She played both harp and piano, and cared especially for the simple national melodies of Wales and Spain. In 1808, when she was only fourteen, a quarto volume of her *Juvenile Poems*, was published by subscription, and was harshly criticized in the *Monthly Review*. Two of her brothers were fighting in Spain under Sir John Moore; and Felicia, fired with military enthusiasm, wrote *England and Spain, or Valour and Patriotism*, a poem afterwards translated into Spanish. Her second volume, *The Domestic Affections and other Poems*, appeared in 1812, on the eve of her marriage to Captain Alfred Hemans. She lived for some time at Daventry, where her husband was adjutant of the Northamptonshire militia. About this time her father went to Quebec on business and died there; and, after the birth of her first son, she and her husband went to live with her mother at Bronwylfa, a house near St Asaph. Here during the next six years four more children—all boys—were born; but in spite of domestic cares arid failing health she still read and wrote indefatigably. Her poem entitled *The Restoration of Works of Art to Italy* was published in 1816, her *Modern Greece* in 1817, and in 1818 *Translations from Camoens and other Poets*.

In 1818 Captain Hemans went to Rome, leaving his wife, shortly before the birth of their fifth child, with her mother at Bronwylfa. There seems to have been a tacit agreement, perhaps on account of their limited means, that they should separate. Letters were interchanged, and Captain Hemans was often consulted about his children; but the husband and wife never met again. Many friends—among them the bishop of St Asaph and Bishop Heber—gathered round Mrs Hemans and her children. In 1819 she published *Tales and Historic Scenes in Verse*, and gained a prize of £50 offered for the best poem on *The Meeting of Wallace and Bruce on the Banks of the Carron*. In 1820 appeared *The Sceptic and Stanzas to the Memory of the late King*. In June 1821 she won the prize awarded by the Royal Society of Literature for the best poem on the subject of *Dartmoor*, and began her play, *The Vespers of Palermo*. She now applied herself to a course of German reading. Körner was her favourite German poet, and her lines on the grave of Körner were one of the first English tributes to the genius of the young soldier-poet. In the summer of 1823 a volume of her poems was published by Murray, containing "The Siege of Valencia," "The Last Constantine" and "Belshazzar's Feast." *The Vespers of Palermo* was acted at Covent Garden, December 12, 1823, and Mrs Hemans received £200 for the copyright; but, though the leading parts were taken by Young and Charles Kemble, the play was a failure, and was withdrawn after the first performance. It was acted again in Edinburgh in the following April with greater success, when an epilogue, written for it by Sir Walter Scott at Joanna Baillie's request, was spoken by Harriet Siddons. This was the beginning of a cordial friendship between Mrs Hemans and Scott. In the same year she wrote *De Chatillon, or the Crusaders*; but the manuscript was lost, and the poem was published after her death, from a rough copy. In 1824 she began "The Forest Sanctuary," which appeared a year later with the "Lays of Many Lands" and miscellaneous pieces collected from the *New Monthly Magazine* and other periodicals.

In the spring of 1825 Mrs Hemans removed from Bronwylfa, which had been purchased by her brother, to Rhyllon, a house on an opposite height across the river Clwyd. The contrast between the two houses suggested her *Dramatic Scene between Bronwylfa and Rhyllon*. The house itself was bare and unpicturesque, but the beauty of its surroundings has been celebrated in "The Hour of Romance," "To the River Clwyd in North Wales," "Our Lady's Well" and "To a Distant Scene." This time seems to have been the most tranquil in Mrs Hemans's life. But the death of her mother in January 1827 was a second great breaking-point in her life. Her heart was affected, and she was from this time an acknowledged invalid. In the summer of 1828 the *Records of Woman* was published by Blackwood, and in the same year the home in Wales was finally broken up by the marriage of Mrs Hemans's sister and the departure of her two elder boys to their father in Rome. Mrs Hemans removed

to Wavertree, near Liverpool. But, although she had a few intimate friends there—among them her two subsequent biographers, Henry F. Chorley and Mrs Lawrence of Wavertree Hall—she was disappointed in her new home. She thought the people of Liverpool stupid and provincial; and they, on the other hand, found her uncommunicative and eccentric. In the following summer she travelled by sea to Scotland with two of her boys, to visit the Hamiltons of Chiefswood.

Here she enjoyed “constant, almost daily, intercourse” with Sir Walter Scott, with whom she and her boys afterwards stayed some time at Abbotsford. “There are some whom we meet, and should like ever after to claim as kith and kin; and you are one of those,” was Scott’s compliment to her at parting. One of the results of her Edinburgh visit was an article, full of praise, judiciously tempered with criticism, by Jeffrey himself for the *Edinburgh Review*. Mrs Hemans returned to Wavertree to write her *Songs of the Affections*, which were published early in 1830. In the following June, however, she again left home, this time to visit Wordsworth and the Lake country; and in August she paid a second visit to Scotland. In 1831 she removed to Dublin. Her poetry of this date is chiefly religious. Early in 1834 her *Hymns for Childhood*, which had appeared some years before in America, were published in Dublin. At the same time appeared her collection of *National Lyrics*, and shortly afterwards *Scenes and Hymns of Life*. She was planning also a series of German studies, one of which, on Goethe’s *Tasso*, was completed and published in the *New Monthly Magazine* for January 1834. In intervals of acute suffering she wrote the lyric *Despondency and Aspiration*, and dictated a series of sonnets called *Thoughts during Sickness*, the last of which, “Recovery,” was written when she fancied she was getting well. After three months spent at Redesdale, Archbishop Whately’s country seat, she was again brought into Dublin, where she lingered till spring. Her last poem, the *Sabbath Sonnet*, was dedicated to her brother on Sunday April 26th, and she died in Dublin on the 16th of May 1835 at the age of forty-one.

Mrs Hemans’s poetry is the production of a fine imaginative and enthusiastic temperament, but not of a commanding intellect or very complex or subtle nature. It is the outcome of a beautiful but singularly circumscribed life, a life spent in romantic seclusion, without much worldly experience, and warped and saddened by domestic unhappiness and physical suffering. An undue preponderance of the emotional is its prevailing characteristic. Scott complained that it was “too poetical,” that it contained “too many flowers” and “too little fruit.” Many of her short poems, such as “The Treasures of the Deep,” “The Better Land,” “The Homes of England,” “Casabianca,” “The Palm Tree,” “The Graves of a Household,” “The Wreck,” “The Dying Improvisatore,” and “The Lost Pleiad,” have become standard English lyrics. It is on the strength of these that her reputation must rest.

Mrs Hemans’s *Poetical Works* were collected in 1832; her *Memorials* &c., by H. F. Chorley (1836).

HEMEL HEMPSTEAD, a market-town and municipal borough in the Watford parliamentary division of Hertfordshire, England, 25 m. N.W. from London, with a station on a branch of the Midland railway from Harpenden, and near Boxmoor station on the London and North Western main line. Pop. (1891) 9678; (1901) 11,264. It is pleasantly situated in the steep-sided valley of the river Gade, immediately above its junction with the Bulbourne, near the Grand Junction canal. The church of St Mary is a very fine Norman building with Decorated additions. Industries include the manufacture of paper, iron founding, brewing and tanning. Boxmoor, within the parish, is a considerable township of modern growth. Hemel Hempstead is governed by a mayor, 6 aldermen and 18 councillors. Area, 7184 acres.

Settlements in the neighbourhood of Hemel Hempstead (*Hamalamstede*, *Hemel Hampsted*) date from pre-Roman times, and a Roman villa has been discovered at Boxmoor. The manor, royal demesne in 1086, was granted by Edmund Plantagenet in 1285 to the house of Ashridge, and the town developed under monastic protection. In 1539 a charter incorporated the bailiff and inhabitants. A mayor, aldermen and councillors received governing power by a charter of 1898. The town has never had parliamentary representation. A market on Thursday and a fair on the feast of Corpus Christi were conferred in 1539. A statute fair, for long a hiring fair, originated in 1803.

HEMEROBAPTISTS, an ancient Jewish sect, so named from their observing a practice of daily ablution as an essential part of religion. Epiphanius (*Panarion*, i. 17), who mentions their doctrine as the fourth heresy among the Jews, classes the Hemerobaptists doctrinally with the Pharisees (*q.v.*) from whom they differed only in, like the Sadducees, denying the resurrection of the dead. The name has been sometimes given to the Mandaeans on account of their frequent ablutions; and in the *Clementine Homilies* (ii. 23) St John the Baptist is spoken of as a Hemerobaptist. Mention of the sect is made by Hegesippus (see Euseb. *Hist. Eccl.* iv. 22) and by Justin Martyr in the *Dialogue with Trypho*, § 80. They were probably a division of the Essenes.

HEMICHORDA, or Hemichordata, a zoological term introduced by W. Bateson in 1884, without special definition, as equivalent to Enteropneusta, which then included the single genus *Balanoglossus*, and now generally employed to cover a group of marine worm-like animals believed by many zoologists to be related to the lower vertebrates and so to represent the invertebrate stock from which Vertebrates have been derived. Vertebrates, or as they are sometimes termed Chordates, are distinguished from other animals by several important features. The chief of these is the presence of an elastic rod, the notochord, which forms the longitudinal axis of the body, and which persists throughout life in some of the lowest forms, but which appears only in the embryo of the higher forms, being replaced by the jointed backbone or vertebral column. A second feature is the development of outgrowths of the pharynx which unite with the skin of the neck and form a series of perforations leading to the exterior. These structures are the gill-slits, which in fishes are lined with vascular tufts, but which in terrestrial breathing animals appear only in the embryo. The third feature of importance is the position of structure of the central nervous system, which in all the Chordates lies dorsally to the alimentary canal and is formed by the sinking in of a longitudinal media dorsal groove. Of these structures the Vertebrata or Craniata possess all three in a typical form; the Cephalochordata (see Amphioxus) also possess them, but the notochord extends throughout the whole length of the body to the extreme tip of the snout; the Urochordata (see Tunicata) possess them in a larval condition, but the notochord is present only in the tail, whilst in the adult the notochord disappears and the nervous system becomes profoundly modified; in the Hemichorda, the respiratory organs very closely resemble gill-slits, and structures comparable with the notochord and the tubular dorsal nervous system are present.

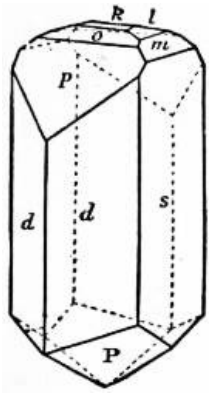
The Hemichorda include three orders, the Phoronidea (*q.v.*), the Pterobranchia (*q.v.*) and the Enteropneusta (see Balanoglossus), but the relationship to the Chordata expressed in the designation Hemichordata cannot be regarded as more than an attractive theory with certain arguments in its favour.

(P. C. M.)

HEMICYCLE (Gr. ἡμι-, half, and κύκλος, circle), a semicircular recess of considerable size which formed one of the most conspicuous features in the Roman Thermae, where it was always covered with a hemispherical vault. A small example exists in Pompeii, in the street of tombs, with a seat round inside, where those who came to pay their respects to the departed could rest. An immense hemicycle was designed by Bramante for the Vatican, where it constitutes a fine architectural effect at the end of the great court.

HEMIMERUS, an Orthopterous or Dermapterous insect, the sole representative of the family *Hemimeridae*, which has affinities with both the *Forficulidae* (earwigs) and the *Blattidae* (cockroaches). Only two species have been discovered, both from West Africa. The better known of these (*H. hanseni*) lives upon a large rat-like rodent (*Cricetomys gambianus*) feeding perhaps upon its external parasites, perhaps upon scurf and other dermal products. Like many epizoic or parasitic insects, *Hemimerus* is wingless, eyeless and has relatively short and strong legs. Correlated also with its mode of life is the curious fact that it is viviparous, the young being born in an advanced stage of growth.

HEMIMORPHITE, a mineral consisting of hydrous zinc silicate, $H_2Zn_2SiO_5$, of importance as an ore of the metal, of which it contains 54.4%. It is interesting crystallographically by reason of the hemimorphic development of its orthorhombic crystals; these are prismatic in habit and are differently terminated at the two ends. In the figure, the faces at the upper end of the crystal are the basal plane *k* and the domes *o*, *p*, *l*, *m*, whilst at the lower end there are only the four faces of the pyramid P. Connected with this polarity of the crystals is their pyroelectric character—when a crystal is subjected to changes of temperature it becomes positively electrified at one end and negatively at the opposite end. There are perfect cleavages parallel to the prism faces (*d* in the figure). Crystals are usually colourless, sometimes yellowish or greenish, and transparent; they have vitreous lustre. The hardness is 5, and the specific gravity 3.45. The mineral also occurs as stalactitic or botryoidal masses with a fibrous structure, or in a massive, cellular or granular condition intermixed with calamine and clay. It is decomposed by hydrochloric acid with gelatinization; this property affords a ready means of distinguishing hemimorphite from calamine (zinc carbonate), these two minerals being, when not crystallized, very like each other in appearance. The water contained in hemimorphite is expelled only at a red heat, and the mineral must therefore be considered as a basic metasilicate, $(ZnOH)_2SiO_3$.



The name hemimorphite was given by G. A. Kenngott in 1853 because of the typical hemimorphic development of the crystals. The mineral had long been confused with *calamine* (*q.v.*) and even now this name is often applied to it. On account of its pyroelectric properties, it was called *electric calamine* by J. Smithson in 1803.

Hemimorphite occurs with other ores of zinc (calamine and blende), forming veins and beds in sedimentary limestones. British localities are Matlock, Alston, Mendip Hills and Leadhills; at Roughten Gill, Caldbeck Fells, Cumberland, it occurs as mammillated incrustations of a sky-blue colour. Well-crystallized specimens have been found in the zinc mines at Altenberg near Aachen in Rhenish Prussia, Nerchinsk mining district in Siberia, and Elkhorn in Montana.

(L. J. S.)

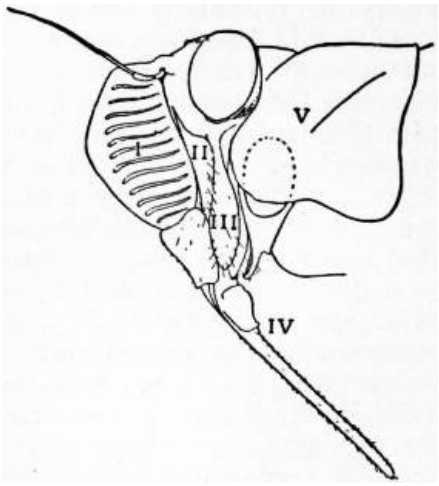
HEMINGBURGH, WALTER OF, also commonly, but erroneously, called Walter Hemingford, a Latin chronicler of the 14th century, was a canon regular of the Austin priory of Gisburn in Yorkshire. Hence he is sometimes known as Walter of Gisburn (Walterus Gisburnensis). Bale seems to have been the first to give him the name by which he became more commonly known. His chronicle embraces the period of English history from the Conquest (1066) to the nineteenth year of Edward III., with the exception of the years 1316-1326. It ends with the title of a chapter in which it was proposed to describe the battle of Creçy (1346); but the chronicler seems to have died before the required information reached him. There is, however, some controversy as to whether the later portions which are lacking in some of the MSS. are by him. In compiling the first part, Hemingburgh apparently used the histories of Eadmer, Hoveden, Henry of Huntingdon, and William of Newburgh; but the

reigns of the three Edwards are original, composed from personal observation and information. There are several manuscripts of the history extant—the best perhaps being that presented to the College of Arms by the earl of Arundel. The work is correct and judicious, and written in a pleasing style. One of its special features is the preservation in its pages of copies of the great charters, and Hemingburgh's versions have more than once supplied deficiencies and cleared up obscurities in copies from other sources.

The first three books were published by Thomas Gale in 1687, in his *Historiae Anglicanae scriptores quinque*, and the remainder by Thomas Hearne in 1731. The first portion was again published in 1848 by the English Historical Society, under the title *Chronicon Walteri de Hemingburgh, vulgo Hemingford nuncupati, de gestis regum Angliae*, edited by H. C. Hamilton.

HEMIPTERA (Gr. ἡμι-, half and πτερόν, a wing), the name applied in zoological classification to that order of the class Hexapoda (*q.v.*) which includes bugs, cicads, aphids and scale-insects. The name was first used by Linnaeus (1735), who derived it from the half-coriaceous and half-membranous condition of the forewing in many members of the order. But the wings vary considerably in different families, and the most distinctive feature is the structure of the jaws, which form a beak-like organ with stylets adapted for piercing and sucking. Hence the name *Rhyngota* (or *Rhynchota*), proposed by J. C. Fabricius (1775), is used by many writers in preference to Hemiptera.

Structure.—The head varies greatly in shape, and the feelers have usually but few segments—often only four or five. The arrangement of the jaws is remarkably constant throughout the order, if we exclude from it the lice (*Anoplura*). Taking as our type the head of a cicad, we find a jointed rostrum or beak (figs. 1 and 2, IV. *b*, *c*) with a deep groove on its anterior face; this organ is formed by the second pair of maxillae and corresponds therefore to the labium or "lower lip" of biting insects. Within the groove of the rostrum two pairs of slender piercers—often barbed at the tip—work to and fro. One of these pairs (fig. 2, II. *a*, *b*, *c*) represents the mandibles, the other (fig. 2, III. *a*, *b*, *c*) the first maxillae. The piercing portions of the latter—representing their inner lobes or laciniae—lie median to the mandibular piercers in the natural position of the organs. These homologies of the hemipterous jaws were determined by J. C. Savigny in 1816, and though disputed by various subsequent writers, they have been lately confirmed by the embryological researches of R. Heymons (1899). Vestigial palps have been described in various species of Hemiptera, but the true nature of these structures is doubtful. In front of the rostrum and the piercers lies the pointed flexible labrum and within its base a small hypopharynx (fig. 2, IV. *d*) consisting of paired conical processes which lie dorsal to the "syringe" of the salivary glands. This latter organ injects a secretion into the plant or animal tissue from which the insect is sucking. The point of the rostrum is pressed against the surface to be pierced; then the stylets come into play and the fluid food is believed to pass into the mouth by capillary attraction.



After Marlatt, *Bull.* 14 (N.S.) *Div. Ent. U.S. Dept. Agr.*

FIG. 1.—Head and Prothorax of Cicad from side.

I., Frons.
II., Base of mandible.
III., Base of first maxillae.
IV., Second maxillae forming rostrum.
V., Pronotum.

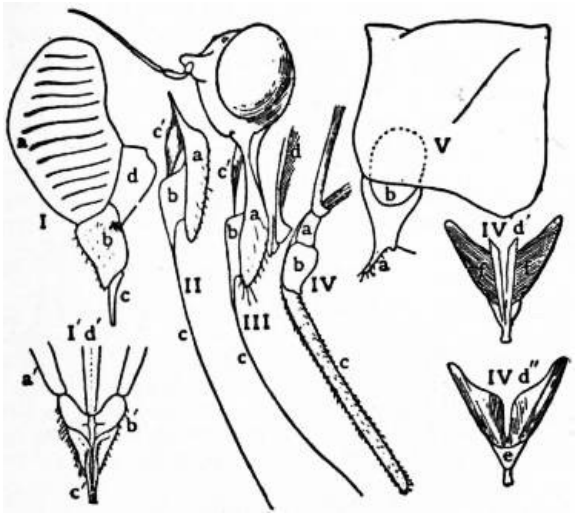


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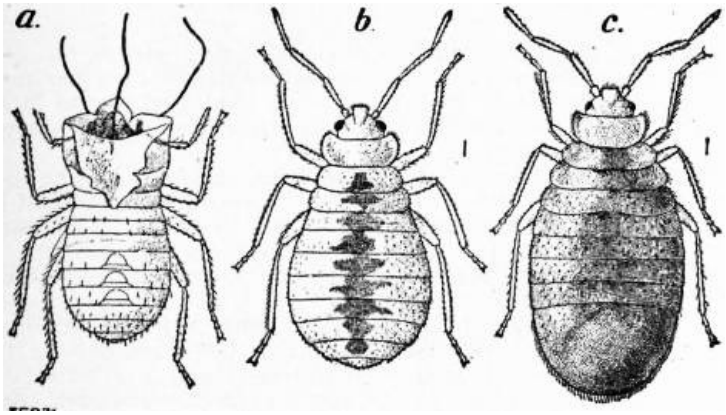
FIG. 2.—Head and Prothorax of Cicad, parts separated.

I., *a*, frons; *b*, clypeus; *c*, labrum; *d*, epipharynx.
I'., Same from behind.
II., Mandible.
III., 1st maxillae, *a*, base; *b*, sheath; *c*, stylet; *c′*, muscle.
IV., 2nd maxillae, *a*, sub-mentum; *b*, mentum; *c*, ligula, forming beak; *d*, hypopharynx (shown also from front *d′*, and behind *d″*).
V., Prothorax, *b*, haunch; *a*, trochanter.

The prothorax (figs. 1 and 2, V.) in Hemiptera is large and free, and the mesothoracic scutellum is usually extensive. The number of tarsal segments is reduced; often three, two or only one may be present instead of the typical insectan number five. The wings will be described in connexion with the various sub-orders, but an interesting peculiarity of the Hemiptera is the occasional presence of winged and wingless races of the same species. Eleven abdominal segments can be recognized, at least in the early stages; as the adult condition is reached, the hinder segments become reduced or modified in connexion with the external reproductive organs, and show, in some male Hemiptera, a marked asymmetry. The typical insectan ovipositor with its three pairs of processes, one pair belonging to the eighth and two pairs to the ninth abdominal segment, can be distinguished in the female.



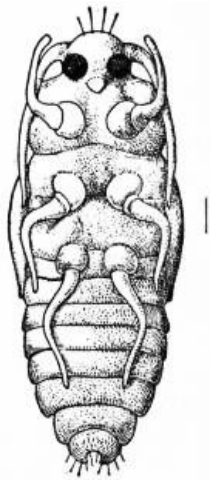
After Marlatt, *Bull. 4* (N.S.) *Div. Ent. U.S. Dept. Agr.*

FIG. 3.—*a*, Cast-off nymphal skin of Bed-bug (*Cimex lectularius*); *b*, Second instar after emergence from *a*; *c*, The same after a meal.

In the nervous system the concentration of the trunk ganglia into a single nerve-centre situated in the thorax is remarkable. The digestive system has a slender gullet, a large crop and no gizzard; in some Hemiptera the hinder region of the mid-gut forms a twisted loop with the gullet. Usually there are four excretory (Malpighian) tubes; but there are only two in the *Coccidae* and none in the *Aphidae*. "Stink glands," which secrete a nauseous fluid with a defensive function, are present in many Hemiptera. In the adult there is a pair of such glands opening ventrally on the hindmost thoracic segment, or at the base of the abdomen; but in the young insect the glands are situated dorsally and open to the exterior on a variable number of the abdominal terga.

Development.—In most Hemiptera the young insect (fig. 3) resembles its parents except for the absence of wings, and is active through all stages of its growth. In all Hemiptera the wing-rudiments develop externally on the nymphal cuticle, but in some families—the cicads for example—the young insect (fig. 10) is a larva differing markedly in form from its parent, and adapted for a different mode of life, while the nymph before the final moult is sluggish and inactive. In the male *Coccidae* (Scale-insects) the nymph (fig. 4) remains passive and takes no food. The order of the Hemiptera affords, therefore, some interesting transition stages towards the complete metamorphosis of the higher insects.

Distribution and Habits.—Hemiptera are widely distributed, and are plentiful in most quarters of the globe, though they probably have not penetrated as far into remote and inhospitable regions as have the Coleoptera, Diptera and Aptera. They feed entirely by suction, and the majority of the species pierce plant tissues and suck sap. The leaves of plants are for the most part the objects of attack, but many aphids and scale-insects pierce stems, and some go underground and feed on roots. The enormous rate at which aphids multiply under favourable conditions makes them of the greatest economic importance, since the growth of immense numbers of the same kind of plant in close proximity—as in ordinary farm-crops—is especially advantageous to the insects that feed on them. Several families of bugs are predaceous in habit, attacking other insects—often members of their own order—and sucking their juices. Others are scavengers feeding on decaying organic matter; the pond skaters, for example, live mostly on the juices of dead floating insects. And some, like the bed-bugs, are parasites of vertebrate animals, on whose bodies they live temporarily or permanently, and whose blood they suck.

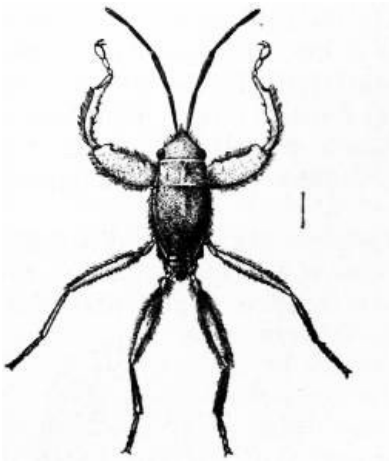


After Riley and Howard, *Insect Life*, vol. i. (U.S. Dept. Agr.).

FIG. 4.—Passive Nymph or "Pupa" of male scale-insect (*Icerya*).

The Hemiptera are especially interesting as an order from the variety of aquatic insects included therein. Some of these—the *Hydrometridae* or pond-skaters, for example—move over the surface-film, on which they are supported by their elongated, slender legs, the body of the insect being raised clear of the water. They are covered with short hairs which form a velvet-like pile, so dense that water cannot penetrate. Consequently when the insect dives, an air-bubble forms around it, a supply of oxygen is thus secured for breathing and the water is kept away from the spiracles. In many of these insects, while most individuals of the species are wingless, winged specimens are now and then met with. The occasional development of wings is probably of service to the species in enabling the insects to reach new fresh-water breeding-grounds. This family of Hemiptera (the *Hydrometridae*) and the *Saldidae* contain several insects that are marine, haunting the tidal margin. One genus of *Hydrometridae* (*Halobates*) is even oceanic in its habit, the species being met with skimming over the surface of the sea hundreds of miles from land. Probably they dive when the surface becomes ruffled. In these marine genera the abdomen often undergoes excessive reduction (fig. 5).

Other families of Hemiptera—such as the "Boatmen" (*Notonectidae*) and the "Water-scorpions" (fig. 6) and their allies (*Nepidae*) dive and swim through the water. They obtain their supply of air from the surface. The *Nepidae* breathe by means of a pair of long, grooved tail processes (really outgrowths of the abdominal pleura) which when pressed together form a tube whose point can pierce the surface film and convey air to the hindmost spiracles which are alone functional in the adult. The *Notonectidae* breathe mostly through the thoracic spiracles; the air is conveyed to these from the tail-end, which is brought to the surface, along a kind of tunnel formed by overlapping hairs.



After Carpenter, *Proc. R. Dublin Soc.*, vol. viii.

FIG. 5.—A reef-haunting hemipteron (*Hermatobates haddonii*) with excessively reduced abdomen. Magnified.

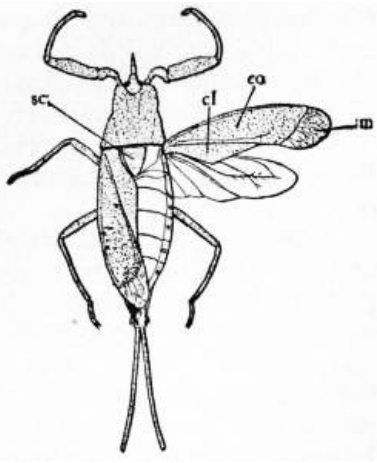
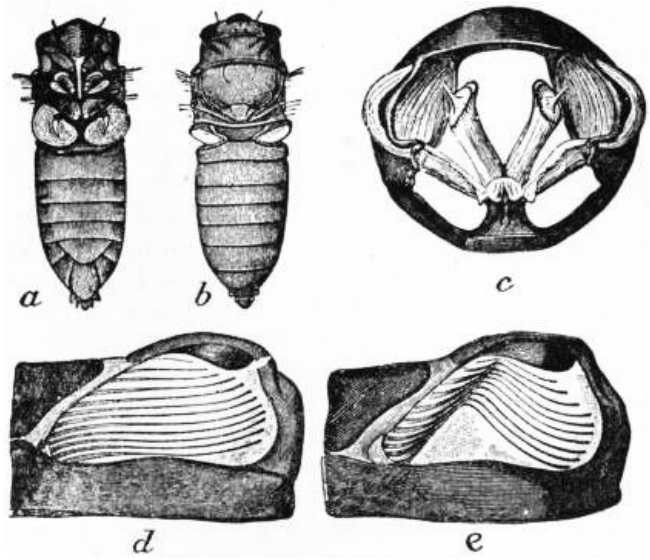


FIG. 6.—Water-scorpion (*Nepa cinerea*) with raptorial fore-legs, heteropterous wings, and long siphon for conveying air to spiracles. Somewhat magnified. *sc*, scutellum; *co*, *cl*, *m*, corium, clavus and membrane of forewing.



From Marlatt, *Bull.* 14 (N.S.) *Div. Ent. U.S. Dept. Agr.*

FIG. 7.

a, Body of male Cicad from below, showing cover-plates of musical organs;

b, From above showing drums, natural size;

c, Section showing muscles which vibrate drum (magnified);

d, A drum at rest;

e, Thrown into vibration, more highly magnified.

Sound-producing Organs.—The Hemiptera are remarkable for the variety of their stridulating organs. In many genera of the *Pentatomidae*, bristle-bearing tubercles on the legs are scraped across a set of fine striations on the abdominal sterna. In *Halobates* a comb-like series of sharp spines on the fore-shin can be drawn across a set of blunt processes on the shin of the opposite leg. Males of the little water-bugs of the genus *Corixa* make a shrill chirping note by drawing a row of teeth on the flattened fore-foot across a group of spines on the haunch of the opposite leg. But the loudest and most remarkable vocal organs of all insects are those of the male cicads, which “sing” by the rapid vibration of a pair of “drums” or membranes within the metathorax. These drums are worked by special muscles, and the cavities in which they lie are protected by conspicuous plates visible beneath the base of the abdomen (see fig. 7).

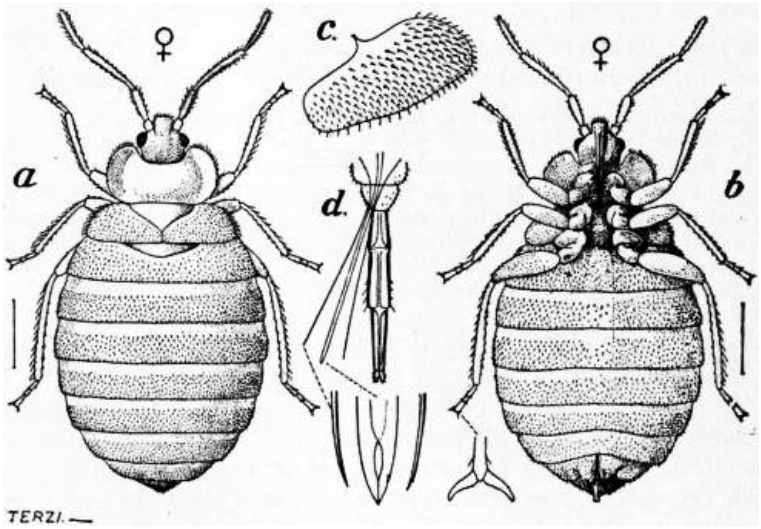
Fossil History.—The Heteroptera can be traced back farther than any other winged insects if the fossil *Protocimex silurica* Moberg, from the Ordovician slates of Sweden is rightly regarded as the wing of a bug. But according to the recent researches of A. Handlirsch it is not insectan at all. Both Heteropterous and Homopterous genera have been described from the Carboniferous, but the true nature of some of these is doubtful. *Eugereon* is a remarkable Permian fossil, with jaws that are typically hemipterous except that the second

maxillae are not fused and with cockroach-like wings. In the Jurassic period many of the existing families, such as the *Cicadidae*, *Fulgoridae*, *Aphidae*, *Nepidae*, *Reduviidae*, *Hydrometridae*, *Lygaeidae* and *Coreidae*, had already become differentiated.

Classification.—The number of described species of Hemiptera must now be nearly 20,000. The order is divided into two sub-orders, the Heteroptera and the Homoptera. The Anoplura or lice should not be included among the Hemiptera, but it has been thought convenient to refer briefly to them at the close of this article.

Heteroptera

In this sub-order are included the various families of bugs and their aquatic relations. The front of the head is not in contact with the haunches of the fore-legs. There is usually a marked difference between the wings of the two pairs. The fore-wing is generally divided into a firm coriaceous basal region, occupying most of the area, and a membranous terminal portion, while the hind-wing is delicate and entirely membranous (see fig. 6). In the firm portion of the fore-wing two distinct regions can usually be distinguished; most of the area is formed by the *corium* (fig. 6, *co*), which is separated by a longitudinal suture from the *clavus* (fig. 6, *cl*) on its hinder edge, and in some families there is also a *cuneus* (fig. 9 *cu*) external to and an *embolium* in front of the *corium*.



After Marlatt, *Bull.* 4 (N.S.) *Div. Ent. U.S. Dept. Agr.*

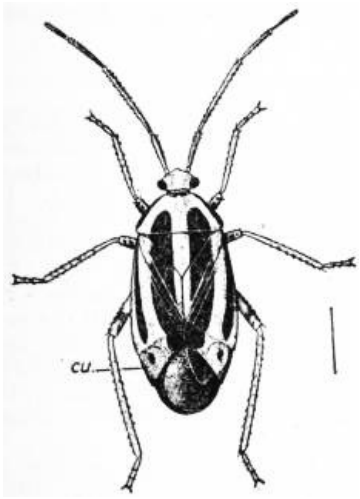
Fig. 8.—Bed-bug (*Cimex lectularius*, Linn.).

a, Female from above;
b, From beneath;
c, Vestigial wing;
d, Jaws, very highly magnified (tips of mandibles and 1st maxillae still more highly magnified).

Most Heteroptera are flattened in form, and the wings lie flat, or nearly so, when closed. The young Heteropteron is hatched from the egg in a form not markedly different from that of its parent; it is active and takes food through all the stages of its growth. It is usual to divide the Heteroptera into two tribes—the Gymnocerata and the Cryptocerata.

Gymnocerata.—This tribe includes some eighteen families of terrestrial, arboreal and marsh-haunting bugs, as well as those aquatic Heteroptera that live on the surface-film of water. The feelers are elongate and conspicuous. The *Pentatomidae* (shield-bugs), some of which are metallic or otherwise brightly coloured, are easily recognized by the great development of the scutellum, which reaches at least half-way back towards the tip of the abdomen, and in some genera covers the whole of the hind body, and also the wings when these are closed. The *Coreidae* have a smaller scutellum, and the feelers are inserted high on the head, while in the *Lygaeidae* they are inserted lower down. These three families have the foot with three segments. In the curious little *Tingidae*, whose integuments exhibit a pattern of network-like ridges, the feet are two-

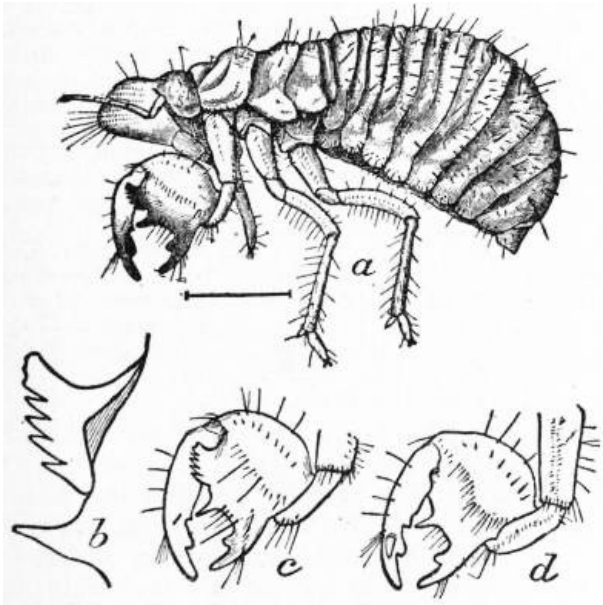
segmented and the scutellum is hidden by the pronotum. The *Aradidae* have two segmented feet, and a large visible scutellum. The *Hydrometridae* are a large family including the pond-skaters and other dwellers on the surface-film of fresh water, as well as the remarkable oceanic genus *Halobates* already referred to. The *Reduviidae* are a family of predaceous bugs that attack other insects and suck their juices; the beak is short, and carried under the head in a hook-like curve, not—as in the preceding families—lying close against the breast. The *Cimicidae* have the feet three-segmented and the forewings greatly reduced; most of the species are parasites on birds and bats, but one —*Cimex lectidarius* (figs. 3, 8)—is the well-known "bed-bug" which abounds in unclean dwellings and sucks human blood (see BUG). The *Anthocoridae* are nearly related to the *Cimicidae*, but the wings are usually well developed and the forewing possesses cuneus and embolium as well as corium and clavus. The *Capsidae* are a large family of rather soft-skinned bugs mostly elongate in form with the two basal segments of the feelers stouter than the two terminal. The forewing in this family has a cuneus (fig. 9 *cu*), but not an embolium. These insects are often found in large numbers on plants whose juices they suck.



After M. V. Slingerland, *Cornell Univ. Ent. Bull.* 58.

FIG. 9.—Capsid Leaf-bug (*Poecilocapsus lineatus*) N. America. Magnified—, *cu* cuneus.

Cryptocerata.—In this tribe are included five or six families of aquatic Heteroptera which spend the greater part of their lives submerged, diving and swimming through the water. The feelers are very small and are often hidden in cavities beneath the head. The *Naucoridae* and *Belostomatidae* are flattened insects, with four-segmented feelers and fore-legs inserted at the front of the prosternum. Two species of the former family inhabit our islands, but the *Belostomatidae* are found only in the warmer regions of the globe; some of them, attaining a length of 4 to 5 in., are giants among insects. The *Nepidae* (fig. 6) or water-scorpions (*q.v.*)—two British species—are distinguished by their three-segmented feelers, their raptorial fore-legs (in which the shin and foot, fused together, work like a sharp knife-blade on the grooved thigh), and their elongate tail-processes formed of the abdominal pleura and used for respiration. The *Notonectidae*, or "water-boatmen" (*q.v.*) have convex ovoid bodies admirably adapted for aquatic life. By means of the oar-like hind-legs they swim actively through the water with the ventral surface upwards; the fore-legs are inserted at the hinder edge of the prosternum. The *Corixidae* are small flattened water-bugs, with very short unjointed beak, the labrum being enclosed within the second maxillae, and the foot in the fore and intermediate leg having but a single segment. The hinder abdominal segments in the male show a curious asymmetrical arrangement, the sixth segment bearing on its upper side a small stalked plate (*strigil*) of unknown function, furnished with rows of teeth. On account of the reduction and modification of the jaws in the *Corixidae*, C. Börner has lately suggested that they should form a special sub-order of Hemiptera—the Sandaliorrhyncha.



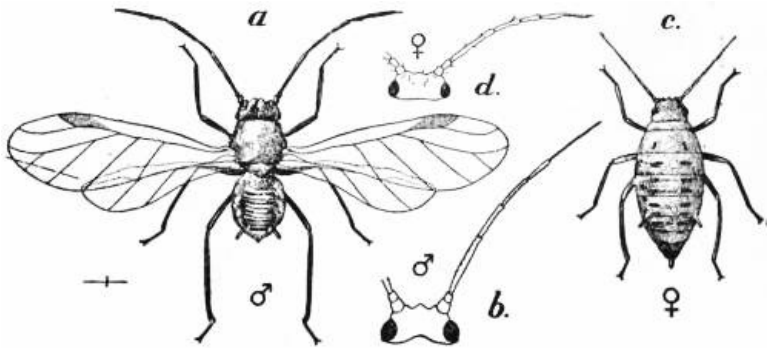
From Mariatt, *Bull.* 14 (N. S.), *Div. Ent. U.S. Dept. Agr.*

FIG. 10.—*a*, Nymph (4th stage) of Cicad, magnified; *c*, *d*, inner and outer faces of front leg,

magnified—; *b*, teeth on thigh, more highly magnified.

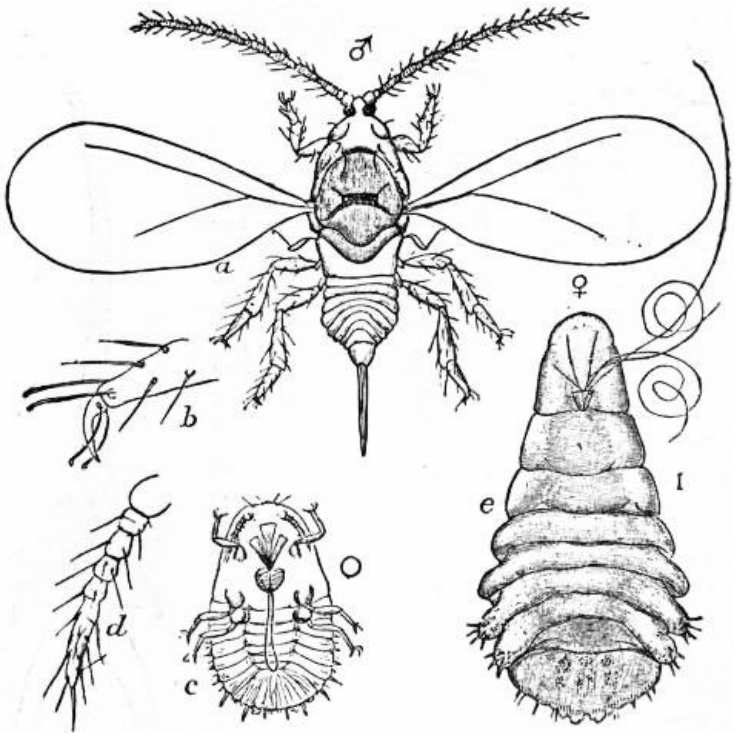
Homoptera

This sub-order includes the cicads, lantern-flies, frog-hoppers, aphids and scale-insects. The face has such a marked backward slope (see fig. 1) as to bring the beak into close contact with the haunches of the fore-legs. The feelers have one or more thickened basal segments, while the remaining segments are slender and thread-like. The fore-wings are sometimes membranous like the hind-wings, usually they are firmer in texture, but they never show the distinct areas that characterize the wings of Heteroptera. When at rest the wings of Homoptera slope roofwise across the back of the insect. In their life-history the Homoptera are more specialized than the Heteroptera; the young insect often differs markedly from its parent and does not live in the same situations; while in some families there is a passive stage before the last moult.



After Weed, Riley and Howard, *Insect Life*, vol iii.

Fig. 11.—Cabbage Aphid (*Aphisbrassicae*). *a*, Male; *c*, female (wingless). Magnified. *b* and *d*, Head and feelers of male and female, more highly magnified.

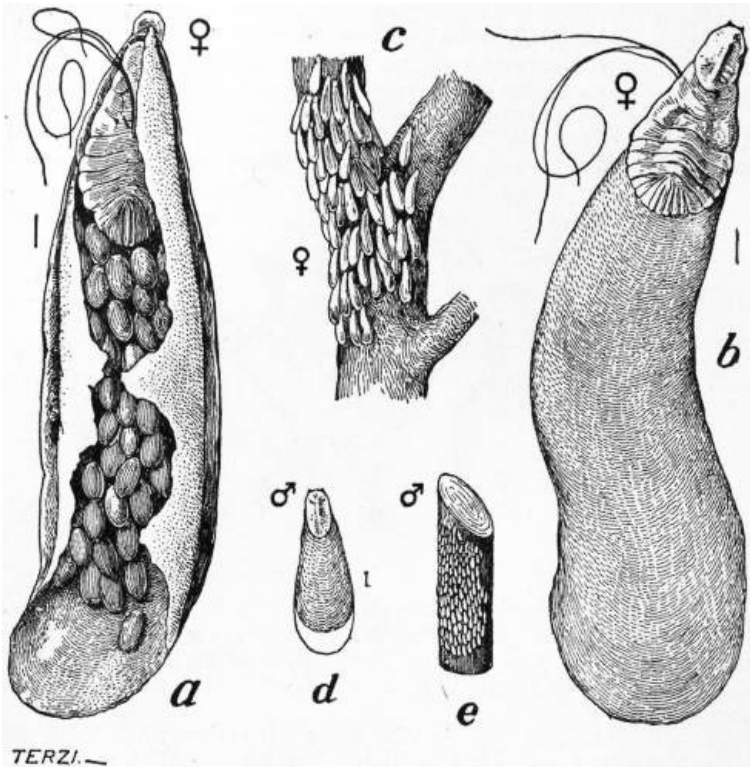


After Howard, *Year Book U.S. Dept. Agr.*, 1894.

Fig. 12.—Apple Scale Insect (*Mytilaspis pomorum*). *a*, Male; *e*, female; *c*, larva magnified—; *b*, foot of male; *d*, feeler of larva, more highly magnified.

The *Cicadidae* are for the most part large insects with ample wings; they are distinguished from other Homoptera by the front thighs being thickened and toothed beneath. The broad head carries, in addition to the prominent compound eyes, three simple eyes (ocelli) on the crown, while the feeler consists of a stout basal segment, followed by five slender segments. The female, by means of her serrated ovipositor, lays her eggs in slits cut in the twigs of plants. The young have simple feelers and stout fore-legs (fig. 10) adapted for digging; they live underground and feed on the roots of plants. In the case of a North American species it is known that this larval life lasts for seventeen years. The “song” of the male cicads is notorious and the structures by which it is produced have already been described (see also

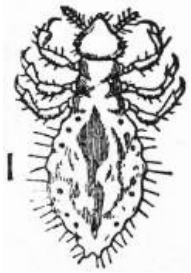
CICADA). There are about 900 known species, but the family is mostly confined to warm countries; only a single cicad is found in England, and that is restricted to the south.



After Howard, *Year Book U.S. Dept. Agr.*, 1894.

FIG. 13.—Apple Scale Insect (*Mytilaspis pomorum*). a, Scale from beneath showing female and eggs; *b*, from above, magnified—; *c* and *e*, female and male scales on twigs, natural size; *d*, male scale magnified.

The *Fulgoridae* and *Membracidae* are two allied families most of whose members are also natives of hot regions. The *Fulgoridae* have the head with two ocelli and three-segmented feelers; frequently as in the tropical "lantern-flies" (*q.v.*) the head is prolonged into a conspicuous bladder, or trunk-like process. The *Membracidae* are remarkable on account of the backward prolongation of the pronotum into a process or hood-like structure which may extend far behind the tail-end of the abdomen. Two other allied families, the *Cercopidae* and *Jassidae*, are more numerously represented in our islands. The young of many of these insects are green and soft-skinned, protecting themselves by the well-known frothy secretion that is called "cuckoo-spit."



From Osborn (after Denny), *Bull.* 5 (N.S.), *Div. Ent. U.S. Dept. Agr.*

FIG. 14.—Louse (*Pediculus vestimenti*). Magnified.

In all the above-mentioned families of Homoptera there are three segments in each foot. The remaining four families have feet with only two segments. They are of very great zoological interest on account of the peculiarities of their life-history—parthenogenesis being of normal occurrence among most of them. The families *Psyllidae* (or "jumpers") with eight or ten segments in the feeler and the *Aleyrodidae* (or "snowy-flies") distinguished by their white mealy wings, are of comparatively slight importance. The two families to which special attention has been paid are the *Aphidae* or plant-lice ("green fly") and the *Coccidae* or scale-insects. The aphids (fig. 11) have feelers with seven or fewer distinct segments, and the fifth abdominal segment usually carries a pair of tubular processes through which a waxy secretion is discharged. The sweet "honey-dew," often sought as a food by ants, is secreted from the intestines of aphids. The peculiar life-cycle in which successive generations are produced through the summer months by virgin females—the egg developing within the body of the mother—is described at length in the articles APHIDES and PHYLLOXERA. The *Coccidae* have only a single claw to the foot; the males (fig. 12 *a*) have the fore-wings

From Osborn (after Schiödte), *Bull.* 5; (N.S.), *Div. Ent. U.S. Dept. Agr.*

FIG. 15.—Proboscis of Pediculus. Highly magnified.

developed and the hind-wings greatly reduced, while in the female wings are totally absent and the body undergoes marked degradation (figs. 12, *e*, 13, *a*, *b*). In the Coccids the formation of a protective waxy secretion—present in many genera of Homoptera—reaches its most extreme development. In some coccids—the "mealy-bugs" (*Dactylopius*, &c.) for example—the secretion forms a white thread-like or plate-like covering which the insect carries about. But in most members of the family, the secretion, united with cast cuticles and excrement, forms a firm "scale," closely attached by its edges to the surface of the plant on which the insect lives, and serving as a shield beneath which the female coccid, with her eggs (fig. 13 *a*) and brood, finds shelter. The male coccid passes through a passive stage (fig. 4) before attaining the perfect condition. Many scale-insects are among the most serious of pests, but various species have been utilized by man for the production of wax (lac) and red dye (cochineal). See ECONOMIC ENTOMOLOGY, SCALE-INSECT.

ANOPLURA

The Anoplura or lice (see LOUSE) are wingless parasitic insects (fig. 14) forming an order distinct from the Hemiptera, their sucking and piercing mouth-organs being apparently formed on quite a different plan from those of the Heteroptera and Homoptera. In front of the head is a short tube armed with strong recurved hooks which can be fixed into the skin of the host, and from the tube an elongate more slender sucking-trunk can be protruded (fig. 15). Each foot is provided with a single strong claw which, opposed to a process on the shin, serves to grasp a hair of the host, all the lice being parasites on different mammals. Although G. Enderlein has recently shown that the jaws of the Hemiptera can be recognized in a reduced condition in connexion with the louse's proboscis, the modification is so excessive that the group certainly deserves ordinal separation.

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(G. H. C.)

HEMLOCK (in O. Eng. *hemlic* or *hymlice*; no cognate is found in any other language, and the origin is unknown), the *Conium maculatum* of botanists, a biennial umbelliferous plant, found wild in many parts of Great Britain and Ireland, where it occurs in waste places on hedge-banks, and by the borders of fields, and also widely spread over Europe and

temperate Asia, and naturalized in the cultivated districts of North and South America. It is an erect branching plant, growing from 3 to 6 ft. high, and emitting a disagreeable smell, like that of mice. The stems are hollow, smooth, somewhat glaucous green, spotted with dull dark purple, as alluded to in the specific name, *maculatum*. The root-leaves have long furrowed footstalks, sheathing the stem at the base, and are large, triangular in outline, and repeatedly divided or compound, the ultimate and very numerous segments being small, ovate, and deeply incised at the edge. These leaves generally perish after the growth of the flowering stem, which takes place in the second year, while the leaves produced on the stem became gradually smaller upwards. The branches are all terminated by compound many-rayed umbels of small white flowers, the general involucres consisting of several, the partial ones of about three short lanceolate bracts, the latter being usually turned towards the outside of the umbel. The flowers are succeeded by broadly ovate fruits, the mericarps (half-fruits) having five ribs which, when mature, are waved or crenated; and when cut across the albumen is seen to be deeply furrowed on the inner face, so as to exhibit in section a reniform outline. The fruits when triturated with a solution of caustic potash evolve a most unpleasant odour.

Hemlock is a virulent poison, but it varies much in potency according to the conditions under which it has grown, and the season or stage of growth at which it is gathered. In the first year the leaves have little power, nor in the second are their properties developed until the flowering period, at which time, or later on when the fruits are fully grown, the plant should be gathered. The wild plant growing in exposed situations is to be preferred to garden-grown samples, and is more potent in dry warm summers than in those which are dull and moist.

The poisonous property of hemlock resides chiefly in the alkaloid *conine* or *conia* which is found in both the fruits and the leaves, though in exceedingly small proportions in the latter. Conine resembles nicotine in its deleterious action, but is much less powerful. No chemical antidote for it is known. The plant also yields a second less poisonous crystallizable base called *conhydrine*, which may be converted into conine by the abstraction of the elements of water. When collected for medicinal purposes, for which both leaves and fruits are used, the former should be gathered at the time the plant is in full blossom, while the latter are said to possess the greatest degree of energy just before they ripen. The fruits are the chief source whence conine is prepared. The principal forms in which hemlock is employed are the extract and juice of hemlock, hemlock poultice, and the tincture of hemlock fruits. Large doses produce vertigo, nausea and paralysis; but in smaller quantities, administered by skilful hands, it has a sedative action on the nerves. It has also some reputation as an alterative and resolvent, and as an anodyne.

The acrid narcotic properties of the plant render it of some importance that one should be able to identify it, the more so as some of the compound-leaved umbellifers, which have a general similarity of appearance to it, form wholesome food for man and animals. Not only is this knowledge desirable to prevent the poisonous plant being detrimentally used in place of the wholesome one; it is equally important in the opposite case, namely, to prevent the inert being substituted for the remedial agent. The plant with which hemlock is most likely to be confounded is *Anthriscus sylvestris*, or cow-parsley, the leaves of which are freely eaten by cattle and rabbits; this plant, like the hemlock, has spotted stems but they are hairy, not hairless; it has much-divided leaves of the same general form, but they are downy and aromatic, not smooth and nauseous when bruised; and the fruit of *Anthriscus* is linear-oblong and not ovate.

HEMP (in O. Eng. *henep*, cf. Dutch *hennep*, Ger. *Hanf*, cognate with Gr. κάνναβις, Lat. *cannabis*), an annual herb (*Cannabis sativa*) having angular rough stems and alternate deeply lobed leaves. The bast fibres of *Cannabis* are the hemp of commerce, but, unfortunately, the products from many totally different plants are often included under the general name of hemp. In some cases the fibre is obtained from the stem, while in others it comes from the leaf. Sunn hemp, Manila hemp, Sisal hemp, and Phormium (New Zealand flax, which is neither flax nor hemp) are treated separately. All these, however, are often classed under the above general name, and so are the following:—Deccan or Ambari hemp, *Hibiscus cannabinus*, an Indian and East Indian malvaceous plant, the fibre from which is often known as brown hemp or Bombay hemp; Pité hemp, which is obtained from the

American aloe, *Agave americana*; and Moorva or bowstring-hemp, *Sansevieria zeylanica*, which is obtained from an aloe-like plant, and is a native of India and Ceylon. Then there are Canada hemp, *Apocynum cannabinum*, Kentucky hemp, *Urtica cannabina*, and others.

The hemp plant, like the hop, which is of the same natural order, Cannabinaceae, is dioecious, *i.e.* the male and female flowers are borne on separate plants. The female plant grows to a greater height than the male, and its foliage is darker and more luxuriant, but the plant takes from five to six weeks longer to ripen. When the male plants are ripe they are pulled, put up into bundles, and steeped in a similar manner to flax, but the female plants are allowed to remain until the seed is perfectly ripe. They are then pulled, and after the seed has been removed are retted in the ordinary way. The seed is also a valuable product; the finest is kept for sowing, a large quantity is sold for the food of cage birds, while the remainder is sent to the oil mills to be crushed. The extracted oil is used in the manufacture of soap, while the solid remains, known as oil-cake, are valuable as a food for cattle. The leaves of hemp have five to seven leaflets, the form of which is lanceolate-acuminate, with a serrate margin. The loose panicles of male flowers, and the short spikes of female flowers, arise from the axils of the upper leaves. The height of the plant varies greatly with season, soil and manuring; in some districts it varies from 3 to 8 ft., but in the Piedmont province it is not unusual to see them from 8 to 16 ft. in height, whilst a variety (*Cannabis sativa*, variety *gigantea*) has produced specimens over 17 ft. in height.

All cultivated hemp belongs to the same species, *Cannabis sativa*; the special varieties such as *Cannabis indica*, *Cannabis chinensis*, &c., owe their differences to climate and soil, and they lose many of their peculiarities when cultivated in temperate regions. Rumphius (in the 17th century) had noticed these differences between Indian and European hemp.

Wild hemp still grows on the banks of the lower Ural, and the Volga, near the Caspian Sea. It extends to Persia, the Altai range and northern and western China. The authors of the *Pharmacographia* say:—"It is found in Kashmir and in the Himalaya, growing 10 to 12 ft. high, and thriving vigorously at an elevation of 6000 to 10,000 ft." Wild hemp is, however, of very little use as a fibre producer, although a drug is obtained from it.

It would appear that the native country of the hemp plant is in some part of temperate Asia, probably near the Caspian Sea. It spread westward throughout Europe, and southward through the Indian peninsula.

The names given to the plant and to its products in different countries are of interest in connexion with the utilization of the fibre and resin. In Sans. it is called *goni*, *sana*, *shanapu*, *banga* and *ganjika*; in Bengali, *ganga*; Pers. *bang* and *canna*; Arab. *kinnub* or *cannub*; Gr. *kannabis*; Lat. *cannabis*; Ital. *canappa*; Fr. *chanvre*; Span. *cáñamo*; Portuguese, *cánamo*; Russ. *konópel*; Lettish and Lithuanian, *kannapes*; Slav. *konopi*; Erse, *canaib* and *canab*; A. Sax. *hoenep*; Dutch, *hennep*; Ger. *Hanf*; Eng. *hemp*; Danish and Norwegian, *hamp*; Icelandic, *hampr*; and in Swed. *hampa*. The English word *canvas* sufficiently reveals its derivation from *cannabis*.

Very little hemp is now grown in the British Isles, although this variety was considered to be of very good quality, and to possess great strength. The chief continental hemp-producing countries are Italy, Russia and France; it is also grown in several parts of Canada and the United States and India. The Central Provinces, Bengal and Bombay are the chief centres of hemp cultivation in India, where the plant is of most use for narcotics. The satisfactory growth of hemp demands a light, rich and fertile soil, but, unlike most substances, it may be reared for a few years in succession. The time of sowing, the quantity of seed per acre (about three bushels) and the method of gathering and retting are very similar to those of flax; but, as a rule, it is a hardier plant than flax, does not possess the same pliability, is much coarser and more brittle, and does not require the same amount of attention during the first few weeks of its growth.

The very finest hemp, that grown in the province of Piedmont, Italy, is, however, very similar to flax, and in many cases the two fibres are mixed in the same material. The hemp fibre has always been valuable for the rope industry, and it was at one time very extensively used in the production of yarns for the manufacture of sail cloth, sheeting, covers, bagging, sacking, &c. Much of the finer quality is still made into cloth, but almost all the coarser quality finds its way into ropes and similar material.

A large quantity of hemp cloth is still made for the British navy. The cloth, when finished, is cut up into lengths, made into bags and tarred. They are then used as coal sacks. There is also a quantity made into sacks which are intended to hold very heavy material. Hemp yarns are also used in certain classes of carpets, for special bags for use in cop dyeing and for

similar special purposes, but for the ordinary bagging and sacking the employment of hemp yarns has been almost entirely supplanted by yarns made from the jute fibre.

Hemp is grown for three products—(1) the fibre of its stem; (2) the resinous secretion which is developed in hot countries upon its leaves and flowering heads; (3) its oily seeds.

Hemp has been employed for its fibre from ancient times. Herodotus (iv. 74) mentions the wild and cultivated hemp of Scythia, and describes the hempen garments made by the Thracians as equal to linen in fineness. Hesychius says the Thracian women made sheets of hemp. Moschion (about 200 B.C.) records the use of hempen ropes for rigging the ship "Syracusia" built for Hiero II. The hemp plant has been cultivated in northern India from a considerable antiquity, not only as a drug but for its fibre. The Anglo-Saxons were well acquainted with the mode of preparing hemp. Hempen cloth became common in central and southern Europe in the 13th century.

Hemp-resin.—Hemp as a drug or intoxicant for smoking and chewing occurs in the three forms of bhang, ganja and charas.

1. *Bhang*, the Hindustani *siddhi* or *sabzi*, consists of the dried leaves and small stalks of the hemp; a few fruits occur in it. It is of a dark brownish-green colour, and has a faint peculiar odour and but a slight taste. It is smoked with or without tobacco; or it is made into a sweetmeat with honey, sugar and aromatic spices; or it is powdered and infused in cold water, yielding a turbid drink, *subdschi*. *Hashish* is one of the Arabic names given to the Syrian and Turkish preparations of the resinous hemp leaves. One of the commonest of these preparations is made by heating the bhang with water and butter, the butter becoming thus charged with the resinous and active substances of the plant.

2. *Ganja*, the guaza of the London brokers, consists of the flowering and fruiting heads of the female plant. It is brownish-green, and otherwise resembles bhang, as in odour and taste. Some of the more esteemed kinds of hashish are prepared from this ganja. Ganja is met with in the Indian bazaars in dense bundles of 24 plants or heads apiece. The hashish in such extensive use in Central Asia is often seen in the bazaars of large cities in the form of cakes, 1 to 3 in. thick, 5 to 10 in. broad and 10 to 15 in. long.

3. *Charas*, or churrus, is the resin itself collected, as it exudes naturally from the plant, in different ways. The best sort is gathered by the hand like opium; sometimes the resinous exudation of the plant is made to stick first of all to cloths, or to the leather garments of men, or even to their skin, and is then removed by scraping, and afterwards consolidated by kneading, pressing and rolling. It contains about one-third or one-fourth its weight of the resin. But the churrus prepared by different methods and in different countries differs greatly in appearance and purity. Sometimes it takes the form of egg-like masses of greyish-brown colour, having when of high quality a shining resinous fracture. Often it occurs in the form of irregular friable lumps, like pieces of impure linseed oil-cake.

The medicinal and intoxicating properties of hemp have probably been known in Oriental countries from a very early period. An ancient Chinese herbal, part of which was written about the 5th century B.C., while the remainder is of still earlier date, notices the seed and flower-bearing kinds of hemp. Other early writers refer to hemp as a remedy. The medicinal and dietetic use of hemp spread through India, Persia and Arabia in the early middle ages. The use of hemp (bhang) in India was noticed by Garcia d'Orta in 1563. Berlu in his *Treasury of Drugs* (1690) describes it as of "an infatuating quality and pernicious use." Attention was recalled to this drug, in consequence of Napoleon's Egyptian expedition, by de Sacy (1809) and Rouger (1810). Its modern medicinal use is chiefly due to trials by Dr O'Shaughnessy in Calcutta (1838-1842). The plant is grown partly and often mainly for the sake of its resin in Persia, northern India and Arabia, in many parts of Africa and in Brazil.

Pharmacology and Therapeutics.—The composition of this drug is still extremely obscure; partly, perhaps, because it varies so much in individual specimens. It appears to contain at least two alkaloids—cannabinine and tetano-cannabine—of which the former is volatile. The chief active principle may possibly be neither of these, but the substance cannabinon. There are also resins, a volatile oil and several other constituents. Cannabis indica—as the drug is termed in the pharmacopoeias—may be given as an extract (dose ¼-1 gr.) or tincture (dose 5-15 minims).

The drug has no external action. The effects of its absorption, whether it be swallowed or smoked, vary within wide limits in different individuals and races. So great is this variation as to be inexplicable except on the view that the nature and proportions of the active principles vary greatly in different specimens. But typically the drug is an intoxicant,

resembling alcohol in many features of its action, but differing in others. The early symptoms are highly pleasurable, and it is for these, as in the case of other stimulants, that the drug is so largely consumed in the East. There is a subjective sensation of mental brilliance, but, as in other cases, this is not borne out by the objective results. It has been suggested that the incoordination of nervous action under the influence of Indian hemp may be due to independent and non-concerted action on the part of the two halves of the cerebrum. Following on a decided lowering of the pain and touch senses, which may even lead to complete loss of cutaneous sensation, there comes a sleep which is often accompanied by pleasant dreams. There appears to be no evidence in the case of either the lower animals or the human subject that the drug is an aphrodisiac. Excessive indulgence in cannabis indica is very rare, but may lead to general ill-health and occasionally to insanity. The apparent impossibility of obtaining pure and trustworthy samples of the drug has led to its entire abandonment in therapeutics. When a good sample is obtained it is a safe and efficient hypnotic, at any rate in the case of a European. The tincture should not be prescribed unless precautions are taken to avoid the precipitation of the resin which follows its dilution with water.

See Watt, *Dictionary of the Economic Products of India*.

HEMSTERHUIS, FRANÇOIS (1721-1790), Dutch writer on aesthetics and moral philosophy, son of Tiberius Hemsterhuis, was born at Franeker in Holland, on the 27th of December 1721. He was educated at the university of Leiden, where he studied Plato. Failing to obtain a professorship, he entered the service of the state, and for many years acted as secretary to the state council of the United Provinces. He died at the Hague on the 7th of July 1790. Through his philosophical writings he became acquainted with many distinguished persons—Goethe, Herder, Princess Amalia of Gallitzin, and especially Jacobi, with whom he had much in common. Both were idealists, and their works suffer from a similar lack of arrangement, although distinguished by elegance of form and refined sentiment. His most valuable contributions are in the department of aesthetics or the general analysis of feeling. His philosophy has been characterized as Socratic in content and Platonic in form. Its foundation was the desire for self-knowledge and truth, untrammelled by the rigid bonds of any particular system.

His most important works, all of which were written in French, are: *Lettre sur la sculpture* (1769), in which occurs the well-known definition of the Beautiful as “that which gives us the greatest number of ideas in the shortest space of time”; its continuation, *Lettre sur les désirs* (1770); *Lettre sur l’homme et ses rapports* (1772), in which the “moral organ” and the theory of knowledge are discussed; *Sopyle* (1778), a dialogue on the relation between the soul and the body, and also an attack on materialism; *Aristée* (1779), the “theodicy” of Hemsterhuis, discussing the existence of God and his relation to man; *Simon* (1787), on the four faculties of the soul, which are the will, the imagination, the moral principle (which is both passive and active); *Alexis* (1787), an attempt to prove that there are three golden ages, the last being the life beyond the grave; *Lettre sur l’athéisme* (1787).

The best collected edition of his works is by P. S. Meijboom (1846-1850); see also S. A. Gronemann, *F. Hemsterhuis, de Nederlandische Wijsgeer* (Utrecht, 1867); E. Grucker, *François Hemsterhuis, sa vie et ses œuvres* (Paris, 1866); E. Meyer, *Der Philosoph Franz Hemsterhuis* (Breslau, 1893), with bibliographical notice.

HEMSTERHUIS, TIBERIUS (1685-1766), Dutch philologist and critic, was born on the 9th of January 1685 at Groningen in Holland. His father, a learned physician, gave him so good an early education that, when he entered the university of his native town in his fifteenth year, he speedily proved himself to be the best student of mathematics. After a year or two at Groningen, he was attracted to the university of Leiden by the fame of Perizonius; and while there he was entrusted with the duty of arranging the manuscripts in the library. Though he accepted an appointment as professor of mathematics and philosophy at

Amsterdam in his twentieth year, he had already directed his attention to the study of the ancient languages. In 1706 he completed the edition of Pollux's *Onomasticon* begun by Lederlin; but the praise he received from his countrymen was more than counterbalanced by two letters of criticism from Bentley, which mortified him so keenly that for two months he refused to open a Greek book. In 1717 Hemsterhuis was appointed professor of Greek at Franeker, but he did not enter on his duties there till 1720. In 1738 he became professor of national history also. Two years afterwards he was called to teach the same subjects at Leiden, where he died on the 7th of April 1766. Hemsterhuis was the founder of a laborious and useful Dutch school of criticism, which had famous disciples in Valckenaer, Lennep and Ruhnken.

His chief writings are the following: *Luciani colloquia et Timon* (1708); *Aristophanis Plutus* (1744); *Notae, &c., ad Xenophontem Ephesium in the Miscellanea critica* of Amsterdam, vols. iii. and iv.; *Observationes ad Chrysostomi homilias; Orationes* (1784); a Latin translation of the *Birds* of Aristophanes, in Küster's edition; notes to Bernard's *Thomas Magister*, to Alberti's *Hesychius*, to Ernesti's *Callimachus* and to Burmann's *Propertius*. See *Elogium T. Hemsterhusii* (with Bentley's letters) by Ruhnken (1789), and *Supplementa annotationis ad elogium T. Hemsterhusii, &c.* (Leiden, 1874); also J. E. Sandys' *Hist. Class. Scholarship*, ii. (1908).

HEMY, CHARLES NAPIER (1841-), British painter, born at Newcastle-on-Tyne, was trained in the Newcastle school of art, in the Antwerp academy and in the studio of Baron Leys. He has produced some figure subjects and landscapes, but is best known by his admirable marine paintings. He was elected an associate of the Royal Academy in 1898, associate of the Royal Society of Painters in Water Colours in 1890 and member in 1897. Two of his paintings, "Pilchards" (1897) and "London River" (1904), are in the National Gallery of British Art.

HEN, a female bird, especially the female of the common fowl (*q.v.*). The O. Eng. *hæn* is the feminine form of *hana*, the male bird, a correlation of words which is represented in other Teutonic languages, cf. Ger. *Hahn*, *Henne*, Dutch *haan*, *hen*, Swed. *hane*, *hönne*, &c. The O. Eng. name for the male bird has disappeared, its place being taken by "cock," a word probably of onomatopoeic origin, being from a base *kuk-* or *kik-*, seen also in "chicken." This word also appears in Fr. *coq*, and medieval Lat. *coccus*.

HÉNAULT, CHARLES JEAN FRANÇOIS (1685-1770), French historian, was born in Paris on the 8th of February 1685. His father, a farmer-general of taxes, was a man of literary tastes, and young Hénault obtained a good education at the Jesuit college. Captivated by the eloquence of Massillon, in his fifteenth year he entered the Oratory with the view of becoming a preacher, but after two years' residence he changed his intention, and, inheriting a position which secured him access to the most select society of Paris, he achieved distinction at an early period by his gay, witty and graceful manners. His literary talent, manifested in the composition of various light poetical pieces, an opera, a tragedy (*Cornélie vestale*, 1710), &c., obtained his entrance to the Academy (1723). *Petit-maître* as he was, he had also serious capacity, for he became councillor of the *parlement* of Paris (1705), and in 1710 he was chosen president of the court of *enquêtes*. After the death of the count de Rieux (son of the famous financier, Samuel Bernard) he became (1753) superintendent of the household of Queen Marie Leszczynska, whose intimate friendship he had previously enjoyed. On his recovery in his eightieth year from a dangerous malady (1765) he professed to have undergone religious conversion and retired into private life,

devoting the remainder of his days to study and devotion. His religion was, however, according to the marquis d'Argenson, "exempt from fanaticism, persecution, bitterness and intrigue"; and it did not prevent him from continuing his friendship with Voltaire, to whom it is said he had formerly rendered the service of saving the manuscript of *La Henriade*, when its author was about to commit it to the flames. The literary work on which Hénault bestowed his chief attention was the *Abrégé chronologique de l'histoire de France*, first published in 1744 without the author's name. In the compass of two volumes he comprised the whole history of France from the earliest times to the death of Louis XIV. The work has no originality. Hénault had kept his note-books of the history lectures at the Jesuit college, of which the substance was taken from Mézeray and P. Daniel. He revised them first in 1723, and later put them in the form of question and answer on the model of P. le Ragois, and by following Dubos and Boulainvilliers and with the aid of the abbé Boudot he compiled his *Abrégé*. The research is all on the surface and is only borrowed. But the work had a prodigious success, and was translated into several languages, even into Chinese. This was due partly to Hénault's popularity and position, partly to the agreeable style which made the history readable. He inserted, according to the fashion of the period, moral and political reflections, which are always brief and generally as fresh and pleasing as they are just. A few masterly strokes reproduced the leading features of each age and the characters of its illustrious men; accurate chronological tables set forth the most interesting events in the history of each sovereign and the names of the great men who flourished during his reign; and interspersed throughout the work are occasional chapters on the social and civil state of the country at the close of each era in its history. Continuations of the work have been made at separate periods by Fantin des Odoards, by Anguis with notes by Walckenaer, and by Michaud. He died at Paris on the 24th of November 1770.

BIBLIOGRAPHY.—Hénault's *Mémoires* have come down to us in two different versions, both claiming to be authentic. One was published in 1855 by M. du Vigan; the other was owned by the Comte de Coutades, who permitted Lucien Perey to give long extracts in his work on President Hénault (Paris, 1893). The memoirs are fragmentary and disconnected, but contain interesting anecdotes and details concerning persons of note. See the *Correspondance* of Grimm, of Madame du Deffand and of Voltaire; the notice by Walckenaer in the edition of the *Abrégé*; Sainte-Beuve, *Causeries du lundi*, vol. xi.; and the *Origines de l'abrégé* (*Ann. Bulletin de la Société de l'histoire de France*, 1901). Also H. Lion, *Le Président Hénault* (Paris, 1903).

HENBANE (Fr. *jusquiaume*, from the Gr. ὑοσκύαμος, or hog's-bean; Ital. *giusquiamo*; Ger. *Schwarzes Bilsenkraut*, *Hühnertod*, *Saubohne* and *Zigeuner-Korn* or "gipsies' corn"), the common name of the plant *Hyoscyamus niger*, a member of the natural order Solanaceae, indigenous to Britain, found wild in waste places, on rubbish about villages and old castles, and cultivated for medicinal use in various counties in the south and east of England. It occurs also in central and southern Europe and in western Asia extending to India and Siberia, and has long been naturalized in the United States. There are two forms of the plant, an annual and a biennial, which spring indifferently from the same crop of seed—the one growing on during summer to a height of from 1 to 2 ft., and flowering and perfecting seed; the other producing the first season only a tuft of radical leaves, which disappear in winter, leaving underground a thick fleshy root, from the crown of which arises in spring a branched flowering stem, usually much taller and more vigorous than the flowering stems of the annual plants. The biennial form is that which is considered officinal. The radical leaves of this biennial plant spread out flat on all sides from the crown of the root; they are ovate-oblong, acute, stalked, and more or less incisely-toothed, of a greyish-green colour, and covered with viscid hairs; these leaves perish at the approach of winter. The flowering stem pushes up from the root-crown in spring, ultimately reaching from 3 to 4 ft. in height, and as it grows becoming branched, and furnished with alternate sessile leaves, which are stem-clasping, oblong, unequally-lobed, clothed with glandular clammy hairs, and of a dull grey-green, the whole plant having a powerful nauseous odour. The flowers are shortly-stalked, the lower ones growing in the fork of the branches, the upper ones sessile in one-sided leafy spikes which are rolled back at the top before flowering, the leaves becoming smaller upwards and taking the place of bracts. The flowers have an urn-shaped calyx which persists around the fruit and is strongly veined, with five stiff, broad, almost prickly lobes; these, when the soft matter is removed by maceration, form very elegant specimens when

associated with leaves prepared in a similar way. The corollas are obliquely funnel-shaped, of a dirty yellow or buff, marked with a close reticulation of purple veins. The capsule opens transversely by a convex lid and contains numerous seeds. Both the leaves and the seeds are employed in pharmacy. The Mahommedan doctors of India are accustomed to prescribe the seeds. Henbane yields a poisonous alkaloid, *hyoscyamine*, which is stated to have properties almost identical with those of atropine, from which it differs in being more soluble in water. It is usually obtained in an amorphous, scarcely ever in a crystalline state. Its properties have been investigated in Germany by T. Husemann, Schroff, Höhn, &c. Höhn finds its chemical composition expressed by $C_{18}H_{28}N_2O_3$. (Compare Hellmann, *Beiträge zur Kenntnis der physiolog. Wirkung des Hyoscyamins*, &c., Jena, 1874.) In small and repeated doses henbane has been found to have a tranquillizing effect upon persons affected by severe nervous irritability. In poisonous doses it causes loss of speech, distortion and paralysis. In the form of extract or tincture it is a valuable remedy in the hands of a medical man, either as an anodyne, a hypnotic or a sedative. The extract of henbane is rich in nitrate of potassium and other inorganic salts. The smoking of the seeds and capsules of henbane is noted in books as a somewhat dangerous remedy adopted by country people for toothache. Accidental poisoning from henbane occasionally occurs, owing sometimes to the apparent edibility and wholesomeness of the root.

See Bentley and Trumen, *Medicinal Plants*, 194 (1880).

HENCHMAN, originally, probably, one who attended on a horse, a groom, and hence, like groom (*q.v.*), a title of a subordinate official in royal or noble households. The first part of the word is the O. Eng. *hengest*, a horse, a word which occurs in many Teutonic languages, cf. Ger. and Dutch *hengst*. The word appears in the name, Hengest, of the Saxon chieftain (see Hengest and Horsa) and still survives in English in place and other names beginning with Hingst- or Hinx-. Henchmen, pages of honour or squires, rode or walked at the side of their master in processions and the like, and appear in the English royal household from the 14th century till Elizabeth abolished the royal henchmen, known also as the “children of honour.” The word was obsolete in English from the middle of the 17th century, and seems to have been revived through Sir Walter Scott, who took the word and its derivation, according to the *New English Dictionary*, from Edward Burt’s *Letters from a Gentleman in the North of Scotland*, together with its erroneous derivation from “haunch.” The word is, in this sense, used as synonymous with “gillie,” the faithful personal follower of a Highland chieftain, the man who stands at his master’s “haunch,” ready for any emergency. It is this sense that usually survives in modern usage of the word, where it is often used of an out-and-out adherent or partisan, ready to do anything.

HENDERSON, ALEXANDER (1583-1646), Scottish ecclesiastic, was born in 1583 at Criech, Fifeshire. He graduated at the university of St Andrews in 1603, and in 1610 was appointed professor of rhetoric and philosophy and questor of the faculty of arts. Shortly after this he was presented to the living of Leuchars. As Henderson was forced upon his parish by Archbishop George Gladstanes, and was known to sympathize with episcopacy, his settlement was at first extremely unpopular; but he subsequently changed his views and became a Presbyterian in doctrine and church government, and one of the most esteemed ministers in Scotland. He early made his mark as a church leader, and took an active part in petitioning against the “five acts” and later against the introduction of a service-book and canons drawn up on the model of the English prayer-book. On the 1st of March 1638 the public signing of the “National Covenant” began in Greyfriars Church, Edinburgh. Henderson was mainly responsible for the final form of this document, which consisted of (1) the “king’s confession” drawn up in 1581 by John Craig, (2) a recital of the acts of parliament against “superstitious and papistical rites,” and (3) an elaborate oath to maintain the true reformed religion. Owing to the skill shown on this occasion he seems to have been applied to when any manifesto of unusual ability was required. In July of the same year he proceeded to the north to debate on the “Covenant” with the famous Aberdeen doctors; but

he was not well received by them. “The voyd church was made fast, and the keys keeped by the magistrate,” says Baillie. Henderson’s next public opportunity was in the famous Assembly which met in Glasgow on the 21st of November 1638. He was chosen moderator by acclamation, being, as Baillie says, “incomparablie the ablest man of us all for all things.” James Hamilton, 3rd marquess of Hamilton, was the king’s commissioner; and when the Assembly insisted on proceeding with the trial of the bishops, he formally dissolved the meeting under pain of treason. Acting on the constitutional principle that the king’s right to convene did not interfere with the church’s independent right to hold assemblies, they sat till the 20th of December, deposed all the Scottish bishops, excommunicated a number of them, repealed all acts favouring episcopacy, and reconstituted the Scottish Kirk on thorough Presbyterian principles. During the sitting of this Assembly it was carried by a majority of seventy-five votes that Henderson should be transferred to Edinburgh. He had been at Leuchars for about twenty-three years, and was extremely reluctant to leave it.

While Scotland and England were preparing for the “First Bishops’ War,” Henderson drew up two papers, entitled respectively *The Remonstrance of the Nobility* and *Instructions for Defensive Arms*. The first of these documents he published himself; the second was published against his wish by John Corbet (1603-1641), a deposed minister. The “First Bishops’ War” did not last long. At the Pacification of Birks the king virtually granted all the demands of the Scots. In the negotiations for peace Henderson was one of the Scottish commissioners, and made a very favourable impression on the king. In 1640 Henderson was elected by the town council rector of Edinburgh University—an office to which he was annually re-elected till his death. The Pacification of Birks had been wrung from the king; and the Scots, seeing that he was preparing for the “Second Bishops’ War,” took the initiative, and pressed into England so vigorously that Charles had again to yield everything. The maturing of the treaty of peace took a considerable time, and Henderson was again active in the negotiations, first at Ripon (October 1st) and afterwards in London. While he was in London he had a personal interview with the king, with the view of obtaining assistance for the Scottish universities from the money formerly applied to the support of the bishops. On Henderson’s return to Edinburgh in July 1641 the Assembly was sitting at St Andrews. To suit the convenience of the parliament, however, it removed to Edinburgh; Henderson was elected moderator of the Edinburgh meeting. In this Assembly he proposed that “a confession of faith, a catechism, a directory for all the parts of the public worship, and a platform of government, wherein possibly England and we might agree,” should be drawn up. This was unanimously approved of, and the laborious undertaking was left in Henderson’s hands; but the “notable motion” did not lead to any immediate results. During Charles’s second state-visit to Scotland, in the autumn of 1641, Henderson acted as his chaplain, and managed to get the funds, formerly belonging to the bishopric of Edinburgh, applied to the metropolitan university. In 1642 Henderson, whose policy was to keep Scotland neutral in the war which had now broken out between the king and the parliament, was engaged in corresponding with England on ecclesiastical topics; and, shortly afterwards, he was sent to Oxford to mediate between the king and his parliament; but his mission proved a failure.

A memorable meeting of the General Assembly was held in August 1643. Henderson was elected moderator for the third time. He presented a draft of the famous “Solemn League and Covenant,” which was received with great enthusiasm. Unlike the “National Covenant” of 1638, which applied to Scotland only, this document was common to the two kingdoms. Henderson, Baillie, Rutherford and others were sent up to London to represent Scotland in the Assembly at Westminster. The “Solemn League and Covenant,” which pledged both countries to the extirpation of prelacy, leaving further decision as to church government to be decided by the “example of the best reformed churches,” after undergoing some slight alterations, passed the two Houses of Parliament and the Westminster Assembly, and thus became law for the two kingdoms. By means of it Henderson has had considerable influence on the history of Great Britain. As Scottish commissioner to the Westminster Assembly, he was in England from August 1643 till August 1646; his principal work was the drafting of the directory for public worship. Early in 1645 Henderson was sent to Uxbridge to aid the commissioners of the two parliaments in negotiating with the king; but nothing came of the conference. In 1646 the king joined the Scottish army; and, after retiring with them to Newcastle, he sent for Henderson, and discussed with him the two systems of church government in a number of papers. Meanwhile Henderson was failing in health. He sailed to Scotland, and eight days after his arrival died, on the 19th of August 1646. He was buried in Greyfriars churchyard, Edinburgh; and his death was the occasion of national mourning in Scotland. On the 7th of August Baillie had written that he had heard that Henderson was dying “most of heartbreak.” A document was published in London purporting to be a

"Declaration of Mr Alexander Henderson made upon his Death-bed"; and, although this paper was disowned, denounced and shown to be false in the General Assembly of August 1648, the document was used by Clarendon as giving the impression that Henderson had recanted. Its foundation was probably certain expressions lamenting Scottish interference in English affairs.

Henderson is one of the greatest men in the history of Scotland and, next to Knox, is certainly the most famous of Scottish ecclesiastics. He had great political genius; and his statesmanship was so influential that "he was," as Masson well observes, "a cabinet minister without office." He has made a deep mark on the history, not only of Scotland, but of England; and the existing Presbyterian churches in Scotland are largely indebted to him for the forms of their dogmas and their ecclesiastical organization. He is thus justly considered the second founder of the Reformed Church in Scotland.

See M'Crie's *Life of Alexander Henderson* (1846); Aiton's *Life and Times of Alexander Henderson* (1836); *The Letters and Journals of Robert Baillie* (1841-1842) (an exceedingly valuable work, from an historical point of view); J. H. Burton's *History of Scotland*; D. Masson's *Life of Drummond of Hawthornden*; and, above all, Masson's *Life of Milton*; Andrew Lang, *Hist. of Scotland* (1907), vol. iii. Henderson's own works are chiefly contributions to current controversies, speeches and sermons.

(T. Gi.; D. Mn.)

HENDERSON, EBENEZER (1784-1858), a Scottish divine, was born at the Linn near Dunfermline on the 17th of November 1784, and died at Mortlake on the 17th of May 1858. He was the youngest son of an agricultural labourer, and after three years' schooling spent some time at watchmaking and as a shoemaker's apprentice. In 1803 he joined Robert Haldane's theological seminary, and in 1805 was selected to accompany the Rev. John Paterson to India; but as the East India Company would not allow British vessels to convey missionaries to India, Henderson and his colleague went to Denmark to await the chance of a passage to Serampur, then a Danish port. Being unexpectedly delayed, and having begun to preach in Copenhagen, they ultimately decided to settle in Denmark, and in 1806 Henderson became pastor at Elsinore. From this time till about 1817 he was engaged in encouraging the distribution of Bibles in the Scandinavian countries, and in the course of his labours he visited Sweden and Lapland (1807-1808), Iceland (1814-1815) and the mainland of Denmark and part of Germany (1816). During most of this time he was an agent of the British and Foreign Bible Society. On the 6th of October 1811 he formed the first Congregational church in Sweden. In 1818, after a visit to England, he travelled in company with Paterson through Russia as far south as Tiflis, but, instead of settling as was proposed at Astrakhan, he retraced his steps, having resigned his connexion with the Bible Society owing to his disapproval of a translation of the Scriptures which had been made in Turkish. In 1822 he was invited by Prince Alexander (Galitzin) to assist the Russian Bible Society in translating the Scriptures into various languages spoken in the Russian empire. After twenty years of foreign labour Henderson returned to England, and in 1825 was appointed tutor of the Mission College, Gosport. In 1830 he succeeded Dr William Harrison as theological lecturer and professor of Oriental languages in Highbury Congregational College. In 1850, on the amalgamation of the colleges of Homerton, Coward and Highbury, he retired on a pension. In 1852-1853 he was pastor of Sheen Vale chapel at Mortlake. His last work was a translation of the book of Ezekiel. Henderson was a man of great linguistic attainment. He made himself more or less acquainted, not only with the ordinary languages of scholarly accomplishment and the various members of the Scandinavian group, but also with Hebrew, Syriac, Ethiopic, Russian, Arabic, Tatar, Persian, Turkish, Armenian, Manchu, Mongolian and Coptic. He organized the first Bible Society in Denmark (1814), and paved the way for several others. In 1817 he was nominated by the Scandinavian Literary Society a corresponding member; and in 1840 he was made D.D. by the university of Copenhagen. He was honorary secretary for life of the Religious Tract Society, and one of the first promoters of the British Society for the Propagation of the Gospel among the Jews. The records of his travels in Iceland (1818) were valuable contributions to our knowledge of that island. His other principal works are: *Iceland, or the Journal of a Residence in that Island* (2 vols., 1818); *Biblical Researches and Travels in Russia* (1826); *Elements of Biblical Criticism and Interpretation* (1830); *The Vaudois, a Tour of the Valleys of Piedmont* (1845).

See *Memoirs of Ebenezer Henderson*, by Thulia S. Henderson (his daughter) (London, 1859); *Congregational Year Book* (1859).

HENDERSON, GEORGE FRANCIS ROBERT (1854-1903), British soldier and military writer, was born in Jersey in 1854. Educated at Leeds Grammar School, of which his father, afterwards Dean of Carlisle, was headmaster, he was early attracted to the study of history, and obtained a scholarship at St John's College, Oxford. But he soon left the University for Sandhurst, whence he obtained his first commission in 1878. One year later, after a few months' service in India, he was promoted lieutenant and returned to England, and in 1882 he went on active service with his regiment, the York and Lancaster (65th/84th) to Egypt. He was present at Tell-el-Mahuta and Kassassin, and at Tell-el-Kebir was the first man of his regiment to enter the enemy's works. His conduct attracted the notice of Sir Garnet (afterwards Lord) Wolseley, and he received the 5th class of the Medjidieh order. His name was, further, noted for a brevet-majority, which he did not receive till he became captain in 1886. During these years he had been quietly studying military art and history at Gibraltar, in Bermuda and in Nova Scotia, in spite of the difficulties of research, and in 1889 appeared (anonymously) his first work, *The Campaign of Fredericksburg*. In the same year he became Instructor in Tactics, Military Law and Administration at Sandhurst. From this post he proceeded as Professor of Military Art and History to the Staff College (1892-1899), and there exercised a profound influence on the younger generation of officers. His study on *Spicheren* had been begun some years before, and in 1898 appeared, as the result of eight years' work, his masterpiece, *Stonewall Jackson and the American Civil War*. In the South African War Lieutenant-Colonel Henderson served with distinction on the staff of Lord Roberts as Director of Intelligence. But overwork and malaria broke his health, and he had to return home, being eventually selected to write the official history of the war. But failing health obliged him to go to Egypt, where he died at Assuan on the 5th of March 1903. He had completed the portion of the history of the South African War dealing with the events up to the commencement of hostilities, amounting to about a volume, but the War Office decided to suppress this, and the work was begun *de novo* and carried out by Sir F. Maurice.

Various lectures and papers by Henderson were collected and published in 1905 by Captain Malcolm, D.S.O., under the title *The Science of War*; to this collection a memoir was contributed by Lord Roberts. See also Journal of the Royal United Service Institution, vol. xlvii. No. 302.

HENDERSON, JOHN (1747-1785), English actor, of Scottish descent, was born in London. He made his first appearance on the stage at Bath on the 6th of October 1772 as Hamlet. His success in this and other Shakespearian parts led to his being called the "Bath Roscius." He had great difficulty in getting a London engagement, but finally appeared at the Haymarket in 1777 as Shylock, and his success was a source of considerable profit to Colman, the manager. Sheridan then engaged him to play at Drury Lane, where he remained for two years. When the companies joined forces he went to Covent Garden, appearing as Richard III. in 1778, and creating original parts in many of the plays of Cumberland, Shirley, Jephson and others. His last appearance was in 1785 as Horatius in *The Roman Father*, and he died on the 25th of November of that year and was buried in Westminster Abbey. Garrick was very jealous of Henderson, and the latter's power of mimicry separated him also from Colman, but he was always gratefully remembered by Mrs. Siddons and others of his profession whom he had encouraged. He was a close friend of Gainsborough, who painted his portrait, as did also Stewart and Romney. He was co-author of Sheridan and Henderson's *Practical Method of Reading and Writing English Poetry*.

HENDERSON, a city and the county-seat of Henderson county, Kentucky, U.S.A., on the S. bank of the Ohio river, about 142 m. W.S.W. of Louisville. Pop. (1890), 8835; (1900), 10,272, of whom 4029 were negroes; (1910 census) 11,452. It is served by the Illinois Central, the Louisville & Nashville, and the Louisville, Henderson & St. Louis railways, and has direct communication by steamboat with Louisville, Evansville, Cairo, Memphis and New Orleans. Henderson is built on the high bank of the river, above the flood level; the river is spanned here by a fine steel bridge, designed by George W. G. Ferris (1859-1896), the designer of the Ferris Wheel. The city has a public park of 80 acres and a Carnegie library. It is situated in the midst of a region whose soil is said to be the best in the world for the raising of dark, heavy-fibred tobacco, and is well adapted also for the growing of fruit, wheat and Indian corn. Bituminous coal is obtained from the surrounding country. Immense quantities of stemmed tobacco are shipped from here, and the city is an important market for Indian corn. The manufactures of the city include cotton and woollen goods, hominy, meal, flour, tobacco and cigars, carriages, baskets, chairs and other furniture, bricks, ice, whisky and beer; the value of the city's factory products in 1905 was $1,365,120. The municipality owns and operates its water works, gas plant and electric-lighting plant. Henderson, named in honour of Richard Henderson (1734-1785), was settled as early as 1784, was first known as Red Banks, was laid out as a town by Henderson's company in 1797, was incorporated as a town in 1810, and was first chartered as a city in 1854. The city boundary lines were extended in 1905 by the annexation of Audubon and Edgewood. Henderson was for some time the home of John James Audubon, the ornithologist.

HENDIADYS, the name adopted from the Gr. ἓν διὰ δυοῖν ("one by means of two") for a rhetorical figure, in which two words connected by a copulative conjunction are used of a single idea; usually the figure takes the form of two substantives instead of a substantive and adjective, as in the classical example *pateris libamus et auro* (Virgil, *Georgics*, ii. 192), "we pour libations in cups and gold" for "cups of gold."

HENDON, an urban district in the Harrow parliamentary division of Middlesex, England, on the river Brent, 8 m. N.W. of St Paul's Cathedral, London, served by the Midland railway. Pop. (1891), 15,843; (1901), 22,450. The nucleus of the township lies on high ground to the east of the Edgware road, which crosses the Welsh Harp reservoir of Regent's Canal, a favourite fishing and skating resort. The church of St Mary is mainly Perpendicular, and contains a Norman font and monuments of the 18th century. To the north of the village, which has extended greatly as a residential suburb of the metropolis, is Mill Hill, with a Roman Catholic Missionary College, opened in 1871, with branches at Rosendaal, Holland and Brixen, Austria, and a preparatory school at Freshfield near Liverpool; and a large grammar school founded by Nonconformists in 1807. The manor belonged at an early date to the abbot of Westminster.

HENDRICKS, THOMAS ANDREWS (1819-1885), American political leader, vice-president of the United States in 1885, was born near Zanesville, Ohio, on the 7th of September 1819. He graduated at Hanover College, Hanover, Indiana, in 1841, and began in 1843 a successful career at the bar. Identifying himself with the Democratic party, he served in the state House of Representatives in 1848, and was a prominent member of the convention for the revision of the state constitution in 1850-1851, a representative in Congress (1851-1855), commissioner of the United States General Land Office (1855-1859), a United States senator (1863-1869), and governor of Indiana (1873-1877). From 1868 until his death he was put forward for nomination for the presidency at every national Democratic

Convention save in 1872. Both in 1876 and 1884, after his failure to receive the nomination for the presidency, he was nominated by the Democratic National Convention for vice-president, his nomination in each of these conventions being made partly, it seems, with the hope of gaining “greenback” votes—Hendricks had opposed the immediate resumption of specie payments. In 1876, with S. J. Tilden, he lost the disputed election by the decision of the electoral commission, but he was elected with Grover Cleveland in 1884. He died at Indianapolis on the 25th of November 1885.

HENGELO, or Hengeloo, a town in the province of Overyssel, Holland, and a junction station 5 m. by rail N.W. of Enschede. Pop. (1900), 14,968. The castle belonging to the ancient territorial lords of Hengelo has long since disappeared, and the only interest the town now possesses is as the centre of the flourishing industries of the Twente district. The manufacture of cotton in all its branches is very actively carried on, and there are dye-works and breweries, besides the engineering works of the state railway company.

HENGEST and **HORSA**, the brother chieftains who led the first Saxon bands which settled in England. They were apparently called in by the British king Vortigern (*q.v.*) to defend him against the Picts. The place of their landing is said to have been Ebbsfleet in Kent. Its date is not certainly known, 450-455 being given by the English authorities, 428 by the Welsh (see Kent). The settlers of Kent are described by Bede as Jutes (*q.v.*), and there are traces in Kentish custom of differences from the other Anglo-Saxon kingdoms. Hengest and Horsa were at first given the island of Thanet as a home, but soon quarrelled with their British allies, and gradually possessed themselves of what became the kingdom of Kent. In 455 the Saxon Chronicle records a battle between Hengest and Horsa and Vortigern at a place called Aegaels threp, in which Horsa was slain. Thenceforward Hengest reigned in Kent, together with his son Aesc (Oisc). Both the *Saxon Chronicle* and the *Historia Brittonum* record three subsequent battles, though the two authorities disagree as to their issue. There is no doubt, however, that the net result was the expulsion of the Britons from Kent. According to the *Chronicle*, which probably derived its information from a lost list of Kentish kings, Hengest died in 488, while his son Aesc continued to reign until 512.

Bede, *Hist. Eccl.* (Plummer, 1896), i. 15, ii. 5; *Saxon Chronicle* (Earle and Plummer, 1899), s.a. 449, 455, 457, 465, 473; Nennius, *Historia Brittonum* (San Marte, 1844), §§ 31, 37, 38, 43-46, 58.

HENGSTENBERG, ERNST WILHELM (1802-1869), German Lutheran divine and theologian, was born at Fröndenberg, a Westphalian village, on the 20th of October 1802. He was educated by his father, who was a minister of the Reformed Church, and head of the Fröndenberg convent of canonesses (Fräuleinstift). Entering the university of Bonn in 1819, he attended the lectures of G. G. Freytag for Oriental languages and of F. K. L. Gieseler for church history, but his energies were principally devoted to philosophy and philology, and his earliest publication was an edition of the Arabic *Moallakat* of Amru’l-Qais, which gained for him the prize at his graduation in the philosophical faculty. This was followed in 1824 by a German translation of Aristotle’s *Metaphysics*. Finding himself without the means to complete his theological studies under Neander and Tholuck in Berlin, he accepted a post at Basel as tutor in Oriental languages to J. J. Stähelin, who afterwards became professor at the university. Then it was that he began to direct his attention to a study of the Bible, which led him to a conviction, never afterwards shaken, not only of the divine character of evangelical religion, but also of the unapproachable adequacy of its expression in the Augsburg Confession. In 1824 he joined the philosophical faculty of Berlin as a *Privatdozent*,

and in 1825 he became a licentiate in theology, his theses being remarkable for their evangelical fervour and for their emphatic protest against every form of "rationalism," especially in questions of Old Testament criticism. In 1826 he became professor extraordinarius in theology; and in July 1827 appeared, under his editorship, the *Evangelische Kirchenzeitung*, a strictly orthodox journal, which in his hands acquired an almost unique reputation as a controversial organ. It did not, however, attain to great notoriety until in 1830 an anonymous article (by E. L. von Gerlach) appeared, which openly charged Wilhelm Gesenius and J. A. L. Wegscheider with infidelity and profanity, and on the ground of these accusations advocated the interposition of the civil power, thus giving rise to the prolonged *Hallische Streit*. In 1828 the first volume of Hengstenberg's *Christologie des Alten Testaments* passed through the press; in the autumn of that year he became professor ordinarius in theology, and in 1829 doctor of theology. He died on the 28th of May 1869.

The following is a list of his principal works: *Christologie des Alten Testaments* (1829-1835; 2nd ed., 1854-1857; Eng. trans. by R. Keith, 1835-1839, also in Clark's "Foreign Theological Library," by T. Meyer and J. Martin, 1854-1858), a work of much learning, the estimate of which varies according to the hermeneutical principles of the individual critic; *Beiträge zur Einleitung in das Alte Testament* (1831-1839); Eng. trans., *Dissertations on the Genuineness of Daniel and the Integrity of Zechariah* (Edin., 1848), and *Dissertations on the Genuineness of the Pentateuch* (Edin., 1847), in which the traditional view on each question is strongly upheld, and much capital is made of the absence of harmony among the negative critics; *Die Bücher Moses und Ägypten* (1841); *Die Geschichte Bileams u. seiner Weissagungen* (1842; translated along with the Dissertations on Daniel and Zechariah); *Commentar über die Psalmen* (1842-1847; 2nd ed., 1849-1852; Eng. trans. by P. Fairbairn and J. Thomson, Edin., 1844-1848), which shares the merits and defects of the *Christologie; Die Offenbarung Johannis erläutert* (1849-1851; 2nd ed., 1861-1862; Eng. trans. by P. Fairbairn, also in Clark's "Foreign Theological Library," 1851-1852); *Das Hohe Lied ausgelegt* (1853); *Der Prediger Salomo ausgelegt* (1859); *Das Evangelium Johannis erläutert* (1861-1863; 2nd ed., 1867-1871; Eng. trans., 1865) and *Die Weissagungen des Propheten Ezechiel erläutert* (1867-1868). Of minor importance are *De rebus Tyriorum commentatio academica* (1832); *Über den Tag des Herrn* (1852); *Das Passa, ein Vortrag* (1853); and *Die Opfer der heiligen Schrift* (1859). Several series of papers also, as, for example, on "The Retention of the Apocrypha," "Freemasonry" (1854), "Duelling" (1856) and "The Relation between the Jews and the Christian Church" (1857; 2nd ed., 1859), which originally appeared in the *Kirchenzeitung*, were afterwards printed in a separate form. *Geschichte des Reiches Gottes unter dem Alten Bunde* (1869-1871), *Das Buch Hiob erläutert* (1870-1875) and *Vorlesungen über die Leidensgeschichte* (1875) were published posthumously.

See J. Bachmann's *Ernst Wilhelm Hengstenberg* (1876-1879); also his article in Herzog-Hauck, *Realencyklopädie* (1899), and the article in the *Allgemeine deutsche Biographie*. Also F. Lichtenberger, *History of German Theology in the Nineteenth Century* (1889), pp. 212-217; Philip Schaff, *Germany; its Universities, Theology and Religion* (1857), pp. 300-319.

HENKE, HEINRICH PHILIPP KONRAD (1752-1809), German theologian, best known as a writer on church history, was born at Hehlen, Brunswick, on the 3rd of July 1752. He was educated at the gymnasium of Brunswick and the university of Helmstädt, and from 1778 to 1809 he was professor, first of philosophy, then of theology, in that university. In 1803 he was appointed principal of the Carolinum in Brunswick as well. He died on the 2nd of May 1809. Henke belonged to the rationalistic school. His principal work (*Allgemeine Geschichte der christl. Kirche*, 6 vols., 1788-1804; 2nd ed., 1795-1806) is commended by F. C. Baur for fullness, accuracy and artistic composition. His other works are *Lineamenta institutionum fidei Christianae historico-criticarum* (1783), *Opuscula academica* (1802) and two volumes of *Predigten*. He was also editor of the *Magazin für die Religionsphilosophie, Exegese und Kirchengeschichte* (1793-1802) and the *Archiv für die neueste Kirchengeschichte* (1794-1799).

His son, Ernst Ludwig Theodor Henke (1804-1872), after studying at the university of Jena, became *professor extraordinarius* there in 1833, and professor ordinarius of Marburg in 1839. He is known as the author of monographs upon *Georg Calixt u. seine Zeit* (1853-1860), *Papst Pius VII.* (1860), *Konrad von Marburg* (1861), *Kaspar Peucer u. Nik. Krell* (1865), *Jak. Friedr. Fries* (1867), *Zur neuern Kirchengeschichte* (1867).

HENLE, FRIEDRICH GUSTAV JAKOB (1809-1885), German pathologist and anatomist, was born on the 9th of July 1809 at Fürth, in Franconia. After studying medicine at Heidelberg and at Bonn, where he took his doctor's degree in 1832, he became prosector in anatomy to Johannes Müller at Berlin. During the six years he spent in that position he published a large amount of work, including three anatomical monographs on new species of animals, and papers on the structure of the lacteal system, the distribution of epithelium in the human body, the structure and development of the hair, the formation of mucus and pus, &c. In 1840 he accepted the chair of anatomy at Zürich, and in 1844 he was called to Heidelberg, where he taught not only anatomy, but physiology and pathology. About this period he was engaged on his complete system of general anatomy, which formed the sixth volume of the new edition of S. T. von Sömmerring's treatise, published at Leipzig between 1841 and 1844. While at Heidelberg he published a zoological monograph on the sharks and rays, in conjunction with his master Müller, and in 1846 his famous *Manual of Rational Pathology* began to appear; this marked the beginning of a new era in pathological study, since in it physiology and pathology were treated, in Henle's own words, as "branches of one science," and the facts of disease were systematically considered with reference to their physiological relations. In 1852 he moved to Göttingen, whence he issued three years later the first instalment of his great *Handbook of Systematic Human Anatomy*, the last volume of which was not published till 1873. This work was perhaps the most complete and comprehensive of its kind that had so far appeared, and it was remarkable not only for the fullness and minuteness of the anatomical descriptions, but also for the number and excellence of the illustrations with which they were elucidated. During the latter half of his life Henle's researches were mainly histological in character, his investigations embracing the minute anatomy of the blood vessels, serous membranes, kidney, eye, nails, central nervous system, &c. He died at Göttingen on the 13th of May 1885.

HENLEY, JOHN (1692-1759), English clergyman, commonly known as "Orator Henley," was born on the 3rd of August 1692 at Melton-Mowbray, where his father was vicar. After attending the grammar schools of Melton and Oakham, he entered St John's College, Cambridge, and while still an undergraduate he addressed in February 1712, under the pseudonym of Peter de Quir, a letter to the *Spectator* displaying no small wit and humour. After graduating B.A., he became assistant and then headmaster of the grammar school of his native town, uniting to these duties those of assistant curate. His abundant energy found still further expression in a poem entitled *Esther, Queen of Persia* (1714), and in the compilation of a grammar of ten languages entitled *The Complete Linguist* (2 vols., London, 1719-1721). He then decided to go to London, where he obtained the appointment of assistant preacher in the chapels of Ormond Street and Bloomsbury. In 1723 he was presented to the rectory of Chelmondiston in Suffolk; but residence being insisted on, he resigned both his appointments, and on the 3rd of July 1726 opened what he called an "oratory" in Newport Market, which he licensed under the Toleration Act. In 1729 he transferred the scene of his operations to Lincoln's Inn Fields. Into his services he introduced many peculiar alterations: he drew up a "Primitive Liturgy," in which he substituted for the Nicene and Athanasian creeds two creeds taken from the Apostolical Constitutions; for his "Primitive Eucharist" he made use of unleavened bread and mixed wine; he distributed at the price of one shilling medals of admission to his oratory, with the device of a sun rising to the meridian, with the motto *Ad summa*, and the words *Inveniam viam aut faciam* below. But the most original element in the services was Henley himself, who is described by Pope in the *Dunciad* as

"Preacher at once and zany of his age."

He possessed some oratorical ability and adopted a very theatrical style of elocution, "tuning his voice and balancing his hands"; and his addresses were a strange medley of solemnity and buffoonery, of clever wit and the wildest absurdity, of able and original disquisition and the worst artifices of the oratorical charlatan. His services were much frequented by the "free-thinkers," and he himself expressed his determination "to die a rational." Besides his

Sunday sermons, he delivered Wednesday lectures on social and political subjects; and he also projected a scheme for connecting with the “oratory” a university on quite a utopian plan. For some time he edited the *Hyp Doctor*, a weekly paper established in opposition to the *Craftsman*, and for this service he enjoyed a pension of £100 a year from Sir Robert Walpole. At first the orations of Henley drew great crowds, but, although he never discontinued his services, his audience latterly dwindled almost entirely away. He died on the 13th of October 1759.

Henley is the subject of several of Hogarth’s prints. His life, professedly written by A. Welstede, but in all probability by himself, was inserted by him in his *Oratory Transactions*. See J. B. Nichols, *History of Leicestershire*; I. Disraeli, *Calamities of Authors*.

HENLEY, WILLIAM ERNEST (1849-1903), British poet, critic and editor, was born on the 23rd of August 1849 at Gloucester, and was educated at the Crypt Grammar School in that city. The school was a sort of Cinderella sister to the Cathedral School, and Henley indicated its shortcomings in his article (*Pall Mall Magazine*, Nov. 1900) on T. E. Brown the poet, who was headmaster there for a brief period. Brown’s appointment, uncongenial to himself, was a stroke of luck for Henley, for whom, as he said, it represented a first acquaintance with a man of genius. “He was singularly kind to me at a moment when I needed kindness even more than I needed encouragement.” Among other kindnesses Brown did him the essential service of lending him books. To the end Henley was no classical scholar, but his knowledge and love of literature were vital. Afflicted with a physical infirmity, he found himself in 1874, at the age of twenty-five, an inmate of the hospital at Edinburgh. From there he sent to the *Cornhill Magazine* poems in irregular rhythms, describing with poignant force his experiences in hospital. Leslie Stephen, then editor, being in Edinburgh, visited his contributor in hospital and took Robert Louis Stevenson, another recruit of the *Cornhill*, with him. The meeting between Stevenson and Henley, and the friendship of which it was the beginning, form one of the best-known episodes in recent literature (see especially Stevenson’s letter to Mrs Sitwell, Jan. 1875, and Henley’s poems “An Apparition” and “Envoy to Charles Baxter”). In 1877 Henley went to London and began his editorial career by editing *London*, a journal of a type more usual in Paris than London, written for the sake of its contributors rather than of the public. Among other distinctions it first gave to the world *The New Arabian Nights* of Stevenson. Henley himself contributed to his journal a series of verses chiefly in old French forms. He had been writing poetry since 1872, but (so he told the world in his “advertisement” to his collected *Poems*, 1898) he “found himself about 1877 so utterly unmarketable that he had to own himself beaten in art and to addict himself to journalism for the next ten years.” After the decease of *London*, he edited the *Magazine of Art* from 1882 to 1886. At the end of that period he came before the public as a poet. In 1887 Mr Gleeson White made for the popular series of *Canterbury Poets* (edited by Mr William Sharp) a selection of poems in old French forms. In his selection Mr Gleeson White included a considerable number of pieces from *London*, and only after he had completed the selection did he discover that the verses were all by one hand, that of Henley. In the following year, Mr H. B. Donkin in his volume *Voluntaries*, done for an East End hospital, included Henley’s unrhymed rhythms quintessentializing the poet’s memories of the old Edinburgh Infirmary. Mr Alfred Nutt read these, and asked for more; and in 1888 his firm published *A Book of Verse*. Henley was by this time well known in a restricted literary circle, and the publication of this volume determined for them his fame as a poet, which rapidly outgrew these limits, two new editions of this volume being called for within three years. In this same year (1888) Mr Fitzroy Bell started the *Scots Observer* in Edinburgh, with Henley as literary editor, and early in 1889 Mr Bell left the conduct of the paper to him. It was a weekly review somewhat on the lines of the old *Saturday Review*, but inspired in every paragraph by the vigorous and combative personality of the editor. It was transferred soon after to London as the *National Observer*, and remained under Henley’s editorship until 1893. Though, as Henley confessed, the paper had almost as many writers as readers, and its fame was mainly confined to the literary class, it was a lively and not uninfluential feature of the literary life of its time. Henley had the editor’s great gift of discerning promise, and the “Men of the *Scots Observer*,” as Henley affectionately and characteristically called his band of contributors, in most instances justified his insight. The paper found utterance for the growing imperialism of its day, and among other services to literature gave to the world Mr Kipling’s *Barrack-Room Ballads*. In 1890 Henley published

Views and Reviews, a volume of notable criticisms, described by himself as “less a book than a mosaic of scraps and shreds recovered from the shot rubbish of some fourteen years of journalism.” The criticisms, covering a wide range of authors (except Heine and Tolstoy, all English and French), though wilful and often one-sided were terse, trenchant and picturesque, and remarkable for insight and gusto. In 1892 he published a second volume of poetry, named after the first poem, *The Song of the Sword*, but on the issue of the second edition (1893) re-christened *London Voluntaries* after another section. Stevenson wrote that he had not received the same thrill of poetry since Mr Meredith’s “Joy of Earth” and “Love in the Valley,” and he did not know that that was so intimate and so deep. “I did not guess you were so great a magician. These are new tunes; this is an undertone of the true Apollo. These are not verse; they are poetry.” In 1892 Henley published also three plays written with Stevenson—*Beau Austin*, *Deacon Brodie* and *Admiral Guinea*. In 1895 followed *Macaire*, afterwards published in a volume with the other plays. *Deacon Brodie* was produced in Edinburgh in 1884 and later in London. Beerbohm Tree produced *Beau Austin* at the Haymarket on the 3rd of November 1890 and *Macaire* at His Majesty’s on the 2nd of May 1901. *Admiral Guinea* also achieved stage performance. In the meantime Henley was active in the magazines and did notable editorial work for the publishers: the *Lyra Heroica*, 1891; *A Book of English Prose* (with Mr Charles Whibley), 1894; the centenary Burns (with Mr T. F. Henderson) in 1896-1897, in which Henley’s Essay (published separately 1898) roused considerable controversy. In 1892 he undertook for Mr Nutt the general editorship of the *Tudor Translations*; and in 1897 began for Mr Heinemann an edition of Byron, which did not proceed beyond one volume of letters. In 1898 he published a collection of his *Poems* in one volume, with the autobiographical “advertisement” above quoted; in 1899 *London Types*, Quatorzains to accompany Mr William Nicolson’s designs; and in 1900 during the Boer War, a patriotic poetical brochure, *For England’s Sake*. In 1901 he published a second volume of collected poetry with the title *Hawthorn and Lavender*, uniform with the volume of 1898. In 1902 he collected his various articles on painters and artists and published them as a companion volume of *Views and Reviews: Art*. These with “A Song of Speed” printed in May 1903 within two months of his death make up his tale of work. At the close of his life he was engaged upon his edition of the Authorized Version of the Bible for his series of *Tudor Translations*. There remained uncollected some of his scattered articles in periodicals and reviews, especially the series of literary articles contributed to the *Pall Mall Magazine* from 1899 until his death. These contain the most outspoken utterances of a critic never mealy-mouthed, and include the splenetic attack on the memory of his dead friend R. L. Stevenson, which aroused deep regret and resentment. In 1894 Henley lost his little six-year-old daughter Margaret; he had borne the “bludgeonings of chance” with “the unconquerable soul” of which he boasted, not unjustifiably, in a well-known poem; but this blow broke his heart. With the knowledge of this fact, some of these outbursts may be better understood; yet we have the evidence of a clear-eyed critic who knew Henley well, that he found him more generous, more sympathetic at the close of his life than he had been before. He died on the 11th of July 1903. In spite of his too boisterous mannerism and prejudices, he exercised by his originality, independence and fearlessness an inspiring and inspiriting influence on the higher class of journalism. This influence he exercised by word of mouth as well as by his pen, for he was a famous talker, and figures as “Burly” in Stevenson’s essay on *Talk and Talkers*. As critic he was a good hater and a good fighter. His virtue lay in his vital and vitalizing love of good literature, and the vivid and pictorial phrases he found to give it expression. But his fame must rest on his poetry. He excelled alike in his delicate experiments in complicated metres, and the strong impressionism of *Hospital Sketches* and *London Voluntaries*. The influence of Heine may be discerned in these “unrhymed rhythms”; but he was perhaps a truer and more successful disciple of Heine in his snatches of passionate song, the best of which should retain their place in English literature.

See also references in *Stevenson’s Letters*; *Cornhill Magazine* (1903) (Sidney Low); *Fortnightly Review* (August 1892) (Arthur Symons); and for bibliography, *English Illustrated Magazine*, vol. xxix. p. 548.

(W. P. J.)

HENLEY-ON-THAMES, a market town and municipal borough in the Henley parliamentary division of Oxfordshire, England, on the left bank of the Thames, the terminus of a branch of the Great Western railway, by which it is 35¾ m. W. of London, while it is

57½ m. by river. Pop. (1901) 5984. It occupies one of the most beautiful situations on the Thames, at the foot of the finely wooded Chiltern Hills. The river is crossed by an elegant stone bridge of five arches, constructed in 1786. The parish church (Decorated and Perpendicular) possesses a lofty tower of intermingled flint and stone, attributed to Cardinal Wolsey, but more probably erected by Bishop Longland. The grammar school, founded in 1605, is incorporated with a Blue Coat school. Henley is a favourite summer resort, and is celebrated for the annual Henley Royal Regatta, the principal gathering of amateur oarsmen in England, first held in 1839 and usually taking place in July. Henley is governed by a mayor, 4 aldermen and 12 councillors. Area, 549 acres.

Henley-on-Thames (Hanlegang, Henle, Handley), not mentioned in Domesday, was a manor or ancient demesne of the crown and was granted (1337) to John de Molyns, whose family held it for about 250 years. It is said that members for Henley sat in parliaments of Edward I. and Edward III., but no writs have been found. Henry VIII. having granted the use of the titles “mayor” and “burgess,” the town was incorporated in 1570-1571 by the name of the warden, portreeves, burgesses and commonalty. Henley suffered from both parties in the Civil War. William III. on his march to London (1688) rested here and received a deputation from the Lords. The period of prosperity in the 17th and 18th centuries was due to manufactures of glass and malt, and to trade in corn and wool. The existing Thursday market was granted by a charter of John and the existing Corpus Christi fair by a charter of Henry VI.

See J. S. Burn, *History of Henley-on-Thames* (London, 1861).

HENNA, the Persian name for a small shrub found in India, Persia, the Levant and along the African coasts of the Mediterranean, where it is frequently cultivated. It is the *Lawsonia alba* of botanists, and from the fact that young trees are spineless, while older ones have the branchlets hardened into spines, it has also received the names of *Lawsonia inermis* and *L. spinosa*. It forms a slender shrubby plant of from 8 to 10 ft. high, with opposite lance-shaped smooth leaves, which are entire at the margins, and bears small white four-petalled sweet-scented flowers disposed in panicles. Its Egyptian name is *Khenna*, its Arabic name *Al Khanna*, its Indian name *Mendee*, while in England it is called *Egyptian privet*, and in the West Indies, where it is naturalized, *Jamaica mignonette*.

Henna or Henné is of ancient repute as a cosmetic. This consists of the leaves of the *Lawsonia* powdered and made up into a paste; this is employed by the Egyptian women, and also by the Mahommedan women in India, to dye their fingernails and other parts of their hands and feet of an orange-red colour, which is considered to add to their beauty. The colour lasts for three or four weeks, when it requires to be renewed. It is moreover used for dyeing the hair and beard, and even the manes of horses; and the same material is employed for dyeing skins and morocco-leather a reddish-yellow, but it contains no tannin. The practice of dyeing the nails was common amongst the Egyptians, and not to conform to it would have been considered indecent. It has descended from very remote ages, as is proved by the evidence afforded by Egyptian mummies, the nails of which are most commonly stained of a reddish hue. Henna is also said to have been held in repute amongst the Hebrews, being considered to be the plant referred to as camphire in the Bible (Song of Solomon i. 14, iv. 13). “The custom of dyeing the nails and palms of the hands and soles of the feet of an iron-rust colour with henna,” observes Dr J. Forbes Royle, “exists throughout the East from the Mediterranean to the Ganges, as well as in northern Africa. In some parts the practice is not confined to women and children, but is also followed by men, especially in Persia. In dyeing the beard the hair is turned to red by this application, which is then changed to black by a preparation of indigo. In dyeing the hair of children, and the tails and manes of horses and asses, the process is allowed to stop at the red colour which the henna produces.” Mahomet, it is said, used henna as a dye for his beard, and the fashion was adopted by the caliphs. “The use of henna,” remarks Lady Callcott in her *Scripture Herbal*, “is scarcely to be called a caprice in the East. There is a quality in the drug which gently restrains perspiration in the hands and feet, and produces an agreeable coolness equally conducive to health and comfort.” She further suggests that if the Jewish women were not in the habit of using this dye before the time of Solomon, it might probably have been introduced amongst them by his wife, the daughter of Pharaoh, and traces to this probability the allusion to “camphire” in the passages in Canticles above referred to.

The preparation of henna consists in reducing the leaves and young twigs to a fine powder, catechu or lucerne leaves in a pulverized state being sometimes mixed with them. When required for use, the powder is made into a pasty mass with hot water, and is then spread upon the part to be dyed, where it is generally allowed to remain for one night. According to Lady Callcott, the flowers are often used by the Eastern women to adorn their hair. The distilled water from the flowers is used as a perfume.

HENNEBONT, a town of western France, in the department of Morbihan, 6 m. N.E. of Lorient by road. Pop. (1906) 7250. It is situated about 10 m. from the mouth of the Blavet, which divides it into two parts—the *Ville Close*, the medieval military town, and the *Ville Neuve* on the left bank and the *Vieille Ville* on the right bank. The Ville Close, surrounded by ramparts and entered by a massive gateway flanked by machicolated towers, consists of narrow quiet streets bordered by houses of the 16th and 17th centuries. The Ville Neuve, which lies nearer the river, developed during the 17th century and later than the Ville Close, while the Vieille Ville is older than either. The only building of architectural importance is the church of Notre-Dame de Paradis (16th century) preceded by a tower with an ornamented stone spire. There are scanty remains of the old fortress. Hennebont has a small but busy river-port accessible to vessels of 200 to 300 tons. An important foundry in the environs of the town employs 1400 work-people in the manufacture of tin-plate for sardine boxes and other purposes. Boat-building, tanning, distilling and the manufacture of earthenware, white lead and chemical manures are also carried on. Granite is worked in the neighbourhood. Hennebont is famed for the resistance which it made, under the widow of Jean de Montfort, when besieged in 1342 by the armies of Philip of Valois and Charles of Blois during the War of the Succession in Brittany (see BRITTANY).

HENNEQUIN, PHILIPPE AUGUSTE (1763-1833), French painter, was a pupil of David. He was born at Lyons in 1763, distinguished himself early by winning the “Grand Prix,” and left France for Italy. The disturbances at Rome, during the course of the Revolution, obliged him to return to Paris, where he executed the Federation of the 14th of July, and he was at work on a large design commissioned for the town-hall of Lyons, when in July 1794 he was accused before the revolutionary tribunal and thrown into prison. Hennequin escaped, only to be anew accused and imprisoned in Paris, and after running great danger of death, seems to have devoted himself thenceforth wholly to his profession. At Paris he finished the picture ordered for the municipality of Lyons, and in 1801 produced his chief work, “Orestes pursued by the Furies” (Louvre, engraved by Landon, *Annales du Musée*, vol. i. p. 105). He was one of the four painters who competed when in 1802 Gros carried off the official prize for a picture of the Battle of Nazareth, and in 1808 Napoleon himself ordered Hennequin to illustrate a series of scenes from his German campaigns, and commanded that his picture of the “Death of General Salomon” should be engraved. After 1815 Hennequin retired to Liége, and there, aided by subventions from the Government, carried out a large historical picture of the “Death of the Three Hundred in defence of Liége”—a sketch of which he himself engraved. In 1824 Hennequin settled at Tournay, and became director of the academy; he exhibited various works at Lille in the following year, and continued to produce actively up to the day of his death in May 1833.

HENNER, JEAN JACQUES (1829-1905), French painter, was born on the 5th of March 1829 at Dornach (Alsace). At first a pupil of Drolling and of Picot, he entered the École des Beaux-Arts in 1848, and took the Prix de Rome with a painting of “Adam and Eve finding the Body of Abel” (1858). At Rome he was guided by Flandrin, and, among other works, painted

four pictures for the gallery at Colmar. He first exhibited at the Salon in 1863 a “Bather Asleep,” and subsequently contributed “Chaste Susanna” (1865); “Byblis turned into a Spring” (1867); “The Magdalene” (1878); “Portrait of M. Hayem” (1878); “Christ Entombed” (1879); “Saint Jerome” (1881); “Herodias” (1887); “A Study” (1891); “Christ in His Shroud,” and a “Portrait of Carolus-Duran” (1896); a “Portrait of Mlle Fouquier” (1897); “The Levite of the Tribe of Ephraim” (1898), for which a first-class medal was awarded to him; and “The Dream” (1900). Among other professional distinctions Henner also took a Grand Prix for painting at the Paris International Exhibition of 1900. He was made Knight of the Legion of Honour in 1873, Officer in 1878 and Commander in 1889. In 1889 he succeeded Cabanel in the Institut de France.

See E. Bricon, *Psychologie d’art* (Paris, 1900); C. Phillips, *Art Journal* (1888); F. Wedmore, *Magazine of Art* (1888).

HENRIETTA MARIA (1609-1666), queen of Charles I. of England, born on the 25th of November 1609, was the daughter of Henry IV. of France. When the first serious overtures for her hand were made on behalf of Charles, prince of Wales, in the spring of 1624, she was little more than fourteen years of age. Her brother, Louis XIII., only consented to the marriage on the condition that the English Roman Catholics were relieved from the operation of the penal laws. When therefore she set out for her new home in June 1625, she had already pledged the husband to whom she had been married by proxy on the 1st of May to a course of action which was certain to bring unpopularity on him as well as upon herself.

That husband was now king of England. The early years of the married life of Charles I. were most unhappy. He soon found an excuse for breaking his promise to relieve the English Catholics. His young wife was deeply offended by treatment which she naturally regarded as unhandsome. The favourite Buckingham stirred the flames of his master’s discontent. Charles in vain strove to reduce her to tame submission. After the assassination of Buckingham in 1628 the barrier between the married pair was broken down, and the bond of affection which from that moment united them was never loosened. The children of the marriage were Charles II. (b. 1630), Mary, princess of Orange (b. 1631), James II (b. 1633), Elizabeth (b. 1636) Henry, duke of Gloucester (b. 1640), and Henrietta, duchess at Orleans (b. 1644).

For some years Henrietta Maria’s chief interests lay in her young family, and in the amusements of a gay and brilliant court. She loved to be present at dramatic entertainments, and her participation in the private rehearsals of the *Shepherd’s Pastoral*, written by her favourite Walter Montague, probably drew down upon her the savage attack of Prynne. With political matters she hardly meddled as yet. Even her co-religionists found little aid from her till the summer of 1637. She had then recently opened a diplomatic communication with the see of Rome. She appointed an agent to reside at Rome, and a papal agent, a Scotsman named George Conn, accredited to her, was soon engaged in effecting conversions amongst the English gentry and nobility. Henrietta Maria was well pleased to become a patroness of so holy a work, especially as she was not asked to take any personal trouble in the matter. Protestant England took alarm at the proceedings of a queen who associated herself so closely with the doings of “the grim wolf with privy paw.”

When the Scottish troubles broke out, she raised money from her fellow-Catholics to support the king’s army on the borders in 1639. During the session of the Short Parliament in the spring of 1640, the queen urged the king to oppose himself to the House of Commons in defence of the Catholics. When the Long Parliament met, the Catholics were believed to be the authors and agents of every arbitrary scheme which was supposed to have entered into the plans of Strafford or Laud. Before the Long Parliament had sat for two months, the queen was urging upon the pope the duty of lending money to enable her to restore her husband’s authority. She threw herself heart and soul into the schemes for rescuing Strafford and coercing the parliament. The army plot, the scheme for using Scotland against England, and the attempt upon the five members were the fruits of her political activity.

In the next year the queen effected her passage to the Continent. In February 1643 she landed at Burlington Quay, placed herself at the head of a force of loyalists, and marched through England to join the king near Oxford. After little more than a year’s residence there, on the 3rd of April 1644, she left her husband, to see his face no more. Henrietta Maria

found a refuge in France. Richelieu was dead, and Anne of Austria was compassionate. As long as her husband was alive the queen never ceased to encourage him to resistance.

During her exile in France she had much to suffer. Her husband's execution in 1649 was a terrible blow. She brought up her youngest child Henrietta in her own faith, but her efforts to induce her youngest son, the duke of Gloucester, to take the same course only produced discomfort in the exiled family. The story of her marriage with her attached servant Lord Jermyn needs more confirmation than it has yet received to be accepted, but all the information which has reached us of her relations with her children points to the estrangement which had grown up between them. When after the Restoration she returned to England, she found that she had no place in the new world. She received from parliament a grant of £30,000 a year in compensation for the loss of her dower-lands, and the king added a similar sum as a pension from himself. In January 1661 she returned to France to be present at the marriage of her daughter Henrietta to the duke of Orleans. In July 1662 she set out again for England, and took up her residence once more at Somerset House. Her health failed her, and on the 24th of June 1665, she departed in search of the clearer air of her native country. She died on the 31st of August 1666, at Colombes, not far from Paris.

See I. A. Taylor, *The Life of Queen Henrietta Maria* (1905).

HENRY (Fr. *Henri*; Span. *Enrique*; Ger. *Heinrich*; Mid. H. Ger. *Heinrîch* and *Heimrîch*; O.H.G. *Haimi-* or *Heimirîh*, *i.e.* "prince, or chief of the house," from O.H.G. *heim*, the Eng. *home*, and *rîh*, Goth. *reiks*; compare Lat. *rex* "king"—"rich," therefore "mighty," and so "a ruler." Compare Sans. *rādsh* "to shine forth, rule, &c." and mod. *raj* "rule" and *raja*, "king"), the name of many European sovereigns, the more important of whom are noticed below in the following order: (1) emperors and German kings; (2) kings of England; (3) other kings in the alphabetical order of their states; (4) other reigning princes in the same order; (5) non-reigning princes; (6) bishops, nobles, chroniclers, &c.

HENRY I. (*c.* 876-936), surnamed the "Fowler," German king, son of Otto the Illustrious, duke of Saxony, grew to manhood amid the disorders which witnessed to the decay of the Carolingian empire, and in early life shared in various campaigns for the defence of Saxony. He married Hatburg, a daughter of Irwin, count of Merseburg, but as she had taken the veil on the death of a former husband this union was declared illegal by the church, and in 909 he married Matilda, daughter of a Saxon count named Thiederich, and a reputed descendant of the hero Widukind. On his father's death in 912 he became duke of Saxony, which he ruled with considerable success, defending it from the attacks of the Slavs and resisting the claims of the German king Conrad I. (see Saxony). He afterwards won the esteem of Conrad to such an extent that in 918 the king advised the nobles to make the Saxon duke his successor. After Conrad's death the Franks and the Saxons met at Fritzlar in May 919 and chose Henry as German king, after which the new king refused to allow his election to be sanctioned by the church. His authority, save in Saxony, was merely nominal; but by negotiation rather than by warfare he secured a recognition of his sovereignty from the Bavarians and the Swabians. A struggle soon took place between Henry and Charles III., the Simple, king of France, for the possession of Lorraine. In 921 Charles recognized Henry as king of the East Franks, and when in 923 the French king was taken prisoner by Herbert, count of Vermandois, Lorraine came under Henry's authority, and Giselbert, who married his daughter Gerberga, was recognized as duke. Turning his attention to the east, Henry reduced various Slavonic tribes to subjection, took Brennibor, the modern Brandenburg, from the Hevelli, and secured both banks of the Elbe for Saxony. In 923 he had bought a truce for ten years with the Hungarians, by a promise of tribute, but on its expiration he gained a great victory over these formidable foes in March 933. The Danes were defeated, and territory as far as the Eider secured for Germany; and the king sought further to extend his influence by entering into relations with the kings of England, France and Burgundy. He is said to have been contemplating a journey to Rome, when he died at Memleben on the

2nd of July 936, and was buried at Quedlinburg. By his first wife, Hatburg, he left a son, Thankmar, who was excluded from the succession as illegitimate; and by Matilda he left three sons, the eldest of whom, Otto (afterwards the emperor Otto the Great), succeeded him, and two daughters. Henry was a successful ruler, probably because he was careful to undertake only such enterprises as he was able to carry through. Laying more stress on his position as duke of Saxony than king of Germany, he conferred great benefits on his duchy. The founder of her town life and the creator of her army, he ruled in harmony with her nobles and secured her frontiers from attack. The story that he received the surname of "Fowler" because the nobles, sent to inform him of his election to the throne, found him engaged in laying snares for the birds, appears to be mythical.

See Widukind of Corvei, *Res gestae Saxonicae*, edited by G. Waitz in the *Monumenta Germaniae historica. Scriptores*, Band iii. (Hanover and Berlin, 1826 seq.); "Die Urkunde des deutschen Königs Heinrichs I.," edited by T. von Sickel in the *Monumenta Germaniae historica. Diplomata* (Hanover, 1879); W. von Giesebrecht, *Geschichte der deutschen Kaiserzeit*, Bände i., ii. (Leipzig, 1881); G. Waitz, *Jahrbücher des deutschen Reichs unter König Heinrich I.* (Leipzig, 1885); and F. Löher, *Die deutsche Politik König Heinrich I.* (Munich, 1857).

HENRY II. (973-1024), surnamed the "Saint," Roman emperor, son of Henry II, the Quarrelsome, duke of Bavaria, and Gisela, daughter of Conrad, king of Burgundy, or Arles (d. 993), and great-grandson of the German king Henry I., the Fowler, was born on the 6th of May 973. When his father was driven from his duchy in 976 it was intended that Henry should take holy orders, and he received the earlier part of a good education at Hildesheim. This idea, however, was abandoned when his father was restored to Bavaria in 985; but young Henry, whose education was completed at Regensburg, retained a lively interest in ecclesiastical affairs. He became duke of Bavaria on his father's death in 995, and appears to have governed his duchy quietly and successfully for seven years. He showed a special regard for monastic reform and church government, accompanied his kinsman, the emperor Otto III., on two occasions to Italy, and about 1001 married Kunigunde (d. 1037), daughter of Siegfried, count of Luxemburg. When Otto III. died childless in 1002, Henry sought to secure the German throne, and seizing the imperial insignia made an arrangement with Otto I., duke of Carinthia. There was considerable opposition to his claim; but one rival, Ekkard I., margrave of Meissen, was murdered, and, hurrying to Mainz, Henry was chosen German king by the Franks and Bavarians on the 7th of June 1002, and subsequently crowned by Willigis, archbishop of Mainz, who had been largely instrumental in securing his election. Having ravaged the lands of another rival, Hermann II., duke of Swabia, Henry purchased the allegiance of the Thuringians and the Saxons; and when shortly afterwards the nobles of Lorraine did homage and Hermann of Swabia submitted, he was generally recognized as king. Danger soon arose from Boleslaus I., the Great, king of Poland, who had extended his authority over Meissen and Lusatia, seized Bohemia, and allied himself with some discontented German nobles, including the king's brother, Bruno, bishop of Augsburg. Henry easily crushed his domestic foes; but the incipient war with Boleslaus was abandoned in favour of an expedition into Italy, where Arduin, margrave of Ivrea, had been elected king. Crossing the Alps Henry met with no resistance from Arduin, and in May 1004 he was chosen and crowned king of the Lombards at Pavia; but a tumult caused by the presence of the Germans soon arose in the city, and having received the homage of several cities of Lombardy the king returned to Germany. He then freed Bohemia from the rule of the Poles, led an expedition into Friesland, and was successful in compelling Boleslaus to sue for peace in 1005. A struggle with Baldwin IV., count of Flanders, in 1006 and 1007 was followed by trouble with the king's brothers-in-law, Dietrich and Adalbero of Luxemburg, who had seized respectively the bishopric of Metz and the archbishopric of Trier (Treves). Henry sought to dislodge them, but aided by their elder brother Henry, who had been made duke of Bavaria in 1004, they held their own in a desultory warfare in Lorraine. In 1009, however, the eldest of the three brothers was deprived of Bavaria, while Adalbero had in the previous year given up his claim to Trier, but Dietrich retained the bishopric of Metz. The Polish war had been renewed in 1007, but it was not until 1010 that the king was able to take a personal part in these campaigns. Meeting with indifferent success, he made peace with Boleslaus early in 1013, when the duke retained Lusatia, but did homage to Henry at Merseburg.

In 1013 the king made a second journey to Italy where two popes were contending for the papal chair, and meeting with no opposition was received with great honour at Rome. Having recognized Benedict VIII. as the rightful pope, he was crowned emperor on the 14th of February 1014, and soon returned to Germany laden with treasures from Italian cities. But the struggle with the Poles now broke out afresh, and in 1015 and 1017 the king, having obtained assistance from the heathen Liutici, led formidable armies against Boleslaus. During the campaign of 1017 he had as an ally the grand duke of Russia, but his troops suffered considerable loss, and on the 30th of January 1018 he made peace at Bautzen with Boleslaus, who again retained Lusatia. As early as 1006 Henry had concluded a succession treaty with his uncle Rudolph III., the childless king of Burgundy, or Arles; but when Rudolph desired to abdicate in 1016 Henry's efforts to secure possession of the territory were foiled by the resistance of the nobles. In 1020 the emperor was visited at Bamberg by Pope Benedict, in response to whose entreaty for assistance against the Greeks of southern Italy he crossed the Alps in 1021 for the third and last time. With the aid of the Normans he captured many fortresses and seriously crippled the power of the Greeks, but was compelled by the ravages of pestilence among his troops to return to Germany in 1022. It was probably about this time that Henry gave Benedict the diploma which ratified the gifts made by his predecessors to the papacy. Spending his concluding years in disputes over church reform he died on the 13th of July 1024 at Grona near Göttingen, and was buried at Bamberg, where he had founded and richly endowed a bishopric.

Henry was an enthusiast for church reform, and under the influence of his friend Odilo, abbot of Cluny, sought to further the principles of the Cluniacs, and seconded the efforts of Benedict VIII. to prevent the marriage of the clergy and the sale of spiritual dignities. He was energetic and capable, but except in his relations with the church was not a strong ruler. But though devoted to the church and a strict observer of religious rites, he was by no means the slave of the clergy. He appointed bishops without the formality of an election, and attacked clerical privileges although he made clerics the representatives of the imperial power. He held numerous diets and issued frequent ordinances for peace, but feuds among the nobles were common, and the frontiers of the empire were insecure. Henry, who was the last emperor of the Saxon house, was the first to use the title "King of the Romans." He died childless, and a tradition of the 12th century says he and his wife took vows of chastity. He was canonized in 1146 by Pope Eugenius III.

See Adalbold of Utrecht, *Vita Heinrici II.*, Thietmar of Merseburg, *Chronicon*, both in the *Monumenta Germaniae historica, Scriptores*, Bände iii. and iv. (Hanover and Berlin, 1826 seq.); W. von Giesebrecht, *Geschichte der deutschen Kaiserzeit* (Leipzig, 1881-1890); S. Hirsch, continued by R. Usinger, H. Pabst and H. Bresslau, *Jahrbücher des deutschen Reichs unter Kaiser Heinrich II.* (Leipzig, 1874); A. Cohn, *Kaiser Heinrich II.* (Halle, 1867); H. Zeissberg, *Die Kriege Kaiser Heinrichs II. mit Boleslaw I. von Polen* (Vienna, 1868); and G. Matthaei, *Die Klosterpolitik Kaiser Heinrichs II.* (Göttingen, 1877).

HENRY III. (1017-1056), surnamed the "Black," Roman emperor, only son of the emperor Conrad II., and Gisela, widow of Ernest I., duke of Swabia, was born on the 28th of October 1017, designated as his father's successor in 1026, and crowned German king at Aix-la-Chapelle by Pilgrim, archbishop of Cologne, on the 14th of April 1028. In 1027 he was appointed duke of Bavaria, and his early years were mainly spent in this country, where he received an excellent education under the care of Bruno, bishop of Augsburg and, afterwards, of Egilbert, bishop of Freising. He soon began to take part in the business of the empire. In 1032 he took part in a campaign in Burgundy; in 1033 led an expedition against Ulalrich, prince of the Bohemians; and in June 1036 was married at Nijmwegen to Gunhilda, afterwards called Kunigunde, daughter of Canute, king of Denmark and England. In 1038 he followed his father to Italy, and in the same year the emperor formally handed over to him the kingdom of Burgundy, or Arles, and appointed him duke of Swabia. In spite of the honours which Conrad heaped upon Henry the relations between father and son were not uniformly friendly, as Henry disapproved of the emperor's harsh treatment of some of his allies and adherents. When Conrad died in June 1039, Henry became sole ruler of the empire, and his authority was at once recognized in all parts of his dominions. Three of the duchies were under his direct rule, no rival appeared to contest his claim, and the outlying parts of the empire, as well as Germany, were practically free from disorder. This peaceful

state of affairs was, however, soon broken by the ambition of Bretislaus, prince of the Bohemians, who revived the idea of an independent Slavonic state, and conquered various Polish towns. Henry took up arms, and having suffered two defeats in 1040 renewed the struggle with a stronger force in the following year, when he compelled Bretislaus to sue for peace and to do homage for Bohemia at Regensburg. In 1042 he received the homage of the Burgundians and his attention was then turned to the Hungarians, who had driven out their king Peter, and set up in his stead one Aba Samuel, or Ovo, who attacked the eastern border of Bavaria.

In 1043 and the two following years Henry crushed the Hungarians, restored Peter, and brought Hungary completely under the power of the German king. In 1038 Queen Kunigunde had died in Italy, and in 1043 the king was married at Ingelheim to Agnes, daughter of William V., duke of Guienne, a union which drew him much nearer to the reforming party in the church. In 1044 Gothelon (Gozelo), duke of Lorraine, died, and some disturbance arose over Henry's refusal to grant the whole of the duchy to his son Godfrey, called the Bearded. Godfrey took up arms, but after a short imprisonment was released and confirmed in the possession of Upper Lorraine in 1046 which, however, he failed to secure. About this time Henry was invited to Italy where three popes were contending for power, and crossing the Alps with a large army he marched to Rome. Councils held at Sutri and at Rome having declared the popes deposed, the king secured the election of Suidger, bishop of Bamberg, who took the name of Clement II., and by this pontiff Henry was crowned as emperor on the 25th of December 1046. He was immediately recognized by the Romans as *Patricius*, an office which carried with it at this time the right to appoint the pope. Supreme in church and state alike, ruler of Germany, Italy and Burgundy, overlord of Hungary and Bohemia, Henry occupied a commanding position, and this time may be regarded as marking the apogee of the power of the Roman empire of the Germans. The emperor assisted Pope Clement in his efforts to banish simony. He made a victorious progress in southern Italy, where he restored Pandulph IV. to the principality of Capua, and asserted his authority over the Normans in Apulia and Aversa. Returning to Germany in 1047 he appointed two popes, Damasus II. and Leo IX., in quick succession, and turned to face a threatening combination in the west of the empire, where Godfrey of Lorraine was again in revolt, and with the help of Baldwin V., count of Flanders and Dirk IV., count of Holland, who had previously caused trouble to Henry, was ravaging the lands of the emperor's representatives in Lorraine. Assisted by the kings of England and Denmark, Henry succeeded with some difficulty in bringing the rebels to submission in 1050. Godfrey was deposed; but Baldwin soon found an opportunity for a further revolt, which an expedition undertaken by the emperor in 1054 was unable to crush.

Meanwhile a reaction against German influence had taken place in Hungary. King Peter had been driven out in 1046 and his place taken by Andreas I. Inroads into Bavaria followed, and in 1051 and 1052 Henry led his forces against the Hungarians, and after the pope had vainly attempted to mediate, peace was made in 1053. It was quickly broken, however, and the emperor, occupied elsewhere, soon lost most of his authority in the east; although in 1054 he made peace between Brestislav of Bohemia and Casimir I., duke of the Poles. Henry had not lost sight of affairs in Italy during these years, and had received several visits from the pope, whose aim was to bring southern Italy under his own dominion. Henry had sent military assistance to Leo, and had handed over to him the government of the principality of Benevento in return for the bishopric of Bamberg. But the pope's defeat by the Normans was followed by his death. Henry then nominated Gebhard, bishop of Eichstädt, who took the name of Victor II., to the vacant chair, and promised his assistance to the reluctant candidate. In 1055 the emperor went a second time to Italy, where his authority was threatened by Godfrey of Lorraine, who had married Beatrice, widow of Boniface III., margrave of Tuscany, and was ruling her vast estates. Godfrey fled, however, on the appearance of Henry, who only remained a short time in Italy, during which he granted the duchy of Spoleto to Pope Victor, and negotiated for an attack upon the Normans. Before the journey to Italy, Henry had found it necessary to depose Conrad III., duke of Bavaria, and to suppress a rising in southern Germany. During his absence Conrad formed an alliance with Welf, duke of Carinthia, and Gebhard III., bishop of Regensburg. A conspiracy to depose the emperor, support for which was found in Lorraine, was quickly discovered, and Henry, leaving Victor as his representative in Italy, returned in 1055 to Germany to receive the submission of his foes. In 1056, the emperor was visited by the pope; and on the 5th of October in the same year he died at Bodfeld and was buried at Spires. Henry was a pious and peace-loving prince, who favoured church reform, sought earnestly to suppress private warfare, and alone among the early emperors is said to have been innocent of simony. Although under his rule Germany enjoyed considerable tranquillity, and a period of wealth

and progress set in for the towns, yet his secular and ecclesiastical policy showed signs of weakness. Unable, or unwilling, seriously to curb the increasing power of the church, he alienated the sympathies of the nobles as a class, and by allowing the southern duchies to pass into other hands restored a power which true to its traditions was not always friendly to the royal house. Henry was a patron of learning, a founder of schools, and built or completed cathedrals at Spires, Worms and Mainz.

The chief original authorities for the life and reign of Henry III. are the *Chronicon* of Herimann of Reichenau, the *Annales Sangallenses majores*, the *Annales Hildesheimenses*, all in the *Monumenta Germaniae historica. Scriptores* (Hanover and Berlin, 1826 fol.). The best modern authorities are W. von Giesebrecht, *Geschichte der deutschen Kaiserzeit*, Band ii. (Leipzig, 1888); M. Perlbach, "Die Kriege Heinrichs III. gegen Böhmen," in the *Forschungen zur deutschen Geschichte*, Band x. (Göttingen, 1862-1886); E. Steindorff, *Jahrbücher des deutschen Reichs unter Heinrich III.* (Leipzig, 1874-1881); and F. Steinhoff, *Das Königthum und Kaiserthum Heinrichs III.* (Göttingen, 1865).

HENRY IV. (1050-1106), Roman emperor, son of the emperor Henry III. and Agnes, daughter of William V., duke of Guienne, was born on the 11th of November 1050, chosen German king at Tribur in 1053, and crowned at Aix-la-Chapelle on the 17th of July 1054. In 1055 he was appointed duke of Bavaria, and on his father's death in October 1056 inherited the kingdoms of Germany, Italy and Burgundy. These territories were governed in his name by his mother, who was unable to repress the internal disorder or to take adequate measures for their defence. Some opposition was soon aroused, and in 1062 Anno, archbishop of Cologne, and others planned to seize the person of the young king and to deprive Agnes of power. This plot met with complete success. Henry, who was at Kaiserwerth, was persuaded to board a boat lying in the Rhine; it was immediately unmoored and the king sprang into the stream, but was rescued by one of the conspirators and carried to Cologne. Agnes made no serious effort to regain her control, and the chief authority was exercised for a time by Anno; but his rule proved unpopular, and he was soon compelled to share his power with Adalbert, archbishop of Bremen. The education and training of Henry were supervised by Anno, who was called his *magister*, while Adalbert was styled *patronus*; but Anno was disliked by Henry, and during his absence in Italy the chief power passed into the hands of Adalbert. Henry's education seems to have been neglected, and his wilful and headstrong nature was developed by the conditions under which his early years were passed. In March 1065 he was declared of age, and in the following year a powerful coalition of ecclesiastical and lay nobles brought about the banishment of Adalbert from court and the return of Anno to power. In 1066 Henry was persuaded to marry Bertha, daughter of Otto, count of Savoy, to whom he had been betrothed since 1055. For some time he regarded his wife with strong dislike and sought in vain for a divorce, but after she had borne him a son in 1071 she gained his affections, and became his most trusted friend and companion.

In 1069 the king took the reins of government into his own hands. He recalled Adalbert to court; led expeditions against the Liutici, and against Dedo or Dedi II., margrave of a district east of Saxony; and soon afterwards quarrelled with Rudolph, duke of Swabia, and Berthold, duke of Carinthia. Much more serious was Henry's struggle with Otto of Nordheim, duke of Bavaria. This prince, who occupied an influential position in Germany, was accused in 1070 by a certain Egino of being privy to a plot to murder the king. It was decided that a trial by battle should take place at Goslar, but when the demand of Otto for a safe conduct for himself and his followers, to and from the place of meeting, was refused, he declined to appear. He was thereupon declared deposed in Bavaria, and his Saxon estates were plundered. He obtained sufficient support, however, to carry on a struggle with the king in Saxony and Thuringia until 1071, when he submitted at Halberstadt. Henry aroused the hostility of the Thuringians by supporting Siegfried, archbishop of Mainz, in his efforts to exact tithes from them; but still more formidable was the enmity of the Saxons, who had several causes of complaint against the king. He was the son of one enemy, Henry III., and the friend of another, Adalbert of Bremen. He had ordered a restoration of all crown lands in Saxony and had built forts among this people, while the country was ravaged to supply the needs of his courtiers, and its duke Magnus was a prisoner in his hands. All classes were united against him, and when the struggle broke out in 1073 the Thuringians joined the Saxons; and the war, which lasted with slight intermissions until 1088, exercised a most

potent influence upon Henry's fortunes elsewhere (see SAXONY).

Henry soon found himself confronted by an abler and more stubborn antagonist than either Thuringian or Saxon. In 1073 Hildebrand became pope as Gregory VII. Two years later this great ecclesiastic issued his memorable prohibition of lay investiture, and the blow then struck at the secular power by the papacy threatened seriously to undermine the imperial authority. Spurred on by his advisers, Henry did not refuse the challenge. Threatened with the papal ban, he summoned a synod of German bishops which met at Worms in January 1076 and declared Gregory deposed; and he wrote his famous letter to the pope, in which he referred to him as "not pope, but false monk." The king was at once excommunicated. His adherents gradually fell away, the Saxons were again in arms, and Otto of Nordheim succeeded in uniting the malcontents of north and south Germany. In October 1076 an important diet met at Tribur, and after discussing the deposition of the king, decided that he should be judged by an assembly to be held at Augsburg in the following February under the presidency of the pope. This union of the temporal and spiritual forces was too strong for the king, and he decided to submit.

Crossing the Alps, Henry appeared in January 1077 as a penitent before the castle of Canossa, where Gregory had taken refuge. The story of this famous occurrence, which 276
represents the king as standing in the courtyard of the castle for three days in the snow, clad as a penitent, and entreating to be admitted to the pope's presence, is now regarded as mythical in its details; but there is no doubt that the king visited the castle at intervals, and prayed for admission for three days until the 28th of January, when he was received by Gregory and absolved, after promising to submit to the pope's authority and to secure for him a safe journey to Germany. No historical incident has more profoundly impressed the imagination of the Western world. It marked the highest point reached by papal authority, and presents a vivid picture of the awe inspired during the middle ages by the supernatural powers supposed to be wielded by the church.

Scorned by his Lombard allies, Henry left Italy to find that in his absence Rudolph, duke of Swabia, had been chosen German king; and although Gregory had taken no part in this election, Henry sought to prevent the pope's journey to Germany, and regaining courage, tried to recover his former position. Supported by most of the German bishops and by the Lombards, now reconciled to him, and recognized in Burgundy, Bavaria and Franconia, Henry (who at this time is referred to by Bruno, the author of *De bello Saxonico*, as *exrex*) appeared stronger than his rival Rudolph; but the ensuing war was waged with varying success. He was beaten at Mellrichstadt in 1078, and at Flarchheim in 1080, but these defeats were due rather to the fierce hostility of the Saxons, and the military skill of Otto of Nordheim, than to any general sympathy with Rudolph. Gregory's attitude remained neutral, in spite of appeals from both sides, until March 1080, when he again excommunicated Henry, but without any serious effect on the fortunes of the king. At Henry's initiative, Gregory was declared deposed on three occasions, and an anti-pope was elected in the person of Wibert, archbishop of Ravenna, who took the name of Clement III.

The death of Rudolph in October 1080, and a consequent lull in the war, enabled the king to go to Italy early in 1081. He found considerable support in Lombardy; placed Matilda, marchioness of Tuscany, the faithful friend of Gregory, under the imperial ban; took the Lombard crown at Pavia; and secured the recognition of Clement by a council. Marching to Rome, he undertook the siege of the city, but was soon compelled to retire to Tuscany, where he granted privileges to various cities, and obtained monetary assistance from a new ally, the eastern emperor, Alexius I. A second and equally unsuccessful attack on Rome was followed by a war of devastation in northern Italy with the adherents of Matilda; and towards the end of 1082 the king made a third attack on Rome. After a siege of seven months the Leonine city fell into his hands. A treaty was concluded with the Romans, who agreed that the quarrel between king and pope should be decided by a synod, and secretly bound themselves to induce Gregory to crown Henry as emperor, or to choose another pope. Gregory, however, shut up in the castle of St Angelo, would hear of no compromise; the synod was a failure, as Henry prevented the attendance of many of the pope's supporters; and the king, in pursuance of his treaty with Alexius, marched against the Normans. The Romans soon fell away from their allegiance to the pope; and, recalled to the city, Henry entered Rome in March 1084, after which Gregory was declared deposed and Clement was recognized by the Romans. On the 31st of March 1084 Henry was crowned emperor by Clement, and received the patrician authority. His next step was to attack the fortresses still in the hands of Gregory. The pope was saved by the advance of Robert Guiscard, duke of Apulia, with a large force, which compelled Henry to return to Germany.

Meanwhile the German rebels had chosen a fresh anti-king, Hermann, count of

Luxemburg, whom Henry's supporters had already driven to his last line of defence in Saxony. During the campaign of 1086 Henry was defeated near Würzburg, but in 1088 Hermann abandoned the struggle and the emperor was generally recognized in Saxony, to which country he showed considerable clemency. Although Henry's power was in the ascendent, a few powerful nobles adhered to the cause of Gregory's successor, Urban II. Among them was Welf, son of Welf I., the deposed duke of Bavaria, whose marriage with Matilda of Tuscany rendered him too formidable to be neglected. The emperor accordingly returned to Italy in 1090, where Mantua and Milan were taken, and Pope Clement was restored to Rome. Henry's communications with Germany were, however, threatened by a league of the Lombard cities, and his anxieties were soon augmented by domestic troubles.

Henry's first wife had died in 1087, and in 1089 he had married a Russian princess, Praxedis, afterwards called Adelaide. Her conduct soon aroused his suspicions, and his own eldest son, Conrad, who had been crowned German king in 1087, was thought to be a partner in her guilt. Escaping from prison, Adelaide fled to Henry's enemies and brought grave charges against her husband; while the papal party induced Conrad to desert his father and to be crowned king of Italy at Monza in 1093. Crushed by this blow, Henry remained almost helpless and inactive in northern Italy for five years, until 1097, when having lost every shred of authority in that country, he returned to Germany, where his position was stronger than ever. Welf had submitted, had forsaken the cause of Matilda and had been restored to Bavaria, and in 1098 the diet assembled at Mainz declared Conrad deposed, and chose the emperor's second son, Henry, afterwards the emperor Henry V., as German king. The crusade of 1096 had freed Germany from many turbulent spirits, and the emperor, meeting with some success in his efforts to restore order, could afford to ignore his repeated excommunication. A successful campaign in Flanders was followed in 1103 by a diet at Mainz, where serious efforts were made to restore peace, and Henry himself promised to go on crusade. But this plan was shattered by the revolt of the younger Henry in 1104, who, encouraged by the adherents of the pope, declared he owed no allegiance to an excommunicated father. Saxony and Thuringia were soon in arms, the bishops held mainly to the younger Henry, while the emperor was supported by the towns. A desultory warfare was unfavourable, however, to the emperor, who, deceived by false promises, became a prisoner in the hands of his son in 1105. The diet met at Mainz in December, when he was compelled to abdicate; but contrary to the conditions, he was detained at Ingelheim and denied his freedom. Escaping to Cologne, he found considerable support in the lower Rhineland; he entered into negotiations with England, France and Denmark, and was engaged in collecting an army when he died at Liége on the 7th of August 1106. His body was buried by the bishop of Liége with suitable ceremony, but by command of the papal legate it was unearthed, taken to Spires, and placed in an unconsecrated chapel. After being released from the sentence of excommunication the remains were buried in the cathedral of Spires in August 1111.

Henry IV. was very licentious and in his early years was careless and self-willed, but better qualities were developed in his later life. He displayed much diplomatic ability, and his abasement at Canossa may fairly be regarded as a move of policy to weaken the pope's position at the cost of a personal humiliation to himself. He was always regarded as a friend of the lower orders, was capable of generosity and gratitude, and showed considerable military skill. Unfortunate in the time in which he lived, and in the troubles with which he had to contend, he holds an honourable position in history as a monarch who resisted the excessive pretensions both of the papacy and of the ambitious feudal lords of Germany.

The authorities for the life and reign of Henry are Lambert of Hersfeld, *Annales*; Bernold of Reichenau, Chronicon; Ekkehard of Aura, *Chronicon*; and Bruno, *De bello Saxonico*, which gives several of the more important letters that passed between Henry and Gregory VII. These are all found in the *Monumenta Germaniae historica. Scriptores*, Bände v. and vi. (Hanover and Berlin, 1826-1892). There is an anonymous *Vita Heinrici IV.*, edited by W. Wattenbach (Hanover, 1876). The best modern authorities are: G. Meyer von Knonau, *Jahrbücher des deutschen Reiches unter Heinrich IV.* (Leipzig, 1890); H. Floto, *Kaiser Heinrich IV. und sein Zeitalter* (Stuttgart, 1855); E. Kilian, *Itinerar Kaiser Heinrichs IV.* (Karlsruhe, 1886); K. W. Nitzsch, "Das deutsche Reich und Heinrich IV.," in the *Historische Zeitschrift*, Band xlv. (Munich, 1859); H. Ulmann, *Zum Verständniss der sächsischen Erhebung gegen Heinrich IV.* (Hanover, 1886), W. von Giesebrecht, *Geschichte der deutschen Kaiserzeit* (Leipzig, 1881-1890); B. Gebhardt, *Handbuch der deutschen Geschichte* (Berlin, 1901). For a list of other works, especially those on the relations between Henry and Gregory, see Dahlmann-Waitz, *Quellenkunde der deutschen Geschichte* (Göttingen, 1894).

(A. W. H.*)

HENRY V. (1081-1125), Roman emperor, son of the emperor Henry IV., was born on the 8th of January 1081, and after the revolt and deposition of his elder brother, the German king Conrad (d. 1101), was chosen as his successor in 1098. He promised to take no part in the business of the Empire during his father's lifetime, and was crowned at Aix-la-Chapelle on the 6th of January 1099. In spite of his oath Henry was induced by his father's enemies to revolt in 1104, and some of the princes did homage to him at Mainz in January 1106. In August of the same year the elder Henry died, when his son became sole ruler of the Empire. Order was soon restored in Germany, the citizens of Cologne were punished by a fine, and an expedition against Robert II., count of Flanders, brought this rebel to his knees. In 1107 a campaign, which was only partially successful, was undertaken to restore Bořiwoj II. to the dukedom of Bohemia, and in the year following the king led his forces into Hungary, where he failed to take Pressburg. In 1109 he was unable to compel the Poles to renew their accustomed tribute, but in 1110 he succeeded in securing the dukedom of Bohemia for Ladislaus I.

The main interest of Henry's reign centres in the controversy over lay investiture, which had caused a serious dispute during the previous reign. The papal party who had supported Henry in his resistance to his father hoped he would assent to the decrees of the pope, which had been renewed by Paschal II. at the synod of Guastalla in 1106. The king, however, continued to invest the bishops, but wished the pope to hold a council in Germany to settle the question. Paschal after some hesitation preferred France to Germany, and, after holding a council at Troyes, renewed his prohibition of lay investiture. The matter slumbered until 1110, when, negotiations between king and pope having failed, Paschal renewed his decrees and Henry went to Italy with a large army. The strength of his forces helped him to secure general recognition in Lombardy, and at Sutri he concluded an arrangement with Paschal by which he renounced the right of investiture in return for a promise of coronation, and the restoration to the Empire of all lands given by kings, or emperors, to the German church since the time of Charlemagne. It was a treaty impossible to execute, and Henry, whose consent to it is said to have been conditional on its acceptance by the princes and bishops of Germany, probably foresaw that it would occasion a breach between the German clergy and the pope. Having entered Rome and sworn the usual oaths, the king presented himself at St Peter's on the 12th of February 1111 for his coronation and the ratification of the treaty. The words commanding the clergy to restore the fiefs of the crown to Henry were read amid a tumult of indignation, whereupon the pope refused to crown the king, who in return declined to hand over his renunciation of the right of investiture. Paschal was seized by Henry's soldiers and, in the general disorder into which the city was thrown, an attempt to liberate the pontiff was thwarted in a struggle during which the king himself was wounded. Henry then left the city carrying the pope with him; and Paschal's failure to obtain assistance drew from him a confirmation of the king's right of investiture and a promise to crown him emperor. The coronation ceremony accordingly took place on the 13th of April 1111, after which the emperor returned to Germany, where he sought to strengthen his power by granting privileges to the inhabitants of the region of the upper Rhine.

In 1112 Lothair, duke of Saxony, rose in arms against Henry, but was easily quelled. In 1113, however, a quarrel over the succession to the counties of Weimar and Orlamünde gave occasion for a fresh outbreak on the part of Lothair, whose troops were defeated at Warnstädt, after which the duke was pardoned. Having been married at Mainz on the 7th of January 1114 to Matilda, or Maud, daughter of Henry I., king of England, the emperor was confronted with a further rising, initiated by the citizens of Cologne, who were soon joined by the Saxons and others. Henry failed to take Cologne, his forces were defeated at Welfesholz on the 11th of February 1115, and complications in Italy compelled him to leave Germany to the care of Frederick II. of Hohenstaufen, duke of Swabia, and his brother Conrad, afterwards the German king Conrad III. After the departure of Henry from Rome in 1111 a council had declared the privilege of lay investiture, which had been extorted from Paschal, to be invalid, and Guido, archbishop of Vienne, excommunicated the emperor and called upon the pope to ratify this sentence. Paschal, however, refused to take so extreme a step; and the quarrel entered upon a new stage in 1115 when Matilda, daughter and heiress of Boniface, margrave of Tuscany, died leaving her vast estates to the papacy. Crossing the Alps in 1116 Henry won the support of town and noble by privileges to the one and presents to the other, took possession of Matilda's lands, and was gladly received in Rome. By this time Paschal had withdrawn his consent to lay investiture and the excommunication had

been published in Rome; but the pope was compelled to fly from the city. Some of the cardinals withstood the emperor, but by means of bribes he broke down the opposition, and was crowned a second time by Burdinas, archbishop of Braga. Meanwhile the defeat at Welfesholz had given heart to Henry's enemies; many of his supporters, especially among the bishops, fell away; the excommunication was published at Cologne, and the pope, with the assistance of the Normans, began to make war. In January 1118 Paschal died and was succeeded by Gelasius II. The emperor immediately returned from northern Italy to Rome. But as the new pope escaped from the city, Henry, despairing of making a treaty, secured the election of an antipope who took the name of Gregory VIII., and who was left in possession of Rome when the emperor returned across the Alps in 1118. The opposition in Germany was gradually crushed and a general peace declared at Tribur, while the desire for a settlement of the investiture dispute was growing. Negotiations, begun at Würzburg, were continued at Worms, where the new pope, Calixtus II., was represented by Cardinal Lambert, bishop of Ostia. In the concordat of Worms, signed in September 1122, Henry renounced the right of investiture with ring and crozier, recognized the freedom of election of the clergy and promised to restore all church property. The pope agreed to allow elections to take place in presence of the imperial envoys, and the investiture with the sceptre to be granted by the emperor as a symbol that the estates of the church were held under the crown. Henry, who had been solemnly excommunicated at Reims by Calixtus in October 1119, was received again into the communion of the church, after he had abandoned his nominee, Gregory, to defeat and banishment. The emperor's concluding years were occupied with a campaign in Holland, and with a quarrel over the succession to the margraviate of Meissen, two disputes in which his enemies were aided by Lothair of Saxony. In 1124 he led an expedition against King Louis VI. of France, turned his arms against the citizens of Worms, and on the 23rd of May 1125 died at Utrecht and was buried at Spires. Having no children, he left his possessions to his nephew, Frederick II. of Hohenstaufen, duke of Swabia, and on his death the line of Franconian, or Salian, emperors became extinct.

The character of Henry is unattractive. His love of power was inordinate; he was wanting in generosity, and he did not shrink from treachery in pursuing his ends.

The chief authority for the life and reign of Henry V. is Ekkehard of Aura, *Chronicon*, edited by G. Waitz in the *Monumenta Germaniae historica. Scriptores*, Band vi. (Hanover and Berlin, 1826-1892), See also W. von Giesebrecht, *Geschichte der deutschen Kaiserzeit*, Band iii. (Leipzig, 1881-1890); L. von Ranke, *Weltgeschichte*, pt. vii. (Leipzig, 1886); M. Manitius, *Deutsche Geschichte* (Stuttgart, 1889); G. Meyer von Knonau, *Jahrbücher des deutschen Reiches unter Heinrich IV. und Heinrich V.* (Leipzig, 1890); E. Gervais, *Politische Geschichte Deutschlands unter der Regierung der Kaiser Heinrich V. und Lothar III.* (Leipzig, 1841-1842); G. Peiser, *Der deutsche Investiturstreit unter Kaiser Heinrich V.* (Berlin, 1883); C. Stutzer, "Zur Kritik der Investiturverhandlungen im Jahre 1119," in the *Forschungen zur deutschen Geschichte*, Band xviii. (Göttingen, 1862-1886); T. von Sickel and H. Bresslau, "Die kaiserliche Ausfertigung des Wormser Konkordats," in the *Mittheilungen des Instituts für österreichische Geschichtsforschung* (Innsbruck, 1880); B. Gebhardt, *Handbuch der deutschen Geschichte*, Band i. (Berlin, 1901), and E. Bernheim, *Zur Geschichte des Wormser Konkordats* (Göttingen, 1878).

HENRY VI. (1165-1197), Roman emperor, son of the emperor Frederick I. and Beatrix, daughter of Renaud III., count of upper Burgundy, was born at Nijmwegen, and educated under the care of Conrad of Querfurt, afterwards bishop of Hildesheim and Würzburg. Chosen German king, or king of the Romans, at Bamberg in June 1169, he was crowned at Aix-la-Chapelle on the 15th of August 1169, invested with lands in Germany in 1179, and at Whitsuntide 1184 his knighthood was celebrated in the most magnificent manner at Mainz. Frederick was anxious to associate his son with himself in the government of the empire, and when he left Germany in 1184 Henry remained behind as regent, while his father sought to procure his coronation from Pope Lucius III. The pope was hesitating when he heard that the emperor had arranged a marriage between Henry and Constance, daughter of the late king of Sicily, Roger I., and aunt and heiress of the reigning king, William II.; and this step, which threatened to unite Sicily with Germany, decided him to refuse the proposal. This marriage took place at Milan on the 27th of January 1186, and soon afterwards Henry was crowned king of Italy. The claim of Henry and his wife on Sicily was recognized by the

barons of that kingdom; and having been recognized by the pope as Roman emperor elect, Henry returned to Germany, and was again appointed regent when Frederick set out on crusade in May 1189. His attempts to bring peace to Germany were interrupted by the return of Henry the Lion, duke of Saxony, in October 1189, and a campaign against him was followed by a peace made at Fulda in July 1190.

Henry's desire to make this peace was due to the death of William of Sicily, which was soon followed by that of the emperor Frederick. Germany and Italy alike seemed to need the king's presence, but for him, like all the Hohenstaufen, Italy had the greater charm, and having obtained a promise of his coronation from Pope Clement III. he crossed the Alps in the winter of 1190. He purchased the support of the cities of northern Italy, but on reaching Rome he found Clement was dead and his successor, Celestine III., disinclined to carry out the engagement of his predecessor. The strength of the German army and a treaty made between the king and the Romans induced him, however, to crown Henry as emperor on the 14th of April 1191. The aid of the Romans had been purchased by the king's promise to place in their possession the city of Tusculum, which they had attacked in vain for three years. After the ceremony the emperor fulfilled this contract, when the city was destroyed and many of the inhabitants massacred. Meanwhile a party in Sicily had chosen Tancred, an illegitimate son of Roger, son of King Roger II., as their king, and he had already won considerable authority and was favoured by the pope. Leaving Rome Henry met with no resistance until he reached Naples, which he was unable to take, as the ravages of fever and threatening news from Germany, where his death was reported, compelled him to raise the siege. In December 1191 he returned to Germany. Disorder was general and a variety of reasons induced both the Welfs and their earlier opponents to join in a general league against the emperor. Vacancies in various bishoprics added to the confusion, and Henry's enemies gained in numbers and strength when it was suspected that he was implicated in the murder of Albert, bishop of Liége. Henry acted energetically in fighting this formidable combination, but his salvation came from the captivity of Richard I., king of England, and the skill with which he used this event to make peace with his foes; and, when Henry the Lion came to terms in March 1194, order was restored to Germany.

In the following May, Henry made his second expedition to Italy, where Pope Celestine had definitely espoused the cause of Tancred. The ransom received from Richard enabled him to equip a large army, and aided by a fleet fitted out by Genoa and Pisa he soon secured a complete mastery over the Italian mainland. When he reached Sicily he found Tancred dead, and, meeting with very little resistance, he entered Palermo, where he was crowned king on Christmas day 1194. A stay of a few months' duration enabled Henry to settle the affairs of the kingdom; and leaving his wife, Constance, as regent, and appointing many Germans to positions of influence, he returned to Germany in June 1195.

Having established his position in Germany and Italy, Henry began to cherish ideas of universal empire. Richard of England had already owned his supremacy, and declaring he would compel the king of France to do the same Henry sought to stir up strife between France and England. Nor did the Spanish kingdoms escape his notice. Tunis and Tripoli were claimed, and when the eastern emperor, Isaac Angelus, asked his help, he demanded in return the cession of the Balkan peninsula. The kings of Cyprus and Armenia asked for investiture at his hands; and in general Henry, in the words of a Byzantine chronicler, put forward his demands as "the lord of all lords, the king of all kings." To complete this scheme two steps were necessary, a reconciliation with the pope and the recognition of his young son, Frederick, as his successor in the Empire. The first was easily accomplished; the second was more difficult. After attempting to suppress the renewed disorder in Germany, Henry met the princes at Worms in December 1195 and put his proposal before them. In spite of promises they disliked the suggestion as tending to draw them into Sicilian troubles, and avoided the emperor's displeasure by postponing their answer. By threats or negotiations, however, Henry won the consent of about fifty princes; but though the diet which met at Würzburg in April 1196 agreed to the scheme, the vigorous opposition of Adolph, archbishop of Cologne, and others rendered it inoperative. In June 1196 Henry went again to Italy, sought vainly to restore order in the north, and tried to persuade the pope to crown his son who had been chosen king of the Romans at Frankfort. Celestine, who had many causes of complaint against the emperor and his vassals, refused. The emperor then went to the south, where the oppression of his German officials had caused an insurrection, which was put down with terrible cruelty. At Messina on the 28th of September 1197 Henry died from a cold caught whilst hunting, and was buried at Palermo. He was a man of small frame and delicate constitution, but possessed considerable mental gifts and was skilled in knightly exercises. His ambition was immense, and to attain his ends he often resorted deliberately to cruelty and treachery. His chief recreation was hunting, and he also found pleasure in the

society of the Minnesingers and in writing poems, which appear in F. H. von der Hagen's *Minnesinger* (Leipzig, 1838). He left an only son Frederick, afterwards the emperor Frederick II.

The chief authorities for the life and reign of Henry VI. are Otto of Freising, *Chronicon*, continued by Otto of St Blasius; Godfrey of Viterbo, *Gesta Friderici I.* and *Gesta Heinrici VI.*; Giselbert of Mons, *Chronicon Hanoniense*, all of which appear in the *Monumenta Germaniae historica. Scriptores*, Bände xx., xxi., xxii. (Hanover and Berlin, 1826-1892), and the various annals of the time.

The best modern authorities are: W. von Giesebrecht, *Geschichte der deutschen Kaiserzeit*, Band iv. (Brunswick, 1877); T. Toeche, *Kaiser Heinrich VI.* (Leipzig, 1867); H. Bloch, *Forschungen zur Politik Kaiser Heinrichs VI.* (Berlin, 1892), and K. A. Kneller, *Des Richard Löwenherz deutsche Gefangenschaft* (Freiburg, 1893).

HENRY VII. (*c.* 1269-1313), Roman emperor, son of Henry III., count of Luxemburg, was knighted by Philip IV., king of France, and passed his early days under French influences, while the French language was his mother-tongue. His father was killed in battle in 1288, and Henry ruled his tiny inheritance with justice and prudence, but came into collision with the citizens of Trier over a question of tolls. In 1292 he married Margaret (d. 1311), daughter of John I., duke of Brabant, and after the death of the German king, Albert I., he was elected to the vacant throne on the 27th of November 1308. Recognized at once by the German princes and by Pope Clement V., the aspirations of the new king turned to Italy, where he hoped by restoring the imperial authority to prepare the way for the conquest of the Holy Land. Meanwhile he strove to secure his position in Germany. The Rhenish archbishops were pacified by the restoration of the Rhine tolls, negotiations were begun with Philip IV., king of France, and with Robert, king of Naples, and the Habsburgs were confirmed in their possessions. At this time Bohemia was ruled by Henry V., duke of Carinthia, but the terrible disorder which prevailed induced some of the Bohemians to offer the crown, together with the hand of Elizabeth, daughter of the late king Wenceslas II., to John, the son of the German king. Henry accepted the offer, and in August 1310 John was invested with Bohemia and his marriage was celebrated. Before John's coronation at Prague, however, in February 1311, Henry had crossed the Alps. His hopes of reuniting Germany and Italy and of restoring the empire of the Hohenstaufen were flattered by an appeal from the Ghibellines to come to their assistance, and by the fact that many Italians, sharing the sentiments expressed by Dante in his *De Monarchia*, looked eagerly for a restoration of the imperial authority. In October 1310 he reached Turin where, on receiving the homage of the Lombard cities, he declared that he favoured neither Guelphs nor Ghibellines, but only sought to impose peace. Having entered Milan he placed the Lombard crown upon his head on the 6th of January 1311. But trouble soon showed itself. His poverty compelled him to exact money from the citizens; the peaceful professions of the Guelphs were insincere, and Robert, king of Naples, watched his progress with suspicion. Florence was fortified against him, and the mutual hatred of Guelph and Ghibelline was easily renewed. Risings took place in various places and, after the capture of Brescia, Henry marched to Rome only to find the city in the hands of the Guelphs and the troops of King Robert. Some street fighting ensued, and the king, unable to obtain possession of St Peter's, was crowned emperor on the 29th of June 1312 in the church of St John Lateran by some cardinals who declared they only acted under compulsion. Failing to subdue Florence, the emperor from his headquarters at Pisa prepared to attack Robert of Naples, for which purpose he had allied himself with Frederick III., king of Sicily. But Clement, anxious to protect Robert, threatened Henry with excommunication. Undeterred by the threat the emperor collected fresh forces, made an alliance with the Venetians, and set out for Naples. On the march he was, however, taken ill, and died at Buonconvento near Siena on the 24th of August 1313, and was buried at Pisa. His death was attributed, probably without reason, to poison given him by a Dominican friar in the sacramental wine. Henry is described by his contemporary Albertino Mussato, in the *Historia Augusta*, as a handsome man, of well-proportioned figure, with reddish hair and arched eyebrows, but disfigured by a squint. He adds, among other details, that he was slow and laconic in his speech, magnanimous and devout, but impatient of any compacts with his subjects, loathing the mention of the Guelph and Ghibelline factions, and insisting on the absolute authority of the Empire over all (*cuncta absoluto complectens Imperio*). He was, however, a lover of justice, and as a knight both bold and skilful. He was hailed by Dante as

the deliverer of Italy, and in the *Paradiso* the poet reserved for him a place marked by a crown.

The contemporary documents for the life and reign of Henry VII. are very numerous. Many of them are found in the *Rerum Italicarum scriptores*, edited by L. A. Muratori (Milan, 1723-1751), others in *Fontes rerum Germanicarum*, edited by J. F. Böhmer (Stuttgart, 1843-1868), and in *Die Geschichtsschreiber der deutschen Vorzeit*, Bände 79 and 80 (Leipzig, 1884). The following modern works may also be consulted: *Acta Henrici VII. imperatoris Romanorum*, edited by G. Dönniges (Berlin, 1839); F. Bonaini, *Acta Henrici VII. Romanorum imperatoris* (Florence, 1877); T. Lindner, *Deutsche Geschichte unter den Habsburgern und Luxemburgern* (Stuttgart, 1888-1893); J. Heidemann, "Die Königswahl Heinrichs von Luxemburg," in the *Forschungen zur deutschen Geschichte*, Band xi. (Göttingen, 1862-1886); B. Thomas, *Zur Königswahl des Grafen Heinrich von Luxemburg* (Strassburg, 1875); D. König, *Kritische Erörterungen zu einigen italienischen Quellen für die Geschichte des Römerzuges Königs Heinrich VII.* (Göttingen, 1874); K. Wenck, *Clemens V. und Heinrich VII.* (Halle, 1882); F. W. Barthold, *Der Römerzug König Heinrichs von Lützelburg* (Königsberg, 1830-1831); R. Pöhlmann, *Der Römerzug König Heinrichs VII. und die Politik der Curie* (Nuremberg, 1875); W. Dönniges, *Kritik der Quellen für die Geschichte Heinrichs VII. des Luxemburgers* (Berlin, 1841), and G. Sommerfeldt, *Die Romfahrt Kaiser Heinrichs VII.* (Königsberg, 1888).

HENRY VII. (1211-1242), German king, son of the emperor Frederick II. and his first wife Constance, daughter of Alphonso II., king of Aragon, was crowned king of Sicily in 1212 and made duke of Swabia in 1216. Pope Innocent III. had favoured his coronation as king of Sicily in the hope that the union of this island with the Empire would be dissolved, and had obtained a promise from Frederick to this effect. In spite of this, however, Henry was chosen king of the Romans, or German king, at Frankfort in April 1220, and crowned at Aix-la-Chapelle on the 8th of May 1222 by his guardian Engelbert, archbishop of Cologne. He appears to have spent most of his youth in Germany, and on the 18th of November 1225 was married at Nuremberg to Margaret (d. 1267), daughter of Leopold VI., duke of Austria. Henry's marriage was the occasion of some difference of opinion, as Engelbert wished him to marry an English princess, and the name of a Bohemian princess was also mentioned in this connexion, but Frederick insisted upon the union with Margaret. The murder of Engelbert in 1225 was followed by an increase of disorder in Germany in which Henry soon began to participate, and in 1227 he took part in a quarrel which had arisen on the death of Henry V., the childless count palatine of the Rhine. About this time the relations between Frederick and his son began to be somewhat strained. The emperor had favoured the Austrian marriage because Margaret's brother, Duke Frederick II., was childless; but Henry took up a hostile attitude towards his brother-in-law and wished to put away his wife and marry Agnes, daughter of Wenceslaus I., king of Bohemia. Other causes of trouble probably existed, for in 1231 Henry not only refused to appear at the diet at Ravenna, but opposed the privileges granted by Frederick to the princes at Worms. In 1232, however, he submitted to his father, promising to adopt the emperor's policy and to obey his commands. He did not long keep his word and was soon engaged in thwarting Frederick's wishes in several directions, until in 1233 he took the decisive step of issuing a manifesto to the princes, and the following year raised the standard of revolt at Boppard. He obtained very little support in Germany, however, while the suspicion that he favoured heresy deprived him of encouragement from the pope. On the other hand, he succeeded in forming an alliance with the Lombards in December 1234, but his few supporters fell away when the emperor reached Germany in 1235, and, after a vain attack on Worms, Henry submitted and was kept for some time as a prisoner in Germany, though his formal deposition as German king was not considered necessary, as he had broken the oath taken in 1232. He was soon removed to San Felice in Apulia, and afterwards to Martirano in Calabria, where he died, probably by his own hand, on the 12th of February 1242, and was buried at Cosenza. He left two sons, Frederick and Henry, both of whom died in Italy about 1251.

See J. Rohden, *Der Sturz Heinrichs VII.* (Göttingen, 1883); F. W. Schirrmacher, *Die letzten Hohenstaufen* (Göttingen, 1871), and E. Winkelmann, *Kaiser Friedrich II.* (Leipzig, 1889).

HENRY RASPE (*c.* 1202-1247), German king and landgrave of Thuringia, was the second surviving son of Hermann I., landgrave of Thuringia, and Sophia, daughter of Otto I., duke of Bavaria. When his brother the landgrave Louis IV. died in Italy in September 1227, Henry seized the government of Thuringia and expelled his brother's widow, St Elizabeth of Hungary, and her son Hermann. With some trouble Henry made good his position, although his nephew Hermann II. was nominally the landgrave, and was declared of age in 1237. Henry, who governed with a zealous regard for his own interests, remained loyal to the emperor Frederick II. during his quarrel with the Lombards and the revolt of his son Henry. In 1236 he accompanied the emperor on a campaign against Frederick II., duke of Austria, and took part in the election of his son Conrad as German king at Vienna in 1237. He appears, however, to have become somewhat estranged from Frederick after this expedition, for he did not appear at the diet of Verona in 1238; and it is not improbable that he disliked the betrothal of his nephew Hermann to the emperor's daughter Margaret. At all events, when the projected marriage had been broken off the landgrave publicly showed his loyalty to the emperor in 1239 in opposition to a plan formed by various princes to elect an anti-king. Henry, whose attitude at this time was very important to Frederick, was probably kept loyal by the influence which his brother Conrad, grand-master of the Teutonic Order, exercised over him, for after the death of this brother in 1241 Henry's loyalty again wavered, and he was himself mentioned as a possible anti-king. Frederick's visit to Germany in 1242 was successful in preventing this step for a time, and in May of that year the landgrave was appointed administrator of Germany for King Conrad; and by the death of his nephew in this year he became the nominal, as well as the actual, ruler of Thuringia. Again he contemplated deserting the cause of Frederick, and in April 1246 Pope Innocent IV. wrote to the German princes advising them to choose Henry as their king in place of Frederick who had just been declared deposed. Acting on these instructions, Henry was elected at Veitshöchheim on the 22nd of May 1246, and owing to the part played by the spiritual princes in this election was called the *Pfaffenkönig*, or parsons' king. Collecting an army, he defeated King Conrad near Frankfort on the 5th of August 1246, and then, after holding a diet at Nuremberg, undertook the siege of Ulm. But he was soon compelled to give up this enterprise, and returning to Thuringia died at the Wartburg on the 17th of February 1247. Henry married Gertrude, sister of Frederick II., duke of Austria, but left no children, and on his death the male line of his family became extinct.

See F. Reuss, *Die Wahl Heinrich Raspes* (Lüdenscheid, 1878); A. Rübesamen, *Landgraf Heinrich Raspe von Thüringen* (Halle, 1885); F. W. Schirrmacher, *Die letzten Hohenstaufen* (Göttingen, 1871); E. Winkelmann, *Kaiser Friedrich II.* (Leipzig, 1889), and T. Knochenhauer, *Geschichte Thüringens zur Zeit des ersten Landgrafenhauses* (Gotha, 1871).

HENRY (*c.* 1174-1216), emperor of Romania, or Constantinople, was a younger son of Baldwin, count of Flanders and Hainaut (d. 1195). Having joined the Fourth Crusade about 1201, he distinguished himself at the siege of Constantinople in 1204 and elsewhere, and soon became prominent among the princes of the new Latin empire of Constantinople. When his brother, the emperor Baldwin I., was captured at the battle of Adrianople in April 1205, Henry was chosen regent of the empire, succeeding to the throne when the news of Baldwin's death arrived. He was crowned on the 20th of August 1205. Henry was a wise ruler, whose reign was largely passed in successful struggles with the Bulgarians and with his rival, Theodore Lascaris I., emperor of Nicaea. Henry appears to have been brave but not cruel, and tolerant but not weak; possessing "the superior courage to oppose, in a superstitious age, the pride and avarice of the clergy." The emperor died, poisoned, it is said, by his Greek wife, on the 11th of June 1216.

See Gibbon's *Decline and Fall of the Roman Empire*, vol. vi. (ed. J. B. Bury, 1898).

HENRY I. (1068-1135), king of England, nicknamed Beauclerk, the fourth and youngest son of William I. by his queen Matilda of Flanders, was born in 1068 on English soil. Of his

life before 1086, when he was solemnly knighted by his father at Westminster, we know little. He was his mother's favourite, and she bequeathed to him her English estates, which, however, he was not permitted to hold in his father's lifetime. Henry received a good education, of which in later life he was proud; he is credited with the saying that an unlettered king is only a crowned ass. His attainments included Latin, which he could both read and write; he knew something of the English laws and language, and it may have been from an interest in natural history that he collected, during his reign, the Woodstock menagerie which was the admiration of his subjects. But from 1087 his life was one of action and vicissitudes which left him little leisure. Receiving, under the Conqueror's last dispositions, a legacy of five thousand pounds of silver, but no land, he traded upon the pecuniary needs of Duke Robert of Normandy, from whom he purchased, for the small sum of £3000, the district of the Cotentin. He negotiated with Rufus to obtain the possession of their mother's inheritance, but only incurred thereby the suspicions of the duke, who threw him into prison. In 1090 the prince vindicated his loyalty by suppressing, on Robert's behalf, a revolt of the citizens of Rouen which Rufus had fomented. But when his elder brothers were reconciled in the next year they combined to evict Henry from the Cotentin. He dissembled his resentment for a time, and lived for nearly two years in the French Vexin in great poverty. He then accepted from the citizens of Domfront an invitation to defend them against Robert of Bellême; and subsequently, coming to an agreement with Rufus, assisted the king in making war on their elder brother Robert. When Robert's departure for the First Crusade left Normandy in the hands of Rufus (1096) Henry took service under the latter, and he was in the royal hunting train on the day of Rufus's death (August 2nd, 1100). Had Robert been in Normandy the claim of Henry to the English crown might have been effectually opposed. But Robert only returned to the duchy a month after Henry's coronation. In the meantime the new king, by issuing his famous charter, by recalling Anselm, and by choosing the Anglo-Scottish princess Edith-Matilda, daughter of Malcolm III., king of the Scots, as his future queen, had cemented that alliance with the church and with the native English which was the foundation of his greatness. Anselm preached in his favour, English levies marched under the royal banner both to repel Robert's invasion (1101) and to crush the revolt of the Montgomeries headed by Robert of Bellême (1102). The alliance of crown and church was subsequently imperilled by the question of Investitures (1103-1106). Henry was sharply criticized for his ingratitude to Anselm (*q.v.*), in spite of the marked respect which he showed to the archbishop. At this juncture a sentence of excommunication would have been a dangerous blow to Henry's power in England. But the king's diplomatic skill enabled him to satisfy the church without surrendering any rights of consequence (1106); and he skilfully threw the blame of his previous conduct upon his counsellor, Robert of Meulan. Although the Peterborough Chronicle accuses Henry of oppression in his early years, the nation soon learned to regard him with respect. William of Malmesbury, about 1125, already treats Tinchebrai (1106) as an English victory and the revenge for Hastings. Henry was disliked but feared by the baronage, towards whom he showed gross bad faith in his disregard of his coronation promises. In 1110 he banished the more conspicuous malcontents, and from that date was safe against the plots of his English feudatories.

With Normandy he had more trouble, and the military skill which he had displayed at Tinchebrai was more than once put to the test against Norman rebels. His Norman, like his English administration, was popular with the non-feudal classes, but doubtless oppressive towards the barons. The latter had abandoned the cause of Duke Robert, who remained a prisoner in England till his death (1134); but they embraced that of Robert's son William the Clito, whom Henry in a fit of generosity had allowed to go free after Tinchebrai. The Norman conspiracies of 1112, 1118, and 1123-24 were all formed in the Clito's interest. Both France and Anjou supported this pretender's cause from time to time; he was always a thorn in Henry's side till his untimely death at Alost (1128), but more especially after the catastrophe of the White Ship (1120) deprived the king of his only lawful son. But Henry emerged from these complications with enhanced prestige. His campaigns had been uneventful, his chief victory (Brémule, 1119) was little more than a skirmish. But he had held his own as a general, and as a diplomatist he had shown surpassing skill. The chief triumphs of his foreign policy were the marriage of his daughter Matilda to the emperor Henry V. (1114) which saved Normandy in 1124; the detachment of the pope, Calixtus II., from the side of France and the Clito (1119), and the Angevin marriages which he arranged for his son William Aetheling (1119) and for the widowed empress Matilda (1129) after her brother's death. This latter match, though unpopular in England and Normandy, was a fatal blow to the designs of Louis VI., and prepared the way for the expansion of English power beyond the Loire. After 1124 the disaffection of Normandy was crushed. The severity with which Henry treated the last rebels was regarded as a blot upon his fame; but the only case of

merely vindictive punishment was that of the poet Luke de la Barre, who was sentenced to lose his eyes for a lampoon upon the king, and only escaped the sentence by committing suicide.

Henry's English government was severe and grasping; but he "kept good peace" and honourably distinguished himself among contemporary statesmen in an age when administrative reform was in the air. He spent more time in Normandy than in England. But he showed admirable judgment in his choice of subordinates; Robert of Meulan, who died in 1118, and Roger of Salisbury, who survived his master, were statesmen of no common order; and Henry was free from the mania of attending in person to every detail, which was the besetting sin of medieval sovereigns. As a legislator Henry was conservative. He issued few ordinances; the unofficial compilation known as the *Leges Henrici* shows that, like the Conqueror, he made it his ideal to maintain the "law of Edward." His itinerant justices were not altogether a novelty in England or Normandy. It is characteristic of the man that the exchequer should be the chief institution created in his reign. The eulogies of the last *Peterborough Chronicle* on his government were written after the anarchy of Stephen's reign had invested his predecessor's "good peace" with the glamour of a golden age. Henry was respected and not tyrannous. He showed a lofty indifference to criticism such as that of Eadmer in the *Historia novorum*, which was published early in the reign. He showed, on some occasions, great deference to the opinions of the magnates. But dark stories, some certainly unfounded, were told of his prison-houses. Men thought him more cruel and more despotic than he actually was.

Henry was twice married. After the death of his first wife, Matilda (1080-1118), he took to wife Adelaide, daughter of Godfrey, count of Louvain (1121), in the hope of male issue. But the marriage proved childless, and the empress Matilda was designated as her father's successor, the English baronage being compelled to do her homage both in 1126, and again, after the Angevin marriage, in 1131. He had many illegitimate sons and daughters by various mistresses. Of these bastards the most important is Robert, earl of Gloucester, upon whom fell the main burden of defending Matilda's title against Stephen.

Henry died near Gisors on the 1st of December, 1135, in the thirty-sixth year of his reign, and was buried in the abbey of Reading which he himself had founded.

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(H. W. C. D.)

HENRY II. (1133-1189), king of England, son of Geoffrey Plantagenet, count of Anjou, by Matilda, daughter of Henry I., was born at Le Mans on the 25th of March 1133. He was brought to England during his mother's conflict with Stephen (1142), and was placed under the charge of a tutor at Bristol. He returned to Normandy in 1146. He next appeared on English soil in 1149[1] when he came to court the help of Scotland and the English baronage against King Stephen. The second visit was of short duration. In 1150 he was invested with Normandy by his father, whose death in the next year made him also count of Anjou. In 1152 by a marriage with Eleanor of Aquitaine, the divorced wife of the French king Louis VII., he acquired Poitou, Guienne and Gascony; but in doing so incurred the ill-will of his suzerain

from which he suffered not a little in the future. Lastly in 1153 he was able, through the aid of the Church and his mother's partisans, to extort from Stephen the recognition of his claim to the English succession; and this claim was asserted without opposition immediately after Stephen's death (25th of October 1154). Matilda retired into seclusion, although she possessed, until her death (1167), great influence with her son.

The first years of the reign were largely spent in restoring the public peace and recovering for the crown the lands and prerogatives which Stephen had bartered away. Amongst the older partisans of the Angevin house the most influential were Archbishop Theobald, whose good will guaranteed to Henry the support of the Church, and Nigel, bishop of Ely, who presided at the exchequer. But Thomas Becket, archdeacon of Canterbury, a younger statesman whom Theobald had discovered and promoted, soon became all-powerful. Becket lent himself entirely to his master's ambitions, which at this time centred round schemes of territorial aggrandizement. In 1155 Henry asked and obtained from Adrian IV. a licence to invade Ireland, which the king contemplated bestowing upon his brother, William of Anjou. This plan was dropped; but Malcolm of Scotland was forced to restore the northern counties which had been ceded to David; North Wales was invaded in 1157; and in 1159 Henry made an attempt, which was foiled by the intervention of Louis VII., to assert his wife's claims upon Toulouse. After vainly invoking the aid of the emperor Frederick I., the young king came to terms with Louis (1160), whose daughter was betrothed to Henry's namesake and heir. The peace proved unstable, and there was desultory skirmishing in 1161. The following year was chiefly spent in reforming the government of the continental provinces. In 1163 Henry returned to England, and almost immediately embarked on that quarrel with the Church which is the keynote to the middle period of the reign.

Henry had good cause to complain of the ecclesiastical courts, and had only awaited a convenient season to correct abuses which were admitted by all reasonable men. But he allowed the question to be complicated by personal issues. He was bitterly disappointed that Becket, on whom he bestowed the primacy, left vacant by the death of Theobald (1162), at once became the champion of clerical privilege; he and the archbishop were no longer on speaking terms when the Constitutions of Clarendon came up for debate. The king's demands were not intrinsically irreconcilable with the canon law, and the papacy would probably have allowed them to take effect *sub silentio*, if Becket (*q.v.*) had not been goaded to extremity by persecution in the forms of law. After Becket's flight (1164), the king put himself still further in the wrong by impounding the revenues of Canterbury and banishing at one stroke a number of the archbishop's friends and connexions. He showed, however, considerable dexterity in playing off the emperor against Alexander III. and Louis VII., and contrived for five years, partly by these means, partly by insincere negotiations with Becket, to stave off a papal interdict upon his dominions. When, in July 1170, he was forced by Alexander's threats to make terms with Becket, the king contrived that not a word should be said of the Constitutions. He undoubtedly hoped that in this matter he would have his way when Becket should be more in England and within his grasp. For the murder of Becket (Dec. 29, 1170) the king cannot be held responsible, though the deed was suggested by his impatient words. It was a misfortune to the royal cause; and Henry was compelled to purchase the papal absolution by a complete surrender on the question of criminous clerks (1172). When he heard of the murder he was panic-stricken; and his expedition to Ireland (1171), although so momentous for the future, was originally a mere pretext for placing himself beyond the reach of Alexander's censures.

Becket's fate, though it supplied an excuse, was certainly not the real cause of the troubles with his sons which disturbed the king's later years (1173-1189). But Henry's misfortunes were largely of his own making. Queen Eleanor, whom he alienated by his faithlessness, stirred up her sons to rebellion; and they had grievances enough to be easily persuaded. Henry was an affectionate but a suspicious and close-handed father. The titles which he bestowed on them carried little power, and served chiefly to denote the shares of the paternal inheritance which were to be theirs after his death. The excessive favour which he showed to John, his youngest-born, was another cause of heart-burning; and Louis, the old enemy, did his utmost to foment all discords. It must, however, be remembered in Henry's favour, that the supporters of the princes, both in England and in the foreign provinces, were animated by resentment against the soundest features of the king's administration; and that, in the rebellion of 1173, he received from the English commons such hearty support that any further attempt to raise a rebellion in England was considered hopeless. Henry, like his grandfather, gained in popularity with every year of his reign. In 1183 the death of Prince Henry, the heir-apparent, while engaged in a war against his brother Richard and their father, secured a short interval of peace. But in 1184 Geoffrey of Brittany and John combined with their father's leave to make war upon Richard, now the

heir-apparent. After Geoffrey's death (1186) the feud between John and Richard drove the latter into an alliance with Philip Augustus of France. The ill-success of the old king in this war aggravated the disease from which he was suffering; and his heart was broken by the discovery that John, for whose sake he had alienated Richard, was in secret league with the victorious allies. Henry died at Chinon on the 6th of July 1189, and was buried at Fontevraud. By Eleanor of Aquitaine the king had five sons and three daughters. His eldest son, William, died young; his other sons, Henry, Richard, Geoffrey and John, are all mentioned above. His daughters were: Matilda (1156-1189), who became the wife of Henry the Lion, duke of Saxony; Eleanor (1162-1214), who married Alphonso III., king of Castile; and Joanna, who, after the death of William of Sicily in 1189, became the wife of Raymund VI., count of Toulouse, having previously accompanied her brother, Richard, to Palestine. He had also three illegitimate sons: Geoffrey, archbishop of York; Morgan; and William Longsword, earl of Salisbury.

Henry's power impressed the imagination of his contemporaries, who credited him with aiming at the conquest of France and the acquisition of the imperial title. But his ambitions of conquest were comparatively moderate in his later years. He attempted to secure Maurienne and Savoy for John by a marriage-alliance, for which a treaty was signed in 1173. But the project failed through the death of the intended bride; nor did the marriage of his third daughter, the princess Joanna (1165-1199), with William II., king of Sicily (1177) lead to English intervention in Italian politics. Henry once declined an offer of the Empire, made by the opponents of Frederick Barbarossa; and he steadily supported the young Philip Augustus against the intrigues of French feudatories. The conquest of Ireland was carried out independently of his assistance, and perhaps against his wishes. He asserted his suzerainty over Scotland by the treaty of Falaise (1175), but not so stringently as to provoke Scottish hostility. This moderation was partly due to the embarrassments produced by the ecclesiastical question and the rebellions of the princes. But Henry, despite a violent and capricious temper, had a strong taste for the work of a legislator and administrator. He devoted infinite pains and thought to the reform of government both in England and Normandy. The legislation of his reign was probably in great part of his own contriving. His supervision of the law courts was close and jealous; he transacted a great amount of judicial business in his own person, even after he had formed a high court of justice which might sit without his personal presence. To these activities he devoted his scanty intervals of leisure. His government was stern; he over-rode the privileges of the baronage without regard to precedent; he persisted in keeping large districts under the arbitrary and vexatious jurisdiction of the forest-courts. But it is the general opinion of historians that he had a high sense of his responsibilities and a strong love of justice; despite the looseness of his personal morals, he commanded the affection and respect of Gilbert Foliot and Hugh of Lincoln, the most upright of the English bishops.

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(H. W. C. D.)

1 For a supposed visit in 1147, see J. H. Round in *English Historical Review*, v. 747.

HENRY III. (1207-1272), king of England, was the eldest son of King John by Isabella of Angoulême. Born on the 1st of October 1207, the prince was but nine years old at the time of his father's death. The greater part of eastern England being in the hands of the French pretender, Prince Louis, afterwards King Louis VIII., and the rebel barons, Henry was crowned by his supporters at Gloucester, the western capital. John had committed his son to the protection of the Holy See; and a share in the government was accordingly allowed to the papal legates, Gualo and Pandulf, both during the civil war and for some time afterwards. But the title of regent was given by the loyal barons to William Marshal, the aged earl of Pembroke; and Peter des Roches, the Poitevin bishop of Winchester, received the charge of the king's person. The cause of the young Henry was fully vindicated by the close of the year 1217. Defeated both by land and sea, the French prince renounced his pretensions and evacuated England, leaving the regency to deal with the more difficult questions raised by the lawless insolence of the royal partisans. Henry remained a passive spectator of the measures by which William Marshal (d. 1219), and his successor, the justiciar Hubert de Burgh, asserted the royal prerogative against native barons and foreign mercenaries. In 1223 Honorius III. declared the king of age, but this was a mere formality, intended to justify the resumption of the royal castles and demesnes which had passed into private hands during the commotions of the civil war.

The personal rule of Henry III. began in 1227, when he was again proclaimed of age. Even then he remained for some time under the influence of Hubert de Burgh, whose chief rival, Peter des Roches, found it expedient to quit the kingdom for four years. But Henry was ambitions to recover the continental possessions which his father had lost. Against the 283
wishes of the justiciar he planned and carried out an expedition to the west of France (1230); when it failed he laid the blame upon his minister. Other differences arose soon afterwards. Hubert was accused, with some reason, of enriching himself at the expense of the crown, and of encouraging popular riots against the alien clerks for whom the papacy was providing at the expense of the English Church. He was disgraced in 1232; and power passed for a time into the hands of Peter des Roches, who filled the administration with Poitevins. So began the period of misrule by which Henry III. is chiefly remembered in history. The Poitevins fell in 1234; they were removed at the demand of the barons and the primate Edmund Rich, who held them responsible for the tragic fate of the rebellious Richard Marshal. But the king replaced them with a new clique of servile and rapacious favourites. Disregarding the wishes of the Great Council, and excluding all the more important of the barons and bishops from office, he acted as his own chief minister and never condescended to justify his policy except when he stood in need of subsidies. When these were refused, he extorted aids from the towns, the Jews or the clergy, the three most defenceless interests in the kingdom. Always in pecuniary straits through his extravagance, he pursued a foreign policy which would have been expensive under the most careful management. He hoped not only to regain the French possessions but to establish members of his own family as sovereigns in Italy and the Empire. These plans were artfully fostered by the Savoyard kinsmen of Eleanor, daughter of Raymond Berenger, count of Provence, whom he married at Canterbury in January 1236, and by his half-brothers, the sons of Queen Isabella and Hugo, count of la Marche. These favourites, not content with pushing their fortunes in the English court, encouraged the king in the wildest designs. In 1242 he led an expedition to Gascony which terminated disastrously with the defeat of Taillebourg; and hostilities with France were intermittently continued for seventeen years. The Savoyards encouraged his natural tendency to support the Papacy against the Empire; at an early date in the period of misrule he entered into a close alliance with Rome, which resulted in heavy taxation of the clergy and gave great umbrage to the barons. A cardinal-legate was sent to England at Henry's request, and during four years (1237-1241) administered the English Church in a manner equally profitable to the king and to the pope. After the recall of the legate Otho the alliance was less open and less cordial. Still the pope continued to share the spoils of the English clergy with the king, and the king to enforce the demands of Roman tax-collectors.

Circumstances favoured Henry's schemes. Archbishop Edmund Rich was timid and inexperienced; his successor, Boniface of Savoy, was a kinsman of the queen; Grosseteste,

the most eminent of the bishops, died in 1253, when he was on the point of becoming a popular hero. Among the lay barons, the first place naturally belonged to Richard of Cornwall who, as the king's brother, was unwilling to take any steps which might impair the royal prerogative; while Simon de Montfort, earl of Leicester, the ablest man of his order, was regarded with suspicion as a foreigner, and linked to Henry's cause by his marriage with the princess Eleanor. Although the Great Council repeatedly protested against the king's misrule and extravagance, their remonstrances came to nothing for want of leaders and a clear-cut policy. But between 1248 and 1252 Henry alienated Montfort from his cause by taking the side of the Gascons, whom the earl had provoked to rebellion through his rigorous administration of their duchy. A little later, when Montfort was committed to opposition, Henry foolishly accepted from Innocent IV. the crown of Sicily for his second son Edmund Crouchback (1255). Sicily was to be conquered from the Hohenstaufen at the expense of England; and Henry pledged his credit to the papacy for enormous subsidies, although years of comparative inactivity had already overwhelmed him with debts. On the publication of the ill-considered bargain the baronage at length took vigorous action. They forced upon the king the Provisions of Oxford (1258), which placed the government in the hands of a feudal oligarchy; they reduced expenditure, expelled the alien favourites from the kingdom, and insisted upon a final renunciation of the French claims. The king submitted for the moment, but at the first opportunity endeavoured to cancel his concessions. He obtained a papal absolution from his promises; and he tricked the opposition into accepting the arbitration of the French king, Louis IX., whose verdict was a foregone conclusion. But Henry was incapable of protecting with the strong hand the rights which he had recovered by his double-dealing. Ignominiously defeated by Montfort at Lewes (1264) he fell into the position of a cipher, equally despised by his opponents and supporters. He acquiesced in the earl's dictatorship; left to his eldest son, Edward, the difficult task of reorganizing the royal party; marched with the Montfortians to Evesham; and narrowly escaped sharing the fate of his gaoler. After Evesham he is hardly mentioned by the chroniclers. The compromise with the surviving rebels was arranged by his son in concert with Richard of Cornwall and the legate Ottobuono; the statute of Marlborough (1267), which purchased a lasting peace by judicious concessions, was similarly arranged between Edward and the earl of Gloucester. Edward was king in all but name for some years before the death of his father, by whom he was alternately suspected and adored.

Henry had in him some of the elements of a fine character. His mind was cultivated; he was a discriminating patron of literature, and Westminster Abbey is an abiding memorial of his artistic taste. His personal morality was irreproachable, except that he inherited the Plantagenet taste for crooked courses and dissimulation in political affairs; even in this respect the king's reputation has suffered unduly at the hands of Matthew Paris, whose literary skill is only equalled by his malice. The ambitions which Henry cherished, if extravagant, were never sordid; his patriotism, though seldom attested by practical measures, was thoroughly sincere. Some of his worst actions as a politician were due to a sincere, though exaggerated, gratitude for the support which the Papacy had given him during his minority. But he had neither the training nor the temper of a statesman. His dreams of autocracy at home and far-reaching dominion abroad were anachronisms in a century of constitutional ideas and national differentiation. Above all he earned the contempt of Englishmen and foreigners alike by the instability of his purpose. Matthew Paris said that he had a heart of wax; Dante relegated him to the limbo of ineffectual souls; and later generations have endorsed these scathing judgments.

Henry died at Westminster on the 16th of November 1272; his widow, Eleanor, took the veil in 1276 and died at Amesbury on the 25th of June 1291. Their children were: the future king Edward I.; Edmund, earl of Lancaster; Margaret (1240-1275), the wife of Alexander III., king of Scotland; Beatrice; and Katherine.

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(H. W. C. D.)

HENRY IV. (1367-1413), king of England, son of John of Gaunt, by Blanche, daughter of Henry, duke of Lancaster, was born on the 3rd of April 1367, at Bolingbroke in Lincolnshire. As early as 1377 he is styled earl of Derby, and in 1380 he married Mary de Bohun (d. 1394) one of the co-heiresses of the last earl of Hereford. In 1387 he supported his uncle Thomas, duke of Gloucester, in his armed opposition to Richard II. and his favourites. Afterwards, probably through his father's influence, he changed sides. He was already distinguished for his knightly prowess, and for some years devoted himself to adventure. He thought of going on the crusade to Barbary; but instead, in July 1390, went to serve with the Teutonic knights in Lithuania. He came home in the following spring, but next year went again to Prussia, whence he journeyed by way of Venice to Cyprus and Jerusalem. After his return to England he sided with his father and the king against Gloucester, and in 1397 was made duke of Hereford. In January 1398 he quarrelled with the duke of Norfolk, who charged him with treason. The dispute was to have been decided in the lists at Coventry in September; but at the last moment Richard intervened and banished them both.

When John of Gaunt died in February 1399 Richard, contrary to his promise, confiscated the estates of Lancaster. Henry then felt himself free, and made friends with the exiled Arundels. Early in July, whilst Richard was absent in Ireland, he landed at Ravenspur in Yorkshire. He was at once joined by the Percies; and Richard, abandoned by his friends, surrendered at Flint on the 19th of August. In the parliament, which assembled on the 30th of September, Richard was forced to abdicate. Henry then made his claim as coming by right line of blood from King Henry III., and through his right to recover the realm which was in point to be undone for default of governance and good law. Parliament formally accepted him, and thus Henry became king, "not so much by title of blood as by popular election" (Capgrave). The new dynasty had consequently a constitutional basis. With this Henry's own political sympathies well accorded. But though the revolution of 1399 was popular in form, its success was due to an oligarchical faction. From the start Henry was embarrassed by the power and pretensions of the Percies. Nor was his hereditary title so good as that of the Mortimers. To domestic troubles was added the complication of disputes with Scotland and France. The first danger came from the friends of Richard, who plotted prematurely, and were crushed in January 1400. During the summer of 1400 Henry made a not over-successful expedition to Scotland. The French court would not accept his overtures, and it was only in the summer of 1401 that a truce was patched up by the restoration of Richard's child-queen, Isabella of Valois. Meantime a more serious trouble had arisen through the outbreak of the Welsh revolt under Owen Glendower (*q.v.*). In 1400 and again in each of the two following autumns Henry invaded Wales in vain. The success of the Percies over the Scots at Homildon Hill (Sept. 1402) was no advantage. Henry Percy (Hotspur) and his father, the earl of Northumberland, thought their services ill-requited, and finally made common cause with the partisans of Mortimer and the Welsh. The plot was frustrated by Hotspur's defeat at Shrewsbury (21st of July 1403); and Northumberland for the time submitted. Henry had, however, no one on whom he could rely outside his own family, except Archbishop Arundel. The Welsh were unsubdued; the French were plundering the southern coast; Northumberland was fomenting trouble in the north. The crisis came in 1405. A plot to carry off the young Mortimers was defeated; but Mowbray, the earl marshal, who had been privy to it, raised a rebellion in the north supported by Archbishop Scrope of York. Mowbray and Scrope were taken and beheaded; Northumberland escaped into Scotland. For the execution of the archbishop Henry was personally responsible, and he could never free himself from its odium. Popular belief regarded his subsequent illness as a judgment for his impiety. Apart from ill-health and unpopularity Henry had succeeded—relations with Scotland were secured by the capture of James, the heir to the crown; Northumberland was at last crushed at Bramham Moor (Feb. 1408); and a little later the Welsh revolt was mastered.

Henry, stricken with sore disease, was unable to reap the advantage. His necessities had all along enabled the Commons to extort concessions in parliament, until in 1406 he was forced to nominate a council and govern by its advice. However, with Archbishop Arundel as

his chancellor, Henry still controlled the government. But in January 1410 Arundel had to give way to the king's half-brother, Thomas Beaufort. Beaufort and his brother Henry, bishop of Winchester, were opposed to Arundel and supported by the prince of Wales. For two years the real government rested with the prince and the council. Under the prince's influence the English intervened in France in 1411 on the side of Burgundy. In this, and in some matters of home politics, the king disagreed with his ministers. There is good reason to suppose that the Beauforts had gone so far as to contemplate a forced abdication on the score of the king's ill-health. However, in November 1411 Henry showed that he was still capable of vigorous action by discharging the prince and his supporters. Arundel again became chancellor, and the king's second son, Thomas, took his brother's place. The change was further marked by the sending of an expedition to France in support of Orleans. But Henry's health was failing steadily. On the 20th of March 1413, whilst praying in Westminster Abbey he was seized with a fainting fit, and died that same evening in the Jerusalem Chamber. At the time he was believed to have been a leper, but as it would appear without sufficient reason.

As a young man Henry had been chivalrous and adventurous, and in politics anxious for good government and justice. As king the loss and failure of friends made him cautious, suspicious and cruel. The persecution of the Lollards, which began with the burning statute of 1401, may be accounted for by Henry's own orthodoxy, or by the influence of Archbishop Arundel, his one faithful friend. But that political Lollardry was strong is shown by the proposal in the parliament of 1410 for a wholesale confiscation of ecclesiastical property. Henry's faults may be excused by his difficulties. Throughout he was practical and steadfast, and he deserved credit for maintaining his principles as a constitutional ruler. So after all his troubles he founded his dynasty firmly, and passed on the crown to his son with a better title. He is buried under a fine tomb at Canterbury.

By Mary Bohun Henry had four sons: his successor Henry V., Thomas, duke of Clarence, John, duke of Bedford, and Humphrey, duke of Gloucester; and two daughters, Blanche, who married Louis III., elector palatine of the Rhine, and Philippa, who married Eric XIII., king of Sweden. Henry's second wife was Joan, or Joanna, (*c.* 1370-1437), daughter of Charles the Bad, king of Navarre, and widow of John IV. or V., duke of Brittany, who survived until July 1437. By her he had no children.

The chief contemporary authorities are the *Annales Henrici Quarti* and T. Walsingham's *Historia Anglicana* (Rolls Series), Adam of Usk's *Chronicle* and the various *Chronicles of London*. The life by John Capgrave (*De illustribus Henricis*) is of little value. Some personal matter is contained in *Wardrobe Accounts of Henry, Earl of Derby* (Camden Soc.). For documents consult T. Rymer's *Foedera*; Sir N. H. Nicolas, *Proceedings and Ordinances of the Privy Council*; Sir H. Ellis, *Original Letters illustrative of English History* (London, 1825-1846); *Rolls of Parliament*; *Royal and Historical Letters, Henry IV.* (Rolls Series) and the *Calendars of Patent Rolls*. Of modern authorities the foremost is J. H. Wylie's minute and learned *Hist. of England under Henry IV.* (4 vols., London, 1884-1898). See also W. Stubbs, *Constitutional History*; Sir J. Ramsay, *Lancaster and York* (2 vols., Oxford, 1892), and C. W. C. Oman, *The Political History of England*, vol. iv.

(C. L. K.)

HENRY V. (1387-1422), king of England, son of Henry IV. by Mary de Bohun, was born at Monmouth, in August 1387. On his father's exile in 1398 Richard II. took the boy into his own charge, and treated him kindly. Next year the Lancastrian revolution forced Henry into precocious prominence as heir to the throne. From October 1400 the administration of Wales was conducted in his name; less than three years later he was in actual command of the English forces and fought against the Percies at Shrewsbury. The Welsh revolt absorbed his energies till 1408. Then through the king's ill-health he began to take a wider share in politics. From January 1410, helped by his uncles Henry and Thomas Beaufort, he had practical control of the government. Both in foreign and domestic policy he differed from the king, who in November 1411 discharged the prince from the council. The quarrel of father and son was political only, though it is probable that the Beauforts had discussed the abdication of Henry IV., and their opponents certainly endeavoured to defame the prince. It may be that to political enmity the tradition of Henry's riotous youth, immortalized by Shakespeare, is partly due. To that tradition Henry's strenuous life in war and politics is a

sufficient general contradiction. The most famous incident, his quarrel with the chief-justice, has no contemporary authority and was first related by Sir Thomas Elyot in 1531. The story of Falstaff originated partly in Henry's early friendship for Oldcastle (*q.v.*). That friendship, and the prince's political opposition to Archbishop Arundel, perhaps encouraged Lollard hopes. If so, their disappointment may account for the statements of ecclesiastical writers, like Walsingham, that Henry on becoming king was changed suddenly into a new man.

Henry succeeded his father on the 20th of March 1413. With no past to embarrass him, and with no dangerous rivals, his practical experience had full scope. He had to deal with three main problems—the restoration of domestic peace, the healing of schism in the Church and the recovery of English prestige in Europe. Henry grasped them all together, and gradually built upon them a yet wider policy. From the first he made it clear that he would rule England as the head of a united nation, and that past differences were to be forgotten. Richard II. was honourably reinterred; the young Mortimer was taken into favour; the heirs of those who had suffered in the last reign were restored gradually to their titles and estates. With Oldcastle Henry used his personal influence in vain, and the gravest domestic danger was Lollard discontent. But the king's firmness nipped the movement in the bud (Jan. 1414), and made his own position as ruler secure. Save for the abortive Scrope and Cambridge plot in favour of Mortimer in July 1415, the rest of his reign was free from serious trouble at home. Henry could now turn his attention to foreign affairs. A writer of the next generation was the first to allege that Henry was encouraged by ecclesiastical statesmen to enter on the French war as a means of diverting attention from home troubles. For this story there is no foundation. The restoration of domestic peace was the king's first care, and until it was assured he could not embark on any wider enterprise abroad. Nor was that enterprise one of idle conquest. Old commercial disputes and the support which the French had lent to Glendower gave a sufficient excuse for war, whilst the disordered state of France afforded no security for peace. Henry may have regarded the assertion of his own claims as part of his kingly duty, but in any case a permanent settlement of the national quarrel was essential to the success of his world policy. The campaign of 1415, with its brilliant conclusion at Agincourt (October 25), was only the first step. Two years of patient preparation followed. The command of the sea was secured by driving the Genoese allies of the French out of the Channel. A successful diplomacy detached the emperor Sigismund from France, and by the Treaty of Canterbury paved the way to end the schism in the Church. So in 1417 the war was renewed on a larger scale. Lower Normandy was quickly conquered, Rouen cut off from Paris and besieged. The French were paralysed by the disputes of Burgundians and Armagnacs. Henry skilfully played them off one against the other, without relaxing his warlike energy. In January 1419 Rouen fell. By August the English were outside the walls of Paris. The intrigues of the French parties culminated in the assassination of John of Burgundy by the dauphin's partisans at Montereau (September 10, 1419). Philip, the new duke, and the French court threw themselves into Henry's arms. After six months' negotiation Henry was by the Treaty of Troyes recognized as heir and regent of France, and on the 2nd of June 1420 married Catherine, the king's daughter. He was now at the height of his power. His eventual success in France seemed certain. He shared with Sigismund the credit of having ended the Great Schism by obtaining the election of Pope Martin V. All the states of western Europe were being brought within the web of his diplomacy. The headship of Christendom was in his grasp, and schemes for a new crusade began to take shape. He actually sent an envoy to collect information in the East; but his plans were cut short by death. A visit to England in 1421 was interrupted by the defeat of Clarence at Baugé. The hardships of the longer winter siege of Meaux broke down his health, and he died at Bois de Vincennes on the 31st of August 1422.

Henry's last words were a wish that he might live to rebuild the walls of Jerusalem. They are significant. His ideal was founded consciously on the models of Arthur and Godfrey as national king and leader of Christendom. So he is the typical medieval hero. For that very reason his schemes were doomed to end in disaster, since the time was come for a new departure. Yet he was not reactionary. His policy was constructive: a firm central government supported by parliament; church reform on conservative lines; commercial development; and the maintenance of national prestige. His aims in some respects anticipated those of his Tudor successors, but he would have accomplished them on medieval lines as a constitutional ruler. His success was due to the power of his personality. He could train able lieutenants, but at his death there was no one who could take his place as leader. War, diplomacy and civil administration were all dependent on his guidance. His dazzling achievements as a general have obscured his more sober qualities as a ruler, and even the sound strategy, with which he aimed to be master of the narrow seas. If he was not the founder of the English navy he was one of the first to realize its true importance. Henry

had so high a sense of his own rights that he was merciless to disloyalty. But he was scrupulous of the rights of others, and it was his eager desire to further the cause of justice that impressed his French contemporaries. He has been charged with cruelty as a religious persecutor; but in fact he had as prince opposed the harsh policy of Archbishop Arundel, and as king sanctioned a more moderate course. Lollard executions during his reign had more often a political than a religious reason. To be just with sternness was in his eyes a duty. So in his warfare, though he kept strict discipline and allowed no wanton violence, he treated severely all who had in his opinion transgressed. In his personal conduct he was chaste, temperate and sincerely pious. He delighted in sport and all manly exercises. At the same time he was cultured, with a taste for literature, art and music. Henry lies buried in Westminster Abbey. His tomb was stripped of its splendid adornment during the Reformation. The shield, helmet and saddle, which formed part of the original funeral equipment, still hang above it.

Of original authorities the best on the English side is the *Gesta Henrici Quinti* (down to 1416), printed anonymously for the English Historical Society, but probably written by Thomas Elmham, one of Henry's chaplains. Two lives edited by Thomas Hearne under the names of Elmham and Titus Livius Forojuliensis come from a common source; the longer, which Hearne ascribed incorrectly to Elmham, is perhaps the original work of Livius, who was an Italian in the service of Humphrey of Gloucester, and wrote about 1440. Other authorities are the Chronicles of Walsingham and Otterbourne, the *English Chronicle* or *Brut*, and the various *London Chronicles*. On the French side the most valuable are Chronicles of Monstrelet and St Rémy (both Burgundian) and the *Chronique du religieux de S. Denys* (the official view of the French court). For documents and modern authorities see under HENRY IV. See also Sir N. H. Nicolas, *Hist. of the Battle of Agincourt and the Expedition of 1415* (London, 1833); C. L. Kingsford, *Henry V., the Typical Medieval Hero* (New York, 1901), where a fuller bibliography will be found.

(C. L. K.)

HENRY VI. (1421-1471), king of England, son of Henry V. and Catherine of Valois, was born at Windsor on the 6th of December 1421. He became king of England on the 1st of September 1422, and a few weeks later, on the death of his grandfather Charles VI., was proclaimed king of France also. Henry V. had directed that Richard Beauchamp, earl of Warwick (*q.v.*), should be his son's preceptor; Warwick took up his charge in 1428; he trained his pupil to be a good man and refined gentleman, but he could not teach him kingship. As early as 1423 the baby king was made to appear at public functions and take his place in parliament. He was knighted by his uncle Bedford at Leicester in May 1426, and on the 6th of November 1429 was crowned at Westminster. Early in the next year he was taken over to France, and after long delay crowned in Paris on the 16th of December 1431. His return to London on the 14th of February 1432 was celebrated with a great pageant devised by Lydgate.

During these early years Bedford ruled France wisely and at first with success, but he could not prevent the mischief which Humphrey of Gloucester (*q.v.*) caused both at home and abroad. Even in France the English lost ground steadily after the victory of Joan of Arc before Orleans in 1429. The climax came with the death of Bedford, and defection of Philip of Burgundy in 1435. This closed the first phase of Henry's reign. There followed fifteen years of vain struggle in France, and growing disorder at home. The determining factor in politics was the conduct of the war. Cardinal Beaufort, and after him Suffolk, sought by working for peace to secure at least Guienne and Normandy. Gloucester courted popularity by opposing them throughout; with him was Richard of York, who stood next in succession to the crown. Beaufort controlled the council, and it was under his guidance that the king began to take part in the government. Thus it was natural that as Henry grew to manhood he seconded heartily the peace policy. That policy was wise, but national pride made it unpopular and difficult. Henry himself had not the strength or knowledge to direct it, and was unfortunate in his advisers. The cardinal was old, his nephews John and Edmund Beaufort were incompetent, Suffolk, though a man of noble character, was tactless. Suffolk, however, achieved a great success by negotiating the marriage of Henry to Margaret of Anjou (*q.v.*) in 1445. Humphrey of Gloucester and Cardinal Beaufort both died early in 1447. Suffolk was now all-powerful in the favour of the king and queen. But his home administration was unpopular, whilst the incapacity of Edmund Beaufort ended in the loss of

all Normandy and Guienne. Suffolk's fall in 1450 left Richard of York the foremost man in England. Henry's reign then entered on its last phase of dynastic struggle. Cade's rebellion suggested first that popular discontent might result in a change of rulers. But York, as heir to the throne, could abide his time. The situation was altered by the mental derangement of the king, and the birth of his son in 1453. York after a struggle secured the protectorship, and for the next year ruled England. Then Henry was restored to sanity, and the queen and Edmund Beaufort, now Duke of Somerset, to power. Open war followed, with the defeat and death of Somerset at St Albans on the 22nd of May 1455. Nevertheless a hollow peace was patched up, which continued during four years with lack of all governance. In 1459 war broke out again. On the 10th of July 1460 Henry was taken prisoner at Northampton, and forced to acknowledge York as heir, to the exclusion of his own son. Richard of York's death at Wakefield (Dec. 29, 1460), and the queen's victory at St Albans (Feb. 17, 1461), brought Henry his freedom and no more. Edward of York had himself proclaimed king, and by his decisive victory at Towton on the 29th of March, put an end to Henry's reign. For over three years Henry was a fugitive in Scotland. He returned to take part in an abortive rising in 1464. A year later he was captured in the north, and brought a prisoner to the Tower. For six months in 1470-1471 he emerged to hold a shadowy kingship as Warwick's puppet. Edward's final victory at Tewkesbury was followed by Henry's death on the 21st of May 1471, certainly by violence, perhaps at the hands of Richard of Gloucester.

Henry was the most hapless of monarchs. He was so honest and well-meaning that he might have made a good ruler in quiet times. But he was crushed by the burden of his inheritance. He had not the genius to find a way out of the French entanglement or the skill to steer a constitutional monarchy between rival factions. So the system and policy which were the creations of Henry IV. and Henry V. led under Henry VI. to the ruin of their dynasty. Henry's very virtues added to his difficulties. He was so trusting that any one could influence him, so faithful that he would not give up a minister who had become impossible. Thus even in the middle period he had no real control of the government. In his latter years he was mentally too weak for independent action. At his best he was a "good and gentle creature," but too kindly and generous to rule others. Religious observances and study were his chief occupations. His piety was genuine; simple and pure, he was shocked at any suggestion of impropriety, but his rebuke was only "Fie, for shame! forsooth ye are to blame." For education he was really zealous. Even as a boy he was concerned for the upbringing of his half-brothers, his mother's children by Owen Tudor. Later, the planning of his great foundations at Eton and King's College, Cambridge, was the one thing which absorbed his interest. To both he was more than a royal founder, and the credit of the whole scheme belongs to him. The charter for Eton was granted on the 11th of October 1440, and that for King's College in the following February. Henry himself laid the foundation-stones of both buildings. He frequently visited Cambridge to superintend the progress of the work. When at Windsor he loved to send for the boys from his school and give them good advice.

Henry's only son was Edward, prince of Wales (1453-1471), who, having shared the many journeys and varying fortunes of his mother, Margaret, was killed after the battle of Tewkesbury (May 4, 1471) by some noblemen in attendance on Edward IV.

There is a life of Henry by his chaplain John Blakman (printed at the end of Hearne's edition of Otterbourne); but it is concerned only with his piety and patience in adversity. English chronicles for the reign are scanty; the best are the *Chronicles of London* (ed. C. L. Kingsford), with the analogous *Gregory's Chronicle* (ed. J. Gairdner for Camden Soc.) and *Chronicle of London* (ed. Sir H. N. Nicolas). *The Paston Letters*, with James Gairdner's valuable Introductions, are indispensable. Other useful authorities are Joseph Stevenson's *Letters and Papers illustrative of the Wars of the English in France during the Reign of Henry VI.*; and *Correspondence of T. Bekynton* (both in "Rolls" series). For the French war the chief sources are the *Chronicles* of Monstrelet, D'Escouchy and T. Basin. For other documents and modern authorities see under HENRY IV. For Henry's foundations see Sir H. C. Maxwell-Lyte, *History of Eton College* (London, 1899), and J. B. Mullinger, *History of the University of Cambridge* (London, 1888).

(C. L. K.)

HENRY VII. (1457-1509), king of England, was the first of the Tudor dynasty. His claim to the throne was through his mother from John of Gaunt and Catherine Swynford, whose issue

born before their marriage had been legitimated by parliament. This, of course, was only a Lancastrian claim, never valid, even as such, till the direct male line of John of Gaunt had become extinct. By his father the genealogists traced his pedigree to Cadwallader, but this only endeared him to the Welsh when he had actually become king. His grandfather, Owen Tudor, however, had married Catherine, the widow of Henry V. and daughter to Charles VI. of France. Their son Edmund, being half brother of Henry VI., was created by that king earl of Richmond, and having married Margaret Beaufort, only daughter of John, duke of Somerset, died more than two months before their only child, Henry, was born in Pembroke Castle in January 1457. The fatherless child had sore trials. Edward IV. won the crown when he was four years old, and while Wales partly held out against the conqueror, he was carried for safety from one castle to another. Then for a time he was made a prisoner; but ultimately he was taken abroad by his uncle Jasper, who found refuge in Brittany. At one time the duke of Brittany was nearly induced to surrender him to Edward IV.; but he remained safe in the duchy till the cruelties of Richard III. drove more and more Englishmen abroad to join him. An invasion of England was planned in 1483 in concert with the duke of Buckingham's rising; but stormy weather at sea and an inundation in the Severn defeated the two movements. A second expedition, two years later, aided this time by France, was more successful. Henry landed at Milford Haven among his Welsh allies and defeated Richard at the battle of Bosworth (August 22, 1485). He was crowned at Westminster on the 30th of October following. Then, in fulfilment of pledges by which he had procured the adhesion of many Yorkist supporters, he was married at Westminster to Elizabeth (1465-1503), eldest daughter and heiress of Edward IV. (Jan. 18, 1486), whose two brothers had both been murdered by Richard III. Thus the Red and White Roses were united and the pretexts for civil war done away with.

Nevertheless, Henry's reign was much disturbed by a succession of Yorkist conspiracies and pretenders. Of the two most notable impostors, the first, Lambert Simnel, personated the earl of Warwick, son of the duke of Clarence, a youth of seventeen whom Henry had at his accession taken care to imprison in the Tower. Simnel, who was but a boy, was taken over to Ireland to perform his part, and the farce was wonderfully successful. He was crowned as Edward VI. in Christchurch Cathedral, Dublin, and received the allegiance of every one—bishops, nobles and judges, alike with others. From Ireland, accompanied by some bands of German mercenaries procured for him in the Low Countries, he invaded England; but the rising was put down at Stoke near Newark in Nottinghamshire, and, Simnel being captured, the king made him a menial of his kitchen.

This movement had been greatly assisted by Margaret, duchess dowager of Burgundy, sister of Edward IV., who could not endure to see the House of York supplanted by that of Tudor. The second pretender, Perkin Warbeck, was also much indebted to her support; but he seems to have entered on his career at first without it. And his story, which was more prolonged, had to do with the attitude of many countries towards England. Anxious as Henry was to avoid being involved in foreign wars, it was not many years before he was committed to a war with France, partly by his desire of an alliance with Spain, and partly by the indignation of his own subjects at the way in which the French were undermining the independence of Brittany. Henry gave Brittany defensive aid; but after the duchess Anne had married Charles VIII. of France, he felt bound to fulfil his obligations to Ferdinand and Isabella of Spain, and also to the German king Maximilian, by an invasion of France in 1492. His allies, however, were not equally scrupulous or equally able to fulfil their obligations to him; and after besieging Boulogne for some little time, he received very advantageous offers from the French king and made peace with him.

Now Perkin Warbeck had first appeared in Ireland in 1491, and had somehow been persuaded there to personate Richard, duke of York, the younger of the two princes murdered in the Tower, pretending that he had escaped, though his brother had been killed. Charles VIII., then expecting war with England, called him to France, recognized his pretensions and gave him a retinue; but after the peace he dismissed him. Then Margaret of Burgundy received him as her nephew, and Maximilian, now estranged from Henry, recognized him as king of England. With a fleet given him by Maximilian he attempted to land at Deal, but sailed away to Ireland and, not succeeding very well there either, sailed farther to Scotland, where James IV. received him with open arms, married him to an earl's daughter and made a brief and futile invasion of England along with him. But in 1497 he thought best to dismiss him, and Perkin, after attempting something again in Ireland, landed in Cornwall with a small body of men.

Already Cornwall had risen in insurrection that year, not liking the taxation imposed for the purpose of repelling the Scotch invasion. A host of the country people, led first by a

blacksmith, but afterwards by a nobleman, marched up towards London and were only defeated at Blackheath. But the Cornishmen were quite ready for another revolt, and indeed had invited Perkin to their shores. He had little fight in him, however, and after a futile siege of Exeter and an advance to Taunton he stole away and took sanctuary at Beaulieu in Hampshire. But, being assured of his life, he surrendered, was brought to London, and was only executed two years later, when, being imprisoned near the earl of Warwick in the Tower, he inveigled that simple-minded youth into a project of escape. For this Warwick, too, was tried, condemned and executed—no doubt to deliver Henry from repeated conspiracies in his favour.

Henry had by this time several children, of whom the eldest, Arthur, had been proposed in infancy for a bridegroom to Catherine, daughter of Ferdinand of Aragon. The match had always been kept in view, but its completion depended greatly on the assurance Ferdinand and Isabella could feel of Henry's secure position upon the throne. At last Catherine was brought to England and was married to Prince Arthur at St Paul's on the 14th of November 1501. The lad was just over fifteen and the co-habitation of the couple was wisely delayed; but he died on the 2nd of April following. Another match was presently proposed for Catherine with the king's second son, Henry, which only took effect when the latter had become king himself. Meanwhile Henry's eldest daughter Margaret was married to James IV. of Scotland—a match distinctly intended to promote international peace, and make possible that ultimate union which actually resulted from it. The espousals had taken place at Richmond in 1502, and the marriage was celebrated in Scotland the year after. In the interval between these two events Henry lost his queen, who died on the 11th of February 1503, and during the remainder of his reign he made proposals in various quarters for a second marriage—proposals in which political objects were always the chief consideration; but none of them led to any result. In his latter years he became unpopular from the extortions practised by his two instruments, Empson and Dudley, under the authority of antiquated statutes. From the beginning of his reign he had been accumulating money, mainly for his own security against intrigues and conspiracies, and avarice had grown upon him with success. He died in April 1509, undoubtedly the richest prince in Christendom. He was not a niggard, however, in his expenditure. Before his death he had finished the hospital of the Savoy and made provision for the magnificent chapel at Westminster which bears his name. His money-getting was but part of his statesmanship, and for his statesmanship his country owes him not a little gratitude. He not only terminated a disastrous civil war and brought under control the spirit of ancient feudalism, but with a clear survey of the conditions of foreign powers he secured England in almost uninterrupted peace while he developed her commerce, strengthened her slender navy and built, apparently for the first time, a naval dock at Portsmouth.

In addition to his sons Arthur and Henry, Henry VII. had several daughters, one of whom, Margaret, married James IV., king of Scotland, and another, Mary, became the wife of Louis XII. of France, and afterwards of Charles Brandon, duke of Suffolk.

The popular view of Henry VII.'s reign has always been derived from Bacon's *History* of that king. This has been edited by J. R. Lumby (Cambridge, 1881). But during the last half century large accessions to our knowledge have been made from foreign and domestic archives, and the sources of Bacon's work have been more critically examined. For a complete account of those sources the reader may be referred to W. Busch's *England under the Tudors*, published in German in 1892 and in an English translation in 1895. Some further information of a special kind will be found in M. Oppenheim's *Naval Accounts and Inventories*, published by the Navy Records Society in 1896. See also J. Gairdner's *Henry VII.* (1889).

(J. Ga.)

HENRY VIII. (1491-1547), king of England and Ireland, the third child and second son of Henry VII. and Elizabeth of York, was born on the 28th of June 1491 and, like all the Tudor sovereigns except Henry VII., at Greenwich. His two brothers, Prince Arthur and Edmund, duke of Somerset, and two of his sisters predeceased their father; Henry was the only son, and Margaret, afterwards queen of Scotland, and Mary, afterwards queen of France and duchess of Suffolk, were the only daughters who survived. Henry is said, on authority which has not been traced farther back than Paolo Sarpi, to have been destined for the church; but

the story is probably a mere surmise from his theological accomplishments, and from his earliest years high secular posts such as the viceroyalty of Ireland were conferred upon the child. He was the first English monarch to be educated under the influence of the Renaissance, and his tutors included the poet Skelton; he became an accomplished scholar, linguist, musician and athlete, and when by the death of his brother Arthur in 1502 and of his father on the 22nd of April 1509 Henry VIII. succeeded to the throne, his accession was hailed with universal acclamation.

He had been betrothed to his brother's widow Catherine of Aragon, and in spite of the protest which he had been made to register against the marriage, and of the doubts expressed by Julius II. and Archbishop Warham as to its validity, it was completed in the first 288
few months of his reign. This step was largely due to the pressure brought to bear by Catherine's father Ferdinand upon Henry's council; he regarded England as a tool in his hands and Catherine as his resident ambassador. The young king himself at first took little interest in politics, and for two years affairs were managed by the pacific Richard Fox (*q.v.*) and Warham. Then Wolsey became supreme, while Henry was immersed in the pursuit of sport and other amusements. He took, however, the keenest interest from the first in learning and in the navy, and his inborn pride easily led him to support Wolsey's and Ferdinand's warlike designs on France. He followed an English army across the Channel in 1513, and personally took part in the successful sieges of Therouanne and Tournay and the battle of Guinegate which led to the peace of 1514. Ferdinand, however, deserted the English alliance, and amid the consequent irritation against everything Spanish, there was talk of a divorce between Henry and Catherine (1514), whose issue had hitherto been attended with fatal misfortune. But the renewed antagonism between England and France which followed the accession of Francis I. (1515) led to a rapprochement with Ferdinand; the birth of the lady Mary (1516) held out hopes of the male issue which Henry so much desired; and the question of a divorce was postponed. Ferdinand died in that year (1516) and the emperor Maximilian in 1519. Their grandson Charles V. succeeded them both in all their realms and dignities in spite of Henry's hardly serious candidature for the empire; and a lifelong rivalry broke out between him and Francis I. Wolsey used this antagonism to make England arbiter between them; and both monarchs sought England's favour in 1520, Francis at the Field of Cloth of Gold and Charles V. more quietly in Kent. At the conference of Calais in 1521 English influence reached its zenith; but the alliance with Charles destroyed the balance on which that influence depended. Francis was overweighted, and his defeat at Pavia in 1525 made the emperor supreme. Feeble efforts to challenge his power in Italy provoked the sack of Rome in 1527; and the peace of Cambrai in 1529 was made without any reference to Wolsey or England's interests.

Meanwhile Henry had been developing a serious interest in politics, and he could brook no superior in whatever sphere he wished to shine. He began to adopt a more critical attitude towards Wolsey's policy, foreign and domestic; and to give ear to the murmurs against the cardinal and his ecclesiastical rule. Parliament had been kept at arm's length since 1515 lest it should attack the church; but Wolsey's expensive foreign policy rendered recourse to parliamentary subsidies indispensable. When it met in 1523 it refused Wolsey's demands, and forced loans were the result which increased the cardinal's unpopularity. Nor did success abroad now blunt the edge of domestic discontent. His fate, however, was sealed by his failure to obtain a divorce for Henry from the papal court. The king's hopes of male issue had been disappointed, and by 1526 it was fairly certain that Henry could have no male heir to the throne while Catherine remained his wife. There was Mary, but no queen regnant had yet ruled in England; Margaret Beaufort had been passed over in favour of her son in 1485, and there was a popular impression that women were excluded from the throne. No candidate living could have secured the succession without a recurrence of civil war. Moreover the unexampled fatality which had attended Henry's issue revived the theological scruples which had always existed about the marriage; and the breach with Charles V. in 1527 provoked a renewal of the design of 1514. All these considerations were magnified by Henry's passion for Anne Boleyn, though she certainly was not the sole or the main cause of the divorce. That the succession was the main point is proved by the fact that Henry's efforts were all directed to securing a wife and not a mistress. Wolsey persuaded him that the necessary divorce could be obtained from Rome, as it had been in the case of Louis XII. of France and Margaret of Scotland. For a time Clement VII. was inclined to concede the demand, and Campeggio in 1528 was given ample powers. But the prospect of French success in Italy which had encouraged the pope proved delusive, and in 1529 he had to submit to the yoke of Charles V. This involved a rejection of Henry's suit, not because Charles cared anything for his aunt, but because a divorce would mean disinheriting Charles's cousin Mary, and perhaps the eventual succession of the son of a French princess

to the English throne.

Wolsey fell when Campeggio was recalled, and his fall involved the triumph of the anti-ecclesiastical party in England. Laymen who had resented their exclusion from power were now promoted to offices such as those of lord chancellor and lord privy seal which they had rarely held before; and parliament was encouraged to propound lay grievances against the church. On the support of the laity Henry relied to abolish papal jurisdiction and reduce clerical privilege and property in England; and by a close alliance with Francis I. he insured himself against the enmity of Charles V. But it was only gradually that the breach was completed with Rome. Henry had defended the papacy against Luther in 1521 and had received in return the title “defender of the faith.” He never liked Protestantism, and he was prepared for peace with Rome on his own terms. Those terms were impossible of acceptance by a pope in Clement VII.’s position; but before Clement had made up his mind to reject them, Henry had discovered that the papacy was hardly worth conciliating. His eyes were opened to the extent of his own power as the exponent of national antipathy to papal jurisdiction and ecclesiastical privilege; and his appetite for power grew. With Cromwell’s help he secured parliamentary support, and its usefulness led him to extend parliamentary representation to Wales and Calais, to defend the privileges of Parliament, and to yield rather than forfeit its confidence. He had little difficulty in securing the Acts of Annates, Appeals and Supremacy which completed the separation from Rome, or the dissolution of the monasteries which, by transferring enormous wealth from the church to the crown, really, in Cecil’s opinion, ensured the reformation.

The abolition of the papal jurisdiction removed all obstacles to the divorce from Catherine and to the legalization of Henry’s marriage with Anne Boleyn (1533). But the recognition of the royal supremacy could only be enforced at the cost of the heads of Sir Thomas More, Bishop Fisher and a number of monks and others among whom the Carthusians signalized themselves by their devotion (1535-1536). Anne Boleyn fared no better than the Catholic martyrs; she failed to produce a male heir to the throne, and her conduct afforded a jury of peers, over which her uncle, the duke of Norfolk, presided, sufficient excuse for condemning her to death on a charge of adultery (1536). Henry then married Jane Seymour, who was obnoxious to no one, gave birth to Edward VI., and then died (1537). The dissolution of the monasteries had meanwhile evoked a popular protest in the north, and it was only by skilful and unscrupulous diplomacy that Henry was enabled to suppress so easily the Pilgrimage of Grace. Foreign intervention was avoided through the renewal of war between Francis and Charles; and the insurgents were hampered by having no rival candidate for the throne and no means of securing the execution of their programme.

Nevertheless their rising warned Henry against further doctrinal change. He had authorized the English Bible and some approach towards Protestant doctrine in the Ten Articles. He also considered the possibility of a political and theological alliance with the Lutheran princes of Germany. But in 1538 he definitely rejected their theological terms, while in 1539-1540 they rejected his political proposals. By the statute of Six Articles (1539) he took his stand on Catholic doctrine; and when the Lutherans had rejected his alliance, and Cromwell’s nominee, Anne of Cleves, had proved both distasteful on personal grounds and unnecessary because Charles and Francis were not really projecting a Catholic crusade against England, Anne was divorced and Cromwell beheaded. The new queen Catherine Howard represented the triumph of the reactionary party under Gardiner and Norfolk; but there was no idea of returning to the papal obedience, and even Catholic orthodoxy as represented by the Six Articles was only enforced by spasmodic outbursts of persecution and vain attempts to get rid of Cranmer.

The secular importance of Henry’s activity has been somewhat obscured by his achievements in the sphere of ecclesiastical politics; but no small part of his energies was devoted to the task of expanding the royal authority at the expense of temporal competitors. Feudalism was not yet dead, and in the north and west there were medieval franchises in which the royal writ and common law hardly ran at all. Wales and its marches were brought into legal union with the rest of England by the statutes of Wales (1534-1536); and after the Pilgrimage of Grace the Council of the North was set up to bring into subjection the extensive jurisdictions of the northern earls. Neither they nor the lesser chiefs who flourished on the lack of common law and order could be reduced by ordinary methods, and the Councils of Wales and of the North were given summary powers derived from the Roman civil law similar to those exercised by the Star Chamber at Westminster and the court of Castle Chamber at Dublin. Ireland had been left by Wolsey to wallow in its own disorder; but disorder was anathema to Henry’s mind, and in 1535 Sir William Skeffington was sent to apply English methods and artillery to the government of Ireland. Sir Anthony St Leger

continued his policy from 1540; Henry, instead of being merely lord of Ireland dependent on the pope, was made by an Irish act of parliament king, and supreme head of the Irish church. Conciliation was also tried with some success; plantation schemes were rejected in favour of an attempt to Anglicize the Irish; their chieftains were created earls and endowed with monastic lands; and so peaceful was Ireland in 1542 that the lord-deputy could send Irish kernes and gallowglasses to fight against the Scots.

Henry, however, seems to have believed as much in the coercion of Scotland as in the conciliation of Ireland. Margaret Tudor's marriage had not reconciled the realms; and as soon as James V. became a possible pawn in the hands of Charles V., Henry bethought himself of his old claims to suzerainty over Scotland. At first he was willing to subordinate them to an attempt to win over Scotland to his anti-papal policy, and he made various efforts to bring about an interview with his nephew. But James V. was held aloof by Beaton and two French marriages; and France was alarmed by Henry's growing friendliness with Charles V., who was mollified by his cousin Mary's restoration to her place in the succession to the throne. In 1542 James madly sent a Scottish army to ruin at Solway Moss; his death a few weeks later left the Scottish throne to his infant daughter Mary Stuart, and Henry set to work to secure her hand for his son Edward and the recognition of his own suzerainty. A treaty was signed with the Scottish estates; but it was torn up a few months later under the influence of Beaton and the queen-dowager Mary of Guise, and Hertford was sent in 1544 to punish this breach of promise by sacking Edinburgh.

Perhaps to prevent French intervention in Scotland Henry joined Charles V. in invading France, and captured Boulogne (Sept. 1544). But Charles left his ally in the lurch and concluded the peace of Crépy that same month; and in 1545 Henry had to face alone a French invasion of the Isle of Wight. This attack proved abortive, and peace between England and France was made in 1546. Charles V.'s desertion inclined Henry to listen to the proposals of the threatened Lutheran princes, and the last two years of his reign were marked by a renewed tendency to advance in a Protestant direction. Catherine Howard had been brought to the block (1542) on charges in which there was probably a good deal of truth, and her successor, Catherine Parr, was a patroness of the new learning. An act of 1545 dissolved chantries, colleges and other religious foundations; and in the autumn of 1546 the Spanish ambassador was anticipating further anti-ecclesiastical measures. Gardiner had almost been sent to the Tower, and Norfolk and Surrey were condemned to death, while Cranmer asserted that it was Henry's intention to convert the mass into a communion service. An opportunist to the last, he would readily have sacrificed any theological convictions he may have had in the interests of national uniformity. He died on the 28th of January 1547, and was buried in St George's Chapel, Windsor.

The atrocity of many of Henry's acts, the novelty and success of his religious policy, the apparent despotism of his methods, or all combined, have made it difficult to estimate calmly the importance of Henry's work or the conditions which made it possible. Henry's egotism was profound, and personal motives underlay his public action. While political and ecclesiastical conditions made the breach with Rome possible—and in the view of most Englishmen desirable—Henry VIII. was led to adopt the policy by private considerations. He worked for the good of the state because he thought his interests were bound up with those of the nation; and it was the real coincidence of this private and public point of view that made it possible for so selfish a man to achieve so much for his country. The royal supremacy over the church and the means by which it was enforced were harsh and violent expedients; but it was of the highest importance that England should be saved from religious civil war, and it could only be saved by a despotic government. It was necessary for the future development of England that its governmental system should be centralized and unified, that the authority of the monarchy should be more firmly extended over Wales and the western and northern borders, and that the still existing feudal franchises should be crushed; and these objects were worth the price paid in the methods of the Star Chamber and of the Councils of the North and of Wales. Henry's work on the navy requires no apology; without it Elizabeth's victory over the Spanish Armada, the liberation of the Netherlands and the development of English colonies would have been impossible; and "of all others the year 1545 best marks the birth of the English naval power" (Corbett, *Drake*, i. 59). His judgment was more at fault when he conquered Boulogne and sought by violence to bring Scotland into union with England. But at least Henry appreciated the necessity of union within the British Isles; and his work in Ireland relaid the foundations of English rule. No less important was his development of the parliamentary system. Representation was extended to Wales, Cheshire, Berwick and Calais; and parliamentary authority was enhanced, largely that it might deal with the church, until men began to complain of this new parliamentary infallibility. The privileges of the two Houses were encouraged and

expanded, and parliament was led to exercise ever wider powers. This policy was not due to any belief on Henry's part in parliamentary government, but to opportunism, to the circumstance that parliament was willing to do most of the things which Henry desired, while competing authorities, the church and the old nobility, were not. Nevertheless, to the encouragement given by Henry VIII. parliament owed not a little of its future growth, and to the aid rendered by parliament Henry owed his success.

He has been described as a "despot under the forms of law"; and it is apparently true that he committed no illegal act. His despotism consists not in any attempt to rule unconstitutionally, but in the extraordinary degree to which he was able to use constitutional means in the furtherance of his own personal ends. His industry, his remarkable political insight, his lack of scruple, and his combined strength of will and subtlety of intellect enabled him to utilize all the forces which tended at that time towards strong government throughout western Europe. In Michelet's words, "le nouveau Messie est le roi"; and the monarchy alone seemed capable of guiding the state through the social and political anarchy which threatened all nations in their transition from medieval to modern organization. The king was the emblem, the focus and the bond of national unity; and to preserve it men were ready to put up with vagaries which to other ages seem intolerable. Henry could thus behead ministers and divorce wives with comparative impunity, because the individual appeared to be of little importance compared with the state. This impunity provoked a licence which is responsible for the unlovely features of Henry's reign and character. The elevation and the isolation of his position fostered a detachment from ordinary virtues and compassion, and he was a remorseless incarnation of Machiavelli's *Prince*. He had an elastic conscience which was always at the beck and call of his desire, and he cared little for principle. But he had a passion for efficiency, and for the greatness of England and himself. His mind, in spite of its clinging to the outward forms of the old faith, was intensely secular; and he was as devoid of a moral sense as he was of a genuine religious temperament. His greatness consists in his practical aptitude, in his political perception, and in the self-restraint which enabled him to confine within limits tolerable to his people an insatiable appetite for power.

The original materials for Henry VIII.'s biography are practically all incorporated in the monumental *Letters and Papers of the Reign of Henry VIII.* (21 vols.), edited by Brewer and Gairdner and completed after fifty years' labour in 1910. A few further details may be gleaned from such contemporary sources as Hall's *Chronicle*, Cavendish's *Life of Wolsey*, W. Thomas's *The Pilgrim* and others; and some additions have been made to the documentary sources contained in the *Letters and Papers* by recent works, such as Ehses' *Römische Dokumente*, and Merriman's *Life and Letters of Thomas Cromwell*. Lord Herbert of Cherbury's *Life and Reign of Henry VIII.* (1649), while good for its time, is based upon a very partial knowledge of the sources and somewhat antiquated principles of historical scholarship. Froude's famous portraiture of Henry is coloured by the ideas of hero-worship and history which the author imbibed from Carlyle, and the rival portraits in Lingard, R. W. Dixon's *Church History* and Gasquet's *Henry VIII. and the Monasteries* by strong religious feeling. A more discriminating estimate is attempted by H. A. L. Fisher in Messrs Longmans' *Political History of England*, vol. v. (1906). Of the numerous paintings of Henry none is by Holbein, who, however, executed the striking chalk-drawing of Henry's head, now at Munich, and the famous but decaying cartoon at Devonshire House. The well-known three-quarter length at Windsor, usually attributed to Holbein, is by an inferior artist. The best collection of Henry's portraits was exhibited at the Burlington Fine Arts Club in 1909, and the catalogue of that exhibition contains the best description of them; several are reproduced in Pollard's *Henry VIII.* (Goupil) (1902), the letterpress of which was published by Longmans in a cheaper edition (1905). Henry composed numerous state papers still extant; his only book was his *Assertio septem sacramentorum contra M. Lutherum* (1521), a copy of which, signed by Henry himself, is at Windsor. Several anthems composed by him are extant; and one at least, *O Lord, the Maker of all Things*, is still occasionally rendered in English cathedrals.

(A. F. P.)

HENRY I. (1214-1217), king of Castile, son of Alphonso VIII. of Castile, and his wife Eleanor of Aquitaine, daughter of Henry II. of England, after whom he was named, was born about 1207. He was killed, while still a boy, by the fall of a tile from a roof.

HENRY II. of Trastamara (1369-1379), king of Castile, founder of the dynasty known as “the new kings,” was the eldest son of Alphonso XI. and of his mistress Leonora de Guzman. He was born in 1333. His father endowed him with great lordships in northern Spain, and made him count of Trastamara. After the death of Alphonso XI. in 1350, Leonora was murdered to satisfy the revenge of the king’s neglected wife. Several of the numerous children she had borne to Alphonso were slain at different times by Peter the Cruel, the king’s legitimate son and successor. Henry preserved his life by submissions and by keeping out of the king’s way. At last, after taking part in several internal commotions, he fled to France in 1356. In 1366 he persuaded the mercenary soldiers paid off by the kings of England and France to accompany him on an expedition to upset Peter, who was driven out. The Black Prince having intervened on behalf of Peter, Henry was defeated at Najera (3rd of April 1367) and had again to flee to Aragon. When the Black Prince was told that “the Bastard” had neither been slain nor taken, he said that nothing had been done. And so it turned out; for, when the Black Prince had left Spain, Henry came back with a body of French soldiers of fortune under du Guesclin, and drove his brother into the castle of Montiel in La Mancha. Peter was tempted out by du Guesclin, and the half brothers met in the Frenchman’s tent. They rushed at one another, and Peter, the stronger man, threw Henry down, and fell on him. One of Henry’s pages seized the king by the leg and threw him on his back. Henry then pulled up Peter’s hauberk and stabbed him mortally in the stomach, on the 23rd of March 1369. He reigned for ten years, with some success both in pacifying the kingdom and in war with Portugal. But as his title was disputed he was compelled to purchase support by vast grants to the nobles and concessions to the cities, by which he gained the title of *El de las Mercedes*—he of the largesse. Henry was a strong ally of the French king in his wars with the English, who supported the claims of Peter’s natural daughters. He died on the 30th of May 1379.

HENRY III. (1390-1406) king of Castile, called *El Doliente*, the Sufferer, was the son of John I. of Castile and Leon, and of his wife Beatrice, daughter of Ferdinand of Portugal. He was born in 1379. The period of minority was exceptionally anarchical, even for Castile, but as the cities, always the best supporters of the royal authority, were growing in strength, Henry was able to reduce his kingdom to obedience, and, when he took the government into his own hands after 1393, to compel his nobles with comparative ease to surrender the crown lands they had seized. The meeting of the Cortes summoned by him at Madrid in 1394 marked a great epoch in the establishment of a practically despotic royal authority, based on the consent of the commons, who looked to the crown to protect them against the excesses of the nobles. Henry strengthened his position still further by his marriage with Catherine, daughter of John of Gaunt and of Constance, elder daughter of Peter the Cruel and Maria de Padilla. This union combined the rival claims of the descendants of Peter and of Henry of Trastamara. The king’s bodily weakness limited his real capacity, and his early death on the 25th of December 1406 cut short the promise of his reign.

HENRY IV. (1453-1474), king of Castile, surnamed the Impotent, or the Spendthrift, was the son of John II. of Castile and Leon, and of his wife, Mary, daughter of Ferdinand I. of Aragon and Sicily. He was born at Valladolid on the 6th of January 1425. The surnames given to this king by his subjects are of much more than usual accuracy. His personal character was one of mere weakness, bodily and mental. Henry was an undutiful son, and his reign was one long period of confusion, marked by incidents of the most ignominious kind. He divorced his first wife Blanche of Navarre in 1453 on the ground of “mutual impotence.” Yet in 1468 he married Joan of Portugal, and when she bore a daughter, first repudiated her as adulterine, and then claimed her for his own. In 1468 he was solemnly deposed in favour of his brother Alphonso, on whose death in the same year his authority was again recognized. The last years of his life were spent in vain endeavours, first to force his half-sister Isabella, afterwards queen, to marry his favourite, the Master of Santiago, and then to exclude her from the throne. Henry died at Madrid on the 12th of December 1474.

HENRY I. (1008-1060), king of France, son of King Robert and his queen, Constance of Aquitaine, and grandson of Hugh Capet, came to the throne upon the death of his father in 1031, although in 1027 he had been anointed king at Reims and associated in the government with his father. His mother, who favoured her younger son Robert, and had retired from court upon Henry’s coronation, formed a powerful league against him, and he

was forced to take refuge with Robert II., duke of Normandy. In the civil war which resulted, Henry was able to break up the league of his opponents in 1032. Constance died in 1034, and the rebel brother Robert was given the duchy of Burgundy, thus founding that great collateral line which was to rival the kings of France for three centuries. Henry atoned for this by a reign marked by unceasing struggle against the great barons. From 1033 to 1043 he was involved in a life and death contest with those nobles whose territory adjoined the royal domains, especially with the great house of Blois, whose count, Odo II., had been the centre of the league of Constance, and with the counts of Champagne. Henry's success in these wars was largely due to the help given him by Robert of Normandy, but upon the accession of Robert's son William (the Conqueror), Normandy itself became the chief danger. From 1047 to the year of his death, Henry was almost constantly at war with William, who held his own against the king's formidable leagues and beat back two royal invasions, in 1055 and 1058. Henry's reign marks the height of feudalism. The Normans were independent of him, with their frontier barely 25 m. west of Paris; to the south his authority was really bounded by the Loire; in the east the count of Champagne was little more than nominally his subject, and the duchy of Burgundy was almost entirely cut off from the king. Yet Henry maintained the independence of the clergy against the pope Leo IX., and claimed Lorraine from the emperor Henry III. In an interview at Ivois, he reproached the emperor with the violation of promises, and Henry III. challenged him to a single combat. According to the German chronicle—which French historians doubt—the king of France declined the combat and fled from Ivois during the night. In 1059 he had his eldest son Philip crowned as joint king, and died the following year. Henry's first wife was Maud, niece of the emperor Henry III., whom he married in 1043. She died childless in 1044. Historians have sometimes confused her with Maud (or Matilda), the emperor Conrad II.'s daughter, to whom Henry was affianced in 1033, but who died before the marriage. In 1051 Henry married the Russian princess Anne, daughter of Yaroslav I., grand duke of Kiev. She bore him two sons, Philip, his successor, and Hugh the great, count of Vermandois.

See the *Historiae* of Rudolph Glaber, edited by M. Prou (Paris, 1886); F. Sochnée, *Catalogue des actes d'Henri I*^{er} (1907); de Caiz de Saint Aymour, *Anne de Russie, reine de France* (1896); E. Lavisse, *Histoire de France*, tome ii. (1901), and the article on Henry I. in *La Grande Encyclopédie* by M. Prou.

HENRY II. (1519-1559), king of France, the second son of Francis I. and Claude, succeeded to the throne in 1547. When only seven years old he was sent by his father, with his brother the dauphin Francis, as a hostage to Spain in 1526, whence they returned after the conclusion of the peace of Cambrai in 1530. Henry was too young to have carried away any abiding impressions, yet throughout his life his character, dress and bearing were far more Spanish than French. In 1533 his father married him to Catherine de' Medici, from which match, as he said, Francis hoped to gain great advantage, even though it might be somewhat of a misalliance. In 1536 Henry, hitherto duke of Orleans, became dauphin by the death of his elder brother Francis. From that time he was under the influence of two personages, who dominated him completely for the remainder of his life—Diane de Poitiers, his mistress, and Anne de Montmorency, his mentor. Moreover, his younger brother, Charles of Orleans, who was of a more sprightly temperament, was his father's favourite; and the rivalry of Diane and the duchesse d'Étampes helped to make still wider the breach between the king and the dauphin. Henry supported the constable Montmorency when he was disgraced in 1541; protested against the treaty of Crépy in 1544; and at the end of the reign held himself completely aloof. His accession in 1547 gave rise to a veritable revolution at the court. Diane, Montmorency and the Guises were all-powerful, and dismissed Cardinal de Tournon, de Longueval, the duchesse d'Étampes and all the late king's friends and officials. At that time Henry was twenty-eight years old. He was a robust man, and inherited his father's love of violent exercise; but his character was weak and his intelligence mediocre, and he had none of the superficial and brilliant gifts of Francis I. He was cold, haughty, melancholy and dull. He was a bigoted Catholic, and showed to the Protestants even less mercy than his father. During his reign the royal authority became more severe and more absolute than ever. Resistance to the financial extortions of the government was cruelly chastised, and the "Chambre Ardente" was instituted against the Reformers. Abroad, the struggle was continued against Charles V. and Philip II., which ended in the much-discussed treaty of Cateau-Cambrésis. Some weeks afterwards high feast was held on the

occasion of the double marriage of the king's daughter Elizabeth with the king of Spain, and of his sister Margaret with the duke of Savoy. On the 30th of June 1559, when tilting with the count of Montgomery, Henry was wounded in the temple by a lance. In spite of the attentions of Ambroise Paré he died on the 10th of July. By his wife Catherine de' Medici he had seven children living: Elizabeth, queen of Spain; Claude, duchess of Lorraine; Francis (II), Charles (IX.) and Henry (III.), all of whom came to the throne; Marguerite, who became queen of Navarre in 1572; and Francis, duke of Alençon and afterwards of Anjou, who died in 1584.

The bulk of the documents for the reign of Henry II. are unpublished, and are in the Bibliothèque Nationale, Paris. Of the published documents, see especially the correspondence of Catherine de' Medici (ed. by de la Ferrière, Paris, 1880), of Diane de Poitiers (ed. by Guiffrey, Paris, 1866), of Antoine de Bourbon and Jeanne d'Albret (ed. by Rochambeau, Paris, 1877), of Odet de Selve, ambassador to England (ed. by Lefèvre-Pontalis, Paris, 1888) and of Dominique du Gabre, ambassador to Venice (ed. by Vitalis, Paris, 1903); Ribier, *Lettres et mémoires d'estat* (Paris, 1666); *Relations des ambassadeurs vénitiens*, &c. Of the contemporary memoirs and histories, see Brantôme (ed. by Lalanne, Paris, 1864-1882), François de Lorraine (ed. by Michaud and Poujoulat, Paris, 1839), Montluc (ed. by de Ruble, Paris, 1864), F. de Boyvin du Villars (Michaud and Poujoulat), F. de Rabutin (*Panthéon littéraire*, Paris, 1836). See also de Thou, *Historia sui temporis* ... (London, 1733); Decrue, *Anne de Montmorency* (Paris, 1889); H. Forneron, *Les Ducs de Guise et leur époque*, vol. i. (Paris, 1877); and H. Lemonnier, "La France sous Henri II" (Paris, 1904), in the *Histoire de France*, by E. Lavisse, which contains a fuller bibliography of the subject.

HENRY III. (1551-1589), king of France, third son of Henry II. and Catherine de' Medici, was born at Fontainebleau on the 19th of September 1551, and succeeded to the throne of France on the death of his brother Charles IX. in 1574. In his youth, as duke of Anjou, he was warmly attached to the Huguenot opinions, as we learn from his sister Marguerite de Valois; but his unstable character soon gave way before his mother's will, and both Henry and Marguerite remained choice ornaments of the Catholic Church. Henry won, under the direction of Marshal de Tavannes, two brilliant victories at Jarnac and Moncontour (1569). He was the favourite son of his mother, and took part with her in organizing the massacre of St Bartholomew. In 1573 Catherine procured his election to the throne of Poland. Passionately enamoured of the princess of Condé, he set out reluctantly to Warsaw, but, on the death of his brother Charles IX. in 1574, he escaped from his Polish subjects, who endeavoured to retain him by force, came back to France and assumed the crown. He returned to a wretched kingdom, torn with civil war. In spite of his good intentions, he was incapable of governing, and abandoned the power to his mother and his favourites. Yet he was no dullard. He was a man of keen intelligence and cultivated mind, and deserves as much as Francis I. the title of patron of letters and art. But his incurable indolence and love of pleasure prevented him from taking any active part in affairs. Surrounded by his *mignons*, he scandalized the people by his effeminate manners. He dressed himself in women's clothes, made a collection of little dogs and hid in the cellars when it thundered. The disgust aroused by the vices and effeminacy of the king increased the popularity of Henry of Guise. After the "day of the barricades" (the 12th of May 1588), the king, perceiving that his influence was lost, resolved to rid himself of Guise by assassination; and on the 23rd of December 1588 his faithful bodyguard, the "forty-five," carried out his design at the château of Blois. But the fanatical preachers of the League clamoured furiously for vengeance, and on the 1st of August 1589, while Henry III. was investing Paris with Henry of Navarre, Jacques Clement, a Dominican friar, was introduced into his presence on false letters of recommendation, and plunged a knife into the lower part of his body. He died a few hours afterwards with great fortitude. By his wife Louise of Lorraine, daughter of the count of Vaudémont, he had no children, and on his deathbed he recognized Henry of Navarre as his successor.

See the memoirs and chronicles of l'Estoile, Villeroy, Ph. Hurault de Cheverny, Brantôme, Marguerite de Valois, la Huguerye, du Plessis-Mornay, &c.; *Archives curieuses* of Cimber and Danjou, vols. x. and xi.; *Mémoires de la Ligue* (new ed., Amsterdam, 1758); the histories of T. A. d'Aubigné and J. A. de Thou; Correspondence of Catherine de' Medici and of Henry IV. (in the *Collection de documents inédits*), and of the Venetian ambassadors, &c.; P.

Matthieu, *Histoire de France*, vol. i. (1631); Scipion Dupleix, *Histoire de Henri III* (1633); Robiquet, *Paris et la Ligue* (1886); and J. H. Mariéjol, “La Réforme et la Ligue,” in the *Histoire de France*, by E. Lavisse (Paris, 1904), which contains a more complete bibliography.

HENRY IV. (1553-1610), king of France, the son of Antoine de Bourbon, duke of Vendôme, head of the younger branch of the Bourbons, descendant of Robert of Clermont, sixth son of St Louis and of Jeanne d’Albret, queen of Navarre, was born at Pau (Basses Pyrénées) on the 14th of December 1553. He was educated as a Protestant, and in 1557 was sent to the court at Amiens. In 1561 he entered the Collège de Navarre at Paris, returning in 1565 to Béarn. During the third war of religion in France (1568-1570) he was taken by his mother to Gaspard de Coligny, leader of the Protestant forces since the death of Louis I., prince of Condé, at Jarnac, and distinguished himself at the battle of Arnay-le-Duc in Burgundy in 1569. On the 9th of June 1572, Jeanne d’Albret died and Henry became king of Navarre, marrying Margaret of Valois, sister of Charles IX. of France, on the 18th of August of that year. He escaped the massacre of St Bartholomew on the 24th of August by a feigned abjuration. On the 2nd of February 1576, after several vain attempts, he escaped from the court, joined the combined forces of Protestants and of opponents of the king, and obtained by the treaty of Beaulieu (1576) the government of Guienne. In 1577 he secured the treaty of Bergerac, which foreshadowed the edict of Nantes. As a result of quarrels with his unworthy wife, and the unwelcome intervention of Henry III., he undertook the seventh war of religion, known as the “war of the lovers” (*des amoureux*), seized Cahors on the 5th of May 1580, and signed the treaty of Fleix on the 26th of November 1580. On the 10th of June 1584 the death of Monsieur, the duke of Anjou, brother of King Henry III., made Henry of Navarre heir presumptive to the throne of France. Excluded from it by the treaty of Nemours (1585) he began the “war of the three Henrys” by a campaign in Guienne (1586) and defeated Anne, duc de Joyeuse, at Coutras on the 20th of October 1587. Then Henry III., driven from Paris by the League on account of his murder of the duke of Guise at Blois (1588), sought the aid of the king of Navarre to win back his capital, recognizing him as his heir. The assassination of Henry III. on the 1st of August 1589 left Henry king of France; but he had to struggle for ten more years against the League and against Spain before he won his kingdom. The main events in that long struggle were the victory of Arques over Charles, duke of Mayenne, on the 28th of September 1589; of Ivry, on the 14th of March 1590; the siege of Paris (1590); of Rouen (1592); the meeting of the Estates of the League (1593), which the *Satire Ménippée* turned to ridicule; and finally the conversion of Henry IV. to Catholicism in July 1593—an act of political wisdom, since it brought about the collapse of all opposition. Paris gave in to him on the 22nd of March 1594 and province by province yielded to arms or negotiations; while the victory of Fontaine-Française (1595) and the capture of Amiens forced Philip II. of Spain to sign the peace of Vervins on the 2nd of May 1598. On the 13th of April of that year Henry IV. had promulgated the Edict of Nantes.

Then Henry set to work to pacify and restore prosperity to his kingdom. Convinced by the experience of the wars that France needed an energetic central power, he pushed at times his royal prerogatives to excess, raising taxes in spite of the Estates, interfering in the administration of the towns, reforming their constitutions, and holding himself free to reject the advice of the notables if he consulted them. Aided by his faithful friend Maximilien de Béthune, baron de Rosny and duc de Sully (*q.v.*), he reformed the finances, repressed abuses, suppressed useless offices, extinguished the formidable debt and realized a reserve of eighteen millions. To alleviate the distress of the people, he undertook to develop both agriculture and industry: planting colonies of Dutch and Flemish settlers to drain the marshes of Saintonge, issuing prohibitive measures against the importation of foreign goods (1597), introducing the silk industry, encouraging the manufacture of cloth, of glass-ware, of tapestries (Gobelins), and under the direction of Sully—named *grand-voyer de France*—improving and increasing the routes for commerce. A complete system of canals was planned, that of Briare partly dug. New capitulations were concluded with the sultan Ahmed I. (1604) and treaties of commerce with England (1606), with Spain and Holland. Attempts were made in 1604 and 1608 to colonize Canada (see Champlain, Samuel de). The army was reorganized, its pay raised and assured, a school of cadets formed to supply it with officers, artillery constituted and strongholds on the frontier fortified. While lacking the artistic tastes of the Valois, Henry beautified Paris, building the great gallery of the Louvre,

finishing the Tuileries, building the Pont Neuf, the Hôtel-de-Ville and the Place Royale.

The foreign policy of Henry IV. was directed against the Habsburgs. Without declaring war, he did all possible harm to them by alliances and diplomacy. In Italy he gained the grand duke of Tuscany—marrying his niece Marie de' Medici in 1600—the duke of Mantua, the republic of Venice and Pope Paul V. The duke of Savoy, who had held back from the treaty of Vervins in 1598, signed the treaty of Lyons in 1601; in exchange for the marquisate of Saluzzo, France acquired Bresse, Bugey, Valromey and the bailliage of Gex. In the Low Countries, Henry sent subsidies to the Dutch in their struggle against Spain. He concluded alliances with the Protestant princes in Germany, with the duke of Lorraine, the Swiss cantons (treaty of Soleure, 1602) and with Sweden.

The opening on the 25th of March 1609 of the question of the succession of John William the Good, duke of Cleves, of Jülich and of Berg, led Henry, in spite of his own hesitations and those of his German allies, to declare war on the emperor Rudolph II. But he was assassinated by Ravaillac (*q.v.*) on the 14th of May 1610, upon the eve of his great enterprise, leaving his policy to be followed up later by Richelieu. Sully in his *Économies royales* attributes to his master the "great design" of constituting, after having defeated Austria, a vast European confederation of fifteen states—a "Christian Republic"—directed by a general council of sixty deputies reappointed every three years. But this "design" has been attributed rather to the imagination of Sully himself than to the more practical policy of the king.

No figure in France has been more popular than that of "Henry the Great." He was affable to the point of familiarity, quick-witted like a true Gascon, good-hearted, indulgent, yet skilled in reading the character of those around him, and he could at times show himself severe and unyielding. His courage amounted almost to recklessness. He was a better soldier than strategist. Although at bottom authoritative he surrounded himself with admirable advisers (Sully, Sillery, Villeroy, Jeannin) and profited from their co-operation. His love affairs, undoubtedly too numerous (notably with Gabrielle d'Estrées and Henriette d'Entragues), if they injure his personal reputation, had no bad effect on his policy as king, in which he was guided only by an exalted ideal of his royal office, and by a sympathy for the common people, his reputation for which has perhaps been exaggerated somewhat in popular tradition by the circumstances of his reign.

Henry IV. had no children by his first wife, Margaret of Valois. By Marie de' Medici he had Louis, later Louis XIII.; Gaston, duke of Orleans; Elizabeth, who married Philip IV. of Spain; Christine, duchess of Savoy; and Henrietta, wife of Charles I. of England. Among his bastards the most famous were the children of Gabrielle d'Estrées—Caesar, duke of Vendôme, Alexander of Vendôme, and Catherine Henriette, duchess of Elbeuf.

Several portraits of Henry are preserved at Paris, in the Bibliothèque Nationale (cf. Bouchot, *Portraits au crayon*, p. 189), at the Louvre (by Probus, bust by Barthélemy Prieur) at Versailles, Geneva (Henry at the age of fifteen), at Hampton Court, at Munich and at Florence.

The works dealing with Henry IV. and his reign are too numerous to be enumerated here. For sources, see the *Recueil des lettres missives de Henri IV*, published from 1839 to 1853 by B. de Xivrey, in the *Collection de documents inédits relatifs à l'histoire de France*, and the various researches of Galitzin, Bautiot, Halphen, Dussieux and others. Besides their historic interest, the letters written personally by Henry, whether love notes or letters of state, reveal a charming writer. Mention should be made of Auguste Poirson's *Histoire du règne de Henri IV* (2nd ed., 4 vols., Paris, 1862-1867) and of J. H. Mariéjol's volume (vi.) in the *Histoire de France*, edited by Ernest Lavisse (Paris, 1905), where main sources and literature are given with each chapter. A *Revue Henri IV* has been founded at Paris (1905). Finally, a complete survey of the sources for the period 1494-1610 is given by Henri Hauser in vol. vii. of *Sources de l'histoire de France* (Paris, 1906) in continuation of A. Molinier's collection of the sources for French history during the middle ages.

HENRY I. (*c.* 1210-1274), surnamed *le Gros*, king of Navarre and count of Champagne, was the youngest son of Theobald I. king of Navarre by Margaret of Foix, and succeeded his eldest brother Theobald III. as king of Navarre and count of Champagne in December 1270. His proclamation at Pamplona, however, did not take place till March of the following year,

and his coronation was delayed until May 1273. After a brief reign, characterized, it is said, by dignity and talent, he died in July 1274, suffocated, according to the generally received accounts, by his own fat. In him the male line of the counts of Champagne and kings of Navarre, became extinct. He married in 1269 Blanche, daughter of Robert, count of Artois, and niece of King Louis IX. and was succeeded by his only legitimate child, Jeanne or Joanna, by whose marriage to Philip IV. afterwards king of France in 1284, the crown of Navarre became united to that of France.

HENRY II. (1503-1555), titular king of Navarre, was the eldest son of Jean d'Albret (d. 1516) by his wife Catherine de Foix, sister and heiress of Francis Phoebus, king of Navarre, and was born at Sanquesa in April 1503. When Catherine died in exile in 1517 Henry succeeded her in her claim on Navarre, which was disputed by Ferdinand I. king of Spain; and under the protection of Francis I. of France he assumed the title of king. After ineffectual conferences at Noyon in 1516 and at Montpellier in 1518, an active effort was made in 1521 to establish him in the *de facto* sovereignty; but the French troops which had seized the country were ultimately expelled by the Spaniards. In 1525 Henry was taken prisoner at the battle of Pavia, but he contrived to escape, and in 1526 married Margaret, the sister of Francis I. and widow of Charles, duke of Alençon. By her he was the father of Jeanne d'Albret (d. 1572), and was consequently the grandfather of Henry IV. of France. Henry, who had some sympathy with the Huguenots, died at Pau on the 25th of May 1555.

HENRY I. (1512-1580), king of Portugal, third son of Emanuel the Fortunate, was born in Lisbon, on the 31st of January 1512. He was destined for the church, and in 1532 was raised to the archiepiscopal see of Braga. In 1542 he received the cardinal's hat, and in 1578 when he was called to succeed his grandnephew Sebastian on the throne, he held the archbishoprics of Lisbon and Coimbra as well as that of Braga, in addition to the wealthy abbacy of Alcobazar. As an ecclesiastic he was pious, pure, simple in his mode of life, charitable, and a learned and liberal patron of letters; but as a sovereign he proved weak, timid and incapable. On his death in 1580, after a brief reign of seventeen months, the male line of the royal family which traced its descent from Henry, first count of Portugal (*c.* 1100), came to an end; and all attempts to fix the succession during his lifetime having ignominiously failed, Portugal became an easy prey to Philip II. of Spain.

HENRY II. (1489-1568), duke of Brunswick-Wolfenbüttel, was a son of Duke Henry I., and was born on the 10th of November 1489. He began to reign in 1514, but his brother William objected to the indivisibility of the duchy which had been decreed by the elder Henry, and it was only in 1535, after an imprisonment of eleven years, that William recognized his brother's title. Sharing in an attack on John, bishop of Hildesheim, Henry was defeated at the battle of Soltau in June 1519, but afterwards he was more successful, and when peace was made received some lands from the bishop. In 1525 he assisted Philip, landgrave of Hesse, to crush the rising of the peasants in north Germany, and in 1528 took help to Charles V. in Italy, where he narrowly escaped capture. As a pronounced opponent of the reformed doctrines, he joined the Catholic princes in concerting measures for defence at Dessau and elsewhere, but on the other hand promised Philip of Hesse to aid him in restoring his own brother-in-law Ulrich, duke of Württemberg, to his duchy. However he gave no assistance when this enterprise was undertaken in 1534, and subsequently the hostility between Philip and himself was very marked. Henry was attacked by Luther with unmeasured violence in a writing *Wider Hans Worst*; but more serious was his isolation in north Germany. The duke soon came into collision with the Protestant towns of Goslar and

Brunswick, against the former of which a sentence of restitution had been pronounced by the imperial court of justice (*Reichskammergericht*). To conciliate the Protestants Charles V. had suspended the execution of this sentence, a proceeding which Henry declared was *ultra vires*. The league of Schmalkalden, led by Philip of Hesse and John Frederick, elector of Saxony, then took up arms to defend the towns; and in 1542 Brunswick was overrun and the duke forced to flee. In September 1545 he made an attempt to regain his duchy, but was taken prisoner by Philip, and only released after the victory of Charles V. at Mühlberg in April 1547. Returning to Brunswick, where he was very unpopular, he soon quarrelled with his subjects both on political and religious questions, while his duchy was ravaged by Albert Alcibiades, prince of Bayreuth. Henry was among the princes who banded themselves together to crush Albert, and after the death of Maurice, elector of Saxony, at Sievershausen in July 1553, he took command of the allied troops and defeated Albert in two engagements. In his later years he became more tolerant, and was reconciled with his Protestant subjects. He died at Wolfenbüttel on the 11th of June 1568. The duke was twice married, firstly in 1515 to Maria (d. 1541), sister of Ulrich of Württemberg, and secondly in 1556 to Sophia (d. 1575) daughter of Sigismund I., king of Poland. He attained some notoriety through his romantic attachment to Eva von Trott, whom he represented as dead and afterwards kept concealed at Staufenburg. Henry was succeeded by his only surviving son, Julius (1528-1589).

See F. Koldewey, *Heinz von Wolfenbüttel* (Halle, 1883); and F. Bruns, *Die Vertreibung Herzog Heinrichs von Braunschweig durch den Schmalkaldischen Bund* (Marburg, 1889).

HENRY (*c.* 1108-1139), surnamed the “Proud,” duke of Saxony and Bavaria, second son of Henry the Black, duke of Bavaria, and Wulfhild, daughter of Magnus Billung, duke of Saxony, was a member of the Welf family. His father and mother both died in 1126, and as his elder brother Conrad had entered the church, Henry became duke of Bavaria and shared the family possessions in Saxony, Bavaria and Swabia with his younger brother, Welf. At Whitsuntide 1127 he was married to Gertrude, the only child of the German king, Lothair the Saxon, and at once took part in the warfare between the king and the Hohenstaufen brothers, Frederick II., duke of Swabia, and Conrad, afterwards the German king Conrad III. While engaged in this struggle Henry was also occupied in suppressing a rising in Bavaria, led by Frederick, count of Bogen, during which both duke and count sought to establish their own candidates in the bishopric of Regensburg. After a war of devastation, Frederick submitted in 1133, and two years later the Hohenstaufen brothers made their peace with Lothair. In 1136 Henry accompanied his father-in-law to Italy, and taking command of one division of the German army marched into southern Italy, devastating the land as he went. It was probably about this time that he was invested with the margraviate of Tuscany and the lands of Matilda, the late margravine. Having distinguished himself by his military genius during this campaign Henry left Italy with the German troops, and was appointed by the emperor as his successor in the dukedom of Saxony. When Lothair died in December 1137 Henry’s wealth and position made him a formidable candidate for the German throne; but the same qualities which earned for him the surname of “Proud,” aroused the jealousy of the princes, and so prevented his election. The new king, Conrad III., demanded the imperial *insignia* which were in Henry’s possession, and the duke in return asked for his investiture with the Saxon duchy. But Conrad, who feared his power, refused to assent to this on the pretext that it was unlawful for two duchies to be in one hand. Attempts at a settlement failed, and in July 1138 the duke was placed under the ban, and Saxony was given to Albert the Bear, afterwards margrave of Brandenburg. War broke out in Saxony and Bavaria, but was cut short by Henry’s sudden death at Quedlinburg on the 20th of October 1139. He was buried at Königslutter. Henry was a man of great ability, and his early death alone prevented him from playing an important part in German history. Conrad the Priest, the author of the *Rolandslied*, was in Henry’s service, and probably wrote this poem at the request of the duchess, Gertrude.

See S. Riezler, *Geschichte Bayerns*, Band i. (Gotha, 1878); W. Bernhardi, *Lothar von Supplinburg* (Leipzig, 1879); W. von Giesebrecht, *Geschichte der deutschen Kaiserzeit*, Band iv. (Brunswick, 1877).

HENRY (1129-1195), surnamed the “Lion,” duke of Saxony and Bavaria, only son of Henry the Proud, duke of Saxony and Bavaria, and Gertrude, daughter of the emperor Lothair the Saxon, was born at Ravensburg, and was a member of the family of Welf. In 1138 the German king Conrad III. had sought to deprive Henry the Proud of his duchies, and when the duke died in the following year the interests of his young son were maintained in Saxony by his mother, and his grandmother Richenza, widow of Lothair, and in Bavaria by his uncle, Count Welf VI. This struggle ended in May 1142 when Henry was invested as duke of Saxony at Frankfort, and Bavaria was given to Henry II., Jasomirgott, margrave of Austria, who married his mother Gertrude. In 1147 he married Clementia, daughter of Conrad, duke of Zähringen (d. 1152), and began to take an active part in administering his dukedom and extending its area. He engaged in a successful expedition against the Abotrites, or Obotrites, in 1147, and won a considerable tract of land beyond the Elbe, in which were re-established the bishoprics of Mecklenburg,[1] Oldenburg[2] and Ratzeburg. Hartwig, archbishop of Bremen, wished these sees to be under his authority, but Henry contested this claim, and won the right to invest these bishops himself, a privilege afterwards confirmed by the emperor Frederick I. Henry, meanwhile, had not forgotten Bavaria. In 1147 he made a formal claim on this duchy, and in 1151 sought to take possession, but failing to obtain the aid of his uncle Welf, did not effect his purpose. The situation was changed in his favour when Frederick I., who was anxious to count the duke among his supporters, succeeded Conrad as German king in February 1152. Frederick was unable at first to persuade Henry Jasomirgott to abandon Bavaria, but in June 1154 he recognized the claim of Henry the Lion, who accompanied him on his first Italian campaign and distinguished himself in suppressing a rising at Rome, Henry’s formal investiture as duke of Bavaria taking place in September 1156 on the emperor’s return to Germany. Henry soon returned to Saxony, where he found full scope for his untiring energy. Adolph II., count of Holstein, was compelled to cede Lübeck to him in 1158; campaigns in 1163 and 1164 beat down further resistance of the Abotrites; and Saxon garrisons were established in the conquered lands. The duke was aided in this work by the alliance of Valdemar I., king of Denmark, and, it is said, by engines of war brought from Italy. During these years he had also helped Frederick I. in his expedition of 1157 against the Poles, and in July 1159 had gone to his assistance in Italy, where he remained for about two years.

The vigorous measures taken by Henry to increase his power aroused considerable opposition. In 1166 a coalition was formed against him at Merseburg under the leadership of Albert the Bear, margrave of Brandenburg, and Archbishop Hartwig. Neither side met with much success in the desultory warfare that ensued, and Frederick made peace between the combatants at Würzburg in June 1168. Having obtained a divorce from his first wife in 1162, Henry was married at Minden in February 1168 to Matilda (1156-1189), daughter of Henry II., king of England, and was soon afterwards sent by the emperor Frederick I. on an embassy to the kings of England and France. A war with Valdemar of Denmark, caused by a quarrel over the booty obtained from the conquest of Rügen, engaged Henry’s activity until June 1171, when, in pursuance of a treaty which restored peace, Henry’s daughter, Gertrude, married the Danish prince, Canute. Henry, whose position was now very strong, made a pilgrimage to Jerusalem in 1172, was received with great respect by the eastern emperor Manuel Comnenus at Constantinople, and returned to Saxony in 1173.

A variety of reasons were leading to a rupture in the harmonious relations between Frederick and Henry, whose increasing power could not escape the emperor’s notice, and who showed little inclination to sacrifice his interests in Germany in order to help the imperial cause in Italy. He was not pleased when he heard that his uncle, Welf, had bequeathed his Italian and Swabian lands to the emperor, and the crisis came after Frederick’s check before Alessandria in 1175. The emperor appealed personally to Henry for help in February, or March 1176, but Henry made no move in response, and his defection contributed in some measure to the emperor’s defeat at Legnano. The peace of Venice provided for the restoration of Ulalrich to his see of Halberstadt. Henry, however, refused to give up the lands which he had seized belonging to the bishopric, and this conduct provoked a war in which Ulalrich was soon joined by Philip, archbishop of Cologne. No attack on Henry appears to have been contemplated by Frederick to whom both parties carried their complaints, and a day was fixed for the settlement of the dispute at Worms. But neither then, nor on two further occasions, did Henry appear to answer the charges preferred against him; accordingly in January 1180 he was placed under the imperial ban at Würzburg, and was declared deprived of all his lands.

Meanwhile the war with Ulalrich continued, but after his victory at Weissensee Henry’s allies began to fall away, and his cause to decline. When Frederick took the field in June 1181 the struggle was soon over. Henry sought for peace, and the conditions were settled at

Erfurt in November 1181, when he was granted the counties of Lüneburg and Brunswick, but was banished under oath not to return without the emperor's permission. In July 1182 he went to his father-in-law's court in Normandy, and afterwards to England, returning to Germany with Frederick's permission in 1185. He was soon regarded once more as a menace to the peace of Germany, and of the three alternatives presented to him by the emperor in 1188 he rejected the idea of making a formal renunciation of his claim, or of participating in the crusade, and chose exile, going again to England in 1189. In October of the same year, however, he returned to Saxony, excusing himself by asserting that his lands had not been defended according to the emperor's promise. He found many allies, took Lübeck, and soon almost the whole of Saxony was in his power. King Henry VI. was obliged to take the field against him, after which the duke's cause declined, and in July 1190 a peace was arranged at Fulda, by which he retained Brunswick and Lüneburg, received half the revenues of Lübeck, and gave two of his sons as hostages. Still hoping to regain his former position, he took advantage of a league against Henry VI. in 1193 to engage in a further revolt; but the captivity of his brother-in-law Richard I., king of England, led to a reconciliation. Henry passed his later years mainly at his castle of Brunswick, where he died on the 6th of August 1195, and was buried in the church of St Blasius which he had founded in the town. He had by his first wife a son and a daughter, and by his second wife five sons and a daughter. One of his sons was Otto, afterwards the emperor Otto IV., and another was Henry (d. 1227) count palatine of the Rhine.

Henry was a man of great ambition, and won his surname of "Lion" by his personal bravery. His influence on the fortunes of Saxony and northern Germany was very considerable. He planted Flemish and Dutch settlers in the land between the Elbe and the Oder, fostered the growth and trade of Lübeck, and in other ways encouraged trade and agriculture. He sought to spread Christianity by introducing the Cistercians, founding bishoprics, and building churches and monasteries. In 1874 a colossal statue was erected to his memory at Brunswick.

The authorities for the life of Henry the Lion are those dealing with the reign of the emperor Frederick I., and the early years of his son King Henry VI. The chief modern works are H. Prutz, *Heinrich der Löwe* (Leipzig, 1865); M. Philippson, *Geschichte Heinrichs des Löwen* (Leipzig, 1867); and L. Weiland, *Das sächsische Herzogthum unter Lothar und Heinrich dem Löwen* (Greifswald, 1866).

1 The see was transferred to Schwerin by Henry in 1167.

2 Transferred to Lübeck in 1163.

HENRY, Prince of Battenberg (1858-1896), was the third son of Prince Alexander of Hesse and his morganatic wife, the beautiful Countess Julia von Hauke, to whom was granted in 1858 the title of princess of Battenberg, which her children inherited. He was born at Milan on the 5th of October 1858, was educated with a special view to military service, and in due time became a lieutenant in the first regiment of Rhenish hussars. By their relationship to the grand dukes of Hesse the princes of Battenberg were brought into close contact with the English court, and Prince Henry paid several visits to England, where he soon became popular both in public and in private circles. It therefore created but little surprise when, towards the close of 1884, it was announced that Queen Victoria had sanctioned his engagement to the Princess Beatrice. The wedding took place at Whippingham on the 23rd of July 1885, and after the honeymoon the prince and princess settled down to a quiet home life with the queen, being seldom absent from the court, and accompanying her majesty in her annual visits to the continent. Three sons and a daughter were the issue of the marriage. On the 31st of July 1885 a bill to naturalize Prince Henry was passed by the House of Lords, and he received the title of royal highness. He was made a Knight of the Garter and a member of the Privy Council, and also appointed a colonel in the army, and afterwards captain-general and governor of the Isle of Wight and governor of Carisbrooke Castle. He adapted himself very readily to English country life, for he was an excellent shot and an enthusiastic yachtsman. Coming of a martial race, the prince would gladly have embraced an active military career, and when the Ashanti expedition was organized in November 1895 he volunteered to join it. But when the expedition reached Prahsu, about 30 m. from Kumasi, he was struck down by fever, and being promptly conveyed back to the coast, was placed on

board H.M.S. “Blonde.” On the 17th of January he seemed to recover slightly, but a relapse occurred on the 19th, and he died on the evening of the 20th off the coast of Sierra Leone.

HENRY FITZ HENRY (1155-1183), second son of Henry II., king of England, by Eleanor of Aquitaine, became heir to the throne on the death of his brother William (1156), and at the age of five was married to Marguerite, the infant daughter of Louis VII. In 1170 he was crowned at Westminster by Roger of York. The protests of Becket against this usurpation of the rights of Canterbury were the ultimate cause of the primate’s murder. The young king soon quarrelled with his father, who allowed him no power and a wholly inadequate revenue, and headed the great baronial revolt of 1173. He was assisted by his father-in-law, to whose court he had repaired; but, failing to shake the old king’s power either in Normandy or England, made peace in 1174. Despite the generous terms which he received, he continued to intrigue with Louis VII., and was in consequence jealously watched by his father. In 1182 he and his younger brother Geoffrey took up arms, on the side of the Poitevin rebels, against Richard Cœur de Lion; apparently from resentment at the favour which Henry II. had shown to Richard in giving him the government of Poitou while they were virtually landless. Henry II. took the field in aid of Richard; but the young king and Geoffrey had no scruples about withstanding their father, and continued to aid the Aquitanian rising until the young king fell ill of a fever which proved fatal to him (June 11, 1183). His death was bitterly regretted by his father and by all who had known him. Though of a fickle and treacherous nature, he had all the personal fascination of his family, and is extolled by his contemporaries as a mirror of chivalry. His train was full of knights who served him without pay for the honour of being associated with his exploits in the tilting-lists and in war.

The original authorities for Henry’s life are Robert de Torigni, *Chronica*; Giraldus Cambrensis, *De instructione principum, Guillaume le Maréchal* (ed. P. Meyer, Paris, 1891, &c.); Benedict, *Gesta Henrici*, William of Newburgh. See also Kate Norgate, *England under the Angevin Kings* (1887); Sir James Ramsay, *Angevin Empire* (1903); and C. E. Hodgson, *Jung Heinrich, König von England* (Jena, 1906).

HENRY, or in full, Henry Benedict Maria Clement Stuart (1725-1807), usually known as Cardinal York, the last prince of the royal house of Stuart, was the younger son of James Stuart, and was born in the Palazzo Muti at Rome on the 6th of March 1725. He was created duke of York by his father soon after his birth, and by this title he was always alluded to by Jacobite adherents of his house. British visitors to Rome speak of him as a merry high-spirited boy with martial instincts; nevertheless, he grew up studious, peace-loving and serious. In order to be of assistance to his brother Charles, who was then campaigning in Scotland, Henry was despatched in the summer of 1745 to France, where he was placed in nominal command of French troops at Dunkirk, with which the marquis d’Argenson had some vague idea of invading England. Seven months after Charles’s return from Scotland Henry secretly departed to Rome and, with the full approval of his father, but to the intense disgust of his brother, was created a cardinal deacon under the title of the cardinal of York by Pope Benedict XIV. on the 3rd of July 1747. In the following year he was ordained priest, and nominated arch-priest of the Vatican Basilica. In 1759 he was consecrated archbishop of Corinth *in partibus*, and in 1761 bishop of Frascati (the ancient Tusculum) in the Alban Hills near Rome. Six years later he was appointed vice-chancellor of the Holy See. Henry Stuart likewise held sinecure benefices in France, Spain and Spanish America, so that he became one of the wealthiest churchmen of the period, his annual revenue being said to amount to £30,000 sterling. On the death of his father, James Stuart (whose affairs he had managed during the last five years of his life), Henry made persistent attempts to induce Pope Clement XIII. to acknowledge his brother Charles as legitimate king of Great Britain, but his efforts were defeated, chiefly through the adverse influence of Cardinal Alessandro Albani, who was bitterly opposed to the Stuart cause. On Charles’s death in 1788 Henry issued a manifesto asserting his hereditary right to the British crown, and likewise struck a medal, commemorative of the event, with the legend “Hen. IX. Mag. Brit. Fr. et Hib. Rex. Fid. Def.

Card. Ep. Tusc:" (Henry the Ninth of Great Britain, France and Ireland, King, Defender of the Faith, Cardinal, Bishop of Frascati). In February 1798, at the approach of the invading French forces, Henry was forced to fly from Frascati to Naples, whence at the close of the same year he sailed to Messina. From Messina he proceeded by sea in order to be present at the expected conclave at Venice, where he arrived in the spring of 1799, aged, ill and almost penniless. His sad plight was now made known by Cardinal Stefano Borgia to Sir John Coxe Hippisley (d. 1825), who had formerly acted semi-officially on behalf of the British government at the court of Pius VI. Sir John Hippisley appealed to George III., who on the warm recommendation of Prince Augustus Frederick, duke of Sussex, gave orders for the annual payment of a pension of £4000 to the last of the Royal Stuarts. Henry received the proffered assistance gratefully, and in return for the king's kindness subsequently left by his will certain British crown jewels in his possession to the prince regent. In 1800 Henry was able to return to Rome, and in 1803, being now senior cardinal bishop, he became *ipso facto* dean of the Sacred College and bishop of Ostia and Velletri. He died at Frascati on the 13th of July 1807, and was buried in the *Grotte Vaticane* of St Peter's in an urn bearing the title of "Henry IX."; he is also commemorated in Canova's well-known monument to the Royal Stuarts (see JAMES). The Stuart archives, once the property of Cardinal York, were subsequently presented by Pope Pius VII. to the prince regent, who placed them in the royal library at Windsor Castle.

See B. W. Kelly, *Life of Cardinal York*; H. M. Vaughan, *Last of the Royal Stuarts*; and A. Shield, *Henry Stuart, Cardinal of York, and his Times* (1908).

(H. M. V.)

HENRY OF PORTUGAL, surnamed the "Navigator" (1394-1460), duke of Viseu, governor of the Algarve, was born at Oporto on the 4th of March 1394. He was the third (or, counting children who died in infancy, the fifth) son of John (João) I., the founder of the Aviz dynasty, under whom Portugal, victorious against Castile and against the Moors of Morocco, began to take a prominent place among European nations; his mother was Philippa, daughter of John of Gaunt. When Ceuta, the "African Gibraltar," was taken in 1415, Prince Henry performed the most distinguished service of any Portuguese leader, and received knighthood; he was now created duke of Viseu and lord of Covilham, and about the same time began his explorations, which, however, limited in their original conception, certainly developed into a search for a better knowledge of the western ocean and for a sea-way along the unknown coast of Africa to the supposed western Nile (our Senegal), to the rich negro lands beyond the Sahara desert, to the half-true, half-fabled realm of Prester John, and so ultimately to the Indies.

Disregarding the traditions which assign 1412 or even 1410 as the commencement of these explorations, it appears that in 1415, the year of Ceuta, the prince sent out one John de Trasto on a voyage which brought the Portuguese to Grand Canary. There was no discovery here, for the whole Canarian archipelago was now pretty well known to French and Spanish mariners, especially since the conquest of 1402-06 by French adventurers under Castillan overlordship; but in 1418 Henry's captain, João Gonçalvez Zarco rediscovered Porto Santo, and in 1420 Madeira, the chief members of an island group which had originally been discovered (probably by Genoese pioneers) before 1351 or perhaps even before 1339, but had rather faded from Christian knowledge since. The story of the rediscovery of Madeira by the Englishman Robert Machim or Machin, eloping from Bristol with his lady-love, Anne d'Arfet, in the reign of Edward III. (about 1370), has been the subject of much controversy; in any case it does not affect the original Italian discovery, nor the first sighting of Porto Santo by Zarco, who, while exploring the west African mainland coast, was driven by storms to this island. In 1424-1425 Prince Henry attempted to purchase the Canaries, and began the colonization of the Madeira group, both in Madeira itself and in Porto Santo; to aid this latter movement he procured the famous charters of 1430 and 1433 from the Portuguese crown. In 1427, again, with the co-operation of his father King John, he seems to have sent out the royal pilot Diogo de Sevill, followed in 1431 by Gonçalo Velho Cabral, to explore the Azores, first mentioned and depicted in a Spanish treatise of 1345 (the *Conosçimiento de todos los Reynos*) and in an Italian map of 1351 (the *Laurentian Portolano*, also the first cartographical work to give us the Madeiras with modern names), but probably almost unvisited from that time to the advent of Sevill. This rediscovery of the far western archipelago, and the expeditions which, even within Prince Henry's life (as in

1452) pushed still deeper into the Atlantic, seem to show that the infante was not entirely forgetful of the possibility of such a western route to Asia as Columbus attempted in 1492, only to find America across his path. Meantime, in 1418, Henry had gone in person to relieve Ceuta from an attack of Morocco and Granada Mussulmans; had accomplished his task, and had planned, though he did not carry out, a seizure of Gibraltar. About this time, moreover, it is probable that he had begun to gather information from the Moors with regard to the coast of "Guinea" and the interior of Africa. In 1419, after his return to Portugal, he was created governor of the "kingdom" of Algarve, the southernmost province of Portugal; and his connexion now appears to have begun with what afterwards became known as the "Infante's Town" (*Villa do Iffante*) at Sagres, close to Cape St Vincent; where, before 1438, a *Tercena Nabal* or naval arsenal grew up; where, from 1438, after the Tangier expedition, the prince certainly resided for a great part of his later life; and where he died in 1460.

In 1433 died King John, exhorting his son not to abandon those schemes which were now, in the long-continued failure to round Cape Bojador, ridiculed by many as costly absurdities; and in 1434 one of the prince's ships, commanded by Gil Eannes, at length doubled the cape. In 1435 Affonso Gonçalvez Baldaya, the prince's cup-bearer, passed fifty leagues beyond; and before the close of 1436 the Portuguese had almost reached Cape Blanco. Plans of further conquest in Morocco, resulting in 1437 in the disastrous attack upon Tangier, and followed in 1438 by the death of King Edward (Duarte) and the domestic troubles of the earlier minority of Affonso V., now interrupted Atlantic and African exploration down to 1441, except only in the Azores. Here rediscovery and colonization both progressed, as is shown by the royal licence of the 2nd of July 1439, to people "the seven islands" of the group then known. In 1441 exploration began again in earnest with the venture of Antam Gonçalvez, who brought to Portugal the first slaves and gold-dust from the Guinea coasts beyond Bojador; while Nuno Tristam in the same year pushed on to Cape Blanco. These successes produced a great effect; the cause of discovery, now connected with boundless hopes of profit, became popular; and many volunteers, especially merchants and seamen from Lisbon and Lagos, came forward. In 1442 Nuno Tristam reached the Bay or Bight of Arguim, where the infante erected a fort in 1448, and where for years the Portuguese carried on vigorous slave-raiding. Meantime the prince, who had now, in 1443, been created by Henry VI. a knight of the Garter of England, proceeded with his Sagres buildings, especially the palace, church and observatory (the first in Portugal) which formed the nucleus of the "Infante's Town," and which were certainly commenced soon after the Tangier fiasco (1437), if not earlier. In 1444-1446 there was an immense burst of maritime and exploring activity; more than 30 ships sailed with Henry's licence to Guinea; and several of their commanders achieved notable success. Thus Diniz Diaz, Nuno Tristam, and others reached the Senegal in 1445; Diaz rounded Cape Verde in the same year; and in 1446 Alvaro Fernandez pushed on almost to our Sierra Leone, to a point 110 leagues beyond Cape Verde. This was perhaps the most distant point reached before 1461. In 1444, moreover, the island of St Michael in the Azores was sighted (May 8), and in 1445 its colonization was begun. During this latter year also John Fernandez (*q.v.*) spent seven months among the natives of the Arguim coast, and brought back the first trustworthy first-hand European account of the Sahara hinterland. Slave-raiding continued ceaselessly; by 1446 the Portuguese had carried off nearly a thousand captives from the newly surveyed coasts; but between this time and the voyages of Cadamosto (*q.v.*) in 1455-1456, the prince altered his policy, forbade the kidnapping of the natives (which had brought about fierce reprisals, causing the death of Nuno Tristam in 1446, and of other pioneers in 1445, 1448, &c.), and endeavoured to promote their peaceful intercourse with his men. In 1445-1446, again, Dom Henry renewed his earlier attempts (which had failed in 1424-1425) to purchase or seize the Canaries for Portugal; by these he brought his country to the verge of war with Castile; but the home government refused to support him, and the project was again abandoned. After 1446 our most voluminous authority, Azurara, records but little; his narrative ceases altogether in 1448; one of the latest expeditions noticed by him is that of a foreigner in the prince's service, "Vallarte the Dane," which ended in utter destruction near the Gambia, after passing Cape Verde in 1448. After this the chief matters worth notice in Dom Henry's life are, first, the progress of discovery and colonization in the Azores—where Terceira was discovered before 1450, perhaps in 1445, and apparently by a Fleming, called "Jacques de Bruges" in the prince's charter of the 2nd of March 1450 (by this charter Jacques receives the captaincy of this isle as its intending colonizer); secondly, the rapid progress of civilization in Madeira, evidenced by its timber trade to Portugal, by its sugar, corn and honey, and above all by its wine, produced from the Malvoisie or Malmsey grape, introduced from Crete; and thirdly, the explorations of Cadamosto and Diogo Gomez (*q.v.*). Of these the former, in his two voyages of 1455 and 1456, explored part of the courses of the Senegal

and the Gambia, discovered the Cape Verde Islands (1456), named and mapped more carefully than before a considerable section of the African littoral beyond Cape Verde, and gave much new information on the trade-routes of north-west Africa and on the native races; while Gomez, in his first important venture (after 1448 and before 1458), though not accomplishing the full Indian purpose of his voyage (he took a native interpreter with him for use “in the event of reaching India”), explored and observed in the Gambia valley and along the adjacent coasts with fully as much care and profit. As a result of these expeditions the infante seems to have sent out in 1458 a mission to convert the Gambia negroes. Gomez’ second voyage, resulting in another “discovery” of the Cape Verde Islands, was probably in 1462, after the death of Prince Henry; it is likely that among the infante’s last occupations were the necessary measures for the equipment and despatch of this venture, as well as of Pedro de Sintra’s important expedition of 1461.

The infante’s share in home politics was considerable, especially in the years of Affonso V.’s minority (1438, &c.) when he helped to make his elder brother Pedro regent, reconciled him with the queen-mother, and worked together with them both in a council of regency. But when Dom Pedro rose in revolt (1447), Henry stood by the king and allowed his brother to be crushed. In the Morocco campaigns of his last years, especially at the capture of Alcazar the Little (1458), he restored the military fame which he had founded at Ceuta and compromised at Tangier, and which brought him invitations from the pope, the emperor and the kings of Castile and England, to take command of their armies. The prince was also grand master of the Order of Christ, the successor of the Templars in Portugal; and most of his Atlantic and African expeditions sailed under the flag of his order, whose revenues were at the service of his explorations, in whose name he asked and obtained the official recognition of Pope Eugenius IV. for his work, and on which he bestowed many privileges in the new-won lands—the tithes of St Michael in the Azores and one-half of its sugar revenues, the tithe of all merchandise from Guinea, the ecclesiastical dues of Madeira, &c. As “protector of Portuguese studies,” Dom Henry is credited with having founded a professorship of theology, and perhaps also chairs of mathematics and medicine, in Lisbon—where also, in 1431, he is said to have provided house-room for the university teachers and students. To instruct his captains, pilots and other pioneers more fully in the art of navigation and the making of maps and instruments he procured, says Barros, the aid of one Master Jacome from Majorca, together with that of certain Arab and Jewish mathematicians. We hear also of one Master Peter, who inscribed and illuminated maps for the infante; the mathematician Pedro Nunes declares that the prince’s mariners were well taught and provided with instruments and rules of astronomy and geometry “which all map-makers should know”; Cadamosto tells us that the Portuguese caravels in his day were the best sailing ships afloat; while, from several matters recorded by Henry’s biographers, it is clear that he devoted great attention to the study of earlier charts and of any available information he could gain upon the trade-routes of north-west Africa. Thus we find an Oran merchant corresponding with him about events happening in the negro-world of the Gambia basin in 1458. Even if there were never a formal “geographical school” at Sagres, or elsewhere in Portugal, founded by Prince Henry, it appears certain that his court was the centre of active and useful geographical study, as well as the source of the best practical exploration of the time.

The prince died on the 13th of November 1460, in his town near Cape St Vincent, and was buried in the church of St Mary in Lagos, but a year later his body was removed to the superb monastery of Batalha. His great-nephew, King Dom Manuel, had a statue of him placed over the centre column of the side gate of the church of Belem. On the 24th of July 1840, a monument was erected to him at Sagres at the instance of the marquis de Sá da Bandeira.

The glory attaching to the name of Prince Henry does not rest merely on the achievements effected during his own lifetime, but on the subsequent results to which his genius and perseverance had lent the primary inspiration. To him the human race is indebted, in large measure, for the maritime exploration, within one century (1420-1522), of more than half the globe, and especially of the great waterways from Europe to Asia both by east and by west. His own life only sufficed for the accomplishment of a small portion of his task. The complete opening out of the African or south-east route to the Indies needed nearly forty years of somewhat intermittent labour after his death (1460-1498), and the prince’s share has often been forgotten in that of pioneers who were really his executors—Diogo Cam, Bartholomew Diaz or Vasco da Gama. Less directly, other sides of his activity may be considered as fulfilled by the Portuguese penetration of inland Africa, especially of Abyssinia, the land of the “Prester John” for whom Dom Henry sought, and even by the finding of a western route to Asia through the discoveries of Columbus, Balboa and

Magellan.

See *Alguns documentos do archivo nacional da Torre do Tombo acerca das navegações ... portuguezas* (Lisbon, 1892); Alves, *Dom Henrique o Infante* (Oporto, 1894); *Archivo dos Açores* (Ponta Delgada, 1878-1894); Gomes Eannes de Azurara, *Chronica do descobrimento e conquista de Guiné*, ed. Carreira and Santarem (Paris, 1841; Eng. trans. by Raymond Beazley and Edgar Prestage, Hakluyt Society, London, 1896-1899); João de Barros, *Decadas da Asia* (Lisbon, 1652); Raymond Beazley, *Prince Henry the Navigator* (London, 1895), and introduction to Azurara, vol. ii., in Hakluyt Soc. trans. (see above); Antonio Cordeiro, *Historia Insultana* (Lisbon, 1717); Freire (Candido Lusitano), *Vida do Infante D. Henrique* (Lisbon, 1858); "Diogo Gomez," in Dr Schmeller's *Über Valentim Fernandez Alemão*, vol. iv. pt. iii., in the publications of the 1st class of the Royal Bavarian Academy of Sciences (Munich, 1845); R. H. Major, *The Life of Henry of Portugal, surnamed the Navigator* (London, 1868); Jules Mees, *Henri le Navigateur et l'académie ... de Sagres* (Brussels, 1901), and *Histoire de la découverte des îles Açores* (Ghent, 1901); Duarte Pacheco Pereira, *Esmeraldo de situ orbis* (Lisbon, 1892); Sophus Ruge, "Prinz Heinrich der Seefahrer," in vol. 65 of *Globus*, p. 153 (Brunswick, 1894); Gustav de Veer, *Prinz Heinrich der Seefahrer* (Danzig, 1863); H. E. Wauwerman, *Henri le Navigateur et l'académie portugaise de Sagres* (Antwerp and Brussels, 1890).

(C. R. B.)

HENRY OF ALMAIN (1235-1271), so called from his father's German connexions, was the son of Richard, earl of Cornwall and king of the Romans. As a nephew of both Henry III. and Simon de Montfort he wavered between the two at the beginning of the Barons' War, but finally took the royalist side and was among the prisoners taken by Montfort at Lewes (1264). In 1268 he took the cross with his cousin Edward, who, however, sent him back from Sicily to pacify the unruly province of Gascony. Henry took the land route with the kings of France and Sicily. While attending mass at Viterbo (13 March 1271) he was attacked by Guy and Simon de Montfort, sons of Earl Simon, and foully murdered. This revenge was the more outrageous since Henry had personally exerted himself on behalf of the Montforts after Evesham. The deed is mentioned by Dante, who put Guy de Montfort in the seventh circle of hell.

See W. H. Blaauw's *The Barons' War* (ed. 1871); Ch. Bémont's *Simon de Montfort* (1884).

HENRY OF BLOIS, bishop of Winchester (1101-1171), was the son of Stephen, count of Blois, by Adela, daughter of William I., and brother of King Stephen. He was educated at Cluny, and consistently exerted himself for the principles of Cluniac reform. If these involved high claims of independence and power for the Church, they also asserted a high standard of devotion and discipline. Henry was brought to England by Henry I. and made abbot of Glastonbury. In 1129 he was given the bishopric of Winchester and allowed to hold his abbey in conjunction with it. His hopes of the see of Canterbury were disappointed, but he obtained in 1139 a legatine commission which gave him a higher rank than the primate. In fact as well as in theory he became the master of the Church in England. He even contemplated the erection of a new province, with Winchester as its centre, which was to be independent of Canterbury. Owing both to local and to general causes the power of the Church in England has never been higher than in the reign of Stephen (1135-1154), Henry as its leader and a legate of the pope was the real "lord of England," as the chronicles call him. Indeed, one of the ecclesiastical councils over which he presided formally declared that the election of the king in England was the special privilege of the clergy. Stephen owed his crown to Henry (1135), but they quarrelled when Stephen refused to give Henry the primacy; and the bishop took up the cause of Roger of Salisbury (1139). After the battle of Lincoln (1141) Henry declared for Matilda; but finding his advice treated with contempt, rejoined his brother's side, and his successful defence of Winchester against the empress (Aug.-Sept. 1141) was the turning-point of the civil war. The expiration of his legatine commission of 1144 deprived him of much of his power. He spent the rest of Stephen's reign

in trying to procure its renewal. But his efforts were unsuccessful, though he made a personal visit to Rome. At the accession of Henry II. (1154) he retired from the world and spent the rest of his life in works of charity and penitence. He died in 1171. Henry seems to have been a man of high character, great courage, resolution and ability. Like most great bishops of his age he had a passion for architecture. He built, among other castles, that of Farnham; and he began the hospital of St Cross at Winchester.

AUTHORITIES.—Original: William of Malmesbury, *De gestis regum*; the *Gesta Stephani*. Modern: Sir James Ramsay, *Foundations of England*, vol. ii.; Kate Norgate's *Angevin Kings*; Kitchin's *Winchester*.

HENRY OF GHENT [Henricus a Gandavo] (*c.* 1217-1293), scholastic philosopher, known as "Doctor Solennis," was born in the district of Mude, near Ghent, and died at Tournai (or Paris). He is said to have belonged to an Italian family named Bonicolli, in Flemish Goethals, but the question of his name has been much discussed (see authorities below). He studied at Ghent and then at Cologne under Albertus Magnus. After obtaining the degree of doctor he returned to Ghent, and is said to have been the first to lecture there publicly on philosophy and theology. Attracted to Paris by the fame of the university, he took part in the many disputes between the orders and the secular priests, and warmly defended the latter. A contemporary of Aquinas, he opposed several of the dominant theories of the time, and united with the current Aristotelian doctrines a strong infusion of Platonism. He distinguished between knowledge of actual objects and the divine inspiration by which we cognize the being and existence of God. The first throws no light upon the second. Individuals are constituted not by the material element but by their independent existence, *i.e.* ultimately by the fact that they are created as separate entities. Universals must be distinguished according as they have reference to our minds or to the divine mind. In the divine intelligence exist exemplars or types of the genera and species of natural objects. On this subject Henry is far from clear; but he defends Plato against the current Aristotelian criticism, and endeavours to show that the two views are in harmony. In psychology, his view of the intimate union of soul and body is remarkable. The body he regards as forming part of the substance of the soul, which through this union is more perfect and complete.

WORKS.—*Quodlibeta theologica* (Paris, 1518; Venice, 1608 and 1613); *Summa theologiae* (Paris, 1520; Ferrara, 1646); *De scriptoribus ecclesiasticis* (Cologne, 1580).

AUTHORITIES.—F. Huet's *Recherches hist. et crit. ... de H. de G.* (Paris, 1838) has been superseded by F. Ehrle's monograph in *Archiv für Lit. u. Kirchengeschichte des Mittelalters*, i. (1885); see also A. Wauters and N. de Pauw in the *Bull. de la Com. royale d'histoire de Belgique* (4th series, xiv., xv., xvi., 1887-1889); H. Delehaye, *Nouvelles Recherches sur Henri de Gand* (1886); C. Werner, *Heinrich von Gent als Repräsentant des christlichen Platonismus im 13ten Jahrh.* (Vienna, 1878); A. Stöckl, *Phil. d. Mittelalters*, ii. 738-758; C. Bréchillet Jourdain, *La Philosophie de St Thomas d'Aquin* (1858), ii. 29-46; Alphonse le Roy in *Biographie nationale de Belgique*, vii. (Brussels, 1880); and article SCHOLASTICISM.

HENRY OF HUNTINGDON, English chronicler of the 12th century, was born, apparently, between the years 1080 and 1090. His father, by name Nicholas, was a clerk, who became archdeacon of Cambridge, Hertford and Huntingdon, in the time of Remigius, bishop of Lincoln (d. 1092). The celibacy of the clergy was not strictly enforced in England before 1102. Hence the chronicler makes no secret of his antecedents, nor did they interfere with his career. At an early age Henry entered the household of Bishop Robert Bloet, who appointed him, immediately after the death of Nicholas (1110), archdeacon of Hertford and Huntingdon. Henry was on familiar terms with his patron; and also, it would seem, with Bloet's successor, by whom he was encouraged to undertake the writing of an English history from the time of Julius Caesar. This work, undertaken before 1130, was first published in that year; the author subsequently published in succession four more editions, of which the last ends in 1154 with the accession of Henry II. The only recorded fact of the

chronicler's later life is that he went with Archbishop Theobald to Rome in 1139. On the way Henry halted at Bec, and there made the acquaintance of Robert de Torigni, who mentions their encounter in the preface to his Chronicle.

The *Historia Anglorum* was first printed in Savile, *Rerum Anglicarum scriptores post Bedam* (London, 1596). The first six books excepting the third, which is almost entirely taken from Bede, are given in *Monumenta historica Britannica*, vol. i. (ed. H. Petrie and J. Sharpe, London, 1848). The standard edition is that of T. Arnold in the Rolls Series (London, 1879). There is a translation by T. Forester in Bohn's *Antiquarian Library* (London, 1853). The Historia is of little independent value before 1126. Up to that point the author compiles from Eutropius, Aurelius Victor, Nennius, Bede and the English chronicles, particularly that of Peterborough; in some cases he professes to supplement these sources from oral tradition; but most of his amplifications are pure rhetoric (see F. Liebermann in *Forschungen zur deutschen Geschichte* for 1878, pp. 265 seq.). Arnold prints, in an appendix, a minor work from Henry's pen, the *Epistola ad Walterum de contemptu mundi*, which was written in 1135. It is a moralizing tract, but contains some interesting anecdotes about contemporaries. Henry also wrote epistles to Henry I. (on the succession of kings and emperors in the great monarchies of the world) and to "Warinus, a Briton" (on the early British kings, after Geoffrey of Monmouth). A book, *De miraculis*, composed of extracts from Bede, was appended along with these three epistles to the later recensions of the *Historia*. Henry composed eight books of Latin epigrams; two books survive in the Lambeth MS., No. 118. His value as a historian, formerly much overrated, is discussed at length by Liebermann and in T. Arnold's introduction to the Rolls edition of the *Historia*.

(H. W. C. D.)

HENRY OF LAUSANNE (variously known as of Bruys, of Cluny, of Toulouse, and as the Deacon), French heresiarch of the first half of the 12th century. Practically nothing is known of his origin or early life. He may have been one of those hermits who at that time swarmed in the forests of western Europe, and particularly in France, always surrounded by popular veneration, and sometimes the founders of monasteries or religious orders, such as those of Prémontré or Fontevrault. If St Bernard's reproach (*Ep.* 241) be well founded, Henry was an apostate monk—a "black monk" (Benedictine) according to the chronicler Alberic de Trois Fontaines. The information we possess as to his degree of instruction is scarcely more precise or less conflicting. When he arrived at Le Mans in 1101, his *terminus a quo* was probably Lausanne. At that moment Hildebert, the bishop of Le Mans, was absent from his episcopal town, and this is one of the reasons why Henry was granted permission to preach (March to July 1101), a function jealously guarded by the regular clergy. Whether by his prestige as a hermit and ascetic or by his personal charm, he soon acquired enormous influence over the people. His doctrine at that date appears to have been very vague; he seemingly rejected the invocation of saints and also second marriages, and preached penitence. Women, inflamed by his words, gave up their jewels and luxurious apparel, and young men married courtesans in the hope of reclaiming them. Henry was peculiarly fitted for a popular preacher. In person he was tall and had a long beard; his voice was sonorous, and his eyes flashed fire. He went bare-footed, preceded by a man carrying a staff surmounted with an iron cross; he slept on the bare ground, and lived by alms. At his instigation the inhabitants of Le Mans soon began to slight the clergy of their town and to reject all ecclesiastical authority. On his return from Rome, Hildebert had a public disputation with Henry, in which, according to the bishop's *Acta episcoporum Cenomannensium*, Henry was shown to be less guilty of heresy than of ignorance. He, however, was forced to leave Le Mans, and went probably to Poitiers and afterwards to Bordeaux. Later we find him in the diocese of Arles, where the archbishop arrested him and had his case referred to the tribunal of the pope. In 1134 Henry appeared before Pope Innocent III. at the council of Pisa, where he was compelled to abjure his errors and was sentenced to imprisonment. It appears that St Bernard offered him an asylum at Clairvaux; but it is not known if he reached Clairvaux, nor do we know when or in what circumstances he resumed his activities. Towards 1139, however, Peter the Venerable, abbot of Cluny, wrote a treatise called *Epistola seu tractatus adversus Petrobrusianos* (Migne, *Patr. Lat.* clxxxix.) against the disciples of Peter of Bruys and Henry of Lausanne, whom he calls Henry of Bruys, and whom, at the moment of writing, he accuses of preaching, in all the dioceses in the south of France, errors which he had inherited from Peter of Bruys. According to Peter the Venerable, Henry's teaching is summed up as follows: rejection of the doctrinal and

disciplinary authority of the church; recognition of the Gospel freely interpreted as the sole rule of faith; condemnation of the baptism of infants, of the eucharist, of the sacrifice of the mass, of the communion of saints, and of prayers for the dead; and refusal to recognize any form of worship or liturgy. The success of this teaching spread very rapidly in the south of France. Speaking of this region, St Bernard (*Ep.* 241) says: "The churches are without flocks, the flocks without priests, the priests without honour; in a word, nothing remains save Christians without Christ." On several occasions St Bernard was begged to fight the innovator on the scene of his exploits, and in 1145, at the instance of the legate Alberic, cardinal bishop of Ostia, he set out, passing through the diocese of Angoulême and Limoges, sojourning for some time at Bordeaux, and finally reaching the heretical towns of Bergerac, Périgueux, Sarlat, Cahors and Toulouse. At Bernard's approach Henry quitted Toulouse, leaving there many adherents, both of noble and humble birth, and especially among the weavers. But Bernard's eloquence and miracles made many converts, and Toulouse and Albi were quickly restored to orthodoxy. After inviting Henry to a disputation, which he refused to attend, St Bernard returned to Clairvaux. Soon afterwards the heresiarch was arrested, brought before the bishop of Toulouse, and probably imprisoned for life. In a letter to the people of Toulouse, undoubtedly written at the end of 1146, St Bernard calls upon them to extirpate the last remnants of the heresy. In 1151, however, some Henricians still remained in Languedoc, for Matthew Paris relates (*Chron. maj.*, at date 1151) that a young girl, who gave herself out to be miraculously inspired by the Virgin Mary, was reputed to have converted a great number of the disciples of Henry of Lausanne. It is impossible to designate definitely as Henricians one of the two sects discovered at Cologne and described by Everwin, provost of Steinfeld, in his letter to St Bernard (Migne, *Patr. Lat.*, clxxxii. 676-680), or the heretics of Périgord mentioned by a certain monk Heribert (Martin Bouquet, *Recueil des historiens des Gaules et de la France*, xii. 550-551).

See "Les Origines de l'hérésie albigeoise," by Vacandard in the *Revue des questions historiques* (Paris, 1894, pp. 67-83).

(P. A.)

HENRY, EDWARD LAMSON (1841-), American genre painter, was born in Charleston, South Carolina, on the 12th of January 1841. He was a pupil of the schools of the Pennsylvania Academy of Fine Arts in Philadelphia, and of Gleyre and Courbet in Paris, and in 1870 was elected to the National Academy of Design, New York. As a painter of colonial and early American themes and incidents of rural life, he displays a quaint humour and a profound knowledge of human nature. Among his best-known compositions are some of early railroad travel, incidents of stage coach and canal boat journeys, rendered with much detail on a minute scale.

HENRY, JAMES (1798-1876), Irish classical scholar, was born in Dublin on the 13th of December 1798. He was educated at Trinity College, and until 1845 practised as a physician in the city. In spite of his unconventionally and unorthodox views on religion and his own profession, he was very successful. His accession to a large fortune enabled him to devote himself entirely to the absorbing occupation of his life—the study of Virgil. Accompanied by his wife and daughter, he visited all those parts of Europe where he was likely to find rare editions or MSS. of the poet. He died near Dublin on the 14th of July 1876. As a commentator on Virgil Henry will always deserve to be remembered, notwithstanding the occasional eccentricity of his notes and remarks. The first fruits of his researches were published at Dresden in 1853 under the quaint title *Notes of a Twelve Years' Voyage of Discovery in the first six Books of the Eneis*. These were embodied, with alterations and additions, in the *Aeneidea, or Critical, Exegetical and Aesthetical Remarks on the Aeneis* (1873-1892), of which only the notes on the first book were published during the author's lifetime. As a textual critic Henry was exceedingly conservative. His notes, written in a racy and interesting style, are especially valuable for their wealth of illustration and references to the less-known classical authors. Henry was also the author of several poems, some of them

descriptive accounts of his travels, and of various pamphlets of a satirical nature.

See obituary notice by J. P. Mahaffy in the *Academy* of the 12th of August 1876, where a list of his works, nearly all of which were privately printed, is given.

HENRY, JOSEPH (1797-1878), American physicist, was born in Albany, N.Y., on the 17th of December 1797. He received his education at an ordinary school, and afterwards at the Albany Academy, which enjoyed considerable reputation for the thoroughness of its classical and mathematical courses. On finishing his academic studies he contemplated adopting the medical profession, and prosecuted his studies in chemistry, anatomy and physiology with that view. He occasionally contributed papers to the Albany Institute, in the years 1824 and 1825, on chemical and mechanical subjects; and in the latter year, having been unexpectedly appointed assistant engineer on the survey of a route for a state road from the Hudson river to Lake Erie, a distance somewhat over 300 m., he at once embarked with zeal and success in the new enterprise. This diversion from his original bent gave him an inclination to the career of civil and mechanical engineering; and in the spring of 1826 he was elected by the trustees of the Albany Academy to the chair of mathematics and natural philosophy in that institution. In the latter part of 1827 he read before the Albany Institute his first important contribution, “On Some Modifications of the Electro-Magnetic Apparatus.” Struck with the great improvements then recently introduced into such apparatus by William Sturgeon of Woolwich, he had still further extended their efficiency, with considerable reduction of battery-power, by adopting in all the experimental circuits (where applicable) the principle of J. S. C. Schweigger’s “multiplier,” that is, by substituting for single wire circuits, voluminous coils (*Trans. Albany Institute*, 1827, 1, p. 22). In June 1828 and in March 1829 he exhibited before the institute small electro-magnets closely and repeatedly wound with silk-covered wire, which had a far greater lifting power than any then known. Henry appears to have been the first to adopt insulated or silk-covered wire for the magnetic coil; and also the first to employ what may be called the “spool” winding for the limbs of the magnet. He was also the first to demonstrate experimentally the difference of action between what he called a “quantity” magnet excited by a “quantity” battery of a single pair, and an “intensity” magnet with long fine wire coil excited by an “intensity” battery of many elements, having their resistances suitably proportioned. He pointed out that the latter form alone was applicable to telegraphic purposes. A detailed account of these experiments and exhibitions was not, however, published till 1831 (*Sill. Journ.*, 19, p. 400). Henry’s “quantity” magnets acquired considerable celebrity at the time, from their unprecedented attractive power—one (August 1830) lifting 750 lb, another (March 1831) 2300, and a third (1834) 3500.

Early in 1831 he arranged a small office-bell to be tapped by the polarized armature of an “intensity” magnet, whose coil was in continuation of a mile of insulated copper wire, suspended about one of the rooms of his academy. This was the first instance of magnetizing iron at a distance, or of a suitable combination of magnet and battery being so arranged as to be capable of such action. It was, therefore, the earliest example of a true “magnetic” telegraph, all preceding experiments to this end having been on the galvanometer or needle principle. About the same time he devised and constructed the first electromagnetic engine with automatic polechanger (*Sill. Journ.*, 1831, 20, p. 340; and Sturgeon’s *Annals Electr.*, 1839, 3, p. 554). Early in 1832 he discovered the induction of a current on itself, in a long helical wire, giving greatly increased intensity of discharge (*Sill. Journ.*, 1832, 22, p. 408). In 1832 he was elected to the chair of natural philosophy in the New Jersey college at Princeton. In 1834 he continued and extended his researches “On the Influence of a Spiral Conductor in increasing the Intensity of Electricity from a Galvanic Arrangement of a Single Pair,” a memoir of which was read before the American Philosophical Society on the 5th of February 1835. In 1835 he combined the short circuit of his monster magnet (of 1834) with the small “intensity” magnet of an experimental telegraph wire, thereby establishing the fact that very powerful mechanical effects could be produced at a great distance by the agency of a very feeble magnet used as a circuit maker and breaker, or as a “trigger”—the precursor of later forms of relay and receiving magnets. In 1837 he paid his first visit to England and Europe. In 1838 he made important investigations in regard to the conditions and range of induction from electrical currents—showing that induced currents, although merely momentary, produce still other or tertiary currents, and thus on through successive

orders of induction, with alternating signs, and with reversed initial and terminal signs. He also discovered similar successive orders of induction in the case of the passage of frictional electricity (*Trans. Am. Phil. Soc.*, 6, pp. 303-337). Among many minor observations, he discovered in 1842 the oscillatory nature of the electrical discharge, magnetizing about a thousand needles in the course of his experiments (*Proc. Am. Phil. Soc.*, 1, p. 301). He traced the influence of induction to surprising distances, magnetizing needles in the lower story of a house through several intervening floors by means of electrical discharges in the upper story, and also by the secondary current in a wire 220 ft. distant from the wire of the primary circuit. The five numbers of his *Contributions to Electricity and Magnetism* (1835-1842) were separately republished from the *Transactions*. In 1843 he made some interesting original observations on "Phosphorescence" (*Proc. Am. Phil. Soc.*, 3, pp. 38-44). In 1844, by experiments on the tenacity of soap-bubbles, he showed that the molecular cohesion of water is equal (if not superior) to that of ice, and hence, generally, that solids and their liquids have practically the same amount of cohesion (*Proc. Am. Phil. Soc.*, 4, pp. 56 and 84). In 1845 he showed, by means of a thermo-galvanometer, that the solar spots radiate less heat than the general solar surface (*Proc. Am. Phil. Soc.*, 4, pp. 173-176).

In December 1846 Henry was elected secretary and director of the Smithsonian Institution, then just established. While closely occupied with the exacting duties of that office, he still found time to prosecute many original inquiries—as into the application of acoustics to public buildings, and the best construction and arrangement of lecture-rooms, into the strength of various building materials, &c. Having early devoted much attention to meteorology, both in observing and in reducing and discussing observations, he (among his first administrative acts) organized a large and widespread corps of observers, and made arrangements for simultaneous reports by means of the electric telegraph, which was yet in its infancy (*Smithson. Report* for 1847, pp. 146, 147). He was the first to apply the telegraph to meteorological research, to have the atmospheric conditions daily indicated on a large map, to utilize the generalizations made in weather forecasts, and to embrace a continent under a single system—British America and Mexico being included in the field of observation. In 1852, on the reorganization of the American lighthouse system, he was appointed a member of the new board; and in 1871 he became the presiding officer of the establishment—a position he continued to hold during the rest of his life. His diligent investigations into the efficiency of various illuminants in differing circumstances, and into the best conditions for developing their several maximum powers of brilliancy, while greatly improving the usefulness of the line of beacons along the extensive coast of the United States, effected at the same time a great economy of administration. His equally careful experiments on various acoustic instruments also resulted in giving to his country the most serviceable system of fog-signals known to maritime powers. In the course of these varied and prolonged researches from 1865 to 1877, he also made important contributions to the science of acoustics; and he established by several series of laborious observations, extending over many years and along a wide coast range, the correctness of G. G. Stokes's hypothesis (*Report Brit. Assoc.*, 1857, part ii. 27) that the wind exerts a very marked influence in refracting sound-beams. From 1868 Henry continued to be annually chosen as president of the National Academy of Sciences; and he was also president of the Philosophical Society of Washington from the date of its organization in 1871.

Henry was by general concession the foremost of American physicists. He was a man of varied culture, of large breadth and liberality of views, of generous impulses, of great gentleness and courtesy of manner, combined with equal firmness of purpose and energy of action. He died at Washington on the 13th of May 1878.

(S. F. B.)

HENRY, MATTHEW (1662-1714), English nonconformist divine, was born at Broad Oak, a farm-house on the confines of Flintshire and Shropshire, on the 18th of October 1662. He was the son of Philip Henry, who had, two months earlier, been ejected by the Act of Uniformity. Unlike most of his fellow-sufferers, Philip Henry possessed some private means, and was thus enabled to give a good education to his son, who went first to a school at Islington, and then to Gray's Inn. He soon relinquished his legal studies for theology, and in 1687 became minister of a Presbyterian congregation at Chester, removing in 1712 to Mare Street, Hackney. Two years later (22nd of June 1714), he died suddenly of apoplexy at

Nantwich while on a journey from Chester to London. Henry's well-known *Exposition of the Old and New Testaments* (1708-1710) is a commentary of a practical and devotional rather than of a critical kind, covering the whole of the Old Testament, and the Gospels and Acts in the New. Here it was broken off by the author's death, but the work was finished by a number of ministers, and edited by G. Burder and John Hughes in 1811. Of no value as criticism, its unfailing good sense, its discriminating thought, its high moral tone, its simple piety and its singular felicity of practical application, combine with the well-sustained flow of its racy English style to secure for it the foremost place among works of its class.

His *Miscellaneous Writings*, including a *Life of Mr Philip Henry*, *The Communicant's Companion*, *Directions for Daily Communion with God*, *A Method for Prayer*, *A Scriptural Catechism*, and numerous sermons, were edited in 1809 and in 1830. See biographies by W. Tong (1816), C. Chapman (1859), J. B. Williams (1828, new ed. 1865); and M. H. Lee's *Diaries and Letters of Philip Henry* (1883).

HENRY, PATRICK (1736-1799), American statesman and orator, was born at Studley, Hanover county, Virginia, on the 29th of May 1736. He was the son of John Henry, a well-educated Scotsman, among whose relatives was the historian William Robertson, and who served in Virginia as county surveyor, colonel and judge of a county court. His mother was one of a family named Winston, of Welsh descent, noted for conversational and musical talent. At the age of ten Patrick was making slow progress in the study of reading, writing and arithmetic at a small country school, when his father became his tutor and taught him Latin, Greek and mathematics for five years, but with limited success. His school days being then terminated, he was employed as a store-clerk for one year. Within the seven years next following he failed twice as a storekeeper and once as a farmer; but in the meantime acquired a taste for reading, of history especially, and read and re-read the history of Greece and Rome, of England, and of her American colonies. Then, poor but not discouraged, he resolved to be a lawyer, and after reading *Coke upon Littleton* and the Virginia laws for a few weeks only, he strongly impressed one of his examiners, and was admitted to the bar at the age of twenty-four, on condition that he spend more time in study before beginning to practise. He rapidly acquired a considerable practice, his fee books shewing that for the first three years he charged fees in 1185 cases. Then in 1763 was delivered his speech in "The Parson's Cause"—a suit brought by a clergyman, Rev. James Maury, in the Hanover County Court, to secure restitution for money considered by him to be due on account of his salary (16,000 pounds of tobacco by law) having been paid in money calculated at a rate less than the current market price of tobacco. This speech, which, according to reports, was extremely radical and denied the right of the king to disallow acts of the colonial legislature, made Henry the idol of the common people of Virginia and procured for him an enormous practice. In 1765 he was elected a member of the Virginia legislature, where he became in the same year the author of the "Virginia Resolutions," which were no less than a declaration of resistance to the Stamp Act and an assertion of the right of the colonies to legislate for themselves independently of the control of the British parliament, and gave a most powerful impetus to the movement resulting in the War of Independence. In a speech urging their adoption appear the often-quoted words: "Tarquin and Caesar had each his Brutus, Charles the First his Cromwell, and George the Third [here he was interrupted by cries of "Treason"] and George the Third may profit by their example! If *this* be treason, make the most of it." Until 1775 he continued to sit in the House of Burgesses, as a leader during all that eventful period. He was prominent as a radical in all measures in opposition to the British government, and was a member of the first Virginia committee of correspondence. In 1774 and 1775 he was a delegate to the Continental Congress and served on three of its most important committees: that on colonial trade and manufactures, that for drawing up an address to the king, and that for stating the rights of the colonies. In 1775, in the second revolutionary convention of Virginia, Henry, regarding war as inevitable, presented resolutions for arming the Virginia militia. The more conservative members strongly opposed them as premature, whereupon Henry supported them in a speech familiar to the American school-boy for several generations following, closing with the words, "Is life so dear or peace so sweet as to be purchased at the price of chains and slavery? Forbid it, Almighty God! I know not what course others may take, but as for me, give me liberty or give me death!" The resolutions were passed and their author was made chairman of the committee for which they provided. The chief command of the newly organized army was

also given to him, but previously, at the head of a body of militia, he had demanded satisfaction for powder removed from the public store by order of Lord Dunmore, the royal governor, with the result that £330 was paid in compensation. But his military appointment required obedience to the Committee of Public Safety, and this body, largely dominated by Edmund Pendleton, so restrained him from active service that he resigned on the 28th of February 1776. In the Virginia convention of 1776 he favoured the postponement of a declaration of independence, until a firm union of the colonies and the friendship of France and Spain had been secured. In the same convention he served on the committee which drafted the first constitution for Virginia, and was elected governor of the State—to which office he was re-elected in 1777 and 1778, thus serving as long as the new constitution allowed any man to serve continuously. As governor he gave Washington able support and sent out the expedition under George Rogers Clark (*q.v.*) into the Illinois country. In 1778 he was chosen a delegate to Congress, but declined to serve. From 1780 to 1784 and from 1787 to 1790 he was again a member of his State legislature; and from 1784 to 1786 was again governor. Until 1786 he was a leading advocate of a stronger central government but when chosen a delegate to the Philadelphia constitutional convention of 1787, he had become cold in the cause and declined to serve. Moreover, in the state convention called to decide whether Virginia should ratify the Federal Constitution he led the opposition, contending that the proposed Constitution, because of its centralizing character, was dangerous to the liberties of the country. This change of attitude is thought to have been due chiefly to his suspicion of the North aroused by John Jay's proposal to surrender to Spain for twenty-five or thirty years the navigation of the Mississippi. From 1794 until his death he declined in succession the following offices: United States senator (1794), secretary of state in Washington's cabinet (1795), chief justice of the United States Supreme Court (1795), governor of Virginia (1796), to which office he had been elected by the Assembly, and envoy to France (1799). In 1799, however, he consented to serve again in his State legislature, where he wished to combat the Virginia Resolutions; he never took his seat, since he died, on his Red Hill estate in Charlotte county, Virginia, on the 6th of June of that year. Henry was twice married, first to Sarah Skelton, and second to Dorothea Spotswood Dandridge, a grand-daughter of Governor Alexander Spotswocd.

See Moses Coit Tyler, *Patrick Henry* (Boston, 1887; new ed., 1899), and William Wirt Henry (Patrick Henry's grandson), *Patrick Henry: Life, Correspondence and Speeches* (New York, 1890-1891); these supersede the very unsatisfactory biography by William Wirt, *Sketches of the Life and Character of Patrick Henry* (Philadelphia, 1817). See also George Morgan, *The True Patrick Henry* (Philadelphia, 1907).

(N. D. M.)

HENRY, ROBERT (1718-1790), British historian, was the son of James Henry, a farmer of Muirton, near Stirling. Born on the 18th of February 1718 he was educated at the parish school of St Ninians, and at the grammar school of Stirling, and, after completing his course at Edinburgh University, became master of the grammar school at Annan. In 1746 he was licensed to preach, and in 1748 was chosen minister of a Presbyterian congregation at Carlisle, where he remained until 1760, when he removed to a similar charge at Berwick-on-Tweed. In 1768 he became minister of the New Greyfriars' Church, Edinburgh, and having received the degree of D.D. from Edinburgh University in 1771, and served as moderator of the general assembly of the church of Scotland in 1774, he was appointed one of the ministers of the Old Greyfriars' Church, Edinburgh, in 1776, remaining in this charge until his death on the 24th of November 1790. During his residence in Berwick, Henry commenced his *History of Great Britain, written on a new plan*; but, owing to the difficulty of consulting the original authorities, he did not make much progress with the work until his removal to Edinburgh in 1768. The first five volumes appeared between 1771 and 1785, and the sixth, edited and completed by Malcolm Laing, was published three years after the author's death. A life of Henry was prefixed to this volume. The *History* covers the years between the Roman invasion and the death of Henry VIII., and the "new plan" is the combination of an account of the domestic life and commercial and social progress of the people with the narrative of the political events of each period. The work was virulently assailed by Dr Gilbert Stuart (1742-1786), who appeared anxious to damage the sale of the book; but the injury thus effected was only slight, as Henry received £3300 for the volumes published during his lifetime. In 1781, through the influence of the earl of Mansfield, he

obtained a pension of £100 a year from the British government.

The *History of Great Britain* has been translated into French, and has passed into several English editions. An account of Stuart's attack on Henry is given in Isaac D'Israeli's *Calamities of Authors*.

HENRY, VICTOR (1850-), French philologist, was born at Colmar in Alsace. Having held appointments at Douai and Lille, he was appointed professor of Sanskrit and comparative grammar in the university of Paris. A prolific and versatile writer, he is probably best known by the English translations of his *Précis de Grammaire comparée de l'anglais et de l'allemand* and *Précis ... du Grec et du Latin*. Important works by him on India and Indian languages are: *Manuel pour étudier le Sanscrit vedique* (with A. Bergaigne, 1890); *Éléments de Sanscrit classique* (1902); *Précis de grammaire Pâlie* (1904); *Les Littératures de l'Inde: Sanscrit, Pâli, Prâcrit* (1904); *La Magie dans l'Inde antique* (1904); *Le Parsisme* (1905); *L'Agnistoma* (1906). Obscure languages (such as Innok, Quichua, Greenland) and local dialects (*Lexique étymologique du Breton moderne; Le Dialecte Alaman de Colmar*) also claimed his attention. *Le Langage Martien* is a curious book. It contains a discussion of some 40 phrases (amounting to about 300 words), which a certain Mademoiselle Hélène Smith (a well-known spiritualist medium of Geneva), while on a hypnotic visit to the planet Mars, learnt and repeated and even wrote down during her trance as specimens of a language spoken there, explained to her by a disembodied interpreter.

HENRY, WILLIAM (1775-1836), English chemist, son of Thomas Henry (1734-1816), an apothecary and writer on chemistry, was born at Manchester on the 12th of December 1775. He began to study medicine at Edinburgh in 1795, taking his doctor's degree in 1807, but ill-health interrupted his practice as a physician, and he devoted his time mainly to chemical research, especially in regard to gases. One of his best-known papers (*Phil. Trans.*, 1803) describes experiments on the quantity of gases absorbed by water at different temperatures and under different pressures, the conclusion he reached ("Henry's law") being that "water takes up of gas condensed by one, two or more additional atmospheres, a quantity which, ordinarily compressed, would be equal to twice, thrice, &c. the volume absorbed under the common pressure of the atmosphere." Others of his papers deal with gas-analysis, fire-damp, illuminating gas, the composition of hydrochloric acid and of ammonia, urinary and other morbid concretions, and the disinfecting powers of heat. His *Elements of Experimental Chemistry* (1799) enjoyed considerable vogue in its day, going through 11 editions in 30 years. He died at Pendlebury, near Manchester, on the 2nd of September 1836.

HENRYSON, ROBERT (*c.* 1425-*c.* 1500), Scottish poet, was born about 1425. It has been surmised that he was connected with the family of Henderson of Fordell, but of this there is no evidence. He is described, on the title-page of the 1570 edition of his *Fables*, as "scholemaister of Dunfermeling," probably of the grammar-school of the Benedictine Abbey there. There is no record of his having studied at St Andrews, the only Scottish university at this time; but in 1462 a "Master Robert Henryson" is named among those incorporated in the recently founded university of Glasgow. It is therefore likely that his first studies were completed abroad, at Paris or Louvain. He would appear to have been in lower orders, if, in addition to being master of the grammar-school, he is the notary Robert Henryson who subscribes certain deeds in 1478. As Dunbar (*q.v.*) refers to him as deceased in his *Lament for the Makaris*, his death may be dated about 1500.

Efforts have been made to draw up a chronology of his poems; but every scheme of this kind, is, in a stronger sense than in the case of Dunbar, mere guess-work. There are no biographical or bibliographical facts to guide us, and the “internal evidence” is inconclusive.

Henryson’s longest, and in many respects his most original and effective work, is his *Morall Fabillis of Esope*, a collection of thirteen fables, chiefly based on the versions of Anonymus, Lydgate and Caxton. The outstanding merit of the work is its freshness of treatment. The old themes are retold with such vivacity, such fresh lights on human character, and with so much local “atmosphere,” that they deserve the credit of original productions. They are certainly unrivalled in English fabulistic literature. The earliest available texts are the Charteris text printed by Lekpreuik in Edinburgh in 1570 and the Harleian MS. No. 3865 in the British Museum.

In the *Testament of Cresseid* Henryson supplements Chaucer’s tale of Troilus with the story of the tragedy of Cresseid. Here again his literary craftsmanship saves him from the disaster which must have overcome another poet in undertaking to continue the part of the story which Chaucer had intentionally left untold. The description of Cresseid’s leprosy, of her meeting with Troilus, of his sorrow and charity, and of her death, give the poem a high place in writings of this *genre*.

The poem entitled *Orpheus and Eurydice*, which is drawn from Boethius, contains some good passages, especially the lyrical lament of Orpheus, with the refrains “Quhar art thow gane, my luf Erudices?” and “My lady quene and luf, Erudices.” It is followed by a long *moralitas*, in the manner of the *Fables*.

Thirteen shorter poems have been ascribed to Henryson. Of these the pastoral dialogue “Robene and Makyne,” perhaps the best known of his work, is the most successful. Its model may perhaps be found in the *pastourelles*, but it stands safely on its own merits. Unlike most of the minor poems it is independent of Chaucerian tradition. The other pieces deal with the conventional 15th-century topics: Age, Death, Hasty Credence, Want of Wise Men and the like. The verses entitled “Sum Practysis of Medecyne,” in which some have failed to see Henryson’s hand, is an example of that boisterous alliterative burlesque which is represented by a single specimen in the work of the greatest makers, Dunbar, Douglas and Lyndsay. For this reason, if not for others, the difference of its manner is no argument against its authenticity.

The MS. authorities for the text are the Asloan, Bannatyne, Maitland Folio, Makculloch, Gray and Riddell. Chepman and Myllar’s Prints (1508) have preserved two of the minor poems and a fragment of *Orpheus and Eurydice*. The first complete edition was prepared by David Laing (1 vol., Edinburgh, 1865). A more exhaustive edition in three volumes, containing all the texts, was undertaken by the Scottish Text Society (ed. G. Gregory Smith), the first volume of the text (vol. ii. of the work) appearing in 1907. For a critical account of Henryson, see Irving’s *History of Scottish Poetry*, Henderson’s *Vernacular Scottish Literature*, Gregory Smith’s *Transition Period*, J. H. Millar’s *Literary History of Scotland*, and the second volume of the *Cambridge History of English Literature* (1908).

(G. G. S.)

HENSCHEL, GEORGE [Isidor Georg] (1850-), English musician (naturalized 1890), of German family, was born at Breslau, and educated as a pianist, making his first public appearance in Berlin in 1862. He subsequently, however, took up singing, having developed a fine baritone voice; and in 1868 he sang the part of Hans Sachs in *Meistersinger* at Munich. In 1877 he began a successful career in England, singing at the principal concerts; and in 1881 he married the American soprano, Lilian Bailey (d. 1901), who was associated with him in a number of vocal recitals. He was also prominent as a conductor, starting the London symphony concerts in 1886, and both in England and America (where he was the first conductor of the Boston symphony concerts, 1881) he took a leading part in advancing his art. He composed a number of instrumental works, a fine *Stabat Mater* (Birmingham festival, 1894), &c., and an opera, *Nubia* (Dresden, 1899).

HENSELT, ADOLF VON (1814-1889), German composer, was born at Schwabach, in Bavaria, on the 12th of May 1814. At three years old he began to learn the violin, and at five the pianoforte under Frau v. Fladt. On obtaining financial help from King Louis I. he went to study under Hummel in Weimar, and thence in 1832 to Vienna, where, besides studying composition under Simon Sechter, he made a great success as a concert pianist. In order to recruit his health he made a prolonged tour in 1836 through the chief German towns. In 1837 he settled at Breslau, where he had married, but in the following year he migrated to St Petersburg, where previous visits had made him *persona grata* at Court. He then became court pianist and inspector of musical studies in the Imperial Institute of Female Education, and was ennobled. In 1852 and again in 1867 he visited England, though in the latter year he made no public appearance. St Petersburg was his home practically until his death, which took place at Warmbrunn on the 10th of October 1889. The characteristic of Henselt's playing was a combination of Liszt's sonority with Hummel's smoothness. It was full of poetry, remarkable for the great use he made of extended chords, and for his perfect technique. He excelled in his own works and in those of Weber and Chopin. His concerto in F minor is frequently played on the continent; and of his many valuable studies, *Si oiseau j'étais* is very familiar. His A minor trio deserves to be better known. At one time Henselt was second to Rubinstein in the direction of the St Petersburg Conservatorium.

HENSLOW, JOHN STEVENS (1796-1861), English botanist and geologist, was born at Rochester on the 6th of February 1796. From his father, who was a solicitor in that city, he imbibed a love of natural history which largely influenced his career. He was educated at St John's College, Cambridge, where he graduated as sixteenth wrangler in 1818, the year in which Sedgwick became Woodwardian professor of geology. He accompanied Sedgwick in 1819 during a tour in the Isle of Wight, and there he learned his first lessons in geology. He also studied chemistry under Professor James Cumming and mineralogy under E. D. Clarke. In the autumn of 1819 he made some valuable observations on the geology of the Isle of Man (*Trans. Geol. Soc.*, 1821), and in 1821 he investigated the geology of parts of Anglesey, the results being printed in the first volume of the *Transactions of the Cambridge Philosophical Society* (1821), the foundation of which society was originated by Sedgwick and Henslow. Meanwhile, Henslow had studied mineralogy with considerable zeal, so that on the death of Clarke he was in 1822 appointed professor of mineralogy in the university at Cambridge. Two years later he took holy orders. Botany, however, had claimed much of his attention, and to this science he became more and more attached, so that he gladly resigned the chair of mineralogy in 1825, to succeed to that of botany. As a teacher both in the class-room and in the field he was eminently successful. To him Darwin largely owed his attachment to natural history, and also his introduction to Captain Fitzroy of H.M.S. "Beagle." In 1832 Henslow was appointed vicar of Cholsey-cum-Moulsford in Berkshire, and in 1837 rector of Hitcham in Suffolk, and at this latter parish he lived and laboured, endeared to all who knew him, until the close of his life. His energies were devoted to the improvement of his parishioners, but his influence was felt far and wide. In 1843 he discovered nodules of coprolitic origin in the Red Crag at Felixstowe in Suffolk, and two years later he called attention to those also in the Cambridge Greensand and remarked that they might be of use in agriculture. Although Henslow derived no benefit, these discoveries led to the establishment of the phosphate industry in Suffolk and Cambridgeshire; and the works proved lucrative until the introduction of foreign phosphates. The museum at Ipswich, which was established in 1847, owed much to Henslow, who was elected president in 1850, and then superintended the arrangement of the collections. He died at Hitcham on the 16th of May 1861. His publications included *A Catalogue of British Plants* (1829; ed. 2, 1835); *Principles of Descriptive and Physiological Botany* (1835); *Flora of Suffolk* (with E. Skepper) (1860).

Memoir, by the Rev. Leonard Jenyns (1862).

HENSLOWE, PHILIP (d. 1616), English theatrical manager, was the son of Edmund

Henslowe of Lindfield, Sussex, master of the game in Ashdown Forest and Broil Park. He was originally a servant in the employment of the bailiff to Viscount Montague, whose property included Montague House in Southwark, and his duties led him to settle there before 1577. He subsequently married the bailiff's widow, and, with the fortune he got with her, he developed into a clever business man and became a considerable owner of Southwark property. He started his connexion with the stage when, on the 24th of March 1584, he bought land near what is now the southern end of Southwark Bridge, on which stood the Little Rose playhouse, afterwards rebuilt as the Rose. Successive companies played in it under Henslowe's financial management between 1592 and 1603. The theatre at Newington Butts was also under him in 1594. A share of the control in the Swan theatre, which like the Rose was on the Bankside, fell to Henslowe before the close of the 16th century. With the actor Edward Alleyn, who married his step-daughter Joan Woodward, he built in Golden Lane, Cripplegate Without, the Fortune Playhouse, opened in November 1600. In December of 1594, they had secured the Paris Garden, a place for bear-baiting, on the Bankside, and in 1604 they bought the office of master of the royal game of bears, bulls and mastiffs from the holder, and obtained a patent. Alleyn sold his share to Henslowe in February 1610, and three years later Henslowe formed a new partnership with Jacob Meade and built the Hope playhouse, designed for stage performances as well as bull and bear-baiting, and managed by Meade.

In Henslowe's theatres were first produced many plays by the famous Elizabethan dramatists. What is known as "Henslowe's Diary" contains some accounts referring to Ashdown Forest between 1576 and 1581, entered by John Henslowe, while the later entries by Philip Henslowe from 1592 to 1609 are those which throw light on the theatrical matters of the time, and which have been subjected to much controversial criticism as a result of injuries done to the manuscript. "Henslowe's Diary" passed into the hands of Edward Alleyn, and thence into the Library of Dulwich College, where the manuscript remained intact for more than a hundred and fifty years. In 1780 Malone tried to borrow it, but it had been mislaid; in 1790 it was discovered and given into his charge. He was then at work on his *Variorum Shakespeare*. Malone had a transcript made of certain portions, and collated it with the original; and this transcript, with various notes and corrections by Malone, is now in the Dulwich Library. An abstract of this transcript he also published with his *Variorum Shakespeare*. The MS. of the diary was eventually returned to the library in 1812 by Malone's executor. In 1840 it was lent to J. P. Collier, who in 1845 printed for the Shakespeare Society what purported to be a full edition, but it was afterwards shown by G. F. Warner (*Catalogue* of the Dulwich Library, 1881) that a number of forged interpolations have been made, the responsibility for which rests on Collier.

> The complicated history of the forgeries and their detection has been exhaustively treated in Walter W. Greg's edition of *Henslowe's Diary* (London, 1904; enlarged 1908).

HENTY, GEORGE ALFRED (1832-1902), English war-correspondent and author, was born at Trumpington, near Cambridge, in December 1832, and educated at Westminster School and Caius College, Cambridge. He served in the Crimea in the Purveyor's department, and after the peace filled various posts in the department in England and Ireland, but he found the routine little to his taste, and drifted into journalism for the London *Standard*. He volunteered as Special Correspondent for the Austro-Italian War of 1866, accompanied Garibaldi in his Tirolese Campaign, followed Lord Napier through the mountain gorges to Magdala, and Lord Wolseley across bush and swamp to Kumassi. Next he reported the Franco-German War, starved in Paris through the siege of the Commune, and then turned south to rough it in the Pyrenees during the Carlist insurrection. He was in Asiatic Russia at the time of the Khiva expedition, and later saw the desperate hand-to-hand fighting of the Turks in the Servian War. He found his real vocation in middle life. Invited to edit a magazine for boys called the *Union Jack*, he became the mainstay of the new periodical, to which he contributed several serials in succession. The stories pleased their public, and had ever increasing circulation in book form, until Henty became a name to conjure with in juvenile circles. Altogether he wrote about eighty of these books. Henty was an enthusiastic yachtsman, having spent at least six months afloat each year, and he died on board his yacht in Weymouth Harbour on the 16th of November 1902.

HENWOOD, WILLIAM JORY (1805-1875), English mining geologist, was born at Perron Wharf, Cornwall, on the 16th of January 1805. In 1822 he commenced work as a clerk in a mining office, and soon took an active interest in the working of mines and in the metalliferous deposits. In 1832 he was appointed to the office of assay-master and supervisor of tin in the duchy of Cornwall, a post from which he retired in 1838. Meanwhile he had commenced in 1826 to communicate papers on mining subjects to the Royal Geological Society of Cornwall, and the Geological Society of London, and in 1840 he was elected F.R.S. In 1843 he went to take charge of the Gongo-Soco mines in Brazil; afterwards he proceeded to India to report on certain metalliferous deposits for the Indian government; and in 1858, impaired in health, he retired and settled at Penzance. His most important memoirs on the metalliferous deposits of Cornwall and Devon were published in 1843 by the Royal Geological Society of Cornwall. At a much later date he communicated with enlarged experience a second series of *Observations on Metalliferous Deposits, and on Subterranean Temperature* (reprinted from *Trans. R. Geol. Soc. Cornwall*, 2 vols., 1871). In 1874 he contributed a paper on the *Detrital Tin-ore of Cornwall* (*Journ. R. Inst. Cornwall*). The Murchison medal of the Geological Society was awarded to him in 1875, and the mineral Henwoodite was named after him. He died at Penzance on the 5th of August 1875.

HENZADA, a district of Lower Burma, formerly in the Pegu, but now in the Irrawaddy division. Area, 2870 sq. m. Pop. (1901) 484,558. It stretches from north to south in one vast plain, forming the valley of the Irrawaddy, and is divided by that river into two nearly equal portions. This country is protected from inundation by immense embankments, so that almost the whole area is suitable for rice cultivation. The chief mountains are the Arakan and Pegu Yoma ranges. The greatest elevation of the Arakan Yomas in Henzada, attained in the latitude of Myan-aung, is 4003 ft. above sea-level. Numerous torrents pour down from the two boundary ranges, and unite in the plains to form large streams, which fall into the chief streams of the district, which are the Irrawaddy, Hlaing and Bassein, all of them branches of the Irrawaddy. The forests comprise almost every variety of timber found in Burma. The bulk of the cultivation is rice, but a number of acres are under tobacco. The chief town of the district is HENZADA, which had in 1901 a population of 24,756. It is a municipal town, with ten elective and three *ex-officio* members. Other municipal towns in the district are Zalun, with a population of 6642; Myan-aung, with a population of 6351; and Kyangin, with a population of 7183, according to the 1901 census. The town of Lemyethna had a population of 5831. The steamers of the Irrawaddy Flotilla Company call at Henzada and Myan-aung.

The district was once a portion of the Talaing kingdom of Pegu, afterwards annexed to the Burmese empire in 1753, and has no history of its own. During the second Burmese war, after Prome had been seized, the Burmese on the right bank of the Irrawaddy crossed the river and offered resistance to the British, but were completely routed. Meanwhile, in Tharawaddy, or the country east of the Irrawaddy, and in the south of Henzada, much disorder was caused by a revolt, the leaders of which were, however, defeated by the British and their gangs dispersed.

HEPBURN, SIR JOHN (*c.* 1598-1636), Scottish soldier in the Thirty Years' War, was a son of George Hepburn of Athelstaneford near Haddington. In 1620 and in the following years he served in Bohemia, on the lower Rhine and in the Netherlands, and in 1623 he entered the service of Gustavus Adolphus, who, two years later, appointed him colonel of a Scottish regiment of his army. He took part with his regiment in Gustavus's Polish wars, and in 1631, a few months before the battle of Breitenfeld he was placed in command of the "Scots" or "Green" brigade of the Swedish army. At Breitenfeld it was Hepburn's brigade which delivered the decisive stroke, and after this he remained with the king, who placed the fullest reliance on his skill and courage, until the battle of the Alte Veste near Nuremberg. He then entered the French service, and raised two thousand men in Scotland for the French army, to which force was added in France the historic Scottish archer

bodyguard of the French kings. The existing Royal Scots (Lothian) regiment (late 1st Foot) represents in the British army of to-day Hepburn's French regiment, and indirectly, through the amalgamation referred to, the Scottish contingent of the Hundred Years' War. Hepburn's claim to the right of the line of battle was bitterly resented by the senior French regiments. Shortly after this, in 1633, Hepburn was under a *maréchal de camp*, and he took part in the campaigns in Alsace and Lorraine (1634-36). In 1635 Bernhard of Saxe-Weimar, on entering the French service, brought with him Hepburn's former Swedish regiment, which was at once amalgamated with the French "régiment d'Hébron," the latter thus attaining the unusual strength of 8300 men. Sir John Hepburn was killed shortly afterwards during the siege of Saverne (Zabern) on the 8th of July 1636. He was buried in Toul cathedral. With his friend Sir Robert Monro, Hepburn was the foremost of the Scottish soldiers of fortune who bore so conspicuous a part in the Thirty Years' War. He was a sincere Roman Catholic. It is stated that he left Gustavus owing to a jest about his religion, and at any rate he found in the French service, in which he ended his days, the opportunity of reconciling his beliefs with the desire of military glory which had led him into the Swedish army, and with the patriotic feeling which had first brought him out to the wars to fight for the Stuart princess, Queen Elizabeth of Bohemia.

See James Grant, *Memoirs of Sir John Hepburn*.

HEPHAESTION, a Macedonian general, celebrated as the friend of Alexander the Great, who, comparing himself with Achilles, called Hephaestion his Patroclus. In the later campaigns in Bactria and India, he was entrusted with the task of founding cities and colonies, and built the fleet intended to sail down the Indus. He was rewarded with a golden crown and the hand of Drypetis, the sister of Alexander's wife Stateira (324). In the same year he died suddenly at Ecbatana. A general mourning was ordered throughout Asia; at Babylon a funeral pile was erected at enormous cost, and temples were built in his honour (see Alexander the Great).

HEPHAESTION, a grammarian of Alexandria, who flourished in the age of the Antonines. He was the author of a manual (abridged from a larger work in 48 books) of Greek metres (Ἐγχειρίδιον περὶ μέτρων), which is most valuable as the only complete treatise on the subject that has been preserved. The concluding chapter (Περὶ ποιήματος) discusses the various kinds of poetical composition. It is written in a clear and simple style, and was much used as a school-book.

Editions by T. Gaisford (1855, with the valuable scholia); R. Westphal (1886, in *Scriptores metrici Graeci*) and M. Consbruch (1906); translation by T. F. Barham (1843); see also W. Christ, *Gesch. der griech. Litt.* (1898); M. Consbruch, *De veterum* Περὶ ποιήματος *doctrina* (1890); J. E. Sandys, *Hist. Class. Schol.* i. (1906).

HEPHAESTUS, in Greek mythology, the god of fire, analogous to, and by the ancients often confused with, the Roman god Vulcan (*q.v.*); the derivation of the name is uncertain, but it may well be of Greek origin. The elemental character of Hephaestus is far more apparent than is the case with the majority of the Olympian gods; the word Hephaestus was used as a synonym for fire not only in poetry (Homer, *Il.* ii. 426 and later), but also in common speech (Diod. v. 74). It is doubtful whether the origin of the god can be traced to any specific form of fire. As all earthly fire was thought to have come from heaven, Hephaestus has been identified with the lightning. This is supported by the myth of his fall from heaven, and by the fact that, according to the Homeric tradition, his father was Zeus,

the heaven-god. On the other hand, the lightning is not associated with him in literature or cult, and his connexion with volcanic fires is so close as to suggest that he was originally a volcano-god. The connexion, however, though it may be early, is probably not primitive, and it seems reasonable to conclude that Hephaestus was a general fire-god, though some of his characteristics were due to particular manifestations of the element.

In Homer the fire-god was the son of Zeus and Hera, and found a place in the Olympian system as the divine smith. The *Iliad* contains two versions of his fall from heaven. In one account (i. 590) he was cast out by Zeus and fell on Lemnos; in the other, Hera threw him down immediately after his birth in disgust at his lameness, and he was received by the sea-goddesses Eurynome and Thetis. The Lemnian version is due to the prominence of his cult at Lemnos in very early times; and his fall into the sea may have been suggested by volcanic activity in Mediterranean islands, as at Lipara and Thera. The subsequent return of Hephaestus to Olympus is a favourite theme in early art. His wife was Charis, one of the Graces (in the *Iliad*) or Aphrodite (in the *Odyssey*). The connexion of the rough Hephaestus with these goddesses is curious; it may be due to the beautiful works of the smith-god (χαριέντα ἔργα), but it is possibly derived from the supposed fertilizing and productive power of fire, in which case Hephaestus is a natural mate of Charis, a goddess of spring, and Aphrodite the goddess of love. In Homer, the skill of Hephaestus in metallurgy is often mentioned; his forge was on Olympus, where he was served by images of golden handmaids which he had animated. Similar myths are found in relation to the Finnish smith-god Ilmarinen, who made a golden woman, and the Teutonic Wieland; a belief in the magical power of metal-workers is a common survival from an age in which their art was new and mysterious. In epic poetry Hephaestus is rather a comic figure, and his limping gait provokes “Homeric laughter” among the gods. In Vedic poetry Agni, the fire-god, is footless; and the ancients themselves attributed this lameness to the crooked appearance of flame (Servius on *Aen.* viii. 814), and possibly no better explanation can be found, though it has been suggested that in an early stage of society the trade of a smith would be suitable for the lame; Hephaestus and the lame Wieland would thus conform to the type of their human counterparts.

Except in Lemnos and Attica, there are few indications of any cult of Hephaestus. His association with Lemnos can be traced from Homer to the Roman age. A town in the island was called Hephaestia, and the functions of the god must have been wide, as we are told that his Lemnian priests could cure snake-bites. Once a year every fire was extinguished on the island for nine days, during which period sacrifice was offered to the gods of the underworld and the dead. After the nine days were passed, new fire was brought from the sacred hearth at Delos. The significance of this and similar customs is examined by J. G. Frazer, *Golden Bough*, iii. ch. 4. The close connexion of Hephaestus with Lemnos and especially with its mountain Mosychlus has been explained by the supposed existence of a volcano; but no crater or other sign of volcanic agency is now apparent, and the “Lemnian fire”—a phenomenon attributed to Hephaestus—may have been due to natural gas (see Lemnos). In Sicily, however, the volcanic nature of the god is prominent in his cult at Etna, as well as in the neighbouring Liparaean isles. The Olympian forge had been transferred to Etna or some other volcano, and Hephaestus had become a subterranean rather than a celestial power.

The divine smith naturally became a “culture-god”; in Crete the invention of forging in iron was attributed to him, and he was honoured by all metal-workers. But we have little record of his cult in this aspect, except at Athens, where his worship was of real importance, belonging to the oldest stratum of Attic religion. A tribe was called after his name, and Erichthonius, the mythical father of the Attic people, was the son of Hephaestus. Terra-cotta statuettes of the god seem to have been placed before the hearths of Athenian houses. This temple has been identified, not improbably, with the so-called “Theseum”; it contained a statue of Athena, and the two deities are often associated, in literature and cult, as the joint givers of civilization to the Athenians. The class of artisans was under their special protection; and the joint festival of the two divinities—the Chalceia—commemorated the invention of bronze-working by Hephaestus. In the Hephaesteia (the particular festival of the god) there was a torch race, a ceremonial not indeed confined to fire-gods like Hephaestus and Prometheus, but probably in its origin connected with them, whether its object was to purify and quicken the land, or (according to another theory) to transmit a new fire with all possible speed to places where the fire was polluted. If the latter view is correct, the torch race would be closely akin to the Lemnian fire-ritual which has been mentioned. The relation between Hephaestus and Prometheus is in some respects close, though the distinction between these gods is clearly marked. The fire, as an element, belongs to the Olympian Hephaestus; the Titan Prometheus, a more human character, steals it for the use

of man. Prometheus resembles the Polynesian Maui, who went down to fetch fire from the volcano of Mahuika, the fire-god. Hephaestus is a culture-god mainly in his secondary aspect as the craftsman, whereas Prometheus originates all civilization with the gift of fire. But the importance of Prometheus is mainly mythological; the Titan belonged to a fallen dynasty, and in actual cult was largely superseded by Hephaestus.

In archaic art Hephaestus is generally represented as bearded, though occasionally a younger beardless type is found, as on a vase (in the British Museum), on which he appears as a young man assisting Athena in the creation of Pandora. At a later time the bearded type prevails. The god is usually clothed in a short sleeveless tunic, and wears a round close-fitting cap. His face is that of a middle-aged man, with unkempt hair. He is in fact represented as an idealized Greek craftsman, with the hammer, and sometimes the pincers. Some mythologists have compared the hammer of Hephaestus with that of Thor, and have explained it as the emblem of a thunder-god; but it is Zeus, not Hephaestus, who causes the thunder, and the emblems of the latter god are merely the signs of his occupation as a smith. In art no attempt was made, as a rule, to indicate the lameness of Hephaestus; but one sculptor (Alcamenes) is said to have suggested the deformity without spoiling the statue.

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(E. E. S.)

HEPPENHEIM, a town of Germany, in the grand-duchy of Hesse-Darmstadt, on the Bergstrasse, between Darmstadt and Heidelberg, 21 m. N. of the latter by rail. Pop. (1905), 6364. It possesses a parish church, occupying the site of one reputed to have been built by Charlemagne about 805, an interesting town hall and several schools. On an isolated hill close by stand the extensive ruins of the castle of Starkenburg, built by the abbot, Ulrich von Lorsch, about 1064 and destroyed during the Seven Years’ War, and another hill, the Landberg, was a place of assembly in the middle ages. Heppenheim, at first the property of the abbey of Lorsch, became a town in 1318. After belonging to the Rhenish Palatinate, it came into the possession of Hesse-Darmstadt in 1803. Hops, wine and tobacco are grown, and there are large stone quarries, and several small industries in the town.

HEPPLEWHITE, GEORGE (d. 1786), one of the most famous English cabinet-makers of the 18th century. There is practically no biographical material relating to Hepplewhite. The only facts that are known with certainty are that he was apprenticed to Gillow at Lancaster, that he carried on business in the parish of Saint Giles, Cripplegate, and that administration of his estate was granted to his widow Alice on the 27th of June 1786. The administrator’s accounts, which were filed in the Prerogative Court of Canterbury a year later, indicate that his property was of considerable value. After his death the business was continued by his widow under the style of A. Hepplewhite & Co. Our only approximate means of identifying his work are *The Cabinet-Maker and Upholsterer’s Guide*, which was first published in 1788, two years after his death, and ten designs in *The Cabinet-maker’s London Book of Prices* (1788), issued by the London Society of Cabinet-Makers. It is, however, exceedingly difficult to earmark any given piece of furniture as being the actual work or design of Hepplewhite, since it is generally recognized that to a very large extent the name represents rather a fashion than a man. Lightness, delicacy and grace are the distinguishing characteristics of Hepplewhite work. The massiveness of Chippendale had given place to conceptions that, especially in regard to chairs—which had become smaller as hoops went out of fashion—depended for their effect more upon inlay than upon carving. In one respect at least the Hepplewhite style was akin to that of Chippendale—in both cases the utmost ingenuity was

lavished upon the chair, and if Hepplewhite was not the originator he appears to have been the most constant and successful user of the shield back. This elegant form was employed by the school in a great variety of designs, and nearly always in a way artistically satisfying. Where Chippendale, his contemporaries and his immediate successors had used the cabriole and the square leg with a good deal of carving, the Hepplewhite manner preferred a slighter leg, plain, fluted or reeded, tapering to a spade foot which often became the “spider leg” that characterized much of the late 18th-century furniture; this form of leg was indeed not confined to chairs but was used also for tables and sideboards. Of the dainty drawing-room grace of the style there can be no question. The great majority of modern chairs are of Hepplewhite inspiration, while he, or those who worked with him, appears to have a clear claim to have originated, or at all events popularized, the winged easy-chair, in which the sides are continued to the same height as the back. This is probably the most comfortable type of chair that has ever been made. The backs of Hepplewhite chairs were often adorned with galleries and festoons of wheat-ears or pointed fern leaves, and not infrequently with the prince of Wales’s feathers in some more or less decorative form. The frequency with which this badge was used has led to the suggestion either that A. Hepplewhite & Co. were employed by George IV. when prince of Wales, or that the feathers were used as a political emblem. The former suggestion is obviously the more feasible, but there is little doubt that the feathers were used by other makers working in the same style. It has been objected as an artistic flaw in Hepplewhite’s chairs that they have the appearance of fragility. They are, however, constructionally sound as a rule. The painted and japanned work has been criticized on safer grounds. This delicate type of furniture, often made of satinwood, and painted with wreaths and festoons, with amorini and musical instruments or floral motives, is the most elegant and pleasing that can be imagined. It has, however, no elements of decorative permanence. With comparatively little use the paintings wear off and have to be renewed. A piece of untouched painted satinwood is almost unknown, and one of the essential charms of old furniture as of all other antiques is that it should retain the patina of time. A large proportion of Hepplewhite furniture is inlaid with the exotic woods which had come into high favour by the third quarter of the 18th century. While the decorative use upon furniture of so evanescent a medium as paint is always open to criticism, any form of marquetry is obviously legitimate, and, if inlaid furniture be less ravishing to the eye, its beauty is but enhanced by time. It was not in chairs alone that the Hepplewhite manner excelled. It acquired, for instance, a speciality of seats for the tall, narrow Georgian sash windows, which in the Hepplewhite period had almost entirely superseded the more picturesque forms of an earlier time. These window-seats had ends rolling over outwards, and no backs, and despite their skimpiness their elegant simplicity is decidedly pleasing. Elegance, in fact, was the note of a style which on the whole was more distinctly English than that which preceded or immediately followed it. The smaller Hepplewhite pieces are much prized by collectors. Among these may be included urn-shaped knife-boxes in mahogany and satinwood, charming in form and decorative in the extreme; inlaid tea-caddies, varying greatly in shape and material, but always appropriate and *coquet*; delicate little fire-screens with shaped poles; painted work-tables, and inlaid stands. Hepplewhite’s bedsteads with carved and fluted pillars were very handsome and attractive. The evolution of the dining-room sideboard made rapid progress towards the end of the 18th century, but neither Hepplewhite nor those who worked in his style did much to advance it. Indeed they somewhat retarded its development by causing it to revert to little more than that side-table which had been its original form. It was, however, a very delightful table with its undulating front, its many elegant spade-footed legs and its delicate carving. If we were dealing with a less elusive personality it would be just to say that Hepplewhite’s work varies from the extreme of elegance and the most delicious simplicity to an unimaginative commonplace, and sometimes to actual ugliness. As it is, this summary may well be applied to the style as a whole—a style which was assuredly not the creation of any one man, but owed much alike of excellence and of defect to a school of cabinet-makers who were under the influence of conflicting tastes and changing ideals. At its best the taste was so fine and so full of distinction, so simple, modest and sufficient, that it amounted to genius. On its lower planes it was clearly influenced by commercialism and the desire to make what tasteless people preferred. Yet this is no more than to say that the Hepplewhite style succumbed sometimes, perhaps very often, to the eternal enemy of all art—the uninspired banality of the average man.

(J. P.-B.)

HEPTARCHY (Gr. ἑπτά, seven, and ἀρχή, rule), a word which is frequently used to designate the period of English history between the coming of the Anglo-Saxons in 449 and the union of the kingdoms under Ecgbert in 828. It was first used during the 16th century because of the belief held by Camden and other older historians, that during this period there were exactly seven kingdoms in England, these being Northumbria, Mercia, East Anglia, Essex, Kent, Sussex and Wessex. This belief is erroneous, as the number of kingdoms varied considerably from time to time; nevertheless the word still serves a useful purpose to denote the period.

HERA, in Greek mythology, the sister and wife of Zeus and queen of the Olympian gods; she was identified by the Romans with Juno. The derivation of the name is obscure, but there is no reason to doubt that she was a genuine Greek deity. There are no signs of Oriental influence in her cults, except at Corinth, where she seems to have been identified with Astarte. It is probable that she was originally a personification of some department of nature; but the traces of her primitive significance are vague, and have been interpreted to suit various theories. Some of the ancients connected her with the earth; Plato, followed by the Stoics, derived her name from ἀήρ, the air. Both theories have been revived in modern times, the former notably by F. G. Welcker, the latter by L. Preller. A third view, that Hera is the moon, is held by W. H. Roscher and others. Of these explanations, that advanced by Preller has little to commend it, even if, with O. Gruppe, we understand the air-goddess as a storm deity; some of the arguments in support of the two other theories will be examined in this article.

Whatever may have been the origin of Hera, to the historic Greeks (except a few poets or philosophers) she was a purely anthropomorphic goddess, and had no close relation to any province of nature. In literature, from the times of Homer and Hesiod, she played an important part, appearing most frequently as the jealous and resentful wife of Zeus. In this character she pursues with vindictive hatred the heroines, such as Alcmene, Leto and Semele, who were beloved by Zeus. She visits his sins upon the children born of his intrigues, and is thus the constant enemy of Heracles and Dionysus. This character of the offended wife was borrowed by later poets from the Greek epic; but it belongs to literature rather than to cult, in which the dignity and power of the goddess is naturally more emphasized.

The worship of Hera is found, in different degrees of prominence, throughout the Greek world. It was especially important in the ancient Achaean centres, Argos, Mycenae and Sparta, which she claims in the *Iliad* (iv. 51) as her three dearest cities. Whether Hera was also worshipped by the early Dorians is uncertain; after the Dorian invasion she remained the chief deity of Argos, but her cult at Sparta was not so conspicuous. She received honour, however, in other parts of the Peloponnese, particularly in Olympia, where her temple was the oldest, and in Arcadia. In several Boeotian cities she seems to have been one of the principal objects of worship, while the neighbouring island of Euboea probably derived its name from a title of Hera, who was “rich in cows” (Εὔβοια). Among the islands of the Aegean, Samos was celebrated for the cult of Hera; according to the local tradition, she was born in the island. As Hera Lacinia (from her Lacinian temple near Croton) she was extensively worshipped in Magna Graecia.

The connexion of Zeus and Hera was probably not primitive, since Dione seems to have preceded Hera as the wife of Zeus at Dodona. The origin of the connexion may possibly be due to the fusion of two “Pelasgic” tribes, worshipping Zeus and Hera respectively; but speculation on the earliest cult of the goddess, before she became the wife of Zeus, must be largely conjectural. The close relation of the two deities appears in a frequent community of altars and sacrifices, and also in the ἱερὸς γάμος, a dramatic representation of their sacred marriage. The festival, which was certainly ancient, was held not only in Argos, Samos, Euboea and other centres of Hera-worship, but also in Athens, where the goddess was obscured by the predominance of Athena. The details of the ἱερὸς γάμος may have varied locally, but the main idea of the ritual was the same. In the Daedala, as the festival was called at Plataea, an effigy was made from an oak-tree, dressed in bridal attire, and carried in a cart with a woman who acted as bridesmaid. The image was called Daedale, and the ritual was explained by a myth: Hera had left Zeus in her anger; in order to win her back, Zeus announced that he was about to marry, and dressed up a puppet to imitate a bride;

Hera met the procession, tore the veil from the false bride, and, on discovering the ruse, became reconciled to her husband. The image was put away after each occasion; every sixty years a large number of such images, which had served in previous celebrations, were carried in procession to the top of Mount Cithaeron, and were burned on an altar together with animals and the altar itself. As Frazer notes (*Golden Bough*,[2] i. 227), this festival appears to belong to the large class of mimetic charms designed to quicken the growth of vegetation; the marriage of Zeus and Hera would in this case represent the union of the king and queen of May. But it by no means follows that Hera was therefore originally a goddess of the earth or of vegetation. When the real nature of the ritual had become lost or obscured, it was natural to explain it by the help of an aetiological myth; in European folklore, images, corresponding to those burnt at the Daedala, were sometimes called Judas Iscariot or Luther (*Golden Bough*,[2] iii. 315). At Samos the ἱερὸς γάμος was celebrated annually; the image of Hera was concealed on the sea-shore and solemnly discovered. This rite seems to reflect an actual custom of abduction; or it may rather refer to the practice of intercourse between the betrothed before marriage. Such intercourse was sanctioned by the Samians, who excused it by the example of Zeus and Hera (schol. on *Il.* xiv. 296). There is nothing in the Samian ἱερὸς γάμος to suggest a marriage of heaven and earth, or of two vegetation-spirits; as Dr Farnell points out, the ritual appears to explain the custom of human nuptials. The sacred marriage, therefore, though connected with vegetation at the Daedala, was not necessarily a vegetation-charm in its origin; consequently, it does not prove that Hera was an earth-goddess or tree-spirit. It is at least remarkable that, except at Argos, Hera had little to do with agriculture, and was not closely associated with such deities as Cybele, Demeter, Persephone and Dionysus, whose connexion with the earth, or with its fruits, is beyond doubt.

In her general cult Hera was worshipped in two main capacities: (1) as the consort of Zeus and queen of heaven; (2) as the goddess who presided over marriage, and, in a wider sense, over the various phases of a woman's life. Dionysius of Halicarnassus (*Ars rhet.* ii. 2) calls Zeus and Hera the first wedded pair, and a sacrifice to Zeus τέλειος and Hera τελεία was a regular feature of the Greek wedding. Girls offered their hair or veils to Hera before marriage. In Aristophanes (*Thesm.* 973) she "keeps the keys of wedlock." The marriage-goddess naturally became the protector of women in childbed, and bore the title of the birth-goddess (Eileithyia), at Argos and Athens. In Homer (*Il.* xi. 270) and Hesiod (*Theog.* 922) she is the mother of the Eileithyiae, or the single Eileithyia. Her cult-titles παρθένος (or παῖς), τελεία and χήρα the "maiden," "wife," and "widow" (or "divorced") have been interpreted as symbolical of the earth in spring, summer, and winter; but they may well express the different conditions in the lives of her human worshippers. The Argives believed that Hera recovered her virginity every year by bathing in a certain spring (Paus. viii. 22, 2), a belief which probably reflects the custom of ceremonial purification after marriage (see Frazer, *Adonis*, p. 176). Although Hera was not the bestower of feminine charm to the same extent as Aphrodite, she was the patron of a contest for beauty in a Lesbian festival (καλλιστεῖα). This intimate relation with women has been held a proof that Hera was originally a moon-goddess, as the moon is often thought to influence childbirth and other aspects of feminine life. But Hera's patronage of women, though undoubtedly ancient, is not necessarily primitive. Further, the Greeks themselves, who were always ready to identify Artemis with the moon, do not seem to have recognized any lunar connexion in Hera.

Among her particular worshippers, at Argos and Samos, Hera was much more than the queen of heaven and the marriage-goddess. As the patron of these cities (πολιοῦχος) she held a place corresponding to that of Athena in Athens. The Argives are called "the people of Hera" by Pindar; the Heraeum, situated under a mountain significantly called Mt. Euboea, was the most important temple in Argolis. Here the agricultural character of her ritual is well marked; the first oxen used in ploughing were, according to an Argive myth, dedicated to her as ζευξιδία; and the sprouting ears of corn were called "the flowers of Hera." She was worshipped as the goddess of flowers (ἀνθεία); girls served in her temple under the name of "flower-bearers," and a flower festival (Ἡροσανθεία, Ἡροάνθια) was celebrated by Peloponnesian women in spring. These rites recall our May day observance, and give colour to the earth-goddess theory. On the other hand it must be remembered that the patron deity of a Greek state had very wide functions; and it is not surprising to find that Hera (whatever her origin may have been) assumed an agricultural character among her own people whose occupations were largely agricultural. So, although the warlike character of Hera was not elsewhere prominent, she assumed a militant aspect in her two chief cities; a festival called the Shield (ἀσπίς, in Pindar ἀγὼν χάλκεος) was part of the Argive cult, and there was an armed procession in her honour at Samos. The city-goddess, whether Hera or Athena, must be chief alike in peace and war.

The cow was the animal specially sacred to Hera both in ritual and in mythology. The story of Io, metamorphosed into a cow, is familiar; she was priestess of Hera, and was originally, no doubt, a form of the goddess herself. The Homeric epithet βοῶπις may have meant "cow-faced" to the earliest worshippers of Hera, though by Homer and the later Greeks it was understood as "large-eyed," like the cow. A car drawn by oxen seems to have been widely used in the processions of Hera, and the cow was her most frequent sacrifice. The origin of Hera's association with the cow is uncertain, but there is no need to see in it, with Roscher, a symbol of the moon. The cuckoo was also sacred to Hera, who, according to the Argive legend, was wooed by Zeus in the form of the bird. In later times the peacock, which was still unfamiliar to the Greeks in the 5th century, was her favourite, especially at Samos.

The earliest recorded images of Hera preceded the rise of Greek sculpture; a log at Thespiae, a plank at Samos, a pillar at Argos served to represent the goddess. In the archaic period of sculpture the ξόανον or wooden statue of the Samian Hera by Smilis was famous. In the first half of the 5th century the sacred marriage was represented on an extant metope from a temple at Selinus. The most celebrated statue of Hera was the chryselephantine work of Polyclitus, made for the Heraeum at Argos soon after 423 B.C. It is fully described by Pausanias, who says that Hera was seated on a throne, wearing a crown (στέφανος), and carrying a sceptre in one hand and a pomegranate in the other. Various ancient writers testify to the beauty and dignity of the statue, which was considered equal to the Zeus of Pheidias. Polyclitus seems to have fixed the type of Hera as a youthful matron, but unfortunately the exact character of her head cannot be determined. A majestic and rather severe beauty marks the conception of Hera in later art, of which the Farnese bust at Naples and the Ludovisi Hera are the most conspicuous examples.

AUTHORITIES.—F. G. Welcker, *Griech. Götterl.* i. 362 f. (Göttingen, 1857-1863); L. Preller (ed. C. Robert), *Griech. Mythologie*, i. 160 f. (Berlin, 1894); W. H. Roscher, *Lex. der griech. u. röm. Mythologie*, s.v. (Leipzig, 1884); C. Daremberg and E. Saglio, *Dict. des ant. grecques et rom.* s.v. "Juno" (Paris, 1877); L. R. Farnell, *Cults of the Greek States*, i. 179 f. (Oxford, 1896); A. B. Cook in *Class. Rev.* xx. 365 f. 416 f.; O. Gruppe, *Griech. Mythologie u. Religionsgesch.* p. 1121 f. (Munich, 1903). In the article GREEK ART, fig. 24, will be found a roughly executed head of Hera, from the pediment of the treasury of the Megarians.

(E. E. S.)

HERACLEA, the name of a large number of ancient cities founded by the Greeks.

1. HERACLEA (Gr. Ἡράκλεια), an ancient city of Lucania, situated near the modern Policoro, 3 m. from the coast of the gulf of Tarentum, between the rivers Aciris (Agri) and Siris (Sinni) about 13 m. S.S.W. of Metapontum. It was a Greek colony founded by the Tarentines and Thurians in 432 B.C., the former being predominant. It was chosen as the meeting-place of the general assembly of the Italiot Greeks, which Alexander of Epirus, after his alienation from Tarentum, tried to transfer to Thurii. Here Pyrrhus, king of Epirus, defeated the consul Laevinus in 280 B.C., after he had crossed the river Siris. In 278 B.C., or possibly in 282 B.C., probably in order to detach it from Tarentum, the Romans made a special treaty with Heraclea, on such favourable terms that in 89 B.C. the Roman citizenship given to the inhabitants by the Lex Plautia Papiria was only accepted after considerable hesitation. We hear that Heraclea surrendered under compulsion to Hannibal in 212 B.C. and that in the Social war the public records were destroyed by fire. Cicero in his defence of the poet Archias, an adopted citizen of Heraclea, speaks of it as a flourishing town. As a consequence of its having accepted Roman citizenship, it became a *municipium*; part of a copy of the Lex Iulia Municipalis of 46 B.C. (engraved on the back of two bronze tablets, on the front of which is a Greek inscription of the 3rd century B.C. defining the boundaries of lands belonging to various temples), which was found between Heraclea and Metapontum, is of the highest importance for our knowledge of that law. It was still a place of some importance under the empire; a branch road from Venusia joined the coast road here. The circumstances of its destruction and abandonment was unknown; the site is now marked by a few heaps of ruins. Its medieval representative was Anglona, once a bishopric, but now itself a heap of ruins, among which are those of an 11th-century church.

2. HERACLEA MINOA, an ancient town on the south coast of Sicily, at the mouth of the river Halycus, near the modern Montallegro, some 20 m. N.W. of Girgenti. It was at first an outpost of Selinus (Herod. v. 46), then overthrown by Carthage, later a border town of

Agrigentum. It passed into Carthaginian hands by the treaty of 405 B.C., was won back by Dionysius in his first Punic war, but recovered by Carthage in 383. From this date onwards coins bearing its Semitic name, *Ras Melkart*, become common, and it was obviously an important border fortress. It was here that Dion landed in 357 B.C., when he attacked Syracuse. The Agrigentines won it back in 309, but it soon fell under the power of Agathocles. It was temporarily recovered for Greece by Pyrrhus.

(T. As.)

3. Heraclea Pontica (mod. *Bender Eregli*), an ancient city on the coast of Bithynia in Asia Minor, at the mouth of the Kilijsu. It was founded by a Megarian colony, which soon subjugated the native Mariandynians and extended its power over a considerable territory. The prosperity of the city, rudely shaken by the Galatians and the Bithynians, was utterly destroyed in the Mithradatic war. It was the birthplace of Heraclides Ponticus. The modern town is best known for its lignite coal-mines, from which Constantinople receives a good part of its supply.

4. Heraclea Sintica, a town in Thracian Macedonia, to the south of the Strymon, the site of which is marked by the village of Zervokhori, and identified by the discovery of local coins.

5. Heraclea, a town on the borders of Caria and Ionia, near the foot of Mount Latmus. In its neighbourhood was the burial cave of Endymion.

6. Heraclea-Cybistra (mod. *Eregli* in the vilayet of Konia), under the name Cybistra, had some importance in Hellenistic times owing to its position near the point where the road to the Cilician Gates enters the hills. It lay in the way of armies and was more than once sacked by the Arab invaders of Asia Minor (A.D. 805 and 832). It became Turkish (Seljuk) in the 11th century. Modern Eregli had grown from a large village to a town since the railway reached it from Konia and Karaman in 1904; and it has now an hotel and good shops. Three hours' ride S. is the famous "Hittite" rock-relief of Ivriz, representing a king (probably of neighbouring Tyana) adoring a god (see Hittites). This was the first "Hittite" monument discovered in modern times (early 18th century, by the Swede Otter, an emissary of Louis XIV.).

For Heraclea Trachinia see Trachis, and for Heraclea Perinthus see Perinthus.

Heraclea was also the name of one of the Sporades, between Naxos and Ios, which is still called Raklia, and bears traces of a Greek township with temples to Tyche and Zeus Lophites.

(D. G. H.)

HERACLEON, a Gnostic who flourished about A.D. 125, probably in the south of Italy or in Sicily, and is generally classed by the early heresiologists with the Valentinian school of heresy. In his system he appears to have regarded the divine nature as a vast abyss in whose *pleroma* were aeons of different orders and degrees,—emanations from the source of being. Midway between the supreme God and the material world was the Demiurgus, who created the latter, and under whose jurisdiction the lower, animal soul of man proceeded after death, while his higher, celestial soul returned to the pleroma whence at first it issued. Though conspicuously uniting faith in Christ with spiritual maturity, there are evidences that, like other Valentinians, Heracleon did not sufficiently emphasize abstinence from the moral laxity and worldliness into which his followers fell. He seems to have received the ordinary Christian scriptures; and Origen, who treats him as a notable exegete, has preserved fragments of a commentary by him on the fourth gospel (brought together by Grabe in the second volume of his *Spicilegium*), while Clement of Alexandria quotes from him what appears to be a passage from a commentary on Luke. These writings are remarkable for their intensely mystical and allegorical interpretations of the text.

HERACLEONAS, east-Roman emperor (Feb.-Sept. 641), was the son of Heraclius (*q.v.*) and Martina. At the end of Heraclius' reign he obtained through his mother's influence the title of Augustus (638), and after his father's death was proclaimed joint emperor with his

half-brother Constantine III. The premature death of Constantine, in May 641, left Heracleonas sole ruler. But a suspicion that he and Martina had murdered Constantine led soon after to a revolt, and to the mutilation and banishment of the supposed offenders. Nothing further is known about Heracleonas subsequent to 641.

HERACLIDAE, the general name for the numerous descendants of Heracles (Hercules), and specially applied in a narrower sense to the descendants of Hyllus, the eldest of his four sons by Deïaneirathe, conquerors of Peloponnesus. Heracles, whom Zeus had originally intended to be ruler of Argos, Lacedaemon and Messenian Pylos, had been supplanted by the cunning of Hera, and his intended possessions had fallen into the hands of Eurystheus, king of Mycenae. After the death of Heracles, his children, after many wanderings, found refuge from Eurystheus at Athens. Eurystheus, on his demand for their surrender being refused, attacked Athens, but was defeated and slain. Hyllus and his brothers then invaded Peloponnesus, but after a year's stay were forced by a pestilence to quit. They withdrew to Thessaly, where Aegimius, the mythical ancestor of the Dorians, whom Heracles had assisted in war against the Lapithae, adopted Hyllus and made over to him a third part of his territory. After the death of Aegimius, his two sons, Pamphilus and Dymas, voluntarily submitted to Hyllus (who was, according to the Dorian tradition in Herodotus v. 72, really an Achaean), who thus became ruler of the Dorians, the three branches of that race being named after these three heroes. Being desirous of reconquering his paternal inheritance, Hyllus consulted the Delphic oracle, which told him to wait for "the third fruit," and then enter Peloponnesus by "a narrow passage by sea." Accordingly, after three years, Hyllus 309
marched across the isthmus of Corinth to attack Atreus, the successor of Eurystheus, but was slain in single combat by Echemus, king of Tegea. This second attempt was followed by a third under Cleodaeus and a fourth under Aristomachus, both of which were equally unsuccessful. At last, Temenus, Cresphontes and Aristodemus, the sons of Aristomachus, complained to the oracle that its instructions had proved fatal to those who had followed them. They received the answer that by the "third fruit" the "third generation" was meant, and that the "narrow passage" was not the isthmus of Corinth, but the straits of Rhium. They accordingly built a fleet at Naupactus, but before they set sail, Aristodemus was struck by lightning (or shot by Apollo) and the fleet destroyed, because one of the Heraclidae had slain an Acarnanian soothsayer. The oracle, being again consulted by Temenus, bade him offer an expiatory sacrifice and banish the murderer for ten years, and look out for a man with three eyes to act as guide. On his way back to Naupactus, Temenus fell in with Oxylus, an Aetolian, who had lost one eye, riding on a horse (thus making up the three eyes) and immediately pressed him into his service. According to another account, a mule on which Oxylus rode had lost an eye. The Heraclidae repaired their ships, sailed from Naupactus to Antirrhium, and thence to Rhium in Peloponnesus. A decisive battle was fought with Tisamenus, son of Orestes, the chief ruler in the peninsula, who was defeated and slain. The Heraclidae, who thus became practically masters of Peloponnesus, proceeded to distribute its territory among themselves by lot. Argos fell to Temenus, Lacedaemon to Procles and Eurysthenes, the twin sons of Aristodemus; and Messene to Cresphontes. The fertile district of Elis had been reserved by agreement for Oxylus. The Heraclidae ruled in Lacedaemon till 221 B.C., but disappeared much earlier in the other countries. This conquest of Peloponnesus by the Dorians, commonly called the "Return of the Heraclidae," is represented as the recovery by the descendants of Heracles of the rightful inheritance of their hero ancestor and his sons. The Dorians followed the custom of other Greek tribes in claiming as ancestor for their ruling families one of the legendary heroes, but the traditions must not on that account be regarded as entirely mythical. They represent a joint invasion of Peloponnesus by Aetolians and Dorians, the latter having been driven southward from their original northern home under pressure from the Thessalians. It is noticeable that there is no mention of these Heraclidae or their invasion in Homer or Hesiod. Herodotus (vi. 52) speaks of poets who had celebrated their deeds, but these were limited to events immediately succeeding the death of Heracles. The story was first amplified by the Greek tragedians, who probably drew their inspiration from local legends, which glorified the services rendered by Athens to the rulers of Peloponnesus.

Apollodorus ii. 8; Diod. Sic. iv. 57, 58; Pausanias i. 32, 41, ii. 13, 18, iii. 1, iv. 3, v. 3; Euripides, *Heraclidae*; Pindar, *Pythia*, ix. 137; Herodotus ix. 27. See Müller's *Dorians*, i. ch. 3; Thirlwall, *History of Greece*, ch. vii.; Grote, *Hist. of Greece*, pt. i. ch. xviii.; Busolt,

Griechische Geschichte, i. ch. ii. sec. 7, where a list of modern authorities is given.

HERACLIDES PONTICUS, Greek philosopher and miscellaneous writer, born at Heraclea in Pontus, flourished in the 4th century B.C. He studied philosophy at Athens under Speusippus, Plato and Aristotle. According to Suidas, Plato, on his departure for Sicily, left his pupils in charge of Heraclides. The latter part of his life was spent at Heraclea. He is said to have been vain and fat, and to have been so fond of display that he was nicknamed Pompicus, or the Showy (unless the epithet refers to his literary style). Various idle stories are related about him. On one occasion, for instance, Heraclea was afflicted with famine, and the Pythian priestess at Delphi, bribed by Heraclides, assured his inquiring townsmen that the dearth would be stayed if they granted a golden crown to that philosopher. This was done; but just as Heraclides was receiving his honour in a crowded assembly, he was seized with apoplexy, while the dishonest priestess perished at the same moment from the bite of a serpent. On his death-bed he is said to have requested a friend to hide his body as soon as life was extinct, and, by putting a serpent in its place, induce his townsmen to suppose that he had been carried up to heaven. The trick was discovered, and Heraclides received only ridicule instead of divine honours (Diogenes Laërtius v. 6). Whatever may be the truth about these stories, Heraclides seems to have been a versatile and prolific writer on philosophy, mathematics, music, grammar, physics, history and rhetoric. Many of the works attributed to him, however, are probably by one or more persons of the same name.

The extant fragment of a treatise *On Constitutions* (C. W. Müller, *F.H.G.* ii. 197-207) is probably a compilation from the *Politics* of Aristotle by Heraclides Lembos, who lived in the time of Ptolemy VI. Philometor (181-146). See Otto Voss, *De Heraclidis Pontici vita et scriptis* (1896).

HERACLITUS (Ἡράκλειτος; *c.* 540-475 B.C.), Greek philosopher, was born at Ephesus of distinguished parentage. Of his early life and education we know nothing; from the contempt with which he spoke of all his fellow-philosophers and of his fellow-citizens as a whole we may gather that he regarded himself as self-taught and a pioneer of wisdom. So intensely aristocratic (hence his nickname ὀχλολοίδορος, "he who rails at the people") was his temperament that he declined to exercise the regal-hieratic office of βασιλεύς which was hereditary in his family, and presented it to his brother. It is probable, however, that he did occasionally intervene in the affairs of the city at the period when the rule of Persia had given place to autonomy; it is said that he compelled the usurper Melancomas to abdicate. From the lonely life he led, and still more from the extreme profundity of his philosophy and his contempt for mankind in general, he was called the "Dark Philosopher" (ὁ σκοτεινός), or the "Weeping Philosopher," in contrast to Democritus, the "Laughing Philosopher."

Heraclitus is in a real sense the founder of metaphysics. Starting from the physical standpoint of the Ionian physicists, he accepted their general idea of the unity of nature, but entirely denied their theory of being. The fundamental uniform fact in nature is constant change (πάντα χωρεῖ καὶ οὐδὲν μένει); everything both is and is not at the same time. He thus arrives at the principle of Relativity; harmony and unity consist in diversity and multiplicity. The senses are "bad witnesses" (κακοὶ μάρτυρες); only the wise man can obtain knowledge.

To appreciate the significance of the doctrines of Heraclitus, it must be borne in mind that to Greek philosophy the sharp distinction between subject and object which pervades modern thought was foreign, a consideration which suggests the conclusion that, while it is a great mistake to reckon Heraclitus with the materialistic cosmologists of the Ionic schools, it is, on the other hand, going too far to treat his theory, with Hegel and Lassalle, as one of pure Panlogism. Accordingly, when he denies the reality of Being, and declares Becoming, or eternal flux and change, to be the sole actuality, Heraclitus must be understood to enunciate not only the unreality of the abstract notion of being, except as the correlative of that of not-being, but also the physical doctrine that all phenomena are in a state of

continuous transition from non-existence to existence, and vice versa, without either distinguishing these propositions or qualifying them by any reference to the relation of thought to experience. “Every thing is and is not”; all things are, and nothing remains. So far he is in general agreement with Anaximander (*q.v.*), but he differs from him in the solution of the problem, disliking, as a poet and a mystic, the primary matter which satisfied the patient researcher, and demanding a more vivid and picturesque element. Naturally he selects fire, according to him the most complete embodiment of the process of Becoming, as the principle of empirical existence, out of which all things, including even the soul, grow by way of a *quasi* condensation, and into which all things must in course of time be again resolved. But this primordial fire is in itself that divine rational process, the harmony of which constitutes the law of the universe (see Logos). Real knowledge consists in comprehending this all-pervading harmony as embodied in the manifold of perception, and the senses are “bad-witnesses,” because they apprehend phenomena, not as its 310
manifestation, but as “stiff and dead.” In like manner real virtue consists in the subordination of the individual to the laws of this harmony as the universal reason wherein alone true freedom is to be found. “The law of things is a law of Reason Universal (λόγος), but most men live as though they had a wisdom of their own.” Ethics here stands to sociology in a close relation, similar, in many respects, to that which we find in Hegel and in Comte. For Heraclitus the soul approaches most nearly to perfection when it is most akin to the fiery vapour out of which it was originally created, and as this is most so in death, “while we live our souls are dead in us, but when we die our souls are restored to life.” The doctrine of immortality comes prominently forward in his ethics, but whether this must not be reckoned with the figurative accommodation to the popular theology of Greece which pervades his ethical teaching, is very doubtful.

The school of disciples founded by Heraclitus flourished for long after his death, the chief exponent of his teaching being Cratylus. A good deal of the information in regard to his doctrines has been gathered from the later Greek philosophy, which was deeply influenced by it.

Bibliography.—The only authentic extant work of Heraclitus is the περὶ φύσεως. The best edition (containing also the probably spurious Ἐπιστολαί) is that of I. Bywater, *Heracliti Ephesii reliquiae* (Oxford, 1877); of the epistles alone by A. Westermann (Leipzig, 1857). See also in A. H. Ritter and L. Preller’s *Historia philosophiae Graecae* (8th ed. by E. Wellmann, 1898); F. W. A. Mullach, *Fragm. philos. Graec.* (Paris, 1860); A. Fairbanks, *The First Philosophers of Greece* (1898); H. Diels, *Heraklit von Ephesus* (2nd ed., 1909), Greek and German. English translation of Bywater’s edition with introduction by G. T. W. Patrick (Baltimore, 1889). For criticism see, in addition to the histories of philosophy, F. Lassalle, *Die Philosophie Herakleitos’ des Dunklen* (Berlin, 1858; 2nd ed., 1892), which, however, is too strongly dominated by modern Hegelianism; Paul Schuster, *Heraklit von Ephesus* (Leipzig, 1873); J. Bernays, *Die heraklitischen Briefe* (Berlin, 1869); T. Gomperz, *Zu Heraclits Lehre und den Überresten seines Werkes* (Vienna, 1887), and in his *Greek Thinkers* (English translation, L. Magnus, vol. i. 1901); J. Burnet, *Early Greek Philosophy* (1892); A. Patin, *Heraklits Einheitslehre* (Leipzig, 1886); E. Pfleiderer, *Die Philosophie des Heraklitus von Ephesus im Lichte der Mysterienidee* (Berlin, 1886); G. T. Schäfer, *Die Philosophie des Heraklit von Ephesus und die moderne Heraklitforschung* (Leipzig, 1902); Wolfgang Schultz, *Studien zur antiken Kultur*, i.; *Pythagoras und Heraklit* (Leipzig, 1905); O. Spengler, *Heraklit. Eine Studie über den energetischen Grundgedanken seiner Philosophie* (Halle, 1904); A. Brieger, “Die Grundzüge der heraklitischen Physik” in *Hermes*, xxxix. (1904), 182-223, and “Heraklit der Dunkle” in *Neue Jahrb. f. das klass. Altertum* (1904), p. 687. For his place in the development of early philosophy see also articles Ionian School of Philosophy and Logos. Ancient authorities: Diog. Laërt. ix.; Sext. Empiric., *Adv. mathem.* vii. 126, 127, 133; Plato, *Cratylus*, 402 A and *Theaetetus*, 152 E; Plutarch, *Isis and Osiris*, 45, 48; Arist. *Nic. Eth.* vii. 3, 4; Clement of Alexandria, *Stromata*, v. 599, 603 (ed. Paris).

(J. M. M.)

HERACLIUS (Ἡρακλεῖος) (*c.* 575-642), East Roman emperor, was born in Cappadocia. His father held high military command under the emperor Maurice, and as governor of Africa maintained his independence against the usurper Phocas (*q.v.*). When invited to head a rebellion against the latter, he sent his son with a fleet which reached Constantinople unopposed, and precipitated the dethronement of Phocas. Proclaimed emperor, Heraclius set himself to reorganize the utterly disordered administration. At first he found himself

helpless before the Persian armies (see PERSIA: *Ancient History*; and CHOSROËS II.) of Chosroës II., which conquered Syria and Egypt and since 616 had encamped opposite Constantinople; in 618 he even proposed in despair to abandon his capital and seek a refuge in Carthage, but at the entreaty of the patriarch he took courage. By securing a loan from the Church and suspending the corn-distribution at Constantinople, he raised sufficient funds for war, and after making a treaty with the Avars, who had nearly surprised the capital during an incursion in 619, he was at last able to take the field against Persia. During his first expedition (622) he failed to secure a footing in Armenia, whence he had hoped to take the Persians in flank, but by his unwearied energy he restored the discipline and efficiency of the army. In his second campaign (624-26) he penetrated into Armenia and Albania, and beat the enemy in the open field. After a short stay at Constantinople, which his son Constantine had successfully defended against renewed incursions by the Avars, Heraclius resumed his attacks upon the Persians (627). Though deserted by the Khazars, with whom he had made an alliance upon entering into Pontus, he gained a decisive advantage by a brilliant march across the Armenian highlands into the Tigris plain, and a hard-fought victory over Chosroës' general, Shahrbaraz, in which Heraclius distinguished himself by his personal bravery. A subsequent revolution at the Persian court led to the dethronement of Chosroës in favour of his son Kavadh II. (*q.v.*); the new king promptly made peace with the emperor, whose troops were already advancing upon the Persian capital Ctesiphon (628). Having thus secured his eastern frontier, Heraclius returned to Constantinople with ample spoils, including the true cross, which in 629 he brought back in person to Jerusalem. On the northern frontier of the empire he kept the Avars in check by inducing the Serbs to migrate from the Carpathians to the Balkan lands so as to divert the attention of the Avars.

The triumphs which Heraclius had won through his own energy and skill did not bring him lasting popularity. In his civil administration he followed out his own ideas without deferring to the nobles or the Church, and the opposition which he encountered from these quarters went far to paralyse his attempts at reform. Worn out by continuous fighting and weakened by dropsy, Heraclius failed to show sufficient energy against the new peril that menaced his eastern provinces towards the end of his reign. In 629 the Saracens made their first incursion into Syria (see CALIPHATE, section A, § 1); in 636 they won a notable victory on the Yermuk (Hieromax), and in the following years conquered all Syria, Palestine and Egypt. Heraclius made no attempt to retrieve the misfortunes of his generals, but evacuated his possessions in sullen despair. The remaining years of his life he devoted to theological speculation and ecclesiastical reforms. His religious enthusiasm led him to oppress his Jewish subjects; on the other hand he sought to reconcile the Christian sects, and to this effect propounded in his *Ecthesis* a conciliatory doctrine of monothelism. Heraclius died of his disease in 642. He had been twice married; his second union, with his niece Martina, was frequently made a matter of reproach to him. In spite of his partial failures, Heraclius must be regarded as one of the greatest of Byzantine emperors, and his early campaigns were the means of saving the realm from almost certain destruction.

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(M. O. B. C.)

HERALD (O. Fr. *heraut*, *herault*; the origin is uncertain, but O.H.G. *heren*, to call, or *hariwald*, leader of an army, have been proposed; the Gr. equivalent is κῆρυξ: Lat. *praeco*, *caduceator*, *fetialis*), in Greek and Roman antiquities, the term for the officials described below; in modern usage, while the word "herald" is often used generally in a sense analogous to that of the ancients, it is more specially restricted to that dealt with in the article HERALDRY.

The Greek heralds, who claimed descent from Hermes, the messenger of the gods, through his son Keryx, were public functionaries of high importance in early times. Like Hermes, they carried a staff of olive or laurel wood surrounded by two snakes (or with wool as messengers of peace); their persons were inviolable; and they formed a kind of priesthood

or corporation. In the Homeric age, they summoned the assemblies of the people, at which they preserved order and silence; proclaimed war; arranged the cessation of hostilities and the conclusion of peace; and assisted at public sacrifices and banquets. They also performed certain menial offices for the kings (mixing and pouring out the wine for the guests), by whom they were treated as confidential servants. In later times, their position was a less honourable one; they were recruited from the poorer classes, and were mostly paid servants of the various officials. Pollux in his *Onomasticon* distinguishes four classes of heralds: (1) the sacred heralds at the Eleusinian mysteries;[1] (2) the heralds at the public games, who announced the names of the competitors and victors; (3) those who superintended the arrangements of festal processions; (4) those who proclaimed goods for sale in the market (for which purpose they mounted a stone), and gave notice of lost children and runaway slaves. To these should be added (5) the heralds of the boulē and demos, who summoned the members of the council and ecclesia, recited the solemn formula of prayer before the opening of the meeting, called upon the orators to speak, counted the votes and announced the results; (6) the heralds of the law courts, who gave notice of the time of trials and summoned the parties. The heralds received payment from the state and free meals together with the officials to whom they were attached. Their appointment was subject to some kind of examination, probably of the quality of their voice. Like the earlier heralds, they were also employed in negotiations connected with war and peace.

Among the Romans the *praecones* or “criers” exercised their profession both in private and official business. As private criers they were especially concerned with auctions; they advertized the time, place and conditions of sale, called out the various bids, and like the modern auctioneer varied the proceedings with jokes. They gave notice in the streets of things that had been lost, and took over various commissions, such as funeral arrangements. Although the calling was held in little estimation, some of these criers amassed great wealth. The state criers, who were mostly freedmen and well paid, formed the lowest class of *apparitores* (attendants on various magistrates). On the whole, their functions resembled those of the Greek heralds. They called the popular assemblies together, proclaimed silence and made known the result of the voting; in judicial cases, they summoned the plaintiff, defendant, advocates and witnesses; in criminal executions they gave out the reasons for the punishment and called on the executioner to perform his duty; they invited the people to the games and announced the names of the victors. Public criers were also employed at state auctions in the municipia and colonies, but, according to the lex Julia municipalis of Caesar, they were prohibited from holding office.

Amongst the Romans the settlement of matters relating to war and peace was entrusted to a special class of heralds called *Fetiales* (not *Feciales*), a word of uncertain etymology, possibly connected with *fateor*, *fari*, and meaning “the speakers.” They formed a priestly college of 20 (or 15) members, the institution of which was ascribed to one of the kings. They were chosen from the most distinguished families, held office for life, and filled up vacancies in their number by co-optation. Their duties were to demand redress for insult or injury to the state, to declare war unless satisfaction was obtained within a certain number of days and to conclude treaties of peace. A deputation of four (or two), one of whom was called *pater patratus*, wearing priestly garments, with sacred herbs plucked from the Capitoline hill borne in front, proceeded to the frontier of the enemy’s territory and demanded the surrender of the guilty party. This demand was called *clarigatio* (perhaps from its being made in a loud, clear voice). If no satisfactory answer was given within 30 days, the deputation returned to Rome and made a report. If war was decided upon, the deputation again repaired to the frontier, pronounced a solemn formula, and hurled a charred and blood-stained javelin across the frontier, in the presence of three witnesses, which was tantamount to a declaration of war (Livy i. 24, 32). With the extension of the Roman empire, it became impossible to carry out this ceremonial, for which was substituted the hurling of a javelin over a column near the temple of Bellona in the direction of the enemy’s territory. When the termination of a war was decided upon, the fetiales either made an arrangement for the suspension of hostilities for a definite term of years, after which the war recommenced automatically or they concluded a solemn treaty with the enemy. Conditions of peace or alliance proposed by the general on his own responsibility (*sponsio*) were not binding upon the people, and in case of rejection the general, with hands bound, was delivered by the fetiales to the enemy (Livy ix. 10). But if the terms were agreed to, a deputation carrying the sacred herbs and the flint stones, kept in the temple of Jupiter Feretrius for sacrificial purposes, met a deputation of fetiales from the other side. After the conditions of the treaty had been read, the sacrificial formula was pronounced and the victims slain by a blow from a stone (hence the expression *foedus ferire*). The treaty was then signed and handed over to the keeping of the fetial college. These ceremonies usually

took place in Rome, but in 201 a deputation of fetiales went to Africa to ratify the conclusion of peace with Carthage. From that time little is heard of the fetiales, although they appear to have existed till the end of the 4th century A.D. The *caduceator* (from *caduceus*, the latinized form of κηρυκεῖον) was the name of a person who was sent to treat for peace. His person was considered sacred; and like the fetiales he carried the sacred herbs, instead of the caduceus, which was not in use amongst the Romans.

For the Greek heralds, see Ch. Ostermann, *De praeconibus Graecorum* (1845); for the Roman Praecones, Mommsen, *Römisches Staatsrecht*, i. 363 (3rd ed., 1887); also article PRAECONES in Pauly's *Realencyclopädie* (1852 edition); for the Fetiales, monographs by F. C. Conradi (1734, containing all the necessary material), and G. Fusinato (1884, from *Atti della R. Accad. dei Lincei*, series iii. vol. 13); also Marquardt, *Römische Staatsverwaltung*, iii. 415 (3rd ed., 1885), and A. Weiss in Daremberg and Saglio's *Dictionnaire des antiquités*.

(J. H. F.)

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1 These heralds are regarded by some as a branch of the Eumolpidae, by others as of Athenian origin. They enjoyed great prestige and formed a hieratic caste like the Eumolpidae, with whom they shared the most important liturgical functions. From them were selected the δαδοῦχος or torch-bearer, the ἱεροκῆρυξ, whose chief duty was to proclaim silence, and ὁ ἐπὶ βωμῷ, an official connected with the service at the altar (see L. R. Farnell, Cults of the Greek States, iii. 161; J. Töpffer, *Attische Genealogie* (1889); Dittenberger in *Hermes*, xx.; P. Foucart, "Les Grands Mystères d'Eleusis" in *Mém. de l'Institut National de France*, xxxvii. (1904).

HERALDRY. Although the word Heraldry properly belongs to all the business of the herald (*q.v.*), it has long attached itself to that which in earlier times was known as armory, the science of armorial bearings.

History of Armorial Bearings.—In all ages and in all quarters of the world distinguishing symbols have been adopted by tribes or nations, by families or by chieftains. Greek and Roman poets describe the devices borne on the shields of heroes, and many such painted shields are pictured on antique vases. Rabbinical writers have supported the fancy that the standards of the tribes set up in their camps bore figures devised from the prophecy of Jacob, the ravening wolf for Benjamin, the lion's whelp for Judah and the ship of Zebulon. In the East we have such ancient symbols as the five-clawed dragon of the Chinese empire and the chrysanthemum of the emperor of Japan. In Japan, indeed, the systematized badges borne by the noble clans may be regarded as akin to the heraldry of the West, and the circle with the three asarum leaves of the Tokugawa shoguns has been made as familiar to us by Japanese lacquer and porcelain as the red pellets of the Medici by old Italian fabrics. Before the landing of the Spaniards in Mexico the Aztec chiefs carried shields and banners, some of whose devices showed after the fashion of a phonetic writing the names of their bearers; and the eagle on the new banner of Mexico may be traced to the eagle that was once carved over the palace of Montezuma. That mysterious business of totemism, which students of folk-lore have discovered among most primitive peoples, must be regarded as another of the forerunners of true heraldry, the totem of a tribe supplying a badge which was sometimes displayed on the body of the tribesman in paint, scars or tattooing. Totemism so far touches our heraldry that some would trace to its symbols the white horse of Westphalia, the bull's head of the Mecklenburgers and many other ancient armories.

When true heraldry begins in Western Europe nothing is more remarkable than the suddenness of its development, once the idea of hereditary armorial symbols was taken by the nobles and knights. Its earliest examples are probably still to be discovered by research, 312 but certain notes may be made which narrow the dates between which we must seek its origin. The older writers on heraldry, lacking exact archaeology, were wont to carry back the beginnings to the dark ages, even if they lacked the assurance of those who distributed blazons among the angelic host before the Creation. Even in our own times old misconceptions give ground slowly. Georg Ruexner's *Thurnier Buch* of 1522 is still cited for its evidence of the tournament laws of Henry the Fowler, by which those who would contend in tournaments were forced to show four generations of arms-bearing ancestors. Yet modern criticism has shattered the elaborated fiction of Ruexner. In England many legends survive of arms borne by the Conqueror and his companions. But nothing is more certain than that neither armorial banners nor shields of arms were borne on either side at Hastings. The famous record of the Bayeux tapestry shows shields which in some cases suggest rudely

devised armorial bearings, but in no case can a shield be identified as one which is recognized in the generations after the Conquest. So far is the idea of personal arms from the artist, that the same warrior, seen in different parts of the tapestry's history, has his shield with differing devices. A generation later, Anna Comnena, the daughter of the Byzantine emperor, describing the shields of the French knights who came to Constantinople, tells us that their polished faces were plain.

Of all men, kings and princes might be the first to be found bearing arms. Yet the first English sovereign who appears on his great seal with arms on his shield is Richard I. His seal of 1189 shows his shield charged with a lion ramping towards the sinister side. Since one half only is seen of the rounded face of the shield, English antiquaries have perhaps too hastily suggested that the whole bearing was two lions face to face. But the mounted figure of Philip of Alsace, count of Flanders, on his seal of 1164 bears a like shield charged with a like lion, and in this case another shield on the counterseal makes it clear that this is the single lion of Flanders. Therefore we may take it that, in 1189, King Richard bore arms of a lion rampant, while, nine years later, another seal shows him with a shield of the familiar bearings which have been borne as the arms of England by each one of his successors.

That seal of Philip of Alsace is the earliest known example of the arms of the great counts of Flanders. The ancient arms of the kings of France, the blue shield powdered with golden fleurs-de-lys, appear even later. Louis le Jeune, on the crowning of his son Philip Augustus, ordered that the young prince should be clad in a blue dalmatic and blue shoes, sewn with golden fleurs-de-lys, a flower whose name, as "Fleur de Loys," played upon that of his own, and possibly upon his epithet name of Florus. A seal of the same king has the device of a single lily. But the first French royal seal with the shield of the lilies is that of Louis VIII. (1223-1226). The eagle of the emperors may well be as ancient a bearing as any in Europe, seeing that Charlemagne is said, as the successor of the Caesars, to have used the eagle as his badge. The emperor Henry III. (1039-1056) has the sceptre on his seal surmounted by an eagle; in the 12th century the eagle was embroidered upon the imperial gloves. At Mölsen in 1080 the emperor's banner is said by William of Tyre to have borne the eagle, and with the beginning of regular heraldry this imperial badge would soon be displayed on a shield. The double-headed eagle is not seen on an imperial seal until after 1414, when the bird with one neck becomes the recognized arms of the king of the Romans.

There are, however, earlier examples of shields of arms than any of these. A document of the first importance is the description by John of Marmoustier of the marriage of Geoffrey of Anjou with Maude the empress, daughter of Henry I., when the king is said to have hung round the neck of his son-in-law a shield with golden "lioncels." Afterwards the monk speaks of Geoffrey in fight, "pictos leones preferens in clypeo." Two notes may be added to this account. The first is that the enamelled plate now in the museum at Le Mans, which is said to have been placed over the tomb of Geoffrey after his death in 1151, shows him bearing a long shield of azure with six golden lioncels, thus confirming the monk's story. The second is the well-known fact that Geoffrey's bastard grandson, William with the Long Sword, undoubtedly bore these same arms of the six lions of gold in a blue field, even as they are still to be seen upon his tomb at Salisbury. Some ten years before Richard I. seals with the three leopards, his brother John, count of Mortain, is found using a seal upon which he bears two leopards, arms which later tradition assigns to the ancient dukes of Normandy and to their descendants the kings of England before Henry II., who is said to have added the third leopard in right of his wife, a legend of no value. Mr Round has pointed out that Gilbert of Clare, earl of Hertford, who died in 1152, bears on his seal to a document sealed after 1138 and not later than 1146, the three cheverons afterwards so well known in England as the bearings of his successors. An old drawing of the seal of his uncle Gilbert, earl of Pembroke (*Lansdowne MS.* 203), shows a cheveronny shield used between 1138 and 1148. At some date between 1144 and 1150, Waleran, count of Meulan, shows on his seal a pennon and saddle-cloth with a checkered pattern: the house of Warenne, sprung from his mother's son, bore shields checky of gold and azure. If we may trust the inventory of Norman seals made by M. Demay, a careful antiquary, there is among the archives of the Manche a grant by Eudes, seigneur du Pont, sealed with a seal and counterseal of arms, to which M. Demay gives a date as early as 1128. The writer has not examined this seal, the earliest armorial evidence of which he has any knowledge, but it may be remarked that the arms are described as varying on the seal and counterseal, a significant touch of primitive armory. Another type of seal common in this 12th century shows the personal device which had not yet developed into an armorial charge. A good example is that of Enguerrand de Candavène, count of St Pol, where, although the shield of the horseman is uncharged, sheaves of oats, playing on his name, are strewn at the foot of the seal. Five of these sheaves were the arms of Candavène when the house came to display arms. In the same fashion three different

members of the family of Armenteres in England show one, two or three swords upon their seals, but here the writer has no evidence of a coat of arms derived from these devices.

From the beginning of the 13th century arms upon shields increase in number. Soon the most of the great houses of the west display them with pride. Leaders in the field, whether of a royal army or of a dozen spears, saw the military advantage of a custom which made shield and banner things that might be recognized in the press. Although it is probable that armorial bearings have their first place upon the shield, the charges of the shield are found displayed on the knight's long surcoat, his "coat of arms," on his banner or pennon, on the trappers of his horse and even upon the peaks of his saddle. An attempt has been made to connect the rise of armory with the adoption of the barrel-shaped close helm; but even when wearing the earlier Norman helmet with its long nasal the knight's face was not to be recognized. The Conqueror, as we know, had to bare his head before he could persuade his men at Hastings that he still lived. Armory satisfied a need which had long been felt. When fully armed, one galloping knight was like another; but friend and foe soon learned that the gold and blue checkers meant that Warenne was in the field and that the gold and red vair was for Ferrers. Earl Simon at Evesham sent up his barber to a spying place and, as the barber named in turn the banners which had come up against him, he knew that his last fight was at hand. In spite of these things the growth of the custom of sealing deeds and charters had at least as much influence in the development of armory as any military need. By this way, women and clerks, citizens and men of peace, corporations and colleges, came to share with the fighting man in the use of armorial bearings. Arms in stone, wood and brass decorated the tombs of the dead and the houses of the living; they were broidered in bed-curtains, coverlets and copes, painted on the sails of ships and enamelled upon all manner of goldsmiths' and silversmiths' work. And, even by warriors, the full splendour of armory was at all times displayed more fully in the fantastic magnificence of the tournament than in the rougher business of war.

PLATE I.

PART OF A ROLL OF ARMS PAINTED IN ENGLAND AT THE BEGINNING OF THE 14TH CENTURY. THE NAMES HAVE BEEN ADDED BY A SOMEWHAT LATER HAND, AND ARE IN MANY CASES MISTAKEN AND MIS-SPELLED.

Drawn by William Gibb for the ENCYCLOPAEDIA BRITANNICA.

There can be little doubt that ancient armorial bearings were chosen at will by the man who bore them, many reasons guiding his choice. Crosses in plenty were taken. Old writers have asserted that these crosses commemorate the badge of the crusaders, yet the fact that the cross was the symbol of the faith was reason enough. No symbolism can be found in such charges as bends and fesses; they are on the shield because a broad band, aslant or athwart, is a charge easily recognized. Medieval wisdom gave every noble and magnanimous quality to the lion, and therefore this beast is chosen by hundreds of knights as their bearing. We have already seen how the arms of a Candavène play upon his name. Such an

example was imitated on all sides. Salle of Bedfordshire has two *sal*amanders *sal*tirewise; Belet has his namesake the weasel. In ancient shields almost all beasts and birds other than the lion and the eagle play upon the bearer's name. No object is so humble that it is unwelcome to the knight seeking a pun for his shield. Trivet has a three-legged trivet; Trumpington two trumps; and Montbocher three pots. The legends which assert that certain arms were "won in the Holy Land" or granted by ancient kings for heroic deeds in the field are for the most part worthless fancies.

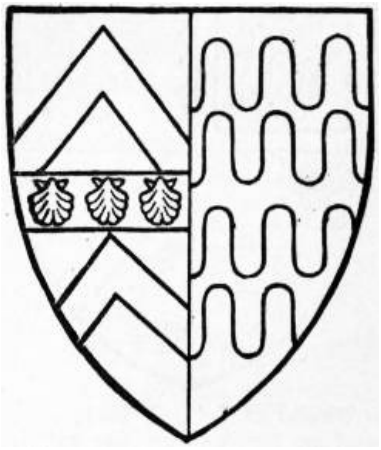
Tenants or neighbours of the great feudal lords were wont to make their arms by differencing the lord's shield or by bringing some charge of it into their own bearings. Thus a group of Kentish shields borrow lions from that of Leyborne, which is azure with six lions of silver. Shirland of Minster bore the same arms differenced with an ermine quarter. Detling had the silver lions in a sable field. Rokesle's lions are azure in a golden field with a fesse of gules between them; while Wateringbury has six sable lions in a field of silver, and Tilmanstone six ermine lions in a field of azure. The Vipont ring or annelet is in several shields of Westmorland knights, and the cheverons of Clare, the cinquefoil badge of Beaumont and the sheaves of Chester can be traced in the coats of many of the followers of those houses. Sometimes the lord himself set forth such arms in a formal grant, as when the baron of Greystock grants to Adam of Blencowe a shield in which his own three chaplets are charges. The Whitgreave family of Staffordshire still show a shield granted to their ancestor in 1442 by the earl of Stafford, in which the Stafford red cheveron on a golden field is four times repeated.

Differences.—By the custom of the middle ages the "whole coat," which is the undifferenced arms, belonged to one man only and was inherited whole only by his heirs. Younger branches differenced in many ways, following no rule. In modern armory the label is reckoned a difference proper only to an eldest son. But in older times, although the label was very commonly used by the son and heir apparent, he often chose another distinction during his father's lifetime, while the label is sometimes found upon the shields of younger sons. Changing the colours or varying the number of charges, drawing a bend or baston over the shield or adding a border are common differences of cadet lines. Beauchamp, earl of Warwick, bore "Gules with a fesse and six crosslets gold." His cousins are seen changing the crosslets for martlets or for billets. Bastards difference their father's arms, as a rule, in no more striking manner than the legitimate cadets. Towards the end of the 14th century we have the beginning of the custom whereby certain bastards of princely houses differenced the paternal arms by charging them upon a bend, a fesse or a chief, a cheveron or a quarter. Before his legitimation the eldest son of John of Gaunt by Katharine Swinford is said to have borne a shield party silver and azure with the arms of Lancaster on a bend. After his legitimation in 1397 he changed his bearings to the royal arms of France and England within a border gobony of silver and azure. Warren of Poynton, descended from the last earl Warenne and his concubine, Maude of Neirford, bore the checkered shield of Warenne with a quarter charged with the ermine lion of Neirford. By the end of the middle ages the baston under continental influence tended to become a bastard's difference in England and the jingle of the two words may have helped to support the custom. About the same time the border gobony began to acquire a like character. The "bar sinister" of the novelists is probably the baston sinister, with the ends couped, which has since the time of Charles II. been familiar on the arms of certain descendants of the royal house. But it has rarely been seen in England over other shields; and, although the border gobony surrounds the arms granted to a peer of Victorian creation, the modern heralds have fallen into the habit of assigning, in nineteen cases out of twenty, a wavy border as the standard difference for illegitimacy.

Although no general register of arms was maintained it is remarkable that there was little conflict between persons who had chanced to assume the same arms. The famous suit in which Scrope, Grosvenor and Carminow all claimed the blue shield with the golden bend is well known, and there are a few cases in the 14th century of like disputes which were never carried to the courts. But the men of the middle ages would seem to have had marvellous memories for blazonry; and we know that rolls of arms for reference, some of them the records of tournaments, existed in great numbers. A few examples of these remain to us, with painted shields or descriptions in French blazon, some of them containing many hundreds of names and arms.

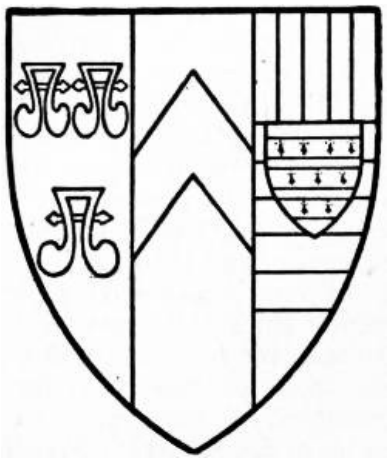
Shield from seal of Robert de Pinkeny, an early example of parted arms.

To women were assigned, as a rule, the undifferenced



Shield of Joan atte Pole, widow of Robert of Hemenhale, from her seal (1403), showing parted arms.

arms of their fathers. In the early days of armory married women—well-born spinsters of full age were all but unknown outside the walls of religious houses—have seals on which appear the shield of the husband or the father or both shields side by side. But we have some instances of the shield in which two coats of arms are parted or, to use the modern phrase, “impaled.” Early in the reign of King John, Robert de Pinkeny seals with a parted shield. On the right or dexter side—the right hand of a shield is at the right hand of the person covered by it—are two fusils of an indented fesse: on the left or sinister side are three waves. The arms of Pinkeny being an indented fesse, we may see in this shield the parted arms of husband and wife—the latter being probably a Basset. In many of the earliest examples, as in this, the dexter half of the husband’s shield was united with the sinister half of that of the wife, both coats being, as modern antiquaries have it, dimidiated. This “dimidiation,” however, had its inconvenience. With some coats it was impossible. If the wife bore arms with a quarter for the only charge, her half of the shield would be blank. Therefore the practice was early abandoned by the majority of bearers of parted shields although there is a survival of it in the fact that borders and tressures continue to be “dimidiated” in order that the charges within them shall not be cramped. Parted shields came into common use from the reign of Edward II., and the rule is established that the husband’s arms should take the dexter side. There are, however, several instances of the contrary practice. On the seal (1310) of Maude, wife of John Boutetort of Halstead, the engrailed saltire of the Boutetorts takes the sinister place. A twice-married woman would sometimes show a shield charged with her paternal arms between those of both of her husbands, as did Beatrice Stafford in 1404, while in 1412 Elizabeth, Lady of Clinton, seals with a shield paled with five coats—her arms of la Plaunche between those of four husbands. In most cases the parted shield is found on the wife’s seal alone. Even in our own time it is recognized that the wife’s arms should not appear upon the husband’s official seal, upon his banner or surcoat or upon his shield when it is surrounded by the collar of an order. Parted arms, it may be noted, do not always represent a husband and wife. Richard II. parted with his quartered arms of France and England those ascribed to Edward the Confessor, and parting is often used on the continent where quartering would serve in England. In 1497 the seal of Giles Daubeney and Reynold Bray, fellow justices in eyre, shows their arms parted in one shield. English bishops, by a custom begun late in the 14th century, part the see’s arms with their own. By modern English custom a husband and wife, where the wife is not an heir, use the parted coat on a shield, a widow bearing the same upon the lozenge on which, when a spinster, she displayed her father’s coat alone. When the wife is an heir, her arms are now borne in a little scocheon above those of her husband. If the husband’s arms be in an unquartered shield the central charge is often hidden away by this scocheon.

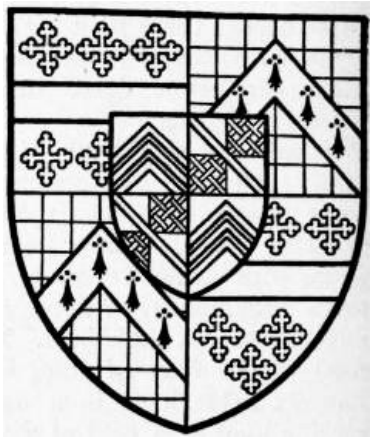


Shield of Beatrice Stafford from her seal (1404), showing her arms of Stafford between those of her husbands—Thomas, Lord Roos, and Sir Richard Burley.

Shield of John Talbot, first earl of Shrewsbury (d. 1453), showing four coats quartered.

The practice of marshalling arms by quartering spread in England by reason of the example given by Eleanor, wife of Edward I., who displayed the castle of Castile quartered with the lion of Leon. Isabel of France, wife of Edward II., seals with a shield in whose four quarters are the arms of England, France, Navarre and Champagne. Early In the 14th century Simon de Montagu, an ancestor of the earls of Salisbury, quartered with his own arms a coat of azure with a golden griffon. In 1340 we have Laurence Hastings, earl of Pembroke, quartering with the Hastings arms the arms of Valence, as heir of his great-uncle Aymer, earl of Pembroke. In the preceding year the king had already asserted his claim to another kingdom by quartering France with England, and after this quartered shields became common in the great houses whose sons were carefully matched with heirs female. When the wife was an heir the husband would quarter her arms with his own, displaying, as a rule, the more important coat in the first quarter. Marshalling becomes more elaborate with shields showing both quarterings and partings, as in the seal (1368) of Sibil Arundel, where Arundel (Fitzalan) is quartered with Warenne and parted with the arms of Montagu. In all, save one, of these examples the quartering is in its simplest form, with one coat repeated in the first and fourth quarters of the shield and another in the second and third. But to a charter of 1434 Sir Henry Bromflete sets a seal upon which Bromflete quarters Vesci in the second quarter, Aton in the third and St John in the fourth, after the fashion of the much earlier seal of Edward II.'s queen. Another development is that of what armorists style the "grand quarter," a quarter which is itself quartered, as in the shield of Reynold Grey of Ruthyn, which bears Grey in the first and fourth quarters and Hastings quartered with Valence in the third and fourth. Humphrey Bourchier, Lord Cromwell, in 1469, bears one grand quarter quartered with another, the first having Bourchier and Lovaine, the second Tatershall and Cromwell.

The last detail to be noted in medieval marshalling is the introduction into the shield of another surmounting shield called by old armorists the "innerscocheon" and by modern blazoners the "inescutcheon." John the Fearless, count of Flanders, marshalled his arms in 1409 as a quartered shield of the new and old coats of Burgundy. Above these coats a little scocheon, borne over the crossing of the quartering lines, had the black lion of Flanders, the arms of his mother. Richard Beauchamp, the adventurous earl of Warwick, who had seen most European courts during his wanderings, may have had this shield in mind when, over his arms of Beauchamp quartering Newburgh, he set a scocheon of Clare quartering Despenser, the arms of his wife Isabel Despenser, co-heir of the earls of Gloucester. The seal of his son-in-law, the King-Maker, shows four quarters—Beauchamp quartering Clare, Montagu quartering Monthermer, Nevill alone, and Newburgh quartering Despenser. An interesting use of the scocheon *en surtout* is that made by Richard Wydvile, Lord Rivers, whose garter stall-plate has a grand quarter of Wydvile and Prouz quartering Beauchamp of Hache, the whole surmounted by a scocheon with the arms of Reviers or Rivers, the house from which he took the title of his barony. On the continent the common use of the scocheon is to bear the paternal arms of a sovereign or noble, surmounting the quarterings of his kingdoms, principalities, fiefs or seigniories. Our own prince of Wales bears the arms of Saxony above those of the United Kingdom differenced with his silver label. Marshalling takes its most elaborate form, the most removed from the graceful simplicity of the middle ages, in such shields as the "Great Arms" of the Austrian empire, wherein are nine grand quarters each marshalling in various fashions from three to eleven coats, six of the grand-quarters bearing scocheons *en surtout*, each scocheon ensigned with a different crown.



Shield of Richard Beauchamp, earl of Warwick, from his garter stall-plate (after 1423). The arms are Beauchamp quartering Newburgh, with a scocheon of Clare quartering Despenser.

Crests.—The most important accessory of the arms is the crested helm. Like the arms it has its pre-heraldic history in the crests of the Greek helmets, the wings, the wild boar's and bull's heads of Viking headpieces. A little roundel of the arms of a Japanese house was often borne as a crest in the Japanese helmet, stepped in a socket above the middle of the brim. The 12th-century seal of Philip of Alsace, count of Flanders, shows a demi-lion painted or beaten on the side of the upper part of his helm, and on his seal of 1198 our own Richard Cœur de Lion's barrel-helm has a leopard upon the semicircular comb-ridge, the edge of

which is set off with feathers arranged as two wings. Crests, however, came slowly into use in England, although before 1250 Roger de Quincy, earl of Winchester, is seen on his seal with a wyver upon his helm. Of the long roll of earls and barons sealing the famous letter to the pope in 1301 only five show true crests on their seals. Two of them are the earl of Lancaster and his brother, each with a wyver crest like that of Quincy. One, and the most remarkable, is John St John of Halnaker, whose crest is a leopard standing between two upright palm branches. Ralph de Monthermer has an eagle crest, while Walter de Moncy's helm is surmounted by a fox-like beast. In three of these instances the crest is borne, as was often the case, by the horse as well as the rider. Others of these seals to the barons' letter have the fan-shaped crest without any decoration upon it. But as the furniture of tournaments grew more magnificent the crest gave a new field for display, and many strange shapes appear in painted and gilded wood, metal, leather or parchment above the helms of the jousters. The Berkeleys, great patrons of abbeys, bore a mitre as their crest painted with their arms, like crests being sometimes seen on the continent where the wearer was *advocatus* of a bishopric or abbey. The whole or half figures or the heads and necks of beasts and birds were employed by other families. Saracens' heads topped many helms, that of the great Chandos among them. Astley bore for his crest a silver harpy standing in marsh-sedge, a golden chain fastened to a crown about her neck. Dymoke played pleasantly on his name with a long-eared moke's scalp. Stanley took the eagle's nest in which the eagle is lighting down with a swaddled babe in his claws. Burnell had a burdock bush, la Vache a cow's leg, and Lisle's strange fancy was to perch a huge millstone on edge above his head. Many early helms, as that of Sir John Loterel, painted in the Loterel psalter, repeat the arms on the sides of a fan-crest. Howard bore for a crest his arms painted on a pair of wings, while simple "bushes" or feathers are seen in great plenty. The crest of a cadet is often differenced like the arms, and thus a wyver or a leopard will have a label about its neck. The Montagu griffon on the helm of John, marquess of Montagu, holds in its beak the gimel ring with which he differenced his father's shield. His brother, the King-Maker, following a custom commoner abroad than at home, shows two crested helms on his seal, one for Montagu and one for Beauchamp—none for his father's house of Nevill. It is often stated that a man, unless by some special grace or allowance, can have but one crest. This, however, is contrary to the spirit of medieval armory in which a man, inheriting the coat of arms of another house than his own, took with it all its belongings, crest, badge and the like. The heraldry books, with more reason, deny crests to women and to the clergy, but examples are not wanting of medieval seals in which even this rule is broken. It is perhaps unfair to cite the case of the bishops of Durham who ride in full harness on their palatinate seals; but Henry Despenser, bishop of Norwich, has a helm on which the winged griffon's head of his house springs from a mitre, while Alexander Nevill, archbishop of York, seals with shield, supporters and crowned and crested helm like those of any lay magnate. Richard Holt, a Northamptonshire clerk in holy orders, bears on his seal in the reign of Henry V. a shield of arms and a mantled helm with the crest of a collared greyhound's head. About the middle of the same century a seal cut for the wife of Thomas Chetwode, a Cheshire squire, has a shield of her husband's arms parted with her own and surmounted by a crowned helm with the crest of a demi-lion; and this is not the only example of such bearings by a woman.

Ralph de Monthermer (1301), showing shield of arms, helm with crest and mantle, horse-crest and armorial trappers.

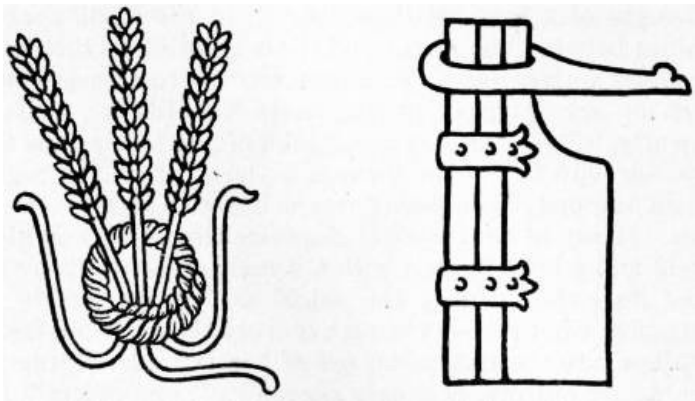
Shield and crested helm with hat and mantle of Thomas of Hengrave (1401).

Before passing from the crest let us note that in England the juncture of crest and helm was commonly covered, especially after the beginning of the 15th century, by a torse or “wreath” of silk, twisted with one, two or three colours. Coronets or crowns and “hats of estate” often take the place of the wreath as a base for the crest, and there are other curious variants. With the wreath may be considered the mantle, a hanging cloth which, in its earliest form, is seen as two strips of silk or sendal attached to the top of the helm below the crest and streaming like pennants as the rider bent his head and charged. Such strips are often displayed from the conical top of an uncrested helm, and some ancient examples have the air of the two ends of a stole or of the *infulae* of a bishop’s mitre. The general opinion of antiquaries has been that the mantle originated among the crusaders as a protection for the steel helm from the rays of an Eastern sun; but the fact that mantles take in England their fuller form after our crusading days were over seems against this theory. When the fashion for slittering the edges of clothing came in, the edges of the mantle were slittered like the edge of the sleeve or skirt, and, flourished out on either side of the helm, it became the delight of the painter of armories and the seal engraver. A worthless tale, repeated by popular manuals, makes the slittered edge represent the shearing work of the enemy’s sword, a fancy which takes no account of the like developments in civil dress. Modern heraldry in England paints the mantle with the principal colour of the shield, lining it with the principal metal. This in cases where no old grant of arms is cited as evidence of another usage. The mantles of the king and of the prince of Wales are, however, of gold lined with ermine and those of other members of the royal house of gold lined with silver. In ancient examples there is great variety and freedom. Where the crest is the head of a griffon or bird the feathering of the neck will be carried on to cover the mantle. Other mantles will be powdered with badges or with charges from the shield, others checkered, barred or paled. More than thirty of the mantles enamelled on the stall-plates of the medieval Garter-knights are of red with an ermine lining, tinctures which in most cases have no reference to the shields below them.

Supporters.—Shields of arms, especially upon seals, are sometimes figured as hung round the necks of eagles, lions, swans and griffons, as strapped between the horns of a hart or to the boughs of a tree. Badges may fill in the blank spaces at the sides between the shield and the inscription on the rim, but in the later 13th and early 14th centuries the commonest objects so serving are sprigs of plants, lions, leopards, or, still more frequently, lithe-necked wyvers. John of Segrave in 1301 flanks his shields with two of the sheaves of the older coat of Segrave: William Marshal of Hingham does the like with his two marshal’s staves. Henry

of Lancaster at the same time shows on his seal a shield and a helm crested with a wyver, with two like wyvers ranged on either side of the shield as “supporters.” It is uncertain at what time in the 14th century these various fashions crystallize into the recognized use of beasts, birds, reptiles, men or inanimate objects, definitely chosen as “supporters” of the shield, and not to be taken as the ornaments suggested by the fancy of the seal engraver. That supporters originate in the decoration of the seal there can be little doubt. Some writers, the learned Menêtrier among them, will have it that they were first the fantastically clad fellows who supported and displayed the knight’s shield at the opening of the tournament. If the earliest supporters were wild men, angels or Saracens, this theory might be defended; but lions, boars and talbots, dogs and trees are guises into which a man would put himself with difficulty. By the middle of the 14th century we find what are clearly recognizable as supporters. These, as in a lesser degree the crest, are often personal rather than hereditary, being changed generation by generation. The same person is found using more than one pair of them. The kings of France have had angels as supporters of the shield of the fleurs de lys since the 15th century, but the angels have only taken their place as the sole royal supporters since the time of Louis XIV. Sovereigns of England from Henry IV. to Elizabeth changed about between supporters of harts, leopards, antelopes, bulls, greyhounds, boars and dragons. James I. at his accession to the English throne brought the Scottish unicorn to face the English leopard rampant across his shield, and, ever since, the “lion and unicorn” have been the royal supporters.

Arms of William, Lord Hastings, from his seal (1477), showing shield, crowned and crested helm with mantle and supporters.



Badge of John of Whethamstede,

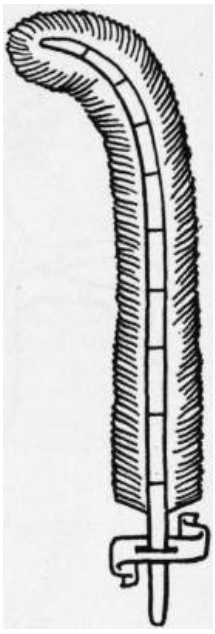
abbot of St Albans (d. 1465), from his tomb in the abbey church.

Rudder badge of Willoughby.

An old herald wrote as his opinion that “there is little or nothing in precedent to direct the use of supporters.” Modern custom gives them, as a rule, only to peers, to knights of the Garter, the Thistle and St Patrick, and to knights who are “Grand Crosses” or Grand Commanders of other orders. Royal warrants are sometimes issued for the granting of supporters to baronets, and, in rare cases, they have been assigned to untitled persons. But in spite of the jealousy with which official heraldry hedges about the display of these supporters once assumed so freely, a few old English families still assert their right by hereditary prescription to use these ornaments as their forefathers were wont to use them.

Badges.—The badge may claim a greater antiquity and a wider use than armorial bearings. The “Plantagenet” broom is an early example in England, sprigs of it being figured on the seal of Richard I. In the 14th and 15th centuries every magnate had his badge, which he displayed on his horse-furniture, on the hangings of his bed, his wall and his chair of state, besides giving it as a “livery” to his servants and followers. Such were the knots of Stafford, Bourchier and Wake, the scabbard-crampet of La Warr, the sickle of Hungerford, the swan of Toesni, Bohun and Lancaster, the dun-bull of Nevill, the blue boar of Vere and the bear and ragged staff of Beauchamp, Nevill of Warwick and Dudley of Northumberland. So well known of all were these symbols that a political ballad of 1449 sings of the misfortunes of the great lords without naming one of them, all men understanding what signified the Falcon, the Water Bowge and the Cresset and the other badges of the doggerel. More famous still were the White Hart, the Red Rose, the White Rose, the Sun, the Falcon and Fetterlock, the Portcullis and the many other badges of the royal house. We still call those wars that blotted out the old baronage the Wars of the Roses, and the Prince of Wales’s feathers are as well known to-day as the royal arms. The Flint and Steel of Burgundy make a collar for the order of the Golden Fleece.

Badge of Dacre of Gilsland and Dacre of the North.



Ostrich feather badge of Beaufort, from a garter stall-plate of 1440. The silver feather has a quill gobony silver and azure.

Mottoes.—The motto now accompanies every coat of arms in these islands. Few of these Latin aphorisms, these bald assertions of virtue, high courage, patriotism, piety and loyalty have any antiquity. Some few, however, like the “Espérance” of Percy, were the war-cries of remote ancestors. “I mak’ sicker” of Kirkpatrick recalls pridefully a bloody deed done on a wounded man, and the “Dieu Ayde,” “Agincourt” and “D’Accomplir Agincourt” of the Irish “Montmorencys” and the English Wodehouses and Dalisons, glorious traditions based upon untrustworthy genealogy. The often-quoted punning mottoes may be illustrated by that of Cust, who says “Qui Cust-odit caveat,” a modern example and a fair one. Ancient mottoes as distinct from the war or gathering cry of a house are often cryptic sentences whose meaning might be known to the user and perchance to his mistress. Such are the “Plus est en vous” of Louis de Bruges, the Flemish earl of Winchester, and the “So have I cause” and “Till then thus” of two Englishmen. The word motto is of modern use, our forefathers speaking rather of their “word” or of their “reason.”

Coronets of Rank.—Among accessories of the shield may now be counted the coronets of peers, whose present form is post-medieval. When Edward III. made dukes of his sons, gold circlets were set upon their heads in token of their new dignity. In 1385 John de Vere, marquess of Dublin, was created in the same fashion. Edward VI. extended the honour of the gold circle to earls. Caps of honour were worn with these circles or coronets, and viscounts wore the cap by appointment of James I., Vincent the herald stating that “a verge of pearls on top of the circulet of gold” was added at the creation of Robert Cecil as Viscount Cranborne. At the coronation of Charles I. the viscounts walked in procession with their caps and coronets. A few days before the coronation of Charles II. the privilege of the cap of honour was given to the lowest rank of the peerage, and letters patent of January 1661 assign to them both cap and coronet. The caps of velvet

turned up with miniver, which are now always worn with the peer's coronet, are therefore the ancient caps of honour, akin to that "cap of maintenance" worn by English sovereigns on their coronation days when walking to the Abbey Church, and borne before them on occasions of royal state.

PLATE II.

SIXTEEN SHIELDS FROM A ROLL OF ARMS OF ENGLISH KNIGHTS AND BARONS MADE BY AN ENGLISH PAINTER EARLY IN THE REIGN OF EDWARD III.

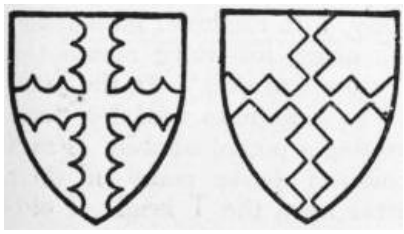
Drawn by William Gibb. *Niagara Litho. Co., Buffalo, N. Y.*

The ancient circles were enriched according to the taste of the bearer, and, although used at creations as symbols of the rank conferred, were worn in the 14th and 15th centuries by men and women of rank without the use signifying a rank in the peerage. Edmund, earl of March, in his will of 1380, named his *sercle ove roses, emeraudes et rubies d'alisaundre en les roses*, and bequeathed it to his daughter. Modern coronets are of silver-gilt, without jewels, set upon caps of crimson velvet turned up with ermine, with a gold tassel at the top. A duke's coronet has the circle decorated with eight gold "strawberry leaves"; that of a marquess has four gold strawberry leaves and four silver balls. The coronet of an earl has eight silver balls, raised upon points, with gold strawberry leaves between the points. A viscount's coronet has on the circle sixteen silver balls, and a baron's coronet six silver balls. On the continent the modern use of coronets is not ordered in the precise English fashion, men of gentle birth displaying coronets which afford but slight indication of the bearer's rank.

Lines.—Eleven varieties of lines, other than straight lines, which divide the shield, or edge our cheverons, pales, bars and the like, are pictured in the heraldry books and named as engrailed, embattled, indented, invected, wavy or undy, nebuly, dancetty, raguly, potenté, dovetailed and urdy.

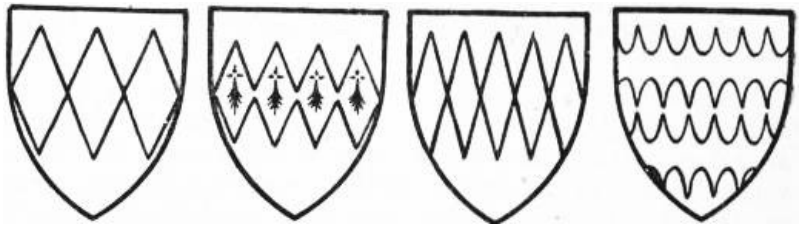
As in the case of many other such lists of the later armorists these eleven varieties need some pruning and a new explanation.

The most commonly found is the line engrailed, which for the student of medieval armory must be associated with the line indented. In its earliest form the line which a roll of arms will describe indifferently as indented or engrailed takes almost invariably the form to which the name indented is restricted by modern armorists.



Mohun.

The cross may serve as our first example. A cross, engrailed or indented, the words being used indifferently, is a cross so deeply notched at the edges that it seems made up of so many lozenge-shaped wedges or fusils. About the middle of the 14th century begins a tendency, resisted in practice by many conservative families, to draw the engrailing lines in the fashion to which modern armorists restrict the word "engrailed," making shallower indentures in the form of lines of half circles. Thus the engrailed cross of the Mohuns takes either of the two forms which we illustrate. Bends follow the same fashion, early bends engrailed or indented being some four or more fusils joined bendwise by their blunt sides, bends of less than four fusils being very rare. Thus also the engrailed or indented saltires, pales or cheverons, the exact number of the fusils which go to the making of these being unconsidered. For the fesse there is another law. The fesse indented or engrailed is made up of fusils as is the engrailed bend. But although early rolls of arms sometimes neglect this detail in their blazon, the fusils making a fesse must always be of an ascertained number. Montagu, earl of Salisbury, bore a fesse engrailed or indented of three fusils only, very few shields imitating this. Medieval armorists will describe his arms as a fesse indented of three indentures, as a fesse fusilly of three pieces, or as a fesse engrailed of three points or pieces, all of these blazons having the same value. The indented fesse on the red shield of the Dynhams has four such fusils of ermine. Four, however, is almost as rare a number as three, the normal form of a fesse indented being that of five fusils as borne by Percys, Pinkenys, Newmarches and many other ancient houses. Indeed, accuracy of blazon is served if the number of fusils in a fesse be named in the cases of threes and fours. Fesses of six fusils are not to be found. Note that bars indented or engrailed are, for a reason which will be evident, never subject to this counting of fusils. Fauconberg, for example, bore "Silver with two bars engrailed, or indented, sable." Displayed on a shield of the flat-iron outline, the lower bar would show fewer fusils than the upper, while on a square banner each bar would have an equal number—usually five or six.



Montagu. Dynham. Percy. Fauconberg.

While bends, cheverons, crosses, saltires and pales often follow, especially in the 15th century, the tendency towards the rounded “engrailing,” fesses keep, as a rule, their bold indentures—neither Percy nor Montagu being ever found with his bearings in aught but their ancient form. Borders take the newer fashion as leaving more room for the charges of the field. But indented chiefs do not change their fashion, although many saw-teeth sometimes take the place of the three or four strong points of early arms, and parti-coloured shields whose party line is indented never lose the bold zig-zag.

West.

While bearing in mind that the two words have no distinctive force in ancient armory, the student and the herald of modern times may conveniently allow himself to blazon the sharp and saw-toothed line as “indented” and the scolloped line as “engrailed,” especially when dealing with the debased armory in which the distinction is held to be a true one and one of the first importance. One error at least he must avoid, and that is the following of the heraldry-book compilers in their use of the word “dancetty.” A “dancetty” line, we are told, is a line having fewer and deeper indentures than the line indented. But no dancetty line could make a bolder dash across the shield than do the lines which the old armorists recognized as “indented.” In old armory we have fesses dancy —commonly called “dances”—bends dancy, or cheverons dancy; there are no chiefs dancy nor borders dancy, nor are there shields blazoned as parted with a dancy line. Waved lines, battled lines and ragged lines need little explanation that a picture cannot give. The word invecked or invected is sometimes applied by old-fashioned heraldic pedants to engrailed lines; later pedants have given it to a line found in modern grants of arms, an engrailed line reversed. Dove-tailed and urdy lines are mere modernisms. Of the very rare nebuly or clouded line we can only say that the ancient form, which imitated the conventional cloud-bank of the old painters, is now almost forgotten, while the bold “wavy” lines of early armory have the word “nebuly” misapplied to them.

The Ordinary Charges.—The writers upon armory have given the name of Ordinaries to certain conventional figures commonly charged upon shields. Also they affect to divide these into Honourable Ordinaries and Sub-Ordinaries without explaining the reason for the superior honour of the Saltire or for the subordination of the Quarter. Disregarding such distinctions, we may begin with the description of the “Ordinaries” most commonly to be found.

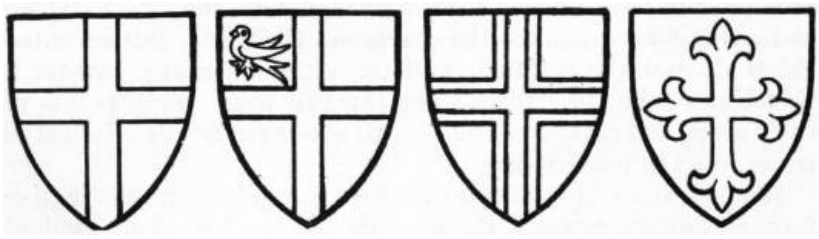
From the first the Cross was a common bearing on English shields, “Silver a cross gules” being given early to St George, patron of knights and of England, for his arms; and under St George’s red cross the English were wont to fight. Our armorial crosses took many shapes, but the “crosses innumerabill” of the Book of St Albans and its successors may be left to the heraldic dictionary makers who have devised them. It is more important to define those forms in use during the middle ages, and to name them accurately after the custom of those who bore them in war, a task which the heraldry books have never as yet attempted with success.

The cross in its simple form needs no definition, but it will be noted that it is sometimes borne “voided” and that in a very few cases it appears as a lesser charge with its ends cut off square, in which case it must be clearly blazoned as “a plain Cross.”

Andrew Harcla, the march-warden, whom Edward II. made an earl and executed as a traitor, bore the arms of St George with a martlet sable in the quarter.

Crevequer of Kent bore “Gold a voided cross gules.”

Newsom (14th century) bore “Azure a fesse silver with three plain crosses gules.”



St George. Harcla. Crevequer. Latimer.

Next to the plain Cross may be taken the Cross paty, the *croiz patee* or *pate* of old rolls of arms. It has several forms, according to the taste of the artist and the age. So, in the 13th and early 14th centuries, its limbs curve out broadly, while at a later date the limbs become more slender and of even breadth, the ends somewhat resembling fleurs-de-lys. Each of these forms has been seized by the heraldic writers as the type of a distinct cross for which a name must be found, none of them, as a rule, being recognized as a cross paty, a word which has its misapplication elsewhere. Thus the books have “cross patonce” for the earlier form, while “cross clechée” and “cross fleurie” serve for the others. But the true identification of the various crosses is of the first importance to the antiquary, since without it descriptions of the arms on early seals or monuments must needs be valueless. Many instances of this need might be cited from the British Museum catalogue of seals, where, for example, the cross paty of Latimer is described twice as a “cross flory,” six times as a “cross patonce,” but not once by its own name, although there is no better known example of this bearing in England.

Latimer bore “Gules a cross paty gold.”

The cross formy follows the lines of the cross paty save that its broadening ends are cut off squarely.

Chetwode bore “Quarterly silver and gules with four crosses formy countercoloured”—that is to say, the two crosses in the gules are of silver and the two in the silver of gules.

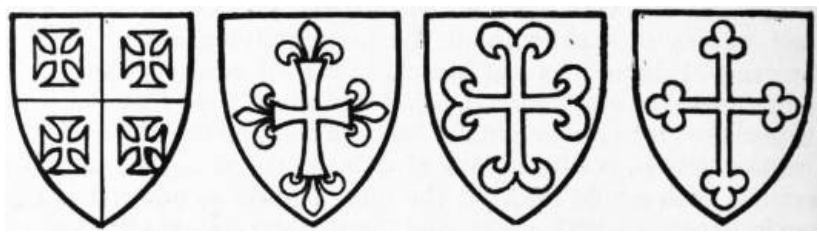
Mill-rinds.

The cross flory or flowered cross, the “cross with the ends flowered”—*od les boutes floretes* as some of the old rolls have it—is, like the cross paty, a mark for the misapprehension of writers on armory, who describe some shapes of the cross paty by its name. Playing upon discovered or fancied variants of the word, they bid us mark the distinctions between crosses “fleur-de-lisée,” “fleury” and “fleurettée,” although each author has his own version of the value which must be given these precious words. But the facts of the medieval practice are clear to those who take their armory from ancient examples and not from phrases plagiarized from the hundredth plagiarist. The flowered cross is one whose limbs end in fleur-de-lys, which spring sometimes from a knop or bud but more frequently issue from the square ends of a cross of the “formy” type.

Swynnerton bore “Silver a flowered cross sable.”

The mill-rind, which takes its name from the iron of a mill-stone—*fer de moline*—must be set with the crosses. Some of the old rolls call it *croiz recercele*, from which armorial writers have leaped to imagine a distinct type. Also they call the mill-rind itself a “cross moline” keeping the word mill-rind for a charge having the same origin but of somewhat differing form. Since this charge became common in Tudor armory it is perhaps better that the original mill-rind should be called for distinction a mill-rind cross.

Willoughby bore “Gules a mill-rind cross silver.”



Chetwode. Swynnerton. Willoughby. Brerelegh.

The crosslet, cross botonny or cross crosletted, is a cross whose limbs, of even breadth,

end as trefoils or treble buds. It is rarely found in medieval examples in the shape—that of a cross with limbs ending in squarely cut plain crosses—which it took during the 16th-century decadence. As the sole charge of a shield it is very rare; otherwise it is one of the commonest of charges.

Brerelegh bore “Silver a crosslet gules.”

Within these modest limits we have brought the greater part of that monstrous host of crosses which cumber the dictionaries. A few rare varieties may be noticed.

Dukinfield bore “Silver a voided cross with sharpened ends.”

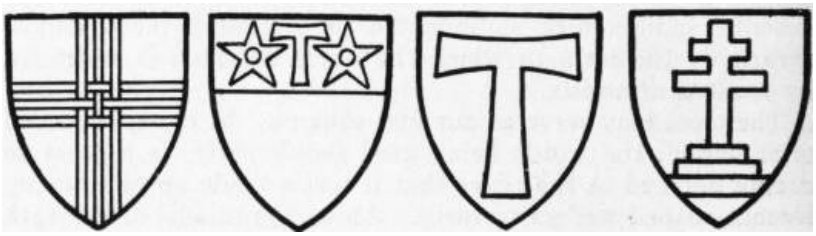
Skirlaw, bishop of Durham (d. 1406), the son of a basket-weaver, bore “Silver a cross of three upright wattles sable, crossed and interwoven by three more.”

Drury bore “Silver a chief vert with a St Anthony’s cross gold between two golden molets, pierced gules.”

Brytton bore “Gold a patriarch’s cross set upon three degrees or steps of gules.”

Hurlestone of Cheshire bore “Silver a cross of four ermine tails sable.”

Melton bore “Silver a Toulouse cross gules.” By giving this cross a name from the counts of Toulouse, its best-known bearers, some elaborate blazonry is spared.

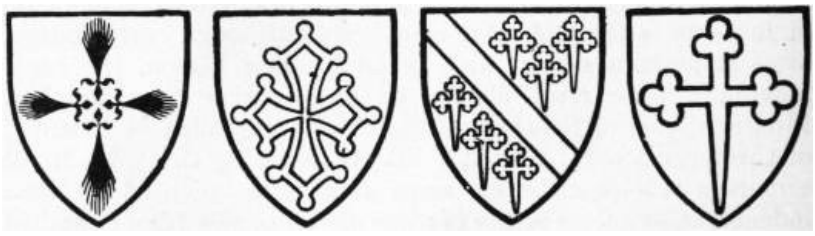


Skirlaw. Drury. St Anthony’s Cross. Brytton.

The crosses paty and formy, and more especially the crosslets, are often borne fitchy, that is to say, with the lower limb somewhat lengthened and ending in a point, for which reason the 15th-century writers call these “crosses fixabill.” In the 14th-century rolls the word “potent” is sometimes used for these crosses fitchy, the long foot suggesting a potent or staff. From this source modern English armorists derive many of their “crosses potent,” whose four arms have the **T** heads of old-fashioned walking staves.

Howard bore “Silver a bend between six crosslets fitchy gules.”

Scott of Congerhurst in Kent bore “Silver a crosslet fitchy sable.”



Hurlestone. Melton. Howard. Scott.

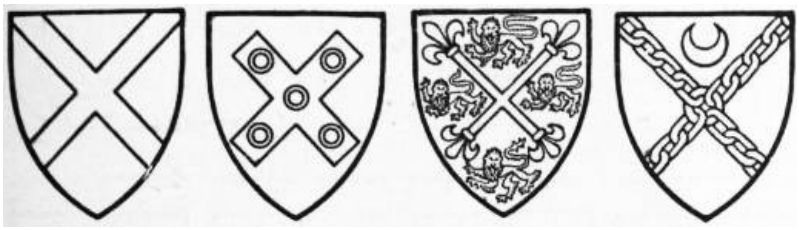
The Saltire is the cross in the form of that on which St Andrew suffered, whence it is borne on the banner of Scotland, and by the Andrew family of Northamptonshire.

Nevile of Raby bore “Gules a saltire silver.”

Nicholas Upton, the 15th-century writer on armory, bore “Silver a saltire sable with the ends couped and five golden rings thereon.”

Aynho bore “Sable a saltire silver having the ends flowered between four leopards gold.”

“Mayster Elwett of Yorke chyre” in a 15th-century roll bears “Silver a saltire of chains sable with a crescent in the chief.”



Nevile. Upton. Aynho. Elwett.

Restwolde bore “Party saltirewise of gules and ermine.”

The chief is the upper part of the shield and, marked out by a line of division, it is taken as one of the Ordinaries. Shields with a plain chief and no more are rare in England, but Tichborne of Tichborne has borne since the 13th century “Vair a chief gold.” According to the heraldry books the chief should be marked off as a third part of the shield, but its depth varies, being broader when charged with devices and narrower when, itself uncharged, it surmounts a charged field. Fenwick bore “Silver a chief gules with six martlets countercoloured,” and in this case the chief would be the half of the shield. Clinging to the belief that the chief must not fill more than a third of the shield, the heraldry books abandon the word in such cases, blazoning them as “party per fesse.”

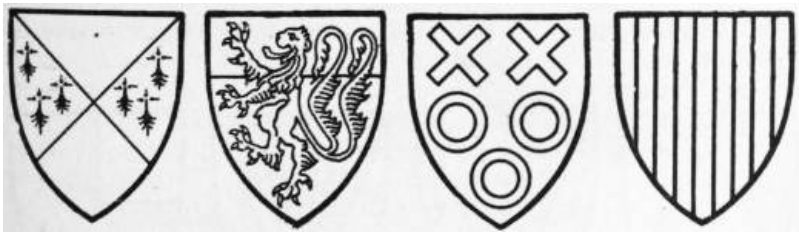
Fenwick.

Hastang bore “Azure a chief gules and a lion with a forked tail over all.”

Walter Kingston seals in the 13th century with a shield of “Two rings or annelets in the chief.”

Hilton of Westmoreland bore “Sable three rings gold and two saltires silver in the chief.”

With the chief may be named the Foot, the nether part of the shield marked off as an Ordinary. So rare is this charge that we can cite but one example of it, that of the shield of John of Skipton, who in the 14th century bore “Silver with the foot indented purple and a lion purple.” The foot, however, is a recognized bearing in France, whose heralds gave it the name of *champagne*.



Restwolde. Hastang. Hilton. Provence.

The Pale is a broad stripe running the length of the shield. Of a single pale and of three pales there are several old examples. Four red pales in a golden shield were borne by Eleanor of Provence, queen of Henry III.; but the number did not commend itself to English armorists. When the field is divided evenly into six pales it is said to be paly; if into four or eight pales, it is blazoned as paly of that number of pieces. But paly of more or less than six pieces is rarely found.

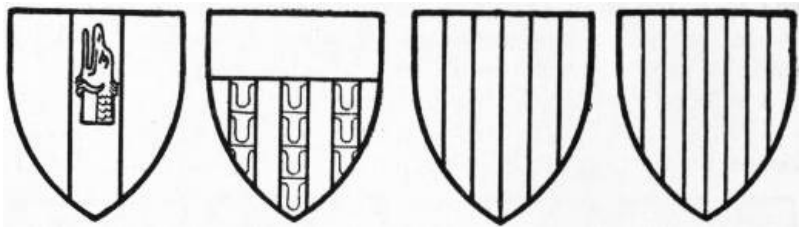
The Yorkshire house of Gascoigne bore “Silver a pale sable with a golden conger’s head thereon, cut off at the shoulder.”

Ferlington bore “Gules three pales vair and a chief gold.”

Strelley bore “Paly silver and azure.”

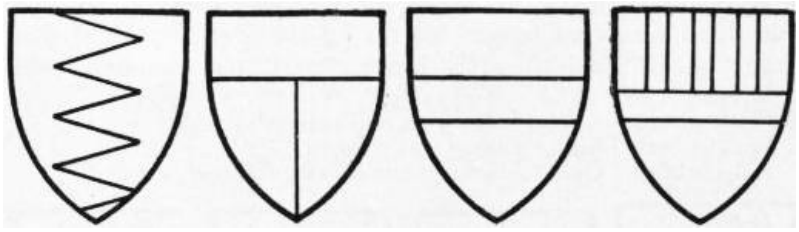
Rothinge bore “Paly silver and gules of eight pieces.”

When the shield or charge is divided palewise down the middle into two tinctures it is said to be “party.” “Party silver and gules” are the arms of the Waldegraves. Bermingham bore “Party silver and sable indented.” Caldecote bore “Party silver and azure with a chief gules.” Such partings of the field often cut through charges whose colours change about on either side of the parting line. Thus Chaucer the poet bore “Party silver and gules with a bend countercoloured.”



Gascoigne. Ferlington. Strelley. Rothinge.

The Fesse is a band athwart the shield, filling, according to the rules of the heraldic writers, a third part of it. By ancient use, however, as in the case of the chief and pale, its width varies with the taste of the painter, narrowing when set in a field full of charges and broadening when charges are displayed on itself. When two or three fesses are borne they are commonly called Bars. “Ermine *four* bars gules” is given as the shield of Sir John Sully, a 14th-century Garter knight, on his stall-plate at Windsor: but the plate belongs to a later generation, and should probably have three bars only. Little bars borne in couples are styled Gemels (twins). The field divided into an even number of bars of alternate colours is said to be barry, barry of six pieces being the normal number. If four or eight divisions be found the number of pieces must be named; but with ten or more divisions the number is unreckoned and “burely” is the word.



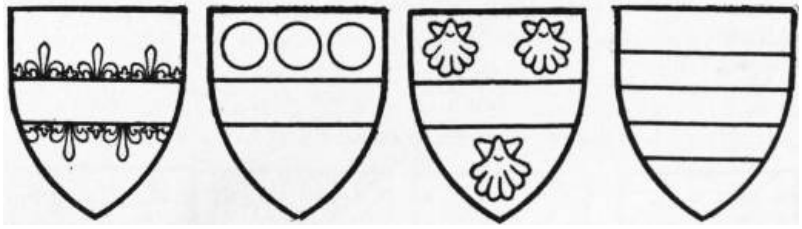
Bermingham. Caldecote. Colevile. Fauconberg.

Colevile of Bitham bore “Gold a fesse gules.”

West bore “Silver a dance (or fesse dancy) sable.”

Fauconberg bore “Gold a fesse azure with three pales gules in the chief.”

Cayvile bore “Silver a fesse gules, flowered on both sides.”



Cayvile. Devereux. Chamberlayne. Harcourt.

Devereux bore “Gules a fesse silver with three roundels silver in the chief.”

Chamberlayne of Northamptonshire bore “Gules a fesse and three scallops gold.”

Harcourt bore “Gules two bars gold.”

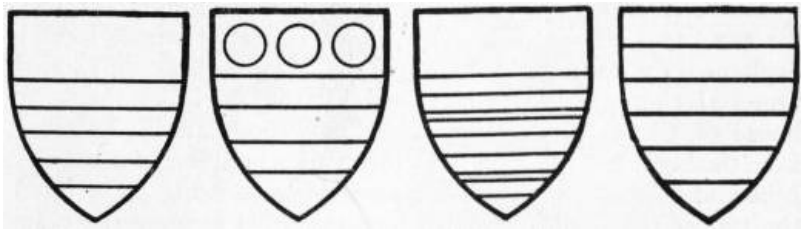
Manners bore “Gold two bars azure and a chief gules.”

Wake bore “Gold two bars gules with three roundels gules in the chief.”

Bussy bore “Silver three bars sable.”

Badlesmere of Kent bore “Silver a fesse between two gemels gules.”

Melsanby bore “Sable two gemels and a chief silver.”



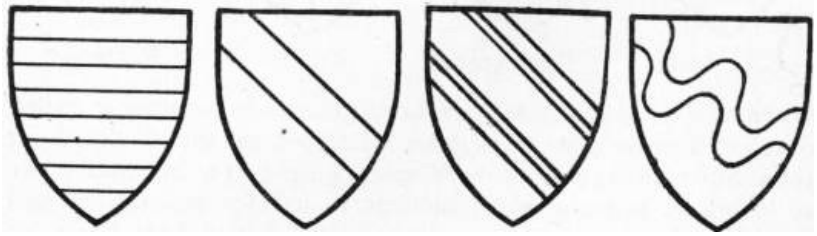
Manners. Wake. Melsanby. Grey.

Grey bore “Barry of silver and azure.”

Fitzalan of Bedale bore “Barry of eight pieces gold and gules.”

Stutevile bore “Burely of silver and gules.”

The Bend is a band traversing the shield aslant, arms with one, two or three bends being common during the middle ages in England. Bendy shields follow the rule of shields paly and barry, but as many as ten pieces have been counted in them. The bend is often accompanied by a narrow bend on either side, these companions being called Cotices. A single narrow bend, struck over all other charges, is the Baston, which during the 13th and 14th centuries was a common difference for the shields of the younger branches of a family, coming in later times to suggest itself as a difference for bastards.



Fitzalan of Bedale. Mauley. Harley. Wallop.

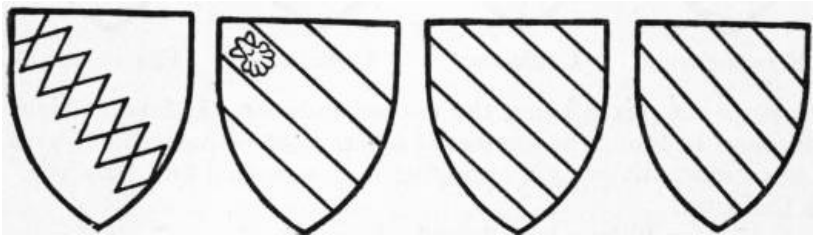
The Bend Sinister, the bend drawn from right to left beginning at the “sinister” corner of the shield, is reckoned in the heraldry books as a separate Ordinary, and has a peculiar significance accorded to it by novelists. Medieval English seals afford a group of examples of Bends Sinister and Bastons Sinister, but there seems no reason for taking them as anything more than cases in which the artist has neglected the common rule.

Mauley bore “Gold a bend sable.”

Harley bore “Gold a bend with two cotices sable.”

Wallop bore “Silver a bend wavy sable.”

Ralegh bore “Gules a bend indented, or engrailed, silver.”



Ralegh. Tracy. Bodrugan. St Philibert.

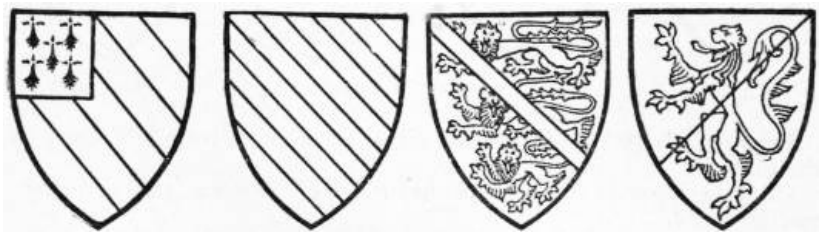
Tracy bore “Gold two bends gules with a scallop sable in the chief between the bends.”

Bodrugan bore “Gules three bends sable.”

St Philibert bore “Bendy of six pieces, silver and azure.”

Bishopsdon bore “Bendy of six pieces, gold and azure, with a quarter ermine.”

Montfort of Whitchurch bore “Bendy of ten pieces gold and azure.”



Bishopsdon. Montfort. Lancaster. Fraunceys.

Henry of Lancaster, second son of Edmund Crouchback, bore the arms of his cousin, the king of England, with the difference of “a baston azure.”

Adam Fraunceys (14th century) bore “Party gold and sable bendwise with a lion countercoloured.” The parting line is here commonly shown as “sinister.”

The Cheveron, a word found In medieval building accounts for the barge-boards of a gable, is an Ordinary whose form is explained by its name. Perhaps the very earliest of English armorial charges, and familiarized by the shield of the great house of Clare, it became exceedingly popular in England. Like the bend and the chief, its width varies in different examples. Likewise its angle varies, being sometimes so acute as to touch the top of the shield, while in post-medieval armory the point is often blunted beyond the right angle. One, two or three cheverons occur in numberless shields, and five cheverons have been found. Also there are some examples of the bearing of cheveronny.

The earls of Gloucester of the house of Clare bore “Gold three cheverons gules” and the Staffords derived from them their shield of “Gold a cheveron gules.”

Chaworth bore “Azure two cheverons gold.”

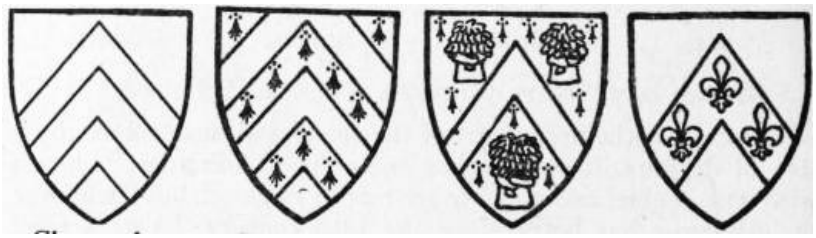
Peytevyn bore “Cheveronny of ermine and gules.”

St Quintin of Yorkshire bore “Gold two cheverons gules and a chief vair.”

Sheffield bore “Ermine a cheveron gules between three sheaves gold.”

Cobham of Kent bore “Gules a cheveron gold with three fleurs-de-lys azure thereon.”

Fitzwalter bore “Gold a fesse between two cheverons gules.”



Chaworth. Peytevyn. Sheffield. Cobham.

Shields parted cheveronwise are common in the 15th century, when they are often blazoned as having chiefs “enty” or grafted. Aston of Cheshire bore “Party sable and silver cheveronwise” or “Silver a chief enty sable.”

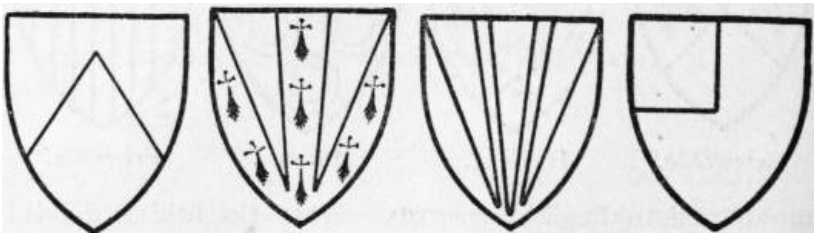
The Pile or stake (*estache*) is a wedge-shaped figure jutting from the chief to the foot of the shield, its name allied to the pile of the bridge-builder. A single pile is found in the notable arms of Chandos, and the black piles in the ermine shield of Hollis are seen as an example of the bearing of two piles. Three piles are more easily found, and when more than one is represented the points are brought together at the foot. In ancient armory piles in a shield are sometimes reckoned as a variety of pales, and a Basset with three piles on his shield is seen with three pales on his square banner.

Chandos bore “Gold a pile gules.”

Bryene bore “Gold three piles azure.”

The Quarter is the space of the first quarter of the shield divided crosswise into four parts. As an Ordinary it is an ancient charge and a common one in medieval England, although it has all but disappeared from modern heraldry books, the “Canton,” an alleged “diminutive,” unknown to early armory, taking its place. Like the other Ordinaries, its size is found to vary with the scheme of the shield’s charges, and this has persuaded those armorists who must needs call a narrow bend a “bendlet,” to the invention of the “Canton,” a word which in the

sense of a quarter or small quarter appears for the first time in the latter part of the 15th century. Writers of the 14th century sometimes give it the name of the Cantel, but this word is also applied to the void space on the opposite side of the chief, seen above a bend.



Aston. Hollis. Bryene. Blencowe.

Blencowe bore “Gules a quarter silver.”

Basset of Drayton bore “Gold three piles (or pales) gules with a quarter ermine.”

Wydvile bore “Silver a fesse and a quarter gules.”

Odingseles bore “Silver a fesse gules with a molet gules in the quarter.”

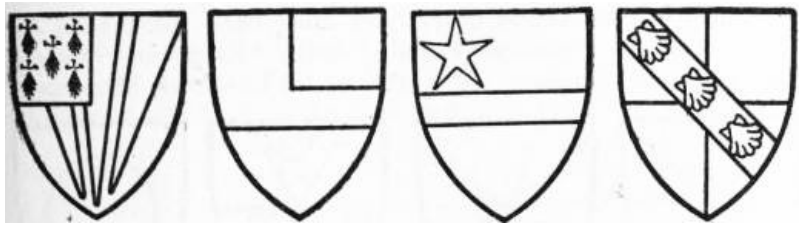
Robert Dene of Sussex (14th century) bore “Gules a quarter azure ‘embelif,’ or aslant, and thereon a sleeved arm and hand of silver.”

Shields or charges divided crosswise with a downward line and a line athwart are said to be quarterly. An ancient coat of this fashion is that of Say who bore (13th century) “Quarterly gold and gules”—the first and fourth quarters being gold and the second and third red. Ever or Eure bore the same with the addition of “a bend sable with three silver scallops thereon.” Phelip, Lord Bardolf, bore “Quarterly gules and silver with an eagle gold in the quarter.”

Plate III.

SHIELDS OF ARMS OF “LE ROY DARRABE,” “LE ROY DE TARSSE,” AND OTHER SOVEREIGNS. MOSTLY MYTHICAL. TAKEN FROM A ROLL OF ARMS MADE BY AN ENGLISH PAINTER IN THE TIME OF HENRY VI.

Drawn by William Gibb. *Niagara Litho. Co., Buffalo, N. Y.*



Basset. Wydvile. Odingseles. Ever.

With the 15th century came a fashion of dividing the shield into more than four squares, six and nine divisions being often found in arms of that age. The heraldry books, eager to work out problems of blazonry, decide that a shield divided into six squares should be described as “Party per fesse with a pale counterchanged,” and one divided into nine squares as bearing “a cross quarter-pierced.” It seems a simpler business to follow a 15th-century fashion and to blazon such shields as being of six or nine “pieces.” Thus John Garther (15th century) bore “Nine pieces erminees and ermine” and Whitgreave of Staffordshire “Nine pieces of azure and of Stafford’s arms, which are gold with a cheveron gules.” The Tallow Chandlers of London had a grant in 1456 of “Six pieces azure and silver with three doves in the azure, each with an olive sprig in her beak.”

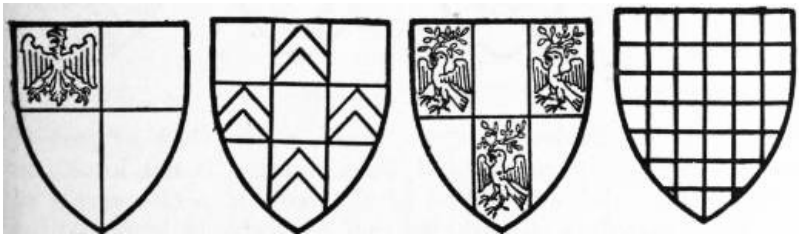
Squared into more than nine squares the shield becomes checky or checkered and the number is not reckoned. Warenne’s checker of gold and azure is one of the most ancient coats in England and checkered fields and charges follow in great numbers. Even lions have been borne checkered.

Warenne bore “Checky gold and azure.”

Clifford bore the like with “a fesse gules.”

Cobham bore “Silver a lion checky gold and sable.”

Arderne bore “Ermine a fesse checky gold and gules.”



Phelip Lord Bardolf. Whitgreave. Tallow Chandlers. Warenne.

Such charges as this fesse of Arderne’s and other checkered fesses, bars, bends, borders and the like, will commonly bear but two rows of squares, or three at the most. The heraldry writers are ready to note that when two rows are used “counter-compony” is the word in place of checky, and “compony-counter-compony” in the case of three rows. It is needless to say that these words have neither practical value nor antiquity to commend them. But bends and bastons, labels, borders and the rest are often coloured with a single row of alternating tinctures. In this case the pieces are said to be “gobony.” Thus John Cromwell (14th century) bore “Silver a chief gules with a baston gobony of gold and azure.”

The scocheon or shield used as a charge is found among the earliest arms. Itself charged with arms, it served to indicate alliance by blood or by tenure with another house, as in the bearings of St Owen whose shield of “Gules with a cross silver” has a scocheon of Clare in the quarter. In the latter half of the 15th century it plays an important part in the curious marshalling of the arms of great houses and lordships.

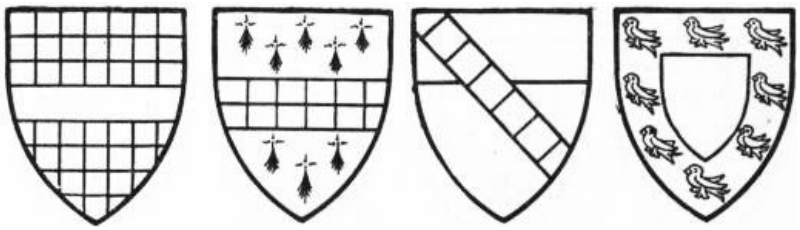
Erpingham bore “Vert a scocheon silver with an orle (or border) of silver martlets.”

Davillers bore at the battle of Boroughbridge “Silver three scocheons gules.”

The scocheon was often borne voided or pierced, its field cut away to a narrow border. Especially was this the case in the far North, where the Balliols, who bore such a voided scocheon, were powerful. The voided scocheon is wrongly named in all the heraldry books as an orle, a term which belongs to a number of small charges set round a central charge. Thus the martlets in the shield of Erpingham, already described, may be called an orle of martlets or a border of martlets. This misnaming of the voided scocheon has caused a curious misapprehension of its form, even Dr Woodward, in his *Heraldry, British and Foreign*, describing the “orle” as “a narrow border detached from the edge of the shield.” Following this definition modern armorial artists will, in the case of quartered arms, draw the “orle” in a first or second quarter of a quartered shield as a rectangular figure and in a third or fourth quarter as a scalene triangle with one arched side. Thereby the original voided scocheon changes into forms without meaning.

Balliol bore “Gules a voided scocheon silver.”

Surtees bore “Ermine with a quarter of the arms of Balliol.”



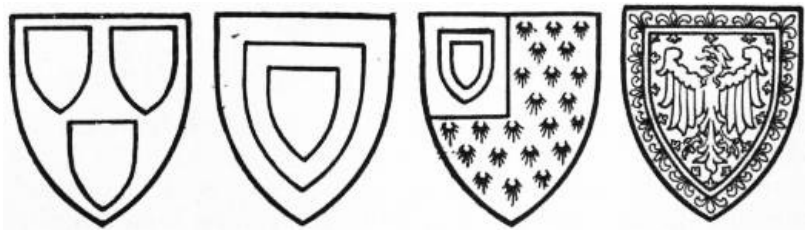
Clifford. Arderne. Cromwell. Erpingham.

The *Tressure* or flowered tressure is a figure which is correctly described by Woodward's incorrect description of the orle as cited above, being a narrow inner border of the shield. It is distinguished, however, by the fleurs-de-lys which decorate it, setting off its edges. The double tressure which surrounds the lion in the royal shield of Scotland, and which is borne by many Scottish houses who have served their kings well or mated with their daughters, is carefully described by Scottish heralds as "flowered and counter-flowered," a blazon which is held to mean that the fleurs-de-lys show head and tail in turn from the outer rim of the outer tressure and from the inner rim of the innermost. But this seems to have been no essential matter with medieval armorists and a curious 15th-century enamelled roundel of the arms of Vampage shows that in this English case the flowering takes the more convenient form of allowing all the lily heads to sprout from the outer rim.

Vampage bore "Azure an eagle silver within a flowered tressure silver."

The king of Scots bore "Gold a lion within a double tressure flowered and counterflowered gules."

Felton bore "Gules two lions passant within a double tressure flory silver."



Davillers. Balliol. Surtees. Vampage.

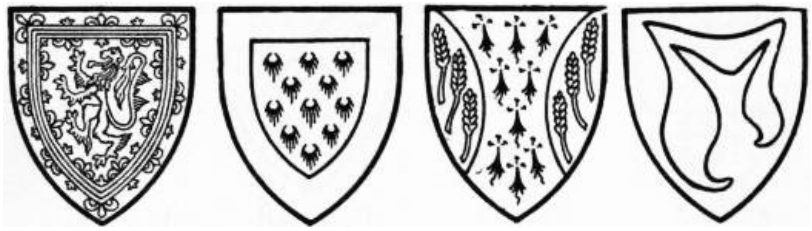
The Border of the shield when marked out in its own tincture is counted as an Ordinary. Plain or charged, it was commonly used as a difference. As the principal charge of a shield it is very rare, so rare that in most cases where it apparently occurs we may, perhaps, be following medieval custom in blazoning the shield as one charged with a scocheon and not with a border. Thus Hondescote bore "Ermine a border gules" or "Gules a scocheon ermine."

Somerville bore "Burely silver and gules and a border azure with golden martlets."

Paynel bore "Silver two bars sable with a border, or orle, of martlets gules."

The Flaunches are the flanks of the shield which, cut off by rounded lines, are borne in pairs as Ordinaries. These charges are found in many coats devised by 15th-century armorists. "Ermine two flaunches azure with six golden wheat-ears" was borne by John Greyby of Oxfordshire (15th century).

The Label is a narrow fillet across the upper part of the chief, from which hang three, four, five or more pendants, the pendants being, in most old examples, broader than the fillet. Reckoned with the Ordinaries, it was commonly used as a means of differencing a cadet's shield, and in the heraldry books it has become the accepted difference for an eldest son, although the cadets often bore it in the middle ages. John of Hastings bore in 1300 before Carlaverock "Gold a sleeve (or maunche) gules," while Edmund his brother bore the same arms with a sable label. In modern armory the pendants are all but invariably reduced to three, which, in debased examples, are given a dovetailed form while the ends of the fillet are cut off.



Scotland. Hondescote. Greyby. Hastings.

The Fret, drawn as a voided lozenge interlaced by a slender saltire, is counted an Ordinary. A charge in such a shape is extremely rare in medieval armory, its ancient form when the field is covered by it being a number of bastons—three being the customary number—interlaced by as many more from the sinister side. Although the whole is described as a fret in certain English blazons of the 15th century, the adjective “fretty” is more commonly used. Trussel’s fret is remarkable for its bezants at the joints, which stand, doubtless, for the golden nail-heads of the “trellis” suggested by his name. Curwen, Wyvile and other northern houses bearing a fret and a chief have, owing to their fashion of drawing their frets, often seen them changed by the heraldry books into “three cheverons braced or interlaced.”

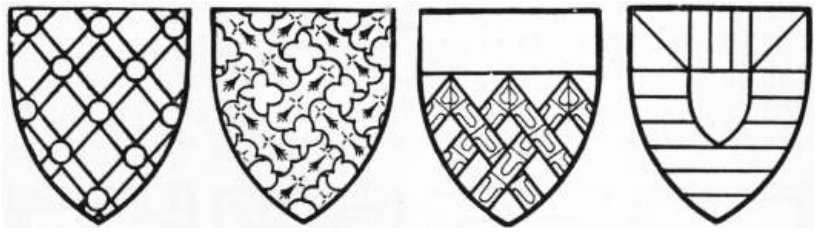
Huddlestone bore “Gules fretty silver.”

Trussel bore “Silver fretty gules, the joints bezanty.”

Hugh Giffard (14th century) bore “Gules with an engrailed fret of ermine.”

Wyvile bore “Gules fretty vair with a chief gold.”

Boxhull bore “Gold a lion azure fretty silver.”



Trussel. Giffard. Wyvile. Mortimer.

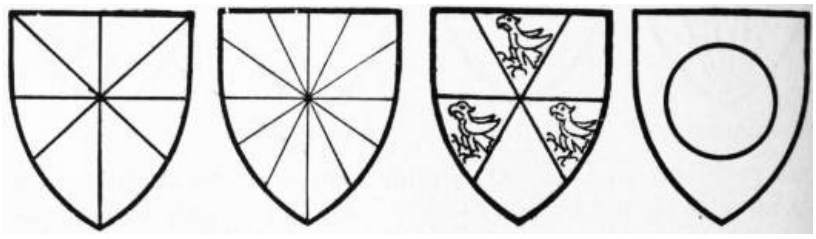
Another Ordinary is the Giron or Gyron—a word now commonly mispronounced with a hard “g.” It may be defined as the lower half of a quarter which has been divided bendwise. No old example of a single giron can be found to match the figure in the heraldry books. Gironny, or gyronny, is a manner of dividing the field into sections, by lines radiating from a centre point, of which many instances may be given. Most of the earlier examples have some twelve divisions although later armory gives eight as the normal number, as Campbell bears them.

Bassingbourne bore “Gironny of gold and azure of twelve pieces.”

William Stoker, who died Lord Mayor of London in 1484, bore “Gironny of six pieces azure and silver with three popinjays in the silver pieces.”

A pair of girons on either side of a chief were borne in the strange shield of Mortimer, commonly blazoned as “Barry azure and gold of six pieces, the chief azure with two pales and two girons gold, a scocheon silver over all.” An early example shows that this shield began as a plain field with a gobony border.

With the Ordinaries we may take the Roundels or Pellets, disks or balls of various colours. Ancient custom gives the name of a bezant to the golden roundel, and the folly of the heraldic writers has found names for all the others, names which may be disregarded together with the belief that, while bezants and silver roundels, as representing coins, must be pictured with a flat surface, roundels of other hues must needs be shaded by the painter to represent rounded balls. Rings or Annelets were common charges in the North, where Lowthers, Musgraves and many more, differenced the six rings of Vipont by bearing them in various colours.



Campbell. Bassingbourne. Stoker. Burlay.

Burlay of Wharfdale bore “Gules a bezant.”

Courtenay, earl of Devon, bore “Gold three roundels gules with a label azure.”

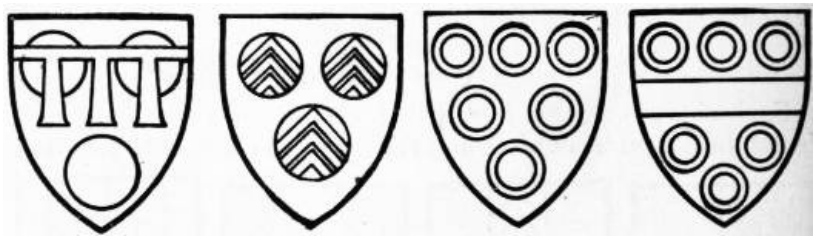
Caraunt bore “Silver three roundels azure, each with three cheverons gules.”

Vipont bore “Gold six annelets gules.”

Avenel bore “Silver a fesse and six annelets (*aunels*) gules.”

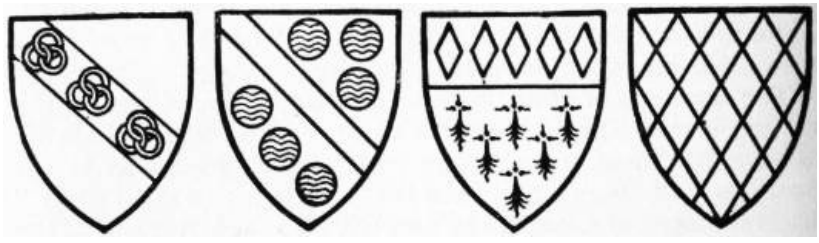
Hawberk of Stapleford bore “Silver a bend sable charged with three pieces of a mail hawberk, each of three linked rings of gold.”

Stourton bore “Sable a bend gold between six fountains.” The fountain is a roundel charged with waves of white and blue.



Courtenay. Caraunt. Vipont. Avenel.

The Lozenge is linked in the heraldry book with the Fusil. This Fusil is described as a lengthened and sharper lozenge. But it will be understood that the Fusil, other than as part of an engrailed or indented bend, pale or fesse, is not known to true armory. Also it is one of the notable achievements of the English writers on heraldry that they should have allotted to the lozenge, when borne voided, the name of Mascle. This “mascle” is the word of the oldest armorists for the unvoided charge, the voided being sometimes described by them as a lozenge, without further qualifications. Fortunately the difficulty can be solved by following the late 14th-century custom in distinguishing between “lozenges” and “voided lozenges” and by abandoning altogether this misleading word Mascle.



Hawberk. Stourton. Charles. Fitzwilliam.

Thomas of Merstone, a clerk, bore on his seal in 1359 “Ermine a lozenge with a pierced molet thereon.”

Braybroke bore “Silver seven voided lozenges gules.”

Charles bore “Ermine a chief gules with five golden lozenges. thereon.”

Fitzwilliam bore “Lozengy silver and gules.”

Billets are oblong figures set upright. Black billets in the arms of Delves of Cheshire stand for “delves” of earth and the gads of steel in the arms of the London Ironmongers’ Company took a somewhat similar form.

Sir Ralph Mounchensy bore in the 14th century “Silver a cheveron between three billets sable.”

Haggerston bore “Azure a bend with cotices silver and three billets sable on the bend.”

With the Billet, the Ordinaries, uncertain as they are in number, may be said to end. But we may here add certain armorial charges which might well have been counted with them.

First of these is the Molet, a word corrupted in modern heraldry to Mullet, a fish-like change with nothing to commend it. This figure is as a star of five or six points, six points being perhaps the commonest form in old examples, although the sixth point is, as a rule, lost during the later period. Medieval armorists are not, it seems, inclined to make any distinction between molets of five and six points, but some families, such as the Harpedens and Asshetons, remained constant to the five-pointed form. It was generally borne pierced with a round hole, and then represents, as its name implies, the rowel of a spur. In ancient rolls of arms the word Rowel is often used, and probably indicated the pierced molet. That the piercing was reckoned an essential difference is shown by a roll of the time of Edward II., in which Sir John of Pabenham bears “Barry azure and silver, with a bend gules and three molets gold thereon,” arms which Sir John his son differences by piercing the molets. Beside these names is that of Sir Walter Baa with “Gules a cheveron and three rowels silver,” rowels which are shown on seals of this family as pierced molets. Probably an older bearing than the molet, which would be popularized when the rowelled spur began to take the place of the prick-spur, is the Star or Estoile, differing from the molet in that its five or six points are wavy. It is possible that several star bearings of the 13th century were changed in the 14th for molets. The star is not pierced in the fashion of the molet; but, like the molet, it tends to lose its sixth point in armory of the decadence. Suns, sometimes blazoned in old rolls as Sun-rays—*rays de soleil*—are pictured as unpierced molets of many points, which in rare cases are waved.

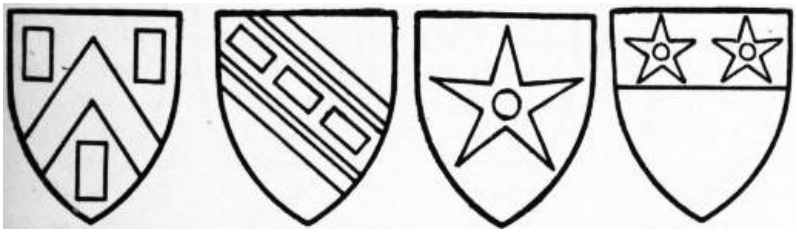
Harpeden bore “Silver a pierced molet gules.”

Gentil bore “Gold a chief sable with two molets goles pierced gules.”

Grimston bore “Silver a fesse sable and thereon three molets silver pierced gules.”

Ingleby of Yorkshire bore “Sable a star silver.”

Sir John de la Haye of Lincolnshire bore “Silver a sun gules.”



Mounchensy. Haggerston. Harpeden. Gentil.

The Crescent is a charge which has to answer for many idle tales concerning the crusading ancestors of families who bear it. It is commonly borne with both points uppermost, but when representing the waning or the waxing moon—decrescent or increscent—its horns are turned to the sinister or dexter side of the shield.

Peter de Marines (13th century) bore on his seal a shield charged with a crescent in the chief.

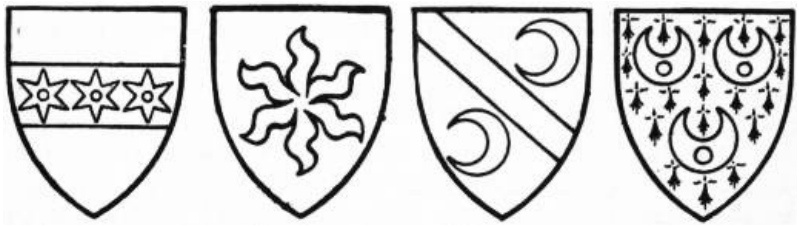
William Gobioun (14th century) bore “A bend between two waxing moons.”

Longchamp bore “Ermine three crescents gules, pierced silver.”

Tinctures.—The tinctures or hues of the shield and its charges are seven in number—gold or yellow, silver or white, red, blue, black, green and purple. Medieval custom gave, according to a rule often broken, “gules,” “azure” and “sable” as more high-sounding names for the red, blue and black. Green was often named as “vert,” and sometimes as “synobill,” a word which as “sinople” is used to this day by French armorists. The song of the siege of Carlaverock and other early documents have red, gules or “vermeil,” sable or black, azure or blue, but gules, azure, sable and vert came to be recognized as armorists’ adjectives, and an early 15th-century romance discards the simple words deliberately, telling us of its hero that

“His shield was black and blue, sanz fable,
Barred of azure and of sable.”

But gold and silver served as the armorists' words for yellows and whites until late in the 16th century, when gold and silver made way for "or" and "argent," words which those for whom the interest of armory lies in its liveliest days will not be eager to accept. Likewise the colours of "sanguine" and "tenné" brought in by the pedants to bring the tinctures to the mystical number of nine may be disregarded.



Grimston. Ingilby. Gobioun. Longchamp.

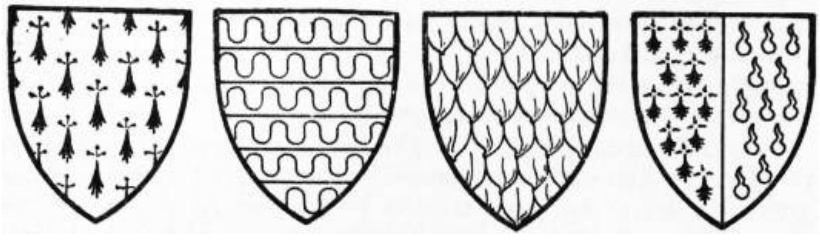
A certain armorial chart of the duchy of Brabant, published in 1600, is the earliest example of the practice whereby later engravers have indicated colours in uncoloured plates by the use of lines and dots. Gold is indicated by a powdering of dots; silver is left plain. Azure is shown by horizontal shading lines; gules by upright lines; sable by cross-hatching of upright and horizontal lines. Diagonal lines from sinister to dexter indicate purple; vert is marked with diagonal lines from dexter to sinister. The practice, in spite of a certain convenience, has been disastrous in its cramping effects on armorial art, especially when applied to seals and coins.

Besides the two "metals" and five "colours," fields and charges are varied by the use of the furs ermine and vair. Ermine is shown by a white field flecked with black ermine tails, and vair by a conventional representation of a fur of small skins sewn in rows, white and blue skins alternately. In the 15th century there was a popular variant of ermine, white tails upon a black field. To this fur the books now give the name of "ermines"—a most unfortunate choice, since ermines is a name used in old documents for the original ermine. "Erminees," which has at least a 15th-century authority, will serve for those who are not content to speak of "sable ermined with silver." Vair, although silver and blue be its normal form, may be made up of gold, silver or ermine, with sable or gules or vert, but in these latter cases the colours must be named in the blazon. To the vairs and ermines of old use the heraldry books have added "erminois," which is a gold field with black ermine fails, "pean," which is "erminois" reversed, and "erminites," which is ermine with a single red hair on either side of each black tail. The vairs, mainly by misunderstanding of the various patterns found in old paintings, have been amplified with "countervair," "potent," "counter-potent" and "vair-en-point," no one of which merits description.

No shield of a plain metal or colour has ever been borne by an Englishman, although the knights at Carlaverock and Falkirk saw Amaneu d'Albret with his banner all of red having no charge thereon. Plain ermine was the shield of the duke of Brittany and no Englishman challenged the bearing. But Beauchamp of Hatch bore simple vair, Ferrers of Derby "Vairy gold and gules," and Ward "Vairy silver and sable." Gresley had "Vairy ermine and gules," and Beche "Vairy silver and gules."

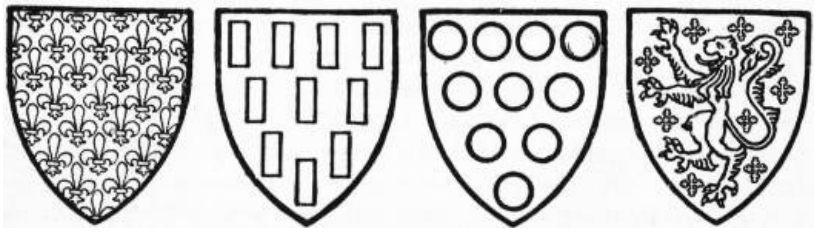
Only one English example has hitherto been discovered of a field covered not with a fur but with overlapping feathers. A 15th-century book of arms gives "Plumetty of gold and purple" for "Mydlam in Coverdale."

Drops of various colours which variegate certain fields and charges are often mistaken for ermine tails when ancient seals are deciphered. A simple example of such spattering is in the shield of Grayndore, who bore "Party ermine and vert, the vert dropped with gold." Sir Richard le Brun (14th century) bore "Azure a silver lion dropped with gules."



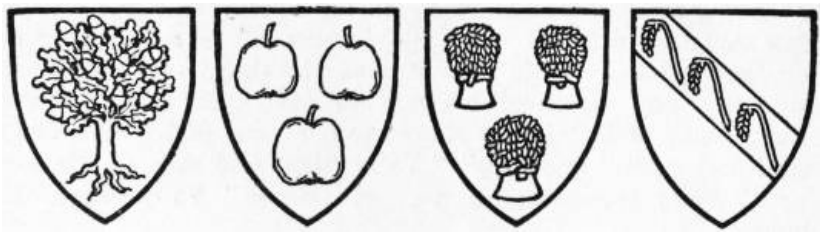
Brittany. Beauchamp. Mydlam. Grayndorge.

A very common variant of charges and fields is the sowing or “powdering” them with a small charge repeated many times. Mortimer of Norfolk bore “gold powdered with fleurs-de-lys sable” and Edward III. quartered for the old arms of France “Azure powdered with fleurs-de-lys gold,” such fields being often described as flowered or flory. Golden billets were scattered in Cowdray’s red shield, which is blazoned as “Gules billety gold,” and bezants in that of Zouche, which is “Gules bezanty with a quarter ermine.” The disposition of such charges varied with the users. Zouche as a rule shows ten bezants placed four, three, two and one on his shield, while the old arms of France in the royal coat allows the pattern of flowers to run over the edge, the shield border thus showing halves and tops and stalk ends of the fleurs-de-lys. But the commonest of these powderings is that with crosslets, as in the arms of John la Warr “Gules crusily silver with a silver lion.”



Mortimer. Cowdray. Zouche. La Warr.

Trees, Leaves and Flowers.—Sir Stephen Cheyndut, a 13th-century knight, bore an oak tree, the *cheyne* of his first syllable, while for like reasons a Piriton had a pear tree on his shield. Three pears were borne (*temp.* Edward III.) by Nicholas Stivecle of Huntingdonshire, and about the same date is Applegarth’s shield of three red apples in a silver field. Leaves of burdock are in the arms (14th century) of Sir John de Lisle and mulberry leaves in those of Sir Hugh de Morieus. Three roots of trees are given to one Richard Rotour in a 14th-century roll. Malherbe (13th century) bore the “evil herb”—a teazle bush. Pineapples are borne here and there, and it will be noted that armorists have not surrendered this, our ancient word for the “fir-cone,” to the foreign *ananas*. Out of the cornfield English armory took the sheaf, three sheaves being on the shield of an earl of Chester early in the 13th century and Sheffield bearing sheaves for a play on his name. For a like reason Peverel’s sheaves were sheaves of pepper. Rye bore three ears of rye on a bend, and Graindorge had barley-ears. Flowers are few in this field of armory, although lilies with their stalks and leaves are in the grant of arms to Eton College. Ousethorpe has water flowers, and now and again we find some such strange charges as those in the 15th-century shield of Thomas Porthelyne who bore “Sable a cheveron gules between three ‘popyebolles,’ or poppy-heads vert.”



Cheyndut. Applegarth. Chester. Rye.

The fleur-de-lys, a conventional form from the beginnings of armory, might well be taken amongst the “ordinaries.” In England as in France it is found in great plenty.

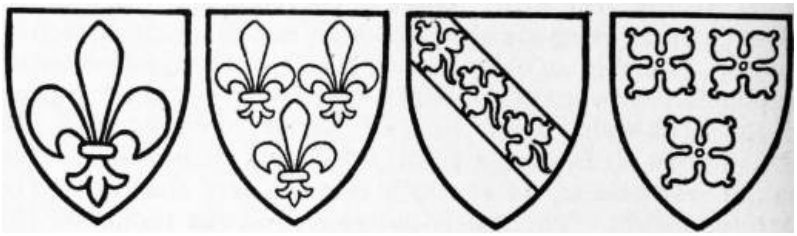
Aguylon bore “Gules a fleur-de-lys silver.”

Peyferer bore “Silver three fleur-de-lys sable.”

Trefoils are very rarely seen until the 15th century, although Hervey has them, and Gausill, and a Bosville coat seems to have borne them. They have always their stalk left hanging to them. Vincent, Hattecliffe and Massingberd all bore the quatrefoil, while the Bardolfs, and the Quincys, earls of Winchester, had cinqfoils. The old rolls of arms made much confusion between cinqfoils and sixfoils (*quintefoilles e sisfoilles*) and the rose. It is still uncertain how far that confusion extended amongst the families which bore these charges. The cinqfoil and sixfoil, however, are all but invariably pierced in the middle like the spur rowel, and the rose’s blunt-edged petals give it definite shape soon after the decorative movement of the

Eton College.

Edwardian age began to carve natural buds and flowers in stone and wood.



Aguylon. Peyferer. Hervey. Vincent.

Hervey bore “Gules a bend silver with three trefoils vert thereon.”

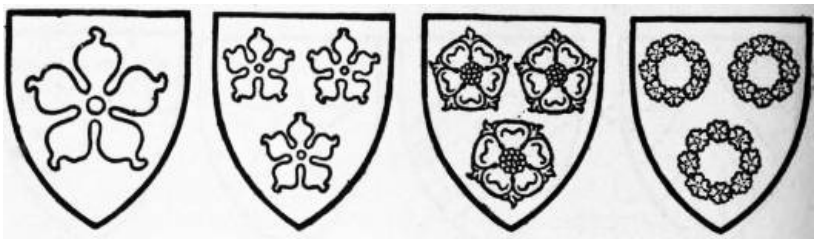
Vincent bore “Azure three quatrefoils silver.”

Quincy bore “Gules a cinqfoil silver.”

Bardolf of Wormegay bore “Gules three cinqfoils silver.”

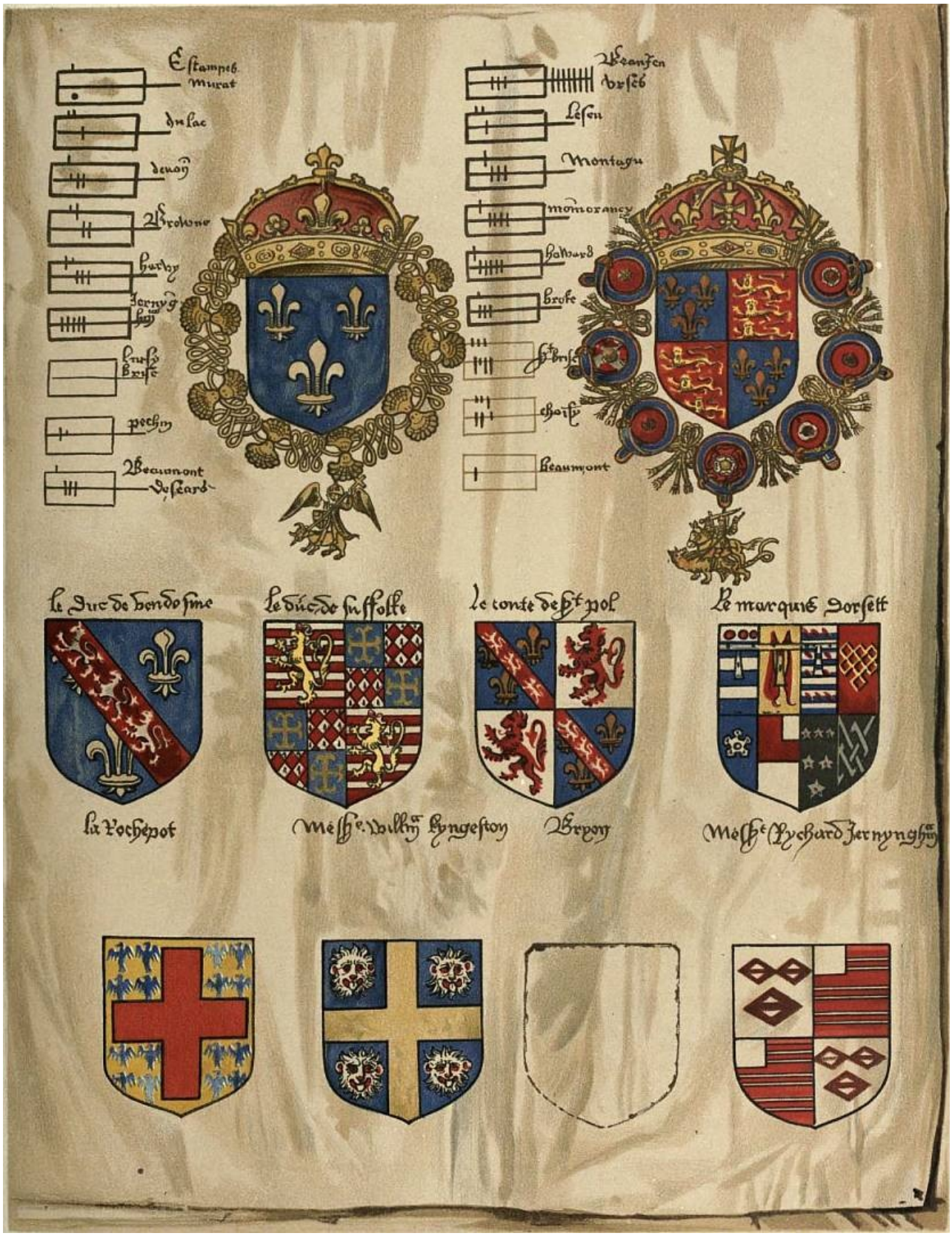
Cosington bore “Azure three roses gold.”

Hilton bore “Silver three chaplets or garlands of red roses.”



Quincy. Bardolf. Cosington. Hilton.

Beasts and Birds.—The book of natural history as studied in the middle ages lay open at the chapter of the lion, to which royal beast all the noble virtues were set down. What is the oldest armorial seal of a sovereign prince as yet discovered bears the rampant lion of Flanders. In England we know of no royal shield earlier than that first seal of Richard I. which has a like device. A long roll of our old earls, barons and knights wore the lion on their coats—Lacy, Marshal, Fitzalan and Montfort, Percy, Mowbray and Talbot. By custom the royal beast is shown as rampant, touching the ground with but one foot and clawing at the air in noble rage. So far is this the normal attitude of a lion that the adjective “rampant” was often dropped, and we have leave and good authority for blazoning the rampant beast simply as “a lion,” leave which a writer on armory may take gladly to the saving of much repetition. In France and Germany this licence has always been the rule, and the modern English herald’s blazon of “Gules a lion rampant or” for the arms of Fitzalan, becomes in French *de gueules au lion d’or* and in German *in Rot ein goldener Loewe*. Other positions must be named with care and the prowling “lion passant” distinguished from the rampant beast, as well as from such rarer shapes as the couchant lion, the lion sleeping, sitting or leaping. Of these the lion passant is the only one commonly encountered. The lion standing with his forepaws together is not a figure for the shield, but for the crest, where he takes this position for greater stableness upon the helm, and the sitting lion is also found rather upon helms than in shields. For a couchant lion or a dormant lion one must search far afield, although there are some medieval instances. The leaping lion is in so few shields that no maker of a heraldry book has, it would appear, discovered an example. In the books this “lion salient” is described as with the hind paws together on the ground and the fore paws together in the air, somewhat after the fashion of a diver’s first movement. But examples from seals and monuments of the Felbrigges and the Merks show that the leaping lion differed only from the rampant in that he leans somewhat forward in his eager spring. The compiler of the British Museum catalogue of medieval armorial seals, and others equally unfamiliar with medieval armory, invariably describe this position as “rampant,” seeing no distinction from other rampings. As rare as the leaping lion is the lion who looks backward over his shoulder. This position is called “regardant” by modern armorists. The old French blazon calls it *rere regardant or turnaunte le visage arere*, “regardant” alone meaning simply “looking,” and therefore we shall describe it more reasonably in plain English as “looking backward.” The two-headed lion occurs in a 15th-century coat of Mason, and at the same period a monstrous lion of three bodies and one head is borne, apparently, by a Sharingbury.



THE BEGINNING OF A ROLL OF THE ARMS OF THOSE JOUSTING IN A TOURNAMENT HELD ON THE FIELD OF THE CLOTH OF GOLD. BESIDES THE ARMS OF THE KINGS OF FRANCE AND ENGLAND ARE TWO COLUMNS OF "CHEQUES," MARKED WITH THE NAMES AND SCORING POINTS OF THE JOUSTERS.

Drawn by William Gibb. *Niagara Litho. Co., Buffalo, N. Y.*

The lion's companion is the leopard. What might be the true form of this beast was a dark thing to the old armorist, yet knowing from the report of grave travellers that the leopard was begotten in spouse-breach between the lion and the pard, it was felt that his shape would favour his sire's. But nice distinctions of outline, even

England.

were they ascertainable, are not to be marked on the tiny seal, or easily expressed by the broad strokes of the shield painter. The leopard was indeed lesser than the lion, but in armory, as in the Noah's arks launched by the old yards, the bear is no bigger than the badger. Then a happy device came to the armorist. He would paint the leopard like the lion at all points. But as the lion looks forward the leopard should look sidelong, showing his whole face. The matter was arranged, and until the end of the middle ages the distinction held and served. The disregarded writers on armory, Nicholas Upton, and his fellows, protested that a lion did not become a leopard by turning his face sidelong, but none who fought in the field under lion and leopard banners heeded this pedantry from cathedral closes. The English king's beasts were leopards in blazon, in ballad and chronicle, and in the mouths of liegeman and enemy. Henry V.'s herald, named from his master's coat, was Leopard Herald; and Napoleon's gazettes never fail to speak of the English leopards. In our own days, those who deal with armory as antiquaries and students of the past will observe the old custom for convenience' sake. Those for whom the interest of heraldry lies in the nonsense-language brewed during post-medieval years may correct the medieval ignorance at their pleasure. The knight who saw the king's banner fly at Falkirk or Crécy tells us that it bore "Gules with three leopards of gold." The modern armorist will shame the uninstructed warrior with "Gules three lions passant gardant in pale or."

As the lion rampant is the normal lion, so the normal leopard is the leopard passant, the adjective being needless. In a few cases only the leopard rises up to ramp in the lion's fashion, and here he must be blazoned without fail as a leopard rampant.

Parts of the lion and the leopard are common charges. Chief of these are the demi-lion and the demi-leopard, beasts complete above their slender middles, even to the upper parts of their lashing tails. Rampant or passant, they follow the customs of the unmaimed brute. Also the heads of lion and leopard are in many shields, and here the armorist of the modern handbooks stumbles by reason of his refusal to regard clearly marked medieval distinctions. The instructed will know a lion's head because it shows but half the face and a leopard's head because it is seen full-face. But the handbooks of heraldry, knowing naught of leopards, must judge by absence or presence of a mane, speaking uncertainly of leopards' faces and lions' heads and faces. Here again the old path is the straighter. The head of a lion, or indeed of any beast, bird or monster, is generally painted as "razed," or torn away with a ragged edge which is pleasantly conventionalized. Less often it is found "couped" or cut off with a sheer line. But the leopard's head is neither razed nor couped, for no neck is shown below it. Likewise the lion's fore leg or paw—"gamb" is the book word—may be borne, razed or coupled. Its normal position is raided upright, although Newdegate seems to have borne "Gules three lions' legs razed silver, the paws downward." With the strange bearing of the lion's whip-like tail cut off at the rump, we may end the list of these oddments.

Fitzalan, earl of Arundel, bore "Gules a lion gold."

Simon de Montfort bore "Gules a silver lion with a forked tail."

Segrave bore "Sable a lion silver crowned gold."

Havering bore "Silver a lion rampant gules with a forked tail, having a collar azure."

Felbrigge of Felbrigge bore "Gold a leaping lion gules."

Esturmy bore "Silver a lion sable (or purple) looking backward."

Marmion bore "Gules a lion vair."

Mason bore "Silver a two-headed lion gules."

Lovetot bore "Silver a lion parted athwart of sable and gules."

Richard le Jen bore "Vert a lion gold"—the arms of Wakelin of Arderne—"with a fesse gules on the lion."

Fiennes bore "Azure three lions gold."

Leyburne of Kent bore "Azure six lions silver."

Fitzalan. Felbrigge. Fiennes. Leyburne.

Carew bore “Gold three lions passant sable.”

Fotheringhay bore “Silver two lions passant sable, looking backward.”

Richard Norton of Waddeworth (1357) sealed with arms of “A lion dormant.”

Lisle bore “Gules a leopard silver crowned gold.”

Ludlowe bore “Azure three leopards silver.”

Brocas bore “Sable a leopard rampant gold.”

Carew. Fotheringhay. Brocas. Lisle.

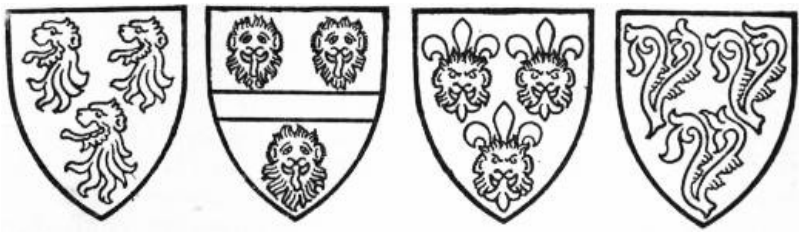
John Hardrys of Kent seals in 1372 with arms of “a sitting leopard.”

John Northampton, Lord Mayor of London in 1381, bore “Azure a crowned leopard gold with two bodies rampant against each other.”

Newenham bore “Azure three demi-lions silver.”

A deed delivered at Lapworth in Warwickshire in 1466 is sealed with arms of “a molet between three demi-leopards.”

Kenton bore “Gules three lions’ heads razed sable.”



Kenton. Pole. Cantelou. Pynchebek.

Pole, earl and duke of Suffolk, bore “Azure a fesse between three leopards’ heads gold.”

Cantelou bore “Azure three leopards’ heads silver with silver fleurs-de-lys issuing from them.”

Wederton bore “Gules a cheveron between three lions’ legs razed silver.”

Pynchebek bore “silver three forked tails of lions sable.”

The tiger is rarely named in collections of medieval arms. Deep mystery wrapped the shape of him, which was never during the middle ages standardized by artists. A crest upon a 15th-century brass shows him as a lean wolf-like figure, with a dash of the boar, gazing after his vain wont into a looking-glass; and the 16th-century heralds gave him the body of a lion with the head of a wolf, head and body being tufted here and there with thick tufts of hair. But it is noteworthy that the arms of Sir John Norwich, a well-known knight of the 14th century, are blazoned in a roll of that age as “party azure and gules with a tiger rampant ermine.” Now this beast in the arms of Norwich has been commonly taken for a lion, and the Norwich family seem in later times to have accepted the lion as their bearing. But a portion of a painted roll of Sir John’s day shows on careful examination that his lion has been given

two moustache-like tufts to the nose. A copy made about 1600 of another roll gives the same decoration to the Norwich lion, and it is at least possible we have here evidence that the economy of the medieval armorist allowed him to make at small cost his lion, his leopard and his tiger out of a single beast form.

Take away the lions and the leopards, and the other beasts upon medieval shields are a little herd. In most cases they are here to play upon the names of their bearers. Thus Swinburne of Northumberland has the heads of swine in his coat and Bacon has bacon pigs. Three white bears were borne by Barlingham, and a bear ramping on his hind legs is for Barnard. Lovett of Astwell has three running wolves, Videlou three wolves' heads, Colfox three foxes' heads.

Lovett. Talbot. Saunders.

Three hedgehogs were in the arms of Heriz. Barnewall reminds us of extinct natives of England by bearing two beavers, and Otter of Yorkshire had otters. Harewell had hares' heads, Cunliffe conies, Mitford moles or moldiwarps. A Talbot of Lancashire had three purple squirrels in a silver shield. An elephant was brought to England as early as the days of Henry III., but he had no immediate armorial progeny, although Saunders of Northants may have borne before the end of the middle ages the elephants' heads which speak of Alysaunder the Great, patron of all Saunderses. Bevil of the west had a red bull, and Bulkeley bore three silver bulls' heads. The heads in Neteham's 14th-century shield are neat's heads, ox heads are for Oxwyk. Calves are for Veel, and the same mild beasts are in the arms of that fierce knight Hugh Calveley. Stansfeld bore three rams with bells at their necks, and a 14th-century Lecheford thought no shame to bear the head of the ram who is the symbol of lechery. Lambton had lambs. Goats were borne by Chevercourt to play on his name, a leaping goat by Bardwell, and goats' heads by Gateshead. Of the race of dogs the greyhound and the talbot, or mastiff, are found most often. Thus Talbot of Cumberland had talbots, and Mauleverer, running greyhounds or "leverers" for his name's sake. The alaund, a big, crop-eared dog, is in the 15th-century shield of John Woode of Kent, and "kenets," or little tracking dogs, in a 13th-century coat of Kenet. The horse is not easily found as an English charge, but Moyle's white mule seems an old coat; horses' heads are in Horsley's shield, and ass heads make crests for more than one noble house. Askew has three asses in his arms. Three bats or flittermice are in the shield of Burninghill and in that of Heyworth of Whethamstede.

As might be looked for in a land where forest and greenwood once linked from sea to sea, the wild deer is a common charge in the shield. Downes of Cheshire bore a hart "lodged" or lying down. Hertford had harts' heads, Malebis, fawns' heads (*testes de bis*), Bukingham, heads of bucks. The harts in Rotherham's arms are the roes of his name's first syllable. Reindeer heads were borne by Bowet in the 14th century. Antelopes, fierce beasts with horns that have something of the ibex, show by their great claws, their lion tails, and their boar muzzles and tusks that they are midway between the hart and the monster.

Of the outlandish monsters the griffon is the oldest and the chief. With the hinder parts of a lion, the rest of him is eagle, head and shoulders, wings and fore legs. The long tuft under the beak and his pointed ears mark him out from the eagle when his head alone is borne. At an early date a griffon rampant, his normal position, was borne by the great house of Montagu as a quartering, and another griffon played upon Griffin's name.

Griffin.

The wyver, who becomes wyvern in the 16th century, and takes a new form under the care of inventive heralds, was in the middle ages a lizard-like dragon, generally with small wings. Sir Edmund Mauley in the 14th century is found differencing the black bend of his elder brother by charging it with three wyvers of silver. During the middle ages there seems small distinction between the wyver

and the still rarer dragon, which, with the coming of the Tudors, who bore it as their badge, is seen as a four-legged monster with wings and a tail that ends like a broad arrow. The monster in the arms of Drake, blazoned by Tudor heralds as a wyvern, is clearly a fire-drake or dragon in his origin.

Drake.

The unicorn rampant was borne by Harlyn of Norfolk, unicorn's heads by the Cambridgeshire family of Paris. The mermaid with her comb and looking-glass makes a 14th-century crest for Byron, while "Silver a bend gules with three silver harpies thereon" is found in the 15th century for Entyrdene.

Concerning beasts and monsters the heraldry books have many adjectives of blazonry which may be disregarded. Even as it was once the pride of the cook pedant to carve each bird on the board with a new word for the act, so it became the delight of the pedant herald to order that the rampant horse should be "forcené," the rampant griffon "segreant," the passant hart "trippant"; while the same hart must needs be "attired" as to its horns and "unguled" as to its hoofs. There is ancient authority for the nice blazonry which sometimes gives a separate colour to the tongue and claws of the lion, but even this may be set aside. Though a black lion in a silver field may be armed with red claws, and a golden leopard in a red field given blue claws and tongues, these trifles are but fancies which follow the taste of the painter, and are never of obligation. The tusks and hoofs of the boar, and often the horns of the hart, are thus given in some paintings a colour of their own which elsewhere is neglected.

As the lion is among armorial beasts, so is the eagle among the birds. A bold convention of the earliest shield painters displayed him with spread wing and claw, the feat of a few strokes of the brush, and after this fashion he appears on many scores of shields. Like the claws and tongue of the lion, the beak and claws of the eagle are commonly painted of a second colour in all but very small representations. Thus the golden eagle of Lymesey in a red field may have blue beak and claws, and golden beak and claws will be given to Jorce's silver eagle upon red. A lure, or two wings joined and spread like those of an eagle, is a rare charge sometimes found. When fitted with the cord by which a falconer's lure is swung, the cord must be named.

Monthermer bore "Gold an eagle vert."

Siggeston bore "Silver a two-headed eagle sable."

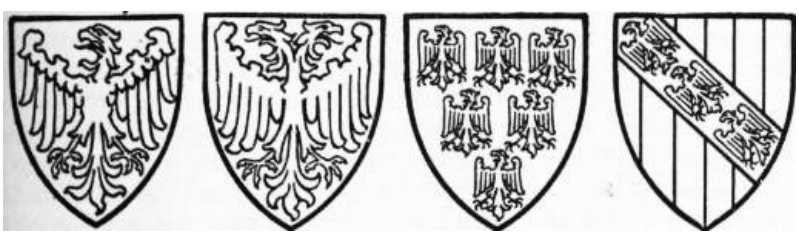
Gavaston, earl of Cornwall, bore "Vert six eagles gold."

Bayforde of Fordingbridge sealed (in 1388) with arms of "An eagle bendwise, with a border engrailed and a baston."

Graunson bore "Paly silver and azure with a bend gules and three golden eagles thereon."

Seymour bore "Gules a lure of two golden wings."

Commoner than the eagle as a charge is the martlet, a humbler bird which is never found as the sole charge of a shield. In all but a few early representations the feathers of the legs are seen without the legs or claws. The martlet indicates both swallow and martin, and in the arms of the Cornish Arundels the martlets must stand for "hirundels" or swallows.



Monthermer. Siggeston. Gavaston. Graunson.

The falcon or hawk is borne as a rule with close wings, so that he may not be taken for the eagle. In most cases he is there to play on the bearer's name, and this may be said of most of the flight of lesser birds.

Naunton bore "Sable three martlets silver."

Heron bore "Azure three herons silver."

Fauconer bore “Silver three falcons gules.” Arundel.

Hauvile bore “Azure a dance between three hawks gold.”

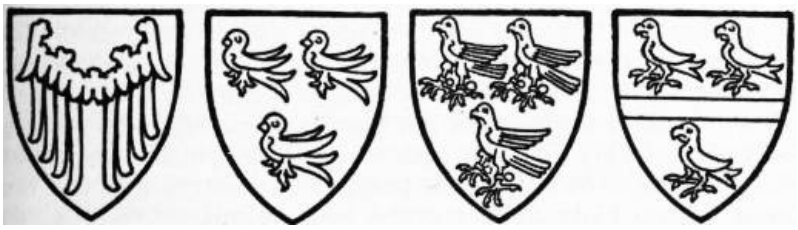
Twenge bore “Silver a fesse gules between three popinjays (or parrots) vert.”

Cranesley bore “Silver a cheveron gules between three cranes azure.”

Asdale bore “Gules a swan silver.”

Dalston bore “Silver a cheveron engrailed between three daws’ heads razed sable.”

Corbet bore “Gold two corbies sable.”



Seymour. Naunton. Fauconer. Twenge.

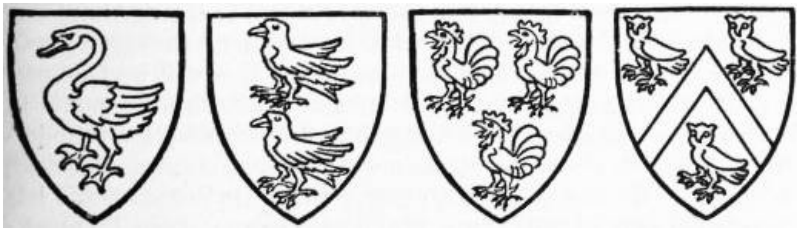
Cockfield bore “Silver three cocks gules.”

Burton bore “Sable a cheveron sable between three silver owls.”

Rokeby bore “Silver a cheveron sable between three rooks.”

Duffelde bore “Sable a cheveron silver between three doves.”

Pelham bore “Azure three pelicans silver.”



Asdale. Corbet. Cockfield. Burton.

Sumeri (13th century) sealed with arms of “A peacock with his tail spread.”

John Pyeshale of Suffolk (14th century) sealed with arms of “Three magpies.”

Fishes, Reptiles and Insects.—Like the birds, the fishes are borne for the most part to call to mind their bearers’ names. Unless their position be otherwise named, they are painted as upright in the shield, as though rising towards the water surface. The dolphin is known by his bowed back, old artists making him a grotesquely decorative figure.

Lucy bore “Gules three luces (or pike) silver.”

Heringaud bore “Azure, crusilly gold, with six golden herrings.”

Fishacre bore “Gules a dolphin silver.”

La Roche bore “Three roach swimming.”

John Samon (14th century) sealed with arms of “Three salmon swimming.”

Sturgeon bore “Azure three sturgeon swimming gold, with a fret gules over all.”

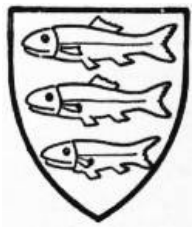
Whalley bore “Silver three whales’ heads razed sable.”

Shell-fish would hardly have place in English armory were it not for the abundance of scallops which have followed their appearance in the banners of Dacre and Scales. The crest of the Yorkshire Scropes, playing upon their name, was a pair of crabs’ claws.

Dacre bore “Gules three scallops silver.”

Shelley bore “Sable a fesse engrailed between three whelk-shells gold.”

Rokeby. Pelham. Lucy. Fishacre.



Roche.

Reptiles and insects are barely represented. The lizards in the crest and supporters of the Ironmongers of London belong to the 15th century. Gawdy of Norfolk may have borne the tortoise in his shield in the same age. “Silver three toads sable” was quartered as a second coat for Botreaux of Cornwall in the 16th century—Botereau or Boterel signifying a little toad in the old French tongue—but the arms do not appear on the old Botreaux seals beside their ancient bearing of the griffon. Beston bore “Silver a bend between six bees sable” and a 15-century Harbottle seems to have sealed with arms of three bluebottle flies. Three butterflies are in the shield of Presfen of Lancashire in 1415, while the winged insect shown on the seal of John Mayre, a King’s Lynn burgess of the age of Edward I., is probably a mayfly.

Human Charges.—Man and the parts of him play but a small part in English shields, and we have nothing to put beside such a coat as that of the German Manessen, on which two armed knights attack each other’s hauberks with their teeth. But certain arms of religious houses and the like have the whole figure, the see of Salisbury bearing the Virgin and Child in a blue field. And old crests have demi-Saracens and falchion men, coal-miners, monks and blackamoors. Sowdan bore in his shield a turbaned soldan’s head; Eady, three old men’s “’eads”! Heads of maidens, the “winsome marrows” of the ballad, are in the arms of Marow. The Stanleys, as kings of Man, quartered the famous three-armed legs whirling mill-sail fashion, and Tremayne of the west bore three men’s arms in like wise. “Gules three hands silver” was for Malmeyns as early as the 13th century, and Tynte of Colchester displayed hearts.

Dacre. Shelley. See of Salisbury. Isle of Man.

Miscellaneous Charges.—Other charges of the shield are less frequent but are found in great variety, the reason for most of them being the desire to play upon the bearer’s name.

Weapons and the like are rare, having regard to the military associations of armory. Daubeney bore three helms; Philip Marmion took with his wife, the coheir of Kilpek, the Kilpek shield of a sword (*espek*). Tuck had a stabbing sword or “tuck.” Bent bows were borne by Bowes, an arblast by Arblaster, arrows by Archer, birding-bolts or *bosouns* by Bosun, the mangonel by Mangnall. The three lances of Amherst is probably a medieval coat; Lewestone had battle-axes.

A scythe was in the shield of Praers; Picot had picks; Bilsby a hammer or “beal”; Malet showed mallets. The chamberlain’s key is in the shield of a Chamberlain, and the spenser’s key in that of a Spenser. Porter bore the porter’s bell, Boteler the butler’s cup. Three-legged pots were borne by Monbocher. Crowns are for Coroun. Yarde had yard-wands; Bordoun a burdon or pilgrim’s staff.

Of horse-furniture we have the stirrups of Scudamore and Giffard, the horse-barnacles of Bernake, and the horse-shoes borne by many branches and tenants of the house of Ferrers.

Of musical instruments there are pipes, trumps and harps for Pipe, Trumpington and Harpesfeld. Hunting horns are common among families bearing such names as Forester or Horne. Remarkable charges are the three organs of Grenville, who held of the house of Clare, the lords of Glamorgan.

Combs play on the name of Tunstall, and gloves (*wauns* or *gauns*) on that of Wauncy. Hose were borne by Hoese; buckles by a long list of families. But the most notable of the charges derived from clothing is the hanging sleeve familiar in the arms of Hastings, Conyers and Mansel.

Chess-rooks, hardly to be distinguished from the *roc* or *roquet* at the head of a jousting-lance, were borne by Rokewode and by many more. Topcliffe had pegtops in his shield, while Ambesas had a cast of three dice which should each show the point of one, for "to throw ambesace" is an ancient phrase used of those who throw three aces.

Although we are a sea-going people, there are few ships in our armory, most of these in the arms of sea-ports. Anchors are commoner.

Castles and towers, bridges, portcullises and gates have all examples, and a minster-church was the curious charge borne by the ancient house of Musters of Kirklington.

Letters of the alphabet are very rarely found in ancient armory; but three capital T's, in old English script, were borne by Toft of Cheshire in the 14th century. In the period of decadence whole words or sentences, commonly the names of military or naval victories, are often seen.

Blazonry.—An ill-service has been done to the students of armory by those who have pretended that the phrases in which the shields and their charges are described or blazoned must follow arbitrary laws devised by writers of the period of armorial decadence. One of these laws, and a mischievous one, asserts that no tincture should be named a second time in the blazon of one coat. Thus if gules be the hue of the field any charge of that colour must thereafter be styled "of the first." Obeying this law the blazoner of a shield of arms elaborately charged may find himself sadly involved among "of the first," "of the second," and "of the third." It is needless to say that no such law obtained among armorists of the middle ages. The only rule that demands obedience is that the brief description should convey to the reader a true knowledge of the arms described.

The examples of blazonry given in that part of this article which deals with armorial charges will be more instructive to the student than any elaborated code of directions. It will be observed that the description of the field is first set down, the blazoner giving its plain tincture or describing it as burely, party, paly or barry, as powdered or sown with roses, crosslets or fleurs-de-lys. Then should follow the main or central charges, the lion or griffon dominating the field, the cheveron or the pale, the fesse, bend or bars, and next the subsidiary charges in the field beside the "ordinary" and those set upon it. Chiefs and quarters are blazoned after the field and its contents, and the border, commonly an added difference, is taken last of all. Where there are charges both upon and beside a bend, fesse or the like, a curious inversion is used by pedantic blazoners. The arms of Mr Samuel Pepys of the Admiralty Office would have been described in earlier times as "Sable a bend gold between two horses' heads razed silver, with three fleurs-de-lys sable on the bend." Modern heraldic writers would give the sentence as "Sable, on a bend or between two horses' heads erased argent, three fleurs-de-lys of the first." Nothing is gained by this inversion but the precious advantage of naming the bend but once. On the other side it may be said that, while the newer blazon couches itself in a form that seems to prepare for the naming of the fleurs-de-lys as the important element of the shield, the older form gives the fleurs-de-lys as a mere postscript, and rightly, seeing that charges in such a position are very commonly the last additions to a shield by way of difference. In like manner when a crest is described it is better to say "a lion's head out of a crown" than "out of a crown a lion's head." The first and last necessity in blazonry is lucidity, which is cheaply gained at the price of a few syllables repeated.

Modern Heraldry.—With the accession of the Tudors armory began a rapid decadence. Heraldry ceased to play its part in military affairs, the badges and banners under which the medieval noble's retinue came into the field were banished, and even the tournament in its later days became a renascence pageant which did not need the painted shield and armorial trappers. Treatises on armory had been rare in the days before the printing press, but even so early a writer as Nicholas Upton had shown himself as it were unconcerned with the heraldry that any man might see in the camp and the street. From the Book of St Albans onward the treatises on armory are informed with a pedantry which touches the point of crazy mysticism in such volumes as that of Sylvanus Morgan. Thus came into the books those long lists of "diminutions of ordinaries," the closets and escarpes, the endorses and ribands, the many scores of strange crosses and such wild fancies as the rule, based on an early German pedantry, that the tinctures in peers shields should be given the names of precious stones and those in the shields of sovereigns the names of planets. Blazon became

cumbered with that vocabulary whose French of Stratford atte Bowe has driven serious students from a business which, to use a phrase as true as it is hackneyed, was at last “abandoned to the coachpainter and the undertaker.”

With the false genealogy came in the assumption or assigning of shields to which the new bearers had often no better claim than lay in a surname resembling that of the original owner. The ancient system of differencing arms disappeared. Now and again we see a second son obeying the book-rules and putting a crescent in his shield or a third son displaying a molet, but long before our own times the practice was disregarded, and the most remote kinsman of a gentle house displayed the “whole coat” of the head of his family.

The art of armory had no better fate. An absurd rule current for some three hundred years has ordered that the helms of princes and knights should be painted full-faced and those of peers and gentlemen sidelong. Obeying this, the herald painters have displayed the crests of knights and princes as sideways upon a full-faced helm; the torse or wreath, instead of being twisted about the brow of the helm, has become a sausage-shaped bar see-sawing above the helm; and upon this will be balanced a crest which might puzzle the ancient craftsman to mould in his leather or parchment. A ship on a lee-shore with a thunderstorm lowering above its masts may stand as an example of such devices. “Tastes, of course, differ,” wrote Dr Woodward, “but the writer can hardly think that the épergne given to Lieut.-General Smith by his friends at Bombay was a fitting ornament for a helmet.” As with the crest, so with the shield. It became crowded with ill-balanced figures devised by those who despised and ignored the ancient examples whose painters had followed instinctively a simple and pleasant convention. Landscapes and seascapes, musical lines, military medals and corrugated boiler-flues have all made their appearance in the shield. Even as on the signs of public houses, written words have taken the place of figures, and the often-cited arms exemplified to the first Earl Nelson marked, it may be hoped, the high watermark of these distressing modernisms. Of late years, indeed, official armory in England has shown a disposition to follow the lessons of the archaeologist, although the recovery of medieval use has not yet been as successful as in Germany, where for a long generation a school of vigorous armorial art has flourished.

Officers of Arms.—Officers of arms, styled kings of arms, heralds and pursuivants, appear at an early period of the history of armory as the messengers in peace and war of princes and magnates. It is probable that from the first they bore in some wise their lord’s arms as the badge of their office. In the 14th century we have heralds with the arms on a short mantle, witness the figure of the duke of Gelderland’s herald painted in the *Armorial de Gelre*. The title of Blue Mantle pursuivant, as old as the reign of Edward III., suggests a like usage in England. When the tight-laced coat of arms went out of fashion among the knighthood the loose tabard of arms with its wide sleeves was at once taken in England as the armorial dress of both herald and cavalier, and the fashion of it has changed but little since those days. Clad in such a coat the herald was the image of his master and, although he himself was rarely chosen from any rank above that of the lesser gentry, his person, as a messenger, acquired an almost priestly sacredness. To injure or to insult him was to affront the coat that he wore.

We hear of kings of arms in the royal household of the 13th century, and we may compare their title with those of such officers as the King of the Ribalds and the King of the Minstrels; but it is noteworthy that, even in modern warrants for heralds’ patents, the custom of the reign of Edward III. is still cited as giving the necessary precedents for the officers’ liveries. Officers of arms took their titles from their provinces or from the titles and badges of their masters. Thus we have Garter, Norroy and Clarenceux, March, Lancaster, Windsor, Leicester, Leopard, Falcon and Blanc Sanglier as officers attached to the royal house; Chandos, the herald of the great Sir John Chandos; Vert Eagle of the Nevill earls of Salisbury, Esperance and Crescent of the Percys of Northumberland. The spirit of Henry VII.’s legislation was against such usages in baronial houses, and in the age of the Tudors the last of the private heralds disappears.

In England the royal officers of arms were made a corporation by Richard III. Nowadays the members of this corporation, known as the College of Arms or Heralds’ College, are Garter Principal King of Arms, Clarenceux King of Arms South of Trent, Norroy King of Arms North of Trent, the heralds Windsor, Chester, Richmond, Somerset, York and Lancaster, and the pursuivants Rouge Croix, Bluemantle, Rouge Dragon and Portcullis. Another king of arms, not a member of this corporation, has been attached to the order of the Bath since the reign of George I., and an officer of arms, without a title, attends the order of St Michael and St George.

There is no college or corporation of heralds in Scotland or Ireland. In Scotland "Lyon-king-of-arms," "Lyon rex armorum," or "Leo fecialis," so called from the lion on the royal shield, is the head of the office of arms. When first the dignity was constituted is not known, but Lyon was a prominent figure in the coronation of Robert II. in 1371. The office was at first, as in England, attached to the earl marshal, but it has long been conferred by patent under the great seal, and is held direct from the crown. Lyon is also king-of-arms for the national order of the Thistle. He is styled "Lord Lyon," and the office has always been held by men of family, and frequently by a peer who would appoint a "Lyon depute." He is supreme in all matters of heraldry in Scotland. Besides the "Lyon depute," there are the Scottish heralds, Albany, Ross and Rothesay, with precedence according to date of appointment; and the pursuivants, Carrick, March and Unicorn. Heralds and pursuivants are appointed by Lyon.

In Ireland also there is but one king-of-arms, Ulster. The office was instituted by Edward VI. in 1553. The patent is given by Rymer, and refers to certain emoluments as "praedicto officio ... ab antiquo spectantibus." The allusion is to an Ireland king-of-arms mentioned in the reign of Richard II. and superseded by Ulster. Ulster holds office by patent, during pleasure; under him the Irish office of arms consists of two heralds, Cork and Dublin; and a pursuivant, Athlone. Ulster is king-of-arms to the order of St Patrick. He held visitations in parts of Ireland from 1568 to 1620, and these and other records, including all grants of arms from the institution of the office, are kept in the Birmingham Tower, Dublin.

The armorial duties of the ancient heralds are not clearly defined. The patent of Edward IV., creating John Wrythe king of arms of England with the style of Garter, speaks vaguely of the care of the office of arms and those things which belong to that office. We know that the heralds had their part in the ordering of tournaments, wherein armory played its greatest part, and that their expert knowledge of arms gave them such duties as reckoning the noble slain on a battlefield. But it is not until the 15th century that we find the heralds following a recognized practice of granting or assigning arms, a practice on which John of Guildford comments, saying that such arms given by a herald are not of greater authority than those which a man has taken for himself. The Book of St Albans, put forth in 1486, speaking of arms granted by princes and lords, is careful to add that "armys bi a mannys proper auctorite take, if an other man have not borne theym afore, be of strength enogh," repeating, as it seems, Nicholas Upton's opinion which, in this matter, does not conflict with the practice of his day. It is probable that the earlier grants of arms by heralds were made by reason of persons uncunning in armorial lore applying for a suitable device to experts in such matters—and that such setting forth of arms may have been practised even in the 14th century.

The earliest known grants of arms in England by sovereigns or private persons are, as a rule, the conveyance of a right in a coat of arms already existing or of a differenced version of it. Thus in 1391 Thomas Grendale, a squire who had inherited through his grandmother the right in the shield of Beaumeys, granted his right in it to Sir William Moigne, a knight who seems to have acquired the whole or part of the Beaumeys manor in Sawtry. Under Henry VI. we have certain rare and curious letters of the crown granting nobility with arms "*in signum hujusmodi nobilitatis*" to certain individuals, some, and perhaps all of whom, were foreigners who may have asked for letters which followed a continental usage. After this time we have a regular series of grants by heralds who in later times began to assert that new arms, to be valid, must necessarily be derived from their assignments, although ancient use continued to be recognized.

An account of the genealogical function of the heralds, so closely connected with their armorial duties will be found in the article Genealogy. In spite of the work of such distinguished men as Camden and Dugdale they gradually fell in public estimation until Blackstone could write of them that the marshalling of coat-armour had fallen into the hands of certain officers called heralds, who had allowed for lucre such falsity and confusion to creep into their records that even their common seal could no longer be received as evidence in any court of justice. From this low estate they rose again when the new archaeology included heraldry in its interests, and several antiquaries of repute have of late years worn the herald's tabard.

In spite of the vast amount of material which the libraries catalogue under the head of "Heraldry," the subject has as yet received little attention from antiquaries working in the modern spirit. The old books are as remarkable for their detachment from the facts as for their folly. The work of Nicholas Upton, *De studio militari*, although written in the first half of the 15th century, shows, as has been already remarked, no attempt to reconcile the conceits of the author with the armorial practice which he must have seen about him on

every side. Gerard Leigh, Bossewell, Ferne and Morgan carry on this bad tradition, each adding his own extravagances. The *Display of Heraldry*, first published in 1610 under the name of John Guillim, is more reasonable if not more learned, and in its various editions gives a valuable view of the decadent heraldry of the 17th century. In the 19th century many important essays on the subject are to be found in such magazines as the *Genealogist*, the *Herald and Genealogist* and the *Ancestor*, while Planché's *Pursuivant of Arms* contains some slight but suggestive work which attempts original enquiry. But Dr Woodward's *Treatise on Heraldry, British and Foreign* (1896), in spite of many errors arising from the author's reliance upon unchecked material, must be counted the only scholarly book in English upon a matter which has engaged so many pens. Among foreign volumes may be cited those of Menestrier and Spener, and the vast compilation of the German Siebmacher. Notable ordinaries of arms are those of Papworth and Renesse, companions to the armorials of Burke and Rietstap. The student may be advised to turn his attention to all works dealing with the effigies, brasses and other monuments of the middle ages, to the ancient heraldic seals and to the heraldry of medieval architecture and ornament.

(O. Ba.)

HERAT, a city and province of Afghanistan. The city of Herat lies in 340° 20′ 30″ N., and 62° 11′ 0″ E., at an altitude of 2500 ft. above sea-level. Estimated pop. about 10,000. It is a city of great interest historically, geographically, politically and strategically, but in modern days it has quite lost its ancient commercial importance. From this central point great lines of communication radiate in all directions to Russian, British, Persian and Afghan territory. Sixty-six miles to the north lies the terminus of the Russian railway system; to the south-east is Kandahar (360 m.) and about 70 m. beyond that, New Chaman, the terminus of the British railway system. Southward lies Seistan (200 m.), and eastward Kabul (550 m.); while on the west four routes lead into Persia by Turbet to Meshed (215 m.), and by Birjend to Kerman (400 m.), to Yezd (500 m.), or to Isfahan (600 m.). The city forms a quadrangle of nearly 1 m. square (more accurately about 1600 yds. by 1500 yds.); on the western, southern and eastern faces the line of defence is almost straight, the only projecting points being the gateways, but on the northern face the contour is broken by a double outwork, consisting of the *Ark* or citadel, which is built of sun-dried brick on a high artificial mound within the enceinte, and a lower work at its foot, called the *Ark-i-nao*, or "new citadel," which extends 100 yds. beyond the line of the city wall. That which distinguishes Herat from all other Oriental cities, and at the same time constitutes its main defence, is the stupendous character of the earthwork upon which the city wall is built. This earthwork averages 250 ft. in width at the base and about 50 ft. in height, and as it is crowned by a wall 25 ft. high and 14 ft. thick at the base, supported by about 150 semicircular towers, and is further protected by a ditch 45 ft. in width and 16 in depth, it presents an appearance of imposing strength. When the royal engineers of the Russo-Afghan Boundary Commission entered Herat in 1885 they found its defences in various stages of disrepair. The gigantic rampart was unflanked, and the covered ways in the face of it subject to enfilade from end to end. The ditch was choked, the gates were unprotected; the tumbled mass of irregular mud buildings which constituted the city clung tightly to the walls; there were no gun emplacements. Outside, matters were almost worse than inside. To the north of the walls the site of old Herat was indicated by a vast mass of débris—mounds of bricks and pottery intersected by a network of shallow trenches, where the only semblance of a protective wall was the irregular line of the Tal-i-Bangi. South of the city was a vast area filled in with the graveyards of centuries. Here the trenches dug by the Persians during the last siege were still in a fair state of preservation; they were within a stone's-throw of the walls. Round about the city on all sides were similar opportunities for close approach; even the villages stretched out long irregular streets towards the city gates. To the north-west, beyond the Tal-i-Bangi, the magnificent outlines of the Mosalla filled a wide space with the glorious curves of dome and gateway and the stately grace of tapering minars, but the impressive beauty of this, by far the finest architectural structure in all Afghanistan, could not be permitted to weigh against the fact that the position occupied by this pile of solid buildings was fatal to the interests of effective defence. By the end of August 1885, when a political crisis had supervened between Great Britain and Russia, under the orders of the Amir the Mosalla was destroyed; but four minars standing at the corners of the wide plinth still remain to attest to the glorious proportions of the ancient structure, and to exhibit samples of that decorative tilework, which for intricate beauty of design and exquisite taste in the

blending of colour still appeals to the memory as unique. At the same time the ancient graveyards round the city were swept smooth and levelled; obstructions were demolished, outworks constructed, and the defences generally renovated. Whether or no the strength of this bulwark of North-Western Afghanistan should ever be practically tested, the general result of the most recent investigations into the value of Herat as a strategic centre has been largely to modify the once widely-accepted view that the key to India lies within it. Abdur Rahman and his successor Habibullah steadfastly refused the offer of British engineers to strengthen its defences; and though the Afghans themselves have occasionally undertaken repairs, it is doubtful whether the old walls of Herat are maintained in a state of efficiency.

The exact position of Herat, with reference to the Russian station of Kushk (now the terminus of a branch railway from Merv), is as follows: From Herat, a gentle ascent northwards for 3 m. reaches to the foot of the Koh-i-Mulla Khwaja, crossing the Jui Nao or "new" canal, which here divides the gravel-covered foot hills from the alluvial flats of the Hari Rud plain. The crest of the outer ridges of this subsidiary range is about 700 ft. above the city, at a distance of 4 m. from it. For 28 m. farther the road winds first amongst the broken ridges of the Koh-i-Mulla Khwaja, then over the intervening *dasht* into the southern spurs of the Paropamisus to the Ardewan pass. This is the highest point it attains, and it has risen about 2150 ft. from Herat. From the pass it drops over the gradually decreasing grades of a wide sweep of Chol (which here happens to be locally free from the intersecting network of narrow ravines which is generally a distinguishing feature of Turkestan loess formations) for a distance of 35 m. into the Russian railway station, falling some 2700 ft. from the crest of the Paropamisus. To the south the road from Herat to India through Kandahar lies across an open plain, which presents no great engineering difficulties, but is of a somewhat waterless and barren character.

The city possesses five gates, two on the northern face, the Kutab-chak near the north-east angle of the wall, and the Malik at the re-entering angle of the Ark-i-nao; and three others in the centres of the remaining faces, the Irak gate on the west, the Kandahar gate on the south and the Kushk gate on the east face. Four streets called the *Chahar-súk*, running from the centre of each face, meet in the centre of the town in a small domed quadrangle. The principal street runs from the south or Kandahar gate to the market in front of the citadel, and is covered in with a vaulted roof through its entire length, the shops and buildings of this bazaar being much superior to those of the other streets, and the merchants' caravanserais, several of which are spacious and well built, all opening out on this great thoroughfare. Near the central quadrangle of the city is a vast reservoir of water, the dome of which is of bold and excellent proportions. The only other public building of any consequence in Herat is the great mosque or *Mesjid-i-Juma*, which comprises an area of 800 yds. square, and must have been a most magnificent structure. It was erected towards the close of the 15th century, during the reign of Shah Sultan Hussein of the family of Timur, and is said when perfect to have been 465 ft. long by 275 ft. wide, to have had 408 cupolas, 130 windows, 444 pillars and 6 entrances, and to have been adorned in the most magnificent manner with gilding, carving, precious mosaics and other elaborate and costly embellishments. Now, however, it is falling rapidly into ruin, the ever-changing provincial governors who administer Herat having neither the means nor the inclination to undertake the necessary repairs. Neither the palace of the Charbagh within the city wall, which was the residence of the British mission in 1840-1841, nor the royal quarters in the citadel deserve any special notice. At the present day, with the exception of the *Chahar-súk*, where there is always a certain amount of traffic, and where the great diversity of race and costume imparts much liveliness to the scene, Herat presents a very melancholy and desolate appearance. The mud houses in rear of the bazaars are for the most part uninhabited and in ruins, and even the burnt brick buildings are becoming everywhere dilapidated. The city is also one of the filthiest in the East, as there are no means of drainage or sewerage, and garbage of every description lies in heaps in the open streets.

Along the slopes of the northern hills there is a space of some 4 m. in length by 3 m. in breadth, the surface of the plain, strewn over its whole extent with pieces of pottery and crumbling bricks, and also broken here and there by earthen mounds and ruined walls, the débris of palatial structures which at one time were the glory and wonder of the East. Of these structures indeed some have survived to the present day in a sufficiently perfect state to bear witness to the grandeur and beauty of the old architecture of Herat. Such was the mosque of the Mosalla before its destruction. Scarcely inferior in beauty of design and execution, though of more moderate dimensions, is the tomb of the saint Abdullah Ansari, in the same neighbourhood. This building, which was erected by Shah Rukh Mirza, the grandson of Timur, over 500 years ago, contains some exquisite specimens of sculpture in the best style of Oriental art. Adjoining the tomb also are numerous marble mausoleums, the

sepulchres of princes of the house of Timur; and especially deserving of notice is a royal building tastefully decorated by an Italian artist named Geraldi, who was in the service of Shah Abbas the Great. The locality, which is further enlivened by gardens and running streams, is named *Gazir-gáh*, and is a favourite resort of the Heratis. It is held indeed in high veneration by all classes, and the famous Dost Mahommed Khan is himself buried at the foot of the tomb of the saint. Two other royal palaces named respectively *Bagh-i-Shah* and *Takht-i-Sefer*, are situated on the same rising ground somewhat farther to the west. The buildings are now in ruins, but the view from the pavilions, shaded by splendid plane trees on the terraced gardens formed on the slope of the mountain, is said to be very beautiful.

The population of Herat and the neighbourhood is of a very mixed character. The original inhabitants of Ariana were no doubt of the Aryan family, and immediately cognate with the Persian race, but they were probably intermixed at a very early period with the Sacae and Massagetae, who seem to have held the mountains from Kabul to Herat from the first dawn of history, and to whom must be ascribed—rather than to an infusion of Turco-Tartaric blood introduced by the armies of Jenghiz and Timur—the peculiar broad features and flattish countenance which distinguish the inhabitants of Herat, Seistan and the eastern provinces of Persia from their countrymen farther to the west. Under the government of Herat, however, there are a very large number cf tribes, ruled over by separate and semi-independent chiefs, and belonging probably to different nationalities. The principal group of tribes is called the *Chahar-Aimák*, or “four races,” the constituent parts of which, however, are variously stated by different authorities both as to strength and nomenclature. The Heratis are an agricultural race, and are not nearly so warlike as the Pathans from the neighbourhood of Kabul or Kandahar.

Environs of Herat.

The long narrow valley of the Hari Rud, starting from the western slopes of the Koh-i-Baba, extends almost due west for 300 m. before it takes its great northern bend at Kuhsan, and passes northwards through the broken ridges of the Siah Bubuk (the western extremity of the range which we now call Paropamisus) towards Sarakhs. For the greater part of its length it drains the southern slopes only of the Paropamisus and the northern slopes of a parallel range called Koh-i-Safed. The Paropamisus forms the southern face of the Turkestan plateau, which contains the sources of the Murghab river; the northern face of the same plateau is defined by the Band-i-Turkestan. On the south of the plateau we find a similar succession of narrow valleys dividing parallel flexures, or anticlinals, formed under similar geological conditions to those which appear to be universally applicable to the Himalaya, the Hindu Kush, and the Indus frontier mountain systems. From one of these long lateral valleys the Hari Rud receives its principal tributary, which joins the main river below Obeh, 180 m. from its source; and it is this tributary (separated from the Hari Rud by the narrow ridges of the Koh-i-Safed and Band-i-Baian) that offers the high road from Herat to Kabul, and not the Hari Rud itself. From its source to Obeh the Hari Rud is a valley of sandy desolation. There are no glaciers near its sources, although they must have existed there in geologically recent times, but masses of melting snow annually give rise to floods, which rush through the midst of the valley in a turbid red stream, frequently rendering the river impassable and cutting off the crazy brick bridges at Herat and Tirpul. It is impossible, whilst watching the rolling, seething volume of flood-water which swirls westwards in April, to imagine the waste stretches of dry river-bed which in a few months’ time (when every available drop of water is carried off for irrigation) will represent the Hari Rud. The soft shales or clays of the hills bounding the valley render these hills especially subject to the action of denudation, and the result, in rounded slopes and easily accessible crests, determines the nature of the easy tracks and passes which intersect them. At the same time, any excessive local rainfall is productive of difficulty and danger from the floods of liquid mud and loose boulders which sweep like an avalanche down the hill sides. The intense cold which usually accompanies these sudden northern blizzards of Herat and Turkestan is a further source of danger.

From Obeh, 50 m. east of Herat, the cultivated portion of the valley commences, and it extends, with a width which varies from 8 to 16 m., to Kuhsan, 60 m. west of the city. But the great stretch of highly irrigated and valuable fruit-growing land, which appears to spread from the walls of Herat east and west as far as the eye can reach, and to sweep to the foot of the hills north and south with an endless array of vineyards and melon-beds, orchards and villages, varied with a brilliant patchwork of poppy growth brightening the width of green wheat-fields with splashes of scarlet and purple—all this is really comprised within a narrow area which does not extend beyond a ten-miles’ radius from the city. The system of irrigation by which these agricultural results are attained is most elaborate. The despised Herati Tajik, in blue shirt and skull-cap, and with no instrument better than a three-cornered spade, is as skilled an agriculturist as is the Ghilzai engineer, but he cannot

effect more than the limits of his water-supply will permit. He adopts the karez (or, Persian, *kanát*) system of underground irrigation, as does the Ghilzai, and brings every drop of water that he can find to the surface; but it cannot be said that he is more successful than the Ghilzai. It is the startling contrast of the Herati oasis with the vast expanse of comparative sterility that encloses it which has given such a fictitious value to the estimates of the material wealth of the valley of the Hari Rud.

The valley about Herat includes a flat alluvial plain which might, for some miles on any side except the north, be speedily reduced to an impassable swamp by means of flood-water from the surrounding canals. Three miles to the south of the city the river flows from east to west, spanned by the Pal-i-Malun, a bridge possessing grand proportions, but which was in 1885 in a state of grievous disrepair and practically useless. East and west stretches the long vista of the Hari Rud. Due north the hills called the Koh-i-Mulla Khwaja appear to be close and dominating, but the foot of these hills is really about 3 m. distant from the city. This northern line of barren, broken sandstone hills is geographically no part of the Paropamisus range, from which it is separated by a stretch of sandy upland about 20 m. in width, called the Dasht-i-Hamdamao, or Dasht-i-Ardewán, formed by the talus or drift of the higher mountains, which, washed down through centuries of denudation, now forms long sweeping spurs of gravel and sand, scantily clothed with wormwood scrub and almost destitute of water. Through this stretch of *dasht* the drainage from the main water-divide breaks downwards to the plains of Herat, where it is arrested and utilized for irrigation purposes. To the north-east of the city a very considerable valley has been formed between the Paropamisus and the subsidiary Koh-i-Mulla Khwaja range, called Korokh. Here there are one or two important villages and a well-known shrine marked by a group of pine trees which is unique in this part of Afghanistan. The valley leads to a group of passes across the Paropamisus into Turkestan, of which the Zirmast is perhaps the best known. The main water-divide between Herat and the Turkestan Chol (the loess district) has been called Paropamisus for want of any well-recognized general name. To the north of the Korokh valley it exhibits something of the formation of the Hindu Kush (of which it is apparently a geological extension), but as it passes westwards it becomes broken into fragments by processes of denudation, until it is hardly recognizable as a distinct range at all. The direct passes across it from Herat (the Baba and the Ardewán) wind amongst masses of disintegrating sandstone for some miles on each side of the dividing watershed, but farther west the rounded knolls of the rain-washed downs may be crossed almost at any point without difficulty. The names applied to this débris of a once formidable mountain system are essentially local and hardly distinctive. Beyond this range the sand and clay loess formation spreads downwards like a tumbled sea, hiding within the folds of its many-crested hills the twisting course of the Kushk and its tributaries.

History.—The origin of Herat is lost in antiquity. The name first appears in the list of primitive Zoroastrian settlements contained in the *Vendidād Sadē*, where, however, like most of the names in the same list,—such as *Sughudu* (Sogdiana), *Mourū* (Merv or Margus), *Haraquiti* (Arachotus or Arghand-ab), *Haetumant* (Etymander or Helmund), and *Ragha* (or Argha-stan),—it seems to apply to the river or river-basin, which was the special centre of population. This name of *Haroyu*, as it is written in the *Vendidād*, or *Hariwa*, as it appears in the inscriptions of Darius, is a cognate form with the Sanskrit *Sarayu*, which signifies “a river,” and its resemblance to the ethnic title of Aryan (Sans. *Arya*) is purely fortuitous; though from the circumstance of the city being named “Aria Metropolis” by the Greeks, and being also recognized as the capital of Ariana, “the country of the Arians,” the two forms have been frequently confounded. Of the foundation of Herat (or Heri, as it is still often called) nothing is known. We can only infer from the colossal character of the earth-works which surround the modern town, that, like the similar remains at Bost on the Helmund and at Ulan Robat of Arachosia, they belong to that period of Central-Asian history which preceded the rise of Achaemenian power, and which in Grecian romance is illustrated by the names of Bacchus, of Hercules and of Semiramis. To trace in any detail the fortunes of Herat would be to write the modern history of the East, for there has hardly been a dynastic revolution, or a foreign invasion, or a great civil war in Central Asia since the time of the prophet, in which Herat has not played a conspicuous part and suffered accordingly. Under the Tahirids of Khorasan, the Saffarids of Seistan and the Samanids of Bokhara, it flourished for some centuries in peace and progressive prosperity; but during the succeeding rule of the Ghaznevid kings its metropolitan character was for a time obscured by the celebrity of the neighbouring capital of Ghazni, until finally in the reign of Sultan Sanjar of Merv about 1157 the city was entirely destroyed by an irruption of the Ghuzz, the predecessors, in race as well as in habitat, of the modern Turkomans. Herat gradually recovered under the enlightened Ghorid kings, who were indeed natives of the province, though they preferred to

hold their court amid their ancestral fortresses in the mountains of Ghor, so that at the time of Jenghiz Khan's invasion it equalled or even exceeded in populousness and wealth its sister capitals Of Balkh, Merv and Nishapur, the united strength of the four cities being estimated at three millions of inhabitants. But this Mogul visitation was most calamitous; forty persons, indeed, are stated to have alone survived the general massacre of 1232, and as a similar catastrophe overtook the city at the hands of Timur in 1398, when the local dynasty of Kurt, which had succeeded the Ghorides in eastern Khorasan, was put an end to, it is astonishing to find that early in the 15th century Herat was again flourishing and populous, and the favoured seat of the art and literature of the East. It was indeed under the princes of the house of Timur that most of the noble buildings were erected, of which the remains still excite our admiration at Herat, while all the great historical works relative to Asia, such as the *Rozetes-Sefā*, the *Habīb-es-seir*, *Hafiz Abrū's Tarīkh*, the *Matlā' a-es-Sa'adin*, &c., date from the same place and the same age. Four times was Herat sacked by Turkomans and Usbegs during the centuries which intervened between the Timuride princes and the rise of the Afghan power, and it has never in modern times attained to anything like its old importance. Afghan tribes, who had originally dwelt far to the east, were first settled at Herat by Nadir Shah, and from that time they have monopolized the government and formed the dominant element in the population. It will be needless to trace the revolutions and counter-revolutions which have followed each other in quick succession at Herat since Ahmad Shah Durani founded the Afghan monarchy about the middle of the 18th century. Let it suffice to say that Herat has been throughout the seat of an Afghan government, sometimes in subordination to Kabul and sometimes independent. Persia indeed for many years showed a strong disposition to reassert the supremacy over Herat which was exercised by the Safawid kings, but great Britain, disapproving of the advance of Persia towards the Indian frontier, steadily resisted the encroachment; and, indeed, after helping the Heratis to beat off the attack of the Persian army in 1838, the British at length compelled the shah in 1857 at the close of his war with them to sign a treaty recognizing the further independence of the place, and pledging Persia against any further interference with the Afghans. In 1863 Herat, which for fifty years previously had been independent of Kabul, was incorporated by Dost Mahomed Khan in the Afghan monarchy, and the Amir, Habibullah of Afghanistan, like his father Abdur Rahman before him, remained Amir of Herat and Kandahar, as well as Kabul.

See Holdich, *Indian Borderland* (1901); C. E. Yate, *Northern Afghanistan* (1888).

(T. H. H.*)

HÉRAULT, a department in the south of France, formed from Lower Languedoc. Pop. (1906) 482,779. Area, 2403 sq. m. It is bounded N.E. by Gard, N.W. by Aveyron and Tarn, and S. by Aude and the Golfe du Lion. The southern prolongation of the Cévennes mountains occupies the north-western zone of the department, the highest point being about 4250 ft. above the sea-level. South-east of this range comes a region of hills and plateaus decreasing in height as they approach the sea, from which they are separated by the rich plains at the mouth of the Orb and the Hérault and, farther to the north-east, by the line of intercommunicating salt lagoons (Etang de Thau, &c.) which fringes the coast. The region to the north-west of Montpellier comprises an extensive tract of country known as the Garrigues, a district of dry limestone plateaus and hills, which stretches into the neighbouring department of Gard. The mountains of the north-west form the watershed between the Atlantic and Mediterranean basins. From them flow the Hérault, its tributary the Lergue, and more to the south-west the Livron and the Orb, which are the main rivers of the department. Dry summers, varied by occasional violent storms, are characteristic of Hérault. The climate is naturally colder and more rainy in the mountains.

A third of the surface of Hérault is planted with vines, which are the chief source of agricultural wealth, the department ranking first in France with respect to the area of its vineyards; the red wines of St Georges, Cazouls-lès-Béziers, Picpoul and Maranssan, and the white wines of Frontignan and Lunel (pop. in 1906, 6769) are held in high estimation. The area given over to arable land and pasture is small in extent. Fruit trees of various kinds, but especially mulberries, olives and chestnuts flourish. The rearing of silk-worms is largely carried on. Considerable numbers of sheep are raised, their milk being utilized for the preparation of Roquefort cheeses. The mineral wealth of the department is considerable. There are mines of lignite, coal in the vicinity of Graissessac, iron, calamine and copper, and

quarries of building-stone, limestone, gypsum, &c.; the marshes supply salt. Mineral springs are numerous, the most important being those of Lamalon-les-Bains and Balaruc-les-Bains. The chief manufactures are woollen and cotton cloth, especially for military use, silk (Ganges), casks, soap and fertilizing stuffs. There are also oil-works, distilleries (Béziers) and tanneries (Bédarieux). Fishing is an important industry. Cette and Mèze (pop. in 1906, 5574) are the chief ports. Hérault exports salt fish, wine, liqueurs, timber, salt, building-material, &c. It imports cattle, skins, wool, cereals, vegetables, coal and other commodities. The railway lines belong chiefly to the Southern and Paris-Lyon-Méditerranée companies. The Canal du Midi traverses the south of the department for 44 m. and terminates at Cette. The Canal des Étangs traverses the department for about 20 m., forming part of a line of communication between Cette and Aigues-Mortes. Montpellier, the capital, is the seat of a bishopric of the province of Avignon, and of a court of appeal and centre of an academic (educational division). The department belongs to the 16th military region, which has its headquarters at Montpellier. It is divided into the arrondissements of Montpellier, Béziers, Lodève and St Pons, with 36 cantons and 340 communes.

Montpellier, Béziers, Lodève, Bédarieux, Cette, Agde, Pézenas, Lamalou-les-Bains and Clermont-l'Hérault are the more noteworthy towns and receive separate treatment. Among the other interesting places in the department are St Pons, with a church of the 12th century, once a cathedral, Villemagne, which has several old houses and two ruined churches, one of the 13th, the other of the 14th century; Pignan, a medieval town, near which is the interesting abbey-church of Vignogoul in the early Gothic style; and St Guilhem-le-Désert, which has a church of the 11th and 12th centuries. Maguelonne, which in the 6th century became the seat of a bishopric transferred to Montpellier in 1536, has a cathedral of the 12th century.

HÉRAULT DE SÉCHELLES, MARIE JEAN (1759-1794), French politician, was born at Paris on the 20th of September 1759, of a noble family connected with those of Contades and Polignac. He made his début as a lawyer at the Châtelet, and delivered some very successful speeches; later he was *avocat général* to the parlement of Paris. His legal occupations did not prevent him from devoting himself also to literature, and after 1789 he published an account of a visit he had made to the comte de Buffon at Montbard. Hérault's account is marked by a delicate irony, and it has with some justice been called a masterpiece of interviewing, before the day of journalists. Hérault, who was an ardent champion of the Revolution, took part in the taking of the Bastille, and on the 8th of December 1789 was appointed judge of the court of the first arrondissement in the department of Paris. From the end of January to April 1791 Hérault was absent on a mission in Alsace, where he had been sent to restore order. On his return he was appointed *commissaire du roi* in the court of cassation. He was elected as a deputy for Paris to the Legislative Assembly, where he gravitated more and more towards the extreme left; he was a member of several committees, and, when a member of the diplomatic committee, presented a famous report demanding that the nation should be declared to be in danger (11th June 1793). After the revolution of the 10th of August 1792 (see French Revolution), he co-operated with Danton, one of the organizers of this rising, and on the 2nd of September was appointed president of the Legislative Assembly. He was a deputy to the National Convention for the department of Seine-et-Oise, and was sent on a mission to organize the new department of Mont Blanc. He was thus absent during the trial of Louis XVI., but he made it known that he approved of the condemnation of the king, and would probably have voted for the death penalty. On his return to Paris, Hérault was several times president of the Convention, notably on the 2nd of June 1793, the occasion of the attack on the Girondins, and on the 10th of August 1793, on which the passing of the new constitution was celebrated. On this occasion Hérault, as president of the Convention, had to make several speeches. It was he, moreover, who, on the rejection of the projected constitution drawn up by Condorcet, was entrusted with the task of preparing a fresh one; this work he performed within a few days, and his plan, which, however, differed very little from that of Condorcet, became the Constitution of 1793, which was passed, but never applied. As a member of the Committee of Public Safety, it was with diplomacy that Hérault was chiefly concerned, and from October to December 1793 he was employed on a diplomatic and military mission in Alsace. But this mission helped to make him an object of suspicion to the other members of the Committee of Public Safety, and especially to Robespierre, who as a deist and a fanatical

follower of the ideas of Rousseau, hated Hérault, the follower of the naturalism of Diderot. He was accused of treason, and after being tried before the revolutionary tribunal, was condemned at the same time as Danton, and executed on the 16th Germinal in the year II. (5th April 1794). He was handsome, elegant and a lover of pleasure, and was one of the most individual figures of the Revolution.

See the *Voyage à Montbard*, published by A. Aulard (Paris, 1890); A. Aulard, *Les Orateurs de la Législative et de la Convention*, 2nd ed. (Paris, 1906); J. Claretie, *Camille Desmoulins ... étude sur les Dantonistes* (Paris, 1875); Dr Robinet, *Le Procès des Dantonistes* (Paris, 1879); "Hérault de Séchelles, sa première mission en Alsace" in the review *La Révolution Française*, tome 22; E. Daudet, *Le Roman d'un conventionnel. Hérault de Séchelles et les dames de Bellegarde* (1904). His *Œuvres littéraires* were edited (Paris, 1907) by E. Dard.

(R. A.*)

HERB (Lat. *herba*, grass, food for cattle, generally taken to represent the Old Lat. *forbea*, Gr. φορβή, pasture, φέρβειν, to feed, Sans. *bharb*, to eat), in botany, the name given to those plants whose stem or stalk dies entirely or down to the root each year, and does not become, as in shrubs or trees, woody or permanent, such plants are also called "herbaceous." The term "herb" is also used of those herbaceous plants, which possess certain properties, and are used for medicinal purposes, for flavouring or garnishing in cooking, and also for perfumes (see HORTICULTURE and PHARMACOLOGY).

HERBARIUM, or HORTUS SICCUS, a collection of plants so dried and preserved as to illustrate as far as possible their characters. Since the same plant, owing to peculiarities of climate, soil and situation, degree of exposure to light and other influences may vary greatly according to the locality in which it occurs, it is only by gathering together for comparison and study a large series of examples of each species that the flora of different regions can be satisfactorily represented. Even in the best equipped botanical garden it is impossible to have, at one and the same time, more than a very small percentage of the representatives of the flora of any given region or of any large group of plants. Hence a good herbarium forms an indispensable part of a botanical museum or institution. There are large herbaria at the British Museum and at the Royal Gardens, Kew, and smaller collections at the botanical institutions at the principal British universities. The original herbarium of Linnaeus is in the possession of the Linnaean Society of London. It was purchased from the widow of Linnaeus by Dr (afterwards Sir) J. E. Smith, one of the founders of the Linnaean Society, and after his death was purchased by the society. Herbaria are also associated with the more important botanic gardens and museums in other countries. The value of a herbarium is much enhanced by the possession of "types," that is, the original specimens on the study of which a species was founded. Thus the herbarium at the British Museum, which is especially rich in the earlier collections made in the 18th and early 19th centuries, contains the types of many species founded by the earlier workers in botany. It is also rich in the types of Australian plants in the collections of Sir Joseph Banks and Robert Brown, and contains in addition many valuable modern collections. The Kew herbarium, founded by Sir William Hooker and greatly increased by his son Sir Joseph Hooker, is also very rich in types, especially those of plants described in the *Flora of British India* and various colonial floras. The collection of Dillenius is deposited at Oxford, and that of Professor W. H. Harvey at Trinity College, Dublin. The collections of Antoine Laurent de Jussieu, his son Adrien, and of Auguste de St Hilaire, are included in the large herbarium of the Jardin des Plantes at Paris, and in the same city is the extensive private collection of Dr Ernest Cosson. At Geneva are three large collections—Augustin Pyrame de Candolle's, containing the typical specimens of the *Prodromus*, a large series of monographs of the families of flowering plants, Benjamin Delessert's fine series at the Botanic Garden, and the Boissier Herbarium, which is rich in Mediterranean and Oriental plants. The university of Göttingen has had bequeathed to it the largest collection (exceeding 40,000 specimens) ever made by a single individual—that of Professor Grisebach. At the herbarium in Brussels are the specimens obtained by the

traveller Karl Friedrich Philipp von Martius, the majority of which formed the groundwork of his *Flora Brasiliensis*. The Berlin herbarium is especially rich in more recent collections, and other national herbaria sufficiently extensive to subserve the requirements of the systematic botanist exist at St Petersburg, Vienna, Leiden, Stockholm, Upsala, Copenhagen and Florence. Of those in the United States of America, the chief, formed by Asa Gray, is the property of Harvard university; there is also a large one at the New York Botanical Garden. The herbarium at Melbourne, Australia, under Baron Müller, attained large proportions; and that of the Botanical Garden of Calcutta is noteworthy as the repository of numerous specimens described by writers on Indian botany.

Specimens of flowering plants and vascular cryptograms are generally mounted on sheets of stout smooth paper, of uniform quality; the size adopted at Kew is 17 in. long by 11 in. broad, that at the British Museum is slightly larger; the palms and their allies, however, and some ferns, require a larger size. The tough but flexible coarse grey paper (German *Fliesspapier*), upon which on the Continent specimens are commonly fixed by gummed strips of the same, is less hygroscopic than ordinary cartridge paper, but has the disadvantage of affording harbourage in the inequalities of its surface to a minute insect, *Atropos pulsatoria*, which commits great havoc in damp specimens, and which, even if noticed, cannot be dislodged without difficulty. The majority of plant specimens are most suitably fastened on paper by a mixture of equal parts of gum tragacanth and gum arabic made into a thick paste with water. Rigid leathery leaves are fixed by means of glue, or, if they present too smooth a surface, by stitching at their edges. Where, as in private herbaria, the specimens are not liable to be handled with great frequency, a stitch here and there round the stem, tied at the back of the sheet, or slips of paper passed over the stem through two slits in the sheet and attached with gum to its back, or simply strips of gummed paper laid across the stem, may be resorted to.

To preserve from insects, the plants, after mounting, are often brushed over with a liquid formed by the solution of ¼ lb. each of corrosive sublimate and carbolic acid in 1 gallon of methylated spirits. They are then laid out to dry on shelves made of a network of stout galvanized iron wire. The use of corrosive sublimate is not, however, recommended, as it forms on drying a fine powder which when the plants are handled will rub off and, being carried into the air, may prove injurious to workers. If the plants are subjected to some process, before mounting, by which injurious organisms are destroyed, such as exposure in a closed chamber to vapour of carbon bisulphide for some hours, the presence of pieces of camphor or naphthalene in the cabinet will be found a sufficient preservative. After mounting are written—usually in the right-hand corner of the sheet, or on a label there affixed—the designation of each species, the date and place of gathering, and the name of the collector. Other particulars as to habit, local abundance, soil and claim to be indigenous may be written on the back of the sheet or on a slip of writing paper attached to its edge. It is convenient to place in a small envelope gummed to an upper corner of the sheet any flowers, seeds or leaves needed for dissection or microscopical examination, especially where from the fixation of the specimen it is impossible to examine the leaves for oil-receptacles and where seed is apt to escape from ripe capsules and be lost. The addition of a careful dissection of a flower greatly increases the value of the specimen. To ensure that all shall lie evenly in the herbarium the plants should be made to occupy as far as possible alternately the right and left sides of their respective sheets. The species of each genus are then arranged either systematically or alphabetically in separate covers of stout, usually light brown paper, or, if the genus be large, in several covers with the name of the genus clearly indicated in the lower left-hand corner of each, and opposite it the names or reference numbers of the species. Undetermined species are relegated to the end of the genus. Thus prepared, the specimens are placed on shelves or movable trays, at intervals of about 6 in., in an air-tight cupboard, on the inner side of the door of which, as a special protection against insects, is suspended a muslin bag containing a piece of camphor.

The systematic arrangement varies in different herbaria. In the great British herbaria the orders and genera of flowering plants are usually arranged according to Bentham and Hooker's *Genera plantarum*; the species generally follow the arrangement of the most recent complete monograph of the family. In non-flowering plants the works usually followed are for ferns, Hooker and Baker's *Synopsis filicum*; for mosses, Müller's *Synopsis muscorum frondosorum*, Jaeger & Sauerbeck's *Genera et species muscorum*, and Engler & Prantl's *Pflanzenfamilien*; for algae, de Toni's *Sylloge algarum*; for hepaticae, Gottsche, Lindenberg and Nees ab Esenbeck's *Synopsis hepaticarum*, supplemented by Stephani's *Species hepaticarum*; for fungi, Saccardo's *Sylloge fungorum*, and for mycetozoa Lister's monograph of the group. For the members of large genera, *e.g. Piper* and *Ficus*, since the number of cosmopolitan or very widely distributed species is comparatively few, a geographical

grouping is found specially convenient by those who are constantly receiving parcels of plants from known foreign sources. The ordinary systematic arrangement possesses the great advantage, in the case of large genera, of readily indicating the affinities of any particular specimen with the forms most nearly allied to it. Instead of keeping a catalogue of the species contained in the herbarium, which, owing to the constant additions, would be almost impossible, such species are usually ticked off with a pencil in the systematic work which is followed in arranging them, so that by reference to this work it is possible to see at a glance whether the specimen sought is in the herbarium and what species are still wanted.

Specimens intended for the herbarium should be collected when possible in dry weather, care being taken to select plants or portions of plants in sufficient number and of a size adequate to illustrate all the characteristic features of the species. When the root-leaves and roots present any peculiarities, they should invariably be collected, but the roots should be dried separately in an oven at a moderate heat. Roots and fruits too bulky to be placed on the sheet of the herbarium may be conveniently arranged in glass-covered boxes contained in drawers. The best and most effective mode of drying specimens is learned only by experience, different species requiring special treatment according to their several peculiarities. The chief points to be attended to are to have a plentiful supply of botanical drying paper, so as to be able to use about six sheets for each specimen; to change the paper at intervals of six to twelve hours; to avoid contact of one leaf or flower with another; and to increase the pressure applied only in proportion to the dryness of the specimen. To preserve the colour of flowers pledgets of cotton wool, which prevent bruising, should be introduced between them, as also, if the stamens are thick and succulent, as in *Digitalis*, between these and the corolla. A flower dissected and gummed on the sheets will often retain the colour which it is impossible to preserve in a crowded inflorescence. A flat sheet of lead or some other suitable weight should be laid upon the top of the pile of specimens, so as to keep up a continuous pressure. Succulent specimens, as many of the *Orchidaceae* and sedums and various other Crassulaceous plants, require to be killed by immersion in boiling water before being placed in drying paper, or, instead of becoming dry, they will grow between the sheets. When, as with some plants like *Verbascum*, the thick hard stems are liable to cause the leaves to wrinkle in drying by removing the pressure from them, small pieces of bibulous paper or cotton wool may be placed upon the leaves near their point of attachment to the stem. When a number of specimens have to be submitted to pressure, ventilation is secured by means of frames corresponding in size to the drying paper, and composed of strips of wood or wires laid across each other so as to form a kind of network. Another mode of drying is to keep the specimens in a box of dry sand in a warm place for ten or twelve hours, and then press them in drying paper. A third method consists in placing the specimen within bibulous paper, and enclosing the whole between two plates of coarsely perforated zinc supported in a wooden frame. The zinc plates are then drawn close together by means of straps, and suspended before a fire until the drying is effected. By the last two methods the colour of the flowers may be well preserved. When the leaves are finely divided, as in *Conium*, much trouble will be experienced in lifting a half-dried specimen from one paper to another; but the plant may be placed in a sheet of thin blotting paper, and the sheet containing the plant, instead of the plant itself, can then be moved. Thin straw-coloured paper, such as is used for biscuit bags, may be conveniently employed by travellers unable to carry a quantity of bibulous paper. It offers the advantage of fitting closely to thick-stemmed specimens and of rapidly drying. A light but strong portfolio, to which pressure by means of straps can be applied, and a few quires of this paper, if the paper be changed night and morning, will be usually sufficient to dry all except very succulent plants. When a specimen is too large for one sheet, and it is necessary, in order to show its habit, &c., to dry the whole of it, it may be divided into two or three portions, and each placed on a separate sheet for drying. Specimens may be judged to be dry when they no longer cause a cold sensation when applied to the cheek, or assume a rigidity not evident in the earlier stages of preparation.

Each class of flowerless or cryptogamic plants requires special treatment for the herbarium.

Marine algae are usually mounted on tough smooth white cartridge paper in the following manner. Growing specimens of good colour and in fruit are if possible selected, and cleansed as much as practicable from adhering foreign particles, either in the sea or a rocky pool. Some species rapidly change colour, and cause the decay of any others with which they come in contact. This is especially the case with the *Ectocarpi*, *Desmarestiae*, and a few others, which should therefore be brought home in a separate vessel. In mounting, the specimen is floated out in a flat white dish containing sea-water, so that foreign matter may be detected, and a piece of paper of suitable size is placed under it, supported either by the fingers of the left hand or by a palette. It is then pruned, in order clearly to show the mode of branching, and is spread out as naturally as possible with the right hand. For this purpose

a bone knitting-needle answers well for the coarse species, and a camel's-hair pencil for the more delicate ones. The paper with the specimen is then carefully removed from the water by sliding it over the edge of the dish so as to drain it as much as possible. If during this process part of the fronds run together, the beauty of the specimen may be restored by dipping the edge into water, so as to float out the part and allow it to subside naturally on the paper. The paper, with the specimen upwards, is then laid on bibulous paper for a few minutes to absorb as much as possible of the superfluous moisture. When freed from excess of water it is laid on a sheet of thick white blotting-paper, and a piece of smooth washed calico is placed upon it (unwashed calico, on account of its "facing," adheres to the sea-weed). Another sheet of blotting-paper is then laid over it; and, a number of similar specimens being formed into a pile, the whole is submitted to pressure, the paper being changed every hour or two at first. The pressure is increased, and the papers are changed less frequently as the specimens become dry, which usually takes place in thirty-six hours. Some species, especially those of a thick or leathery texture, contract so much in drying that without strong pressure the edges of the paper become puckered. Other species of a gelatinous nature, like *Nemalion* and *Dudresnaya*, may be allowed to dry on the paper, and need not be submitted to pressure until they no longer present a gelatinous appearance. Large coarse algae, such, for instance, as the *Fucaceae* and *Laminariae*, do not readily adhere to paper, and require soaking for some time in fresh water before being pressed. The less robust species, such as *Sphacelaria scoparia*, which do not adhere well to paper, may be made to do so by brushing them over either with milk carefully skimmed, or with a liquid formed by placing isinglass (¼ oz.) and water (1½ oz.) in a wide-mouthed bottle, and the bottle in a small glue-pot or saucepan containing cold water, heating until solution is effected, and then adding 1 oz. of rectified spirits of wine; the whole is next stirred together, and when cold is kept in a stoppered bottle. For use, the mixture is warmed to render it fluid, and applied by means of a camel's hair brush to the under side of the specimen, which is then laid neatly on paper. For the more delicate species, such as the *Callithamnia* and *Ectocarpi*, it is an excellent plan to place a small fruiting fragment, carefully floated out in water, on a slip of mica of the size of an ordinary microscopical slide, and allow it to dry. The plant can then be at any time examined under the microscope without injuring the mounted specimen. Many of the fresh-water algae which form a mere crust, such as *Palmella cruenta*, may be placed in a vessel of water, where after a time they float like a scum, the earthy matter settling down to the bottom, and may then be mounted by slipping a piece of mica under them and allowing it to dry. *Oscillatoriae* may be mounted by laying a portion on a silver coin placed on a piece of paper in a plate, and pouring in water until the edge of the coin is just covered. The alga by its own peculiar movement will soon form a radiating circle, perfectly free from dirt, around the coin, which may then be removed. There is considerable difficulty in removing mounted specimens of algae from paper, and therefore a small portion preserved on mica should accompany each specimen, enclosed for safety in a small envelope fastened at one corner of the sheet of paper. Filamentous diatoms may be mounted like ordinary sea-weeds, and, as well as all parasitic algae, should whenever possible be allowed to remain attached to a portion of the alga on which they grow, some species being almost always found parasitical on particular plants. Ordinary diatoms and desmids may be mounted on mica, as above described, by putting a portion in a vessel of water and exposing it to sunlight, when they rise to the surface, and may be thus removed comparatively free from dirt or impurity. Owing to their want of adhesiveness, they are, however, usually mounted on glass as microscopic slides, either in glycerin jelly, Canada balsam or some other suitable medium.

Lichens are generally mounted on sheets of paper of the ordinary size, several specimens from different localities being laid upon one sheet, each specimen having been first placed on a small square of paper which is gummed on the sheet, and which has the locality, date, name of collector, &c., written upon it. This mode has some disadvantages attending it; such sheets are difficult to handle; the crustaceous species are liable to have their surfaces rubbed; the foliaceous species become so compressed as to lose their characteristic appearance; and the spaces between the sheets caused by the thickness of the specimen permit the entrance of dust. A plan which has been found to answer well is to arrange them in cardboard boxes, either with glass tops or in sliding covers, in drawers—the name being placed outside each box and the specimens gummed into the boxes. Lichens for the herbarium should, whenever possible, be sought for on a slaty or laminated rock, so as to procure them on flat thin pieces of the same, suitable for mounting. Specimens on the bark of trees require pressure until the bark is dry, lest they become curled; and those growing on sand or friable soil, such as *Coniocybe furfuracea*, should be laid carefully on a layer of gum in the box in which they are intended to be kept. Many lichens, such as the *Verrucariae* and *Collemaceae*, are found in the best condition during the winter months. In mounting collemas it is advisable to let the specimen become dry and hard, and then to separate a portion from adherent mosses, earth, &c., and mount it separately so as to show the branching of the thallus. *Pertusariae* should be represented by both fruiting and sorediate

specimens.

The larger species of fungi, such as the *Agaricini* and *Polyporei*, &c., are prepared for the herbarium by cutting a slice out of the centre of the plant so as to show the outline of the cap or pileus, the attachment of the gills, and the character of the interior of the stem. The remaining portions of the pileus are then lightly pressed, as well as the central slices, between bibulous paper until dry, and the whole is then "poisoned," and gummed on a sheet of paper in such a manner as to show the under surface of the one and the upper surface of the other half of the pileus on the same sheet. A "map" of the spores should be taken by separating a pileus and placing it flat on a piece of thin paper for a few hours when the spores will fall and leave a nature print of the arrangement of the gills which may be fixed by gumming the other side of the paper. As it is impossible to preserve the natural colours of fungi, the specimens should, whenever possible, be accompanied by a coloured drawing of the plant. Microscopic fungi are usually preserved in envelopes, or simply attached to sheets of paper or mounted as microscopic slides. Those fungi which are of a dusty nature, and the *Myxomycetes* or *Mycetozoa* may, like the lichens, be preserved in small boxes and arranged in drawers. Fungi under any circumstances form the least satisfactory portion of an herbarium.

Mosses when growing in tufts should be gathered just before the capsules have become brown, divided into small flat portions, and pressed lightly in drying paper. During this process the capsules ripen, and are thus obtained in a perfect state. They are then preserved in envelopes attached to a sheet of paper of the ordinary size, a single perfect specimen being washed, and spread out under the envelope so as to show the habit of the plant. For attaching it to the paper a strong mucilage of gum tragacanth, containing an eighth of its weight of spirit of wine, answers best. If not preserved in an envelope the calyptra and operculum are very apt to fall off and become lost. Scale-mosses are mounted in the same way, or may be floated out in water like sea-weeds, and dried in white blotting paper under strong pressure before gumming on paper, but are best mounted as microscopic slides, care being taken to show the stipules. The specimens should be collected when the capsules are just appearing above or in the colesule or calyx; if kept in a damp saucer they soon arrive at maturity, and can then be mounted in better condition, the fruit-stalks being too fragile to bear carriage in a botanical tin case without injury.

Of the *Characeae* many are so exceedingly brittle that it is best to float them out like sea-weeds, except the prickly species, which may be carefully laid out on bibulous paper, and when dry fastened on sheets of white paper by means of gummed strips. Care should be taken in collecting charae to secure, in the case of dioecious species, specimens of both forms, and also to get when possible the roots of those species on which the small granular starchy bodies or gemmae are found, as in *C. fragifera*. Portions of the fructification may be preserved in small envelopes attached to the sheets.

HERBART, JOHANN FRIEDRICH (1776-1841), German philosopher and educationist, was born at Oldenburg on the 4th of May 1776. After studying under Fichte at Jena he gave his first philosophical lectures at Göttingen in 1805, whence he removed in 1809 to occupy the chair formerly held by Kant at Königsberg. Here he also established and conducted a seminary of pedagogy till 1833, when he returned once more to Göttingen, and remained there as professor of philosophy till his death on the 14th of August 1841.

Philosophy, according to Herbart, begins with reflection upon our empirical conceptions, and consists in the reformation and elaboration of these—its three primary divisions being determined by as many distinct forms of elaboration. Logic, which stands first, has to render our conceptions and the judgments and reasonings arising from them clear and distinct. But some conceptions are such that the more distinct they are made the more contradictory their elements become; so to change and supplement these as to make them at length thinkable is the problem of the second part of philosophy, or metaphysics. There is still a class of conceptions requiring more than a logical treatment, but differing from the last in not involving latent contradictions, and in being independent of the reality of their objects, the conceptions, viz. that embody our judgments of approval and disapproval; the philosophic treatment of these conceptions falls to Aesthetic.

In Herbart's writings logic receives comparatively meagre notice; he insisted strongly on its purely formal character, and expressed himself in the main at one with Kantians such as Fries and Krug.

As a metaphysician he starts from what he terms “the higher scepticism” of the Hume-Kantian sphere of thought, the beginnings of which he discerns in Locke’s perplexity about the idea of substance. By this scepticism the real validity of even the *forms* of experience is called in question on account of the contradictions they are found to involve. And yet that these forms are “given” to us, as truly as sensations are, follows beyond doubt when we consider that we are as little able to control the one as the other. To attempt at this stage a psychological inquiry into the origin of these conceptions would be doubly a mistake; for we should have to use these unlegitimated conceptions in the course of it, and the task of clearing up their contradictions would still remain, whether we succeeded in our enquiry or not. But how are we to set about this task? We have given to us a conception A uniting among its constituent marks two that prove to be contradictory, say M and N; and we can neither deny the unity nor reject one of the contradictory members. For to do either is forbidden by experience; and yet to do nothing is forbidden by logic. We are thus driven to the assumption that the conception is contradictory because incomplete; but how are we to supplement it? What we have must point the way to what we want, or our procedure will be arbitrary. Experience asserts that M is the same (*i.e.* a mark of the same concept) as N, while logic denies it; and so—it being impossible for one and the same M to sustain these contradictory positions—there is but one way open to us; we must posit *several* Ms. But even now we cannot say one of these Ms is the same as N, another is not; for every M must be both thinkable and valid. We may, however, take the Ms not singly but together; and again, no other course being open to us, this is what we must do; we must assume that N results from a combination of Ms. This is Herbart’s method of relations, the counterpart in his system of the Hegelian dialectic.

In the *Ontology* this method is employed to determine what in reality corresponds to the empirical conceptions of substance and cause, or rather of inherence and change. But first we must analyse this notion of reality itself, to which our scepticism had already led us, for, though we could doubt whether “the given” is what it appears, we cannot doubt that it is something; the conception of the real thus consists of the two conceptions of being and quality. That which we are compelled to “posit,” which cannot be sublated, is that which *is*, and in the recognition of this lies the simple conception of being. But when is a thing thus posited? When it is posited as we are wont to posit the things we see and taste and handle. If we were without sensations, *i.e.* were never bound against our will to endure the persistence of a presentation, we should never know what being is. Keeping fast hold of this idea of absolute position, Herbart leads us next to the quality of the real. (1) This must exclude everything negative; for non-A sublates instead of positing, and is not absolute, but relative to A. (2) The real must be absolutely simple; for if it contain two determinations, A and B, then either these are reducible to one, which is the true quality, or they are not, when each is conditioned by the other and their position is no longer absolute. (3) All quantitative conceptions are excluded, for quantity implies parts, and these are incompatible with simplicity. (4) But there may be a plurality of “reals,” albeit the mere conception of being can tell us nothing as to this. The doctrine here developed is the first cardinal point of Herbart’s system, and has obtained for it the name of “pluralistic realism.”

The contradictions he finds in the common-sense conception of inherence, or of “a thing with several attributes,” will now become obvious. Let us take some thing, say A, having n attributes, a, b, c ...: we are forced to posit each of these because each is presented in intuition. But in conceiving A we make, not n positions, still less $n + 1$ positions, but one position simply; for common sense removes the absolute position from its original source, sensation. So when we ask, What is the one posited? we are told—the possessor of a, b, c..., or in other words, their seat or substance. But if so, then A, as a real, being simple, must = a; similarly it must = b; and so on. Now this would be possible if a, b, c ... were but “contingent aspects” of A, as *e.g.* 2^3, $\sqrt{64}$, $4 + 3 + 1$ are contingent aspects of 8. Such, of course, is not the case, and so we have as many contradictions as there are attributes; for we must say A is a, is not a, is b, is not b, &c. There must then, according to the method of relations, be several As. For a let us assume $A_1 + A_1 + A_1$...; for b, $A_2 + A_2 + A_2$...; and so on for the rest. But now what relation can there be among these several As, which will restore to us the unity of our original A or substance? There is but one; we must assume that the first A of every series is identical, just as the centre is the same point in every radius. By way of concrete illustration Herbart instances “the common observation that the properties of things exist only under external conditions. Bodies, we say, are coloured, but colour is nothing without light, and nothing without eyes. They sound, but only in a vibrating medium, and for healthy ears. Colour and tone present the appearance of inherence, but on looking closer we find they are not really immanent in things but rather presuppose a communion among several.” The result then is briefly thus: In place of the one absolute position, which in some unthinkable way the common understanding substitutes for the absolute positions of the n attributes, we have really a series of two or more positions for each attribute, every series, however, beginning with the same (as it were, central) real (hence the unity of

substance in a group of attributes), but each being continued by different reals (hence the plurality and difference of attributes in unity of substance). Where there is the appearance of inherence, therefore, there is always a plurality of reals; no such correlative to substance as attribute or accident can be admitted at all. Substantiality is impossible without causality, and to this as its true correlative we now turn.

The common-sense conception of change involves at bottom the same contradiction of opposing qualities in one real. The same A that was *a*, *b*, *c* ... becomes *a*, *b*, *d* ...; and this, which experience thrusts upon us, proves on reflection unthinkable. The metaphysical supplementing is also fundamentally as before. Since *c* depended on a series of reals $A_3 + A_3 + A_3$ ... in connexion with A, and *d* may be said similarly to depend on a series $A_4 + A_4 + A_4$ ..., then the change from *c* to *d* means, not that the central real A or any real has changed, but that A is now in connexion with A_4, &c., and no longer in connexion with A_3, &c.

But to think a number of reals "in connexion" (*Zusammensein*) will not suffice as an explanation of phenomena; something or other must happen when they are in connexion; what is it? The answer to this question is the second hinge-point of Herbart's theoretical philosophy. What "actually happens" as distinct from all that seems to happen, when two reals A and B are together is that, assuming them to differ in quality, they tend to disturb each other to the extent of that difference, at the same time that each preserves itself intact by resisting, as it were, the other's disturbance. And so by coming into connexion with different reals the "self-preservations" of A will vary accordingly, A remaining the same through all; just as, by way of illustration, hydrogen remains the same in water and in ammonia, or as the same line may be now a normal and now a tangent. But to indicate this opposition in the qualities of the reals A + B, we must substitute for these symbols others, which, though only "contingent aspects" of A and B, *i.e.* representing their relations, not themselves, yet like similar devices in mathematics enable thought to advance. Thus we may put $A = \alpha + \beta - \gamma$, $B = m + n + \gamma$; γ then represents the character of the self-preservations in this case, and $\alpha + \beta + m + n$ represents all that could be observed by a spectator who did not know the simple qualities, but was himself involved in the relations of A to B; and such is exactly our position.

Having thus determined what really is and what actually happens, our philosopher proceeds next to explain synthetically the objective semblance (*der objective Schein*) that results from these. But if this construction is to be truly objective, *i.e.* valid for all intelligences, ontology must furnish us with a clue. This we have in the forms of Space, Time and Motion which are involved whenever we think the reals as being in, or coming into, connexion and the opposite. These forms then cannot be merely the products of our psychological mechanism, though they may turn out to coincide with these. Meanwhile let us call them "intelligible," as being valid for all who comprehend the real and actual by thought, although no such forms are predicable of the real and actual themselves. The elementary spatial relation Herbart conceives to be "the contiguity (*Aneinander*) of two points," so that every "pure and independent line" is discrete. But an investigation of dependent lines which are often incommensurable forces us to adopt the contradictory fiction of partially overlapping, *i.e.* divisible points, or in other words, the conception of Continuity.[1] But the contradiction here is one we cannot eliminate by the method of relations, because it does not involve anything real; and in fact as a necessary outcome of an "intelligible" form, the fiction of continuity is valid for the "objective semblance," and no more to be discarded than say $\sqrt{-1}$. By its help we are enabled to comprehend what actually happens among reals to produce the appearance of matter. When three or more reals are together, each disturbance and self-preservation will (in general) be imperfect, *i.e.* of less intensity than when only two reals are together. But "objective semblance" corresponds with reality; the spatial or external relations of the reals in this case must, therefore, tally with their inner or actual states. Had the self-preservations been perfect, the coincidence in space would have been complete, and the group of reals would have been inextended; or had the several reals been simply contiguous, *i.e.* without connexion, then, as nothing would actually have happened, nothing would appear. As it is we shall find a continuous molecule manifesting attractive and repulsive forces; attraction corresponding to the tendency of the self-preservations to become perfect, repulsion to the frustration of this. Motion, even more evidently than space, implicates the contradictory conception of continuity, and cannot, therefore, be a real predicate, though valid as an intelligible form and necessary to the comprehension of the objective semblance. For we have to think of the reals as absolutely independent and yet as entering into connexions. This we can only do by conceiving them as originally moving through intelligible space in rectilinear paths and with uniform velocities. For such motion no cause need be supposed; motion, in fact, is no more a state of the moving real than rest is, both alike being but relations, with which, therefore, the real has no concern. The changes in this motion, however, for which we *should* require a cause, would be the objective semblance of the self-preservations that actually occur when reals meet. Further, by means of such motion these actual occurrences, which are in themselves

timeless, fall for an observer in a definite time—a time which becomes continuous through the partial coincidence of events.

But in all this it has been assumed that we are spectators of the objective semblance; it remains to make good this assumption, or, in other words, to show the possibility of knowledge; this is the problem of what Herbart terms Eidolology, and forms the transition from metaphysic to psychology. Here, again, a contradictory conception blocks the way, that, viz. of the Ego as the identity of knowing and being, and as such the stronghold of idealism. The contradiction becomes more evident when the ego is defined to be a subject (and so a real) that is its own object. As real and not merely formal, this conception of the ego is amenable to the method of relations. The solution this method furnishes is summarily that there are several objects which mutually modify each other, and so constitute that ego we take for the presented real. But to explain this modification is the business of psychology; it is enough now to see that the subject like all reals is necessarily unknown, and that, therefore, the idealist's theory of knowledge is unsound. But though the simple quality of the subject or soul is beyond knowledge, we know what actually happens when it is in connexion with other's reals, for its self-preservations then are what we call sensations. And these sensations are the sole material of our knowledge; but they are not given to us as a chaos but in definite groups and series, whence we come to know the relations of those reals, which, though themselves unknown, our sensations compel us to posit absolutely.

In his *Psychology* Herbart rejects altogether the doctrine of mental faculties as one refuted by his metaphysics, and tries to show that all psychical phenomena whatever result from the action and interaction of elementary ideas or presentations (*Vorstellungen*). The soul being one and simple, its separate acts of self-preservation or primary presentations must be simple too, and its several presentations must become united together. And this they can do at once and completely when, as is the case, for example, with the several attributes of an object, they are not of opposite quality. But otherwise there ensues a conflict in which the opposed presentations comport themselves like forces and mutually suppress or obscure each other. The act of presentation (*Vorstellen*) then becomes partly transformed into an effort, and its product, the idea, becomes in the same proportion less and less intense till a position of equilibrium is reached; and then at length the remainders coalesce. We have thus a statics and a mechanics of mind which investigate respectively the conditions of equilibrium and of movement among presentations. In the statics two magnitudes have to be determined: (1) the amount of the suppression or inhibition (*Hemmungssumme*), and (2) the ratio in which this is shared among the opposing presentations. The first must obviously be as small as possible; thus for two totally-opposed presentations a and b, of which a is the greater, the *inhibendum* = *b*. For a given degree of opposition this burden will be shared between the conflicting presentations in the inverse ratio of their strength. When its remainder after inhibition = 0, a presentation is said to be on the threshold of consciousness, for on a small diminution of the inhibition the "effort" will become actual presentation in the same proportion. Such total exclusion from consciousness is, however, manifestly impossible with only two presentations,[2] though with three or a greater number the residual value of one may even be negative. The first and simplest law in psychological mechanics relates to the "sinking" of inhibited presentations. As the presentations yield to the pressure, the pressure itself diminishes, so that the velocity of sinking decreases, *i.e.* we have the equation $(S - \sigma)\, dt = d\sigma$, where S is the total *inhibendum*, and σ the intensity actually inhibited after the time *t*. Hence $t = \log (S/S - \sigma)$, and $\sigma = S(1 - e^{-t})$. From this law it follows, for example, that equilibrium is never quite obtained for those presentations which continue above the threshold of consciousness, while the rest which cannot so continue are very speedily driven beyond the threshold. More important is the law according to which a presentation freed from inhibition and rising anew into consciousness tends to raise the other presentations with which it is combined. Suppose two presentations *p* and π united by the residua *r* and ρ; then the amount of *p*'s "help" to π is *r*, the portion of which appropriated by π is given by the ratio ρ : π; and thus the initial help is *r*ρ/π. But after a time *t*, when a portion of ρ represented by ω has been actually brought into consciousness, the help afforded in the next instant will be found by the equation

$$\frac{r\rho}{\pi} \cdot \frac{\rho - \omega}{\rho}\, dt = d\omega,$$

from which by integration we have the value of ω.

$$\omega = \rho \left(1 - \varepsilon^{-rt/\pi}\right).$$

So that if there are several πs connected with *p* by smaller and smaller parts, there will be a definite "serial" order in which they will be revived by *p*; and on this fact Herbart rests all the phenomena of the so-called faculty of memory, the development of spatial and temporal forms and much besides. Emotions and volitions, he holds, are not directly self-preservations of the soul, as our presentations are, but variable states of such presentations resulting from

their interaction when above the threshold of consciousness. Thus when some presentations tend to force a presentation into consciousness, and others at the same time tend to drive it out, that presentation is the seat of painful feeling; when, on the other hand, its entrance is favoured by all, pleasure results. Desires are presentations struggling into consciousness against hindrances, and when accompanied by the supposition of success become volitions. Transcendental freedom of will in Kant's sense is an impossibility. Self-consciousness is the result of an interaction essentially the same in kind as that which takes place when a comparatively simple presentation finds the field of consciousness occupied by a long-formed and well-consolidated "mass" of presentations—as, *e.g.* one's business or garden, the theatre, &c., which promptly inhibit the isolated presentation if incongruent, and unite it to themselves if not. What we call Self is, above all, such a central mass, and Herbart seeks to show with great ingenuity and detail how this position is occupied at first chiefly by the body, then by the seat of ideas and desires, and finally by that first-personal Self which recollects the past and resolves concerning the future. But at any stage the actual constituents of this "complexion" are variable; the concrete presentation of Self is never twice the same. And, therefore, finding on reflection any particular concrete factor contingent, we abstract the position from that which occupies it, and so reach the speculative notion of the pure Ego.

Aesthetics elaborates the "ideas" involved in the expression of taste called forth by those relations of object which acquire for them the attribution of beauty or the reverse. The beautiful (καλόν) is to be carefully distinguished from the allied conceptions of the useful and the pleasant, which vary with time, place and person; whereas beauty is predicated absolutely and involuntarily by all who have attained the right standpoint. Ethics, which is but one branch of aesthetics, although the chief, deals with such relations among volitions (*Willensverhältnisse*) as thus unconditionally please or displease. These relations Herbart finds to be reducible to five, which do not admit of further simplification; and corresponding to them are as many moral ideas (*Musterbegriffe*), viz.: (1) *Internal Freedom*, the underlying relation being that of the individual's will to his judgment of it; (2) *Perfection*, the relation being that of his several volitions to each other in respect of intensity, variety and concentration; (3) *Benevolence*, the relation being that between his own will and the thought of another's; (4) *Right*, in case of actual conflict with another; and (5) *Retribution* or *Equity*, for intended good or evil done. The ideas of a final society, a system of rewards and punishments, a system of administration, a system of culture and a "unanimated society," corresponding to the ideas of law, equity, benevolence, perfection and internal freedom respectively, result when we take account of a number of individuals. Virtue is the perfect conformity of the will with the moral ideas; of this the single virtues are but special expressions. The conception of duty arises from the existence of hindrances to the attainment of virtue. A general scheme of principles of conduct is possible, but the subsumption of special cases under these must remain matter of tact. The application of ethics to things as they are with a view to the realization of the moral ideas is moral technology (*Tugendlehre*), of which the chief divisions are Paedagogy and Politics.

In *Theology* Herbart held the argument from design to be as valid for divine activity as for human, and to justify the belief in a super-sensible real, concerning which, however, exact knowledge is neither attainable nor on practical grounds desirable.

Among the post-Kantian philosophers Herbart doubtless ranks next to Hegel in importance, and this without taking into account his very great contributions to the science of education. His disciples speak of theirs as the "exact philosophy," and the term well expresses their master's chief excellence and the character of the chief influence he has exerted upon succeeding thinkers of his own and other schools. His criticisms are worth more than his constructions; indeed for exactness and penetration of thought he is quite on a level with Hume and Kant. His merits in this respect, however, can only be appraised by the study of his works at first hand. But we are most of all indebted to Herbart for the enormous advance psychology has been enabled to make, thanks to his fruitful treatment of it, albeit as yet but few among the many who have appropriated and improved his materials have ventured to adopt his metaphysical and mathematical foundations.

(J. W.*)

Bibliography.—Herbart's works were collected and published by his disciple G. Hartenstein (Leipzig, 1850-1852; reprinted at Hamburg, with supplementary volume, 1883-1893); another edition by K. Kehrbach (Leipzig, 1882, and Langensalza, 1887). The following are the most important: *Allgemeine Pädagogik* (1806; new ed., 1894); *Hauptpunkte der Metaphysik* (1808); *Allgemeine praktische Philosophie* (1808); *Lehrbuch zur Einleitung in die Philosophie* (1813; new ed. by Hartenstein, 1883); *Lehrbuch der Psychologie* (1816; new ed. by Hartenstein, 1887); *Psychologie als Wissenschaft* (1824-1825); *Allgemeine Metaphysik* (1828-1829); *Encyklopädie der Philosophie* (2nd ed., 1841); *Umriss pädagogischer Vorlesungen* (2nd ed., 1841); *Psychologische Untersuchungen* (1839-1840).

Some of his works have been translated into English under the following titles: *Textbook in Psychology*, by M. K. Smith (1891); *The Science of Education and the Aesthetic Revelation of the World* (1892), and *Letters and Lectures on Education* (1898), by H. M. and E. Felkin; *A B C of Sense Perception and minor pedagogical works* (New York, 1896), by W. J. Eckhoff and others; *Application of Psychology to the Science of Education* (1898), by B. C. Mulliner; *Outlines of Educational Doctrine*, by A. F. Lange (1901).

There is a life of Herbart in Hartenstein's introduction to his *Kleinere philosophische Schriften und Abhandlungen* (1842-1843) and by F. H. T. Allihn in *Zeitschrift für exacte Philosophie* (Leipzig, 1861), the organ of Herbart and his school, which ceased to appear in 1873. In America the National Society for the Scientific Study of Education was originally founded as the National Herbart Society.

Of the large number of writings dealing with Herbart's works and theories, the following may be mentioned: H. A. Fechner, *Zur Kritik der Grundlagen von Herbart's Metaphysik* (Leipzig, 1853); J. Kaftan, *Sollen und Sein in ihrem Verhältniss zu einander: eine Studie zur Kritik Herbarts* (Leipzig, 1872); M. W. Drobisch, *Über die Fortbildung der Philosophie durch Herbart* (Leipzig, 1876); K. S. Just, *Die Fortbildung der Kant'schen Ethik durch Herbart* (Eisenach, 1876); C. Ufer, *Vorschule der Pädagogik Herbarts* (1883; Eng. tr. by J. C. Zinser, 1895); G. Közle, *Die pädagogische Schule Herbarts und ihre Lehre* (Gutersloh, 1889); L. Strümpell, *Das System der Pädagogik Herbarts* (Leipzig, 1894); J. Christinger, *Herbarts Erziehungslehre und ihre Fortbildner* (Zürich, 1895); O. H. Lang, *Outline of Herbart's Pedagogics* (1894); H. M. and E. Felkin, *Introduction to Herbart's Science and Practice of Education* (1895); C. de Garmo, *Herbart and the Herbartians* (New York, 1895); E. Wagner, *Die Praxis der Herbartianer* (Langensalza, 1897) and *Vollständige Darstellung der Lehre Herbarts* (ib., 1899); J. Adams, *The Herbartian Psychology applied to Education* (1897); F. H. Hayward, *The Student's Herbart* (1902), *The Critics of Herbartianism* (1903), *Three Historical Educators: Pestalozzi, Fröbel, Herbart* (1905), *The Secret of Herbart* (1907), *The Meaning of Education as interpreted by Herbart* (1907); W. Kinkel, *J. F. Herbart: sein Leben und seine Philosophie* (1903); A. Darroch, *Herbart and the Herbartian Theory of Education* (1903); C. J. Dodd, *Introduction to the Herbartian Principles of Teaching* (1904); J. Davidson, *A new Interpretation of Herbart's Psychology and Educational Theory through the Philosophy of Leibnitz* (1906); see also J. M. Baldwin, *Dictionary of Psychology and Philosophy* (1901-1905).

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1 Hence Herbart gave the name Synechology to this branch of metaphysics, instead of the usual one, Cosmology.

2 Thus, taking the case above supposed, the share of the inhibendum falling to the smaller presentation b is the fourth term of the proportion $a + b : a :: b : ab/(a + b)$; and so b's remainder is $b - ab/(a + b) = b^2/(a + b)$, which only = 0 when a = ∞.

HERBELOT DE MOLAINVILLE, BARTHÉLEMY D' (1625-1695), French orientalist, was born on the 14th of December 1625 at Paris. He was educated at the university of Paris, and devoted himself to the study of oriental languages, going to Italy to perfect himself in them by converse with the orientals who frequented its sea-ports. There he also made the acquaintance of Holstenius, the Dutch humanist (1596-1661), and Leo Allatius, the Greek scholar (1586-1669). On his return to France after a year and a half, he was received into the house of Fouquet, superintendent of finance, who gave him a pension of 1500 livres. Losing this on the disgrace of Fouquet in 1661, he was appointed secretary and interpreter of Eastern languages to the king. A few years later he again visited Italy, when the grand-duke Ferdinand II. of Tuscany presented him with a large number of valuable Oriental MSS., and tried to attach him to his court. Herbelot, however, was recalled to France by Colbert, and received from the king a pension equal to the one he had lost. In 1692 he succeeded D'Auvergne in the chair of Syriac, in the Collège de France. He died in Paris on the 8th of December 1695. His great work is the *Bibliothèque orientale, ou dictionnaire universel contenant tout ce qui regarde la connaissance des peuples de l'Orient*, which occupied him nearly all his life, and was completed in 1697 by A. Galland. It is based on the immense Arabic dictionary of Hadji Khalfa, of which indeed it is largely an abridged translation, but it also contains the substance of a vast number of other Arabic and Turkish compilations and manuscripts.

The *Bibliothèque* was reprinted at Maestricht (fol. 1776), and at the Hague (4 vols. 4to,

1777-1799). The latter edition is enriched with the contributions of the Dutch orientalist Schultens, Johann Jakob Reiske (1716-1774), and by a supplement provided by Visdelow and Galland. Herbelot's other works, none of which have been published, comprise an *Oriental Anthology*, and an *Arabic, Persian, Turkish and Latin Dictionary*.

HERBERAY DES ESSARTS, NICOLAS DE (d. about 1557), French translator, was born in Picardy. He served in the artillery, and at the expressed desire of Francis I. he translated into French the first eight books of *Amadis de Gaul* (1540-1548). The remaining books were translated by other authors. His other translations from the Spanish include *L'Amant maltraité de sa mye* (1539); *Le Premier Livre de la chronique de dom Florès de Grèce* (1552); and *L'Horloge des princes* (1555) from Guevara. He also translated the works of Josephus (1557). He died about 1557. The *Amadis de Gaul* was translated into English by Anthony Munday in 1619.

HERBERT (FAMILY). The sudden rising of this English family to great wealth and high place is the more remarkable in that its elevation belongs to the 15th century and not to that age of the Tudors when many new men made their way upwards into the ranks of the nobility. Earlier generations of a pedigree which carries the origin of the Herberts to Herbert the Chamberlain, a Domesday tenant, being disregarded, their patriarch may be taken to be one Jenkin ap Adam (temp. Edward III.), who had a small Monmouthshire estate at Llanvapley and the office of master sergeant of the lordship of Abergavenny, a place which gave him precedence after the steward of that lordship. Jenkin's son, Gwilim ap Jenkin, who followed his father as master sergeant, is given six sons by the border genealogists, no less than six score pedigrees finding their origin in these six brothers. Their order is uncertain, although the Progers of Werndee, the last of whom sold his ancestral estate in 1780, are reckoned as the senior line of Gwilim's descendants. But Thomas ap Gwilim Jenkin, called the fourth son, is ancestor of all those who bore the surname of Herbert.

Thomas's fifth son, William or Gwilim ap Thomas, who died in 1446, was the first man of the family to make any figure in history. This Gwilim ap Thomas was steward of the lordships of Usk and Caerleon under Richard, duke of York. Legend makes him a knight on the field of Agincourt, but his knighthood belongs to the year 1426. He appears to have married twice, his first wife being Elizabeth Bluet of Raglan, widow of Sir James Berkeley, and his second a daughter of David Gam, a valiant Welsh squire slain at Agincourt. Royal favour enriched Sir William, and he was able to buy Raglan Castle from the Lord Berkeley, his first wife's son, the deed, which remains among the Beaufort muniments, refuting the pedigree-maker's statement that he inherited the castle as heir of his mother "Maude, daughter of Sir John Morley." His sons William and Richard, both partisans of the White Rose, took the surname of Herbert in or before 1461. Playing a part in English affairs remote from the Welsh Marches, their lack of a surname may well have inconvenienced them, and their choice of the name Herbert can only be explained by the suggestion that their long pedigree from Herbert the Chamberlain, absurdly represented as a bastard son of Henry I., must already have been discovered for them. Copies exist of an alleged commission issued by Edward IV. to a committee of Welsh bards for the ascertaining of the true ancestry of William Herbert, earl of Pembroke, whom "the chiefest men of skill" in the province of South Wales declare to be the descendant of "Herbert, a noble lord, natural son to King Henry the first," and it is recited that King Edward, after the creation of the earldom, commanded the earl and Sir Richard his brother to "take their surnames after their first progenitor Herbert fitz Roy and to forego the British order and manner." But this commission, whose date anticipates by some years the true date of the creation of the earldom, is the work of one of the many genealogical forgers who flourished under the Tudors.

Sir William Herbert, called by the Welsh Gwilim Ddu or Black William, was a baron in

1461 and a Knight of the Garter in the following year. With many manors and castles on the Marches he had the castle, town and lordship of Pembroke, and after the attainder of Jasper Tudor in 1468 was created earl of Pembroke. When in July 1469 he was taken by Sir John Conyers and the northern Lancastrians on Hedgecote, he was beheaded with his brother Sir Richard Herbert of Coldbrook. The second earl while still a minor exchanged at the king's desire in 1479 his earldom of Pembroke for that of Huntingdon. In 1484 this son of one whom Hall not unjustly describes as born "a mean gentleman" contracted to marry Katharine the daughter of King Richard III., but her death annulled the contract and the earl married Mary, daughter of the Earl Rivers, by whom he had a daughter Elizabeth, whose descendants, the Somersets, lived in the Herbert's castle of Raglan until the cannon of the parliament broke it in ruins. With the second earl's death in 1491 the first Herbert earldom became extinct. No claim being set up among the other descendants of the first earl, it may be taken that their lines were illegitimate. One of the chief difficulties which beset the genealogist of the Herberts lies in their Cambrian disregard of the marriage tie, bastards and legitimate issue growing up, it would seem, side by side in their patriarchal households. Thus the ancestor of the present earls of Pembroke and Carnarvon and of the Herbert who was created marquess of Powis was a natural son of the first earl, one Richard Herbert, whom the restored inscription on his tomb at Abergavenny incorrectly describes as a knight. He was constable and porter of Abergavenny Castle, and his son William, "a mad fighting fellow" in his youth, married a sister of Catherine Parr and thus in 1543 became nearly allied to the king, who made him one of the executors of his will. The earldom of Pembroke was revived for him in 1551. It is worthy of note that all traces of illegitimacy have long since been removed from the arms of the noble descendants of Richard Herbert.

The honours and titles of this clan of marchmen make a long list. They include the marquessate of Powis, two earldoms with the title of Pembroke, two with that of Powis, and the earldoms of Huntingdon and Montgomery, Torrington and Carnarvon, the viscountcies of Montgomery and Ludlow, fourteen baronies and seven baronetcies. Seven Herberts have worn the Garter. The knights and rich squires of the stock can hardly be reckoned, more especially as they must be sought among Raglans, Morgans, Parrys, Vaughans, Progers, Hugheses, Thomases, Philips, Powels, Gwyns, Evanses and Joneses, as well as among those who have borne the surname of Herbert, a surname which in the 19th century was adopted by the Joneses of Llanarth and Clytha, although they claim no descent from those sons of Sir William ap Thomas for whom it was devised.

(O. Ba.)

HERBERT, GEORGE (1593-1633), English poet, was born at Montgomery Castle on the 3rd of April 1593. He was the fifth son of Sir Richard Herbert and a brother of Lord Herbert of Cherbury. His mother, Lady Magdalen Herbert, a woman of great good sense and sweetness of character, and a friend of John Donne, exercised great influence over her son. Educated privately until 1605, he was then sent to Westminster School, and in 1609 he became a scholar of Trinity College, Cambridge, where he was made B.A. in 1613, M.A. and major fellow of the college in 1616. In 1618 he became Reader in Rhetoric, and in 1619 orator for the university. In this capacity he was several times brought into contact with King James. From Cambridge he wrote some Latin satiric verses[1] in defence of the universities and the English Church against Andrew Melville, a Scottish Presbyterian minister. He numbered among his friends Dr Donne, Sir Henry Wotton, Izaak Walton, Bishop Andrewes and Francis Bacon, who dedicated to him his translation of the Psalms. Walton tells us that "the love of a court conversation, mixed with a laudable ambition to be something more than he was, drew him often from Cambridge to attend the king wheresoever the court was," and James I. gave him in 1623 the sinecure lay rectory of Whitford, Flintshire, worth £120 a year. The death of his patrons, the duke of Richmond and the marquess of Hamilton, and of King James put an end to his hopes of political preferment; moreover he probably distrusted the conduct of affairs under the new reign. Largely influenced by his mother, he decided to take holy orders, and in July 1626 he was appointed prebendary of Layton Ecclesia (Leighton Bromswold), Huntingdon. Here he was within two miles of Little Gidding, and came under the influence of Nicholas Ferrar. It was at Ferrar's suggestion that he undertook to rebuild the church at Layton, an undertaking carried through by his own gifts and the generosity of his friends. There is little doubt that the close friendship with Ferrar had a large share in Herbert's adoption of the religious life. In 1630

Charles I., at the instance of the earl of Pembroke, whose kinsman Herbert was, presented him to the living of Fugglestone with Bemerton, near Salisbury, and he was ordained priest in September. A year before, after three days' acquaintance, he had married Jane Danvers, whose father had been set on the marriage for a long time. He had often spoken of his daughter Jane to Herbert, and "so much commended Mr Herbert to her, that Jane became so much a Platonic as to fall in love with Mr Herbert unseen." The story of the poet's life at Bemerton, as told by Walton, is one of the most exquisite pictures in literary biography. He devoted much time to explaining the meaning of the various parts of the Prayer-Book, and held services twice every day, at which many of the parishioners attended, and some "let their plough rest when Mr Herbert's saints-bell rung to prayers, that they might also offer their devotions to God with him." Next to Christianity itself he loved the English Church. He was passionately fond of music, and his own hymns were written to the accompaniment of his lute or viol. He usually walked twice a week to attend the cathedral at Salisbury, and before returning home, would "sing and play his part" at a meeting of music lovers. Walton illustrates Herbert's kindness to the poor by many touching anecdotes, but he had not been three years in Bemerton when he succumbed to consumption. He was buried beneath the altar of his church on the 3rd of March 1633.

None of Herbert's English poems was published during his lifetime. On his death-bed he gave to Nicholas Ferrar a manuscript with the title *The Temple: Sacred Poems and Private Ejaculations*. This was published at Cambridge, apparently for private circulation, almost immediately after Herbert's death, and a second imprint followed in the same year. On the title-page of both is the quotation "In his Temple doth every man speak of his honour." *The Temple* is a collection of religious poems connected by unity of sentiment and inspiration. Herbert tried to interpret his own devout meditations by applying images of all kinds to the ritual and beliefs of the Church. Nothing in his own church at Bemerton was too commonplace to serve as a starting-point for the epigrammatic expression of his piety. The church key reminds him that "it is my sin that locks his handes," and the stones of the floor are patience and humility, while the cement that binds them together is love and charity. The chief faults of the book are obscurity, verbal conceits and a forced ingenuity which shows itself in grotesque puns, odd metres and occasional want of taste. But the quaint beauty of Herbert's style and its musical quality give *The Temple* a high place. "The Church Porch," "The Agony," "Sin," "Sunday," "Virtue," "Man," "The British Church," "The Quip," "The Collar," "The Pulley," "The Flower," "Aaron" and "The Elixir" are among the best known of these poems. Herbert and Keble are the poets of Anglican theology. No book is fuller of devotion to the Church of England than *The Temple*, and no poems in our language exhibit more of the spirit of true Christianity. Every page is marked by transparent sincerity, and reflects the beautiful character of "holy George Herbert." 340

Nicholas Ferrar's translation (Oxford, 1638) of the *Hundred and Ten Considerations ...* of Juan de Valdes contained a letter and notes by Herbert. In 1652 appeared *Herbert's Remains; or, Sundry Pieces of that Sweet Singer of the Temple, Mr George Herbert*. This included *A Priest to the Temple; or, The Country Parson, his Character, and Rule of Holy Life*, in prose; *Jacula prudentum*, a collection of proverbs with a separate title-page dated 1651, which had appeared in a shorter form as *Outlandish Proverbs* in 1640; and some miscellaneous matter. The completest edition of his works is that by Dr A. B. Grosart in 1874, this edition of the Poetical works being reproduced in the "Aldine edition" in 1876. *The English Works of George Herbert ...* (3 vols., 1905) were edited in much detail by G. H. Palmer. A contemporary account of Herbert's life by Barnabas Oley was prefixed to the *Remains* of 1652, but the classic authority is Izaak Walton's *Life of Mr George Herbert*, published in 1670, with some letters from Herbert to his mother. See also A. G. Hyde, *George Herbert and his Times* (1907), and the "Oxford" edition of his poems by A. Waugh (1908).

1 Printed in 1662 as an appendix to J. Vivian's *Ecclesiastes Solomonis*.

HERBERT, HENRY WILLIAM ["Frank Forester"] (1807-1858), English novelist and writer on sport, son of the Hon. and Rev. William Herbert, dean of Manchester, a son of the first earl of Carnarvon, was born in London on the 3rd of April 1807. He was educated at Eton and at Caius College, Cambridge, where he graduated B.A. in 1830. Having become involved in debt, he emigrated to America, and from 1831 to 1839 was teacher of Greek in a

private school in New York. In 1833 he started the *American Monthly Magazine*, which he edited, in conjunction with A. D. Patterson, till 1835. In 1834 he published his first novel, *The Brothers: a Tale of the Fronde*, which was followed by a number of others which obtained a certain degree of popularity. He also wrote a series of historical studies, including *The Cavaliers of England* (1852), *The Knights of England, France and Scotland* (1852), *The Chevaliers of France* (1853), and *The Captains of the Old World* (1851); but he is best known for his works on sport, published under the pseudonym of "Frank Forester." These include *The Field Sports of the United States and British Provinces* (1849), *Frank Forester and his Friends* (1849), *The Fish and Fishing of the United States* (1850), *The Young Sportsman's Complete Manual* (1852), and *The Horse and Horsemanship in the United States and British Provinces of North America* (1858). He also translated many of the novels of Eugene Sue and Alexandre Dumas. Herbert was a man of varied accomplishments, but of somewhat dissipated habits. He died by his own hand in New York on the 17th of May 1858.

HERBERT, SIR THOMAS (1606-1682), English traveller and author, was born at York in 1606. Several of his ancestors were aldermen and merchants in that city—*e.g.* his grandfather and benefactor, Alderman Herbert (d. 1614)—and they traced a connexion with the earls of Pembroke. Thomas became a commoner of Jesus College, Oxford, in 1621, but afterwards removed to Cambridge, through the influence of his uncle Dr Ambrose Akroyd. In 1627 the earl of Pembroke procured his appointment in the suite of Sir Dodmore Cotton, then starting as ambassador for Persia with Sir Robert Shirley. Sailing in March they visited the Cape, Madagascar, Goa and Surat; landing at Gambrun (10th of January 1627-1628), they travelled inland to Ashraf and thence to Kazvin, where both Cotton and Shirley died, and whence Herbert made extensive travels in the Persian *Hinterland*, visiting Kashan, Bagdad, &c. On his return voyage he touched at Ceylon, the Coromandel coast, Mauritius and St Helena. He reached England in 1629, travelled in Europe in 1630-1631, married in 1632 and retired from court in 1634 (his prospects perhaps blighted by Pembroke's death in 1630); after this he resided on his Tintern estate and elsewhere till the Civil War, siding with the parliament till his appointment to attend on the king in 1646. Becoming a devoted royalist, he was rewarded with a baronetcy at the Restoration (1660). He resided mainly in York Street, Westminster, till the Great Plague (1666), when he retired to York, where he died (at Petergate House) on the 1st of March 1682.

Herbert's chief work is the *Description of the Persian Monarchy now beinge: the Orientall Indyes, Iles and other parts of the Greater Asia and Africk* (1634), reissued with additions, &c., in 1638 as *Some Yeares Travels into Africa and Asia the Great* (al. *into divers parts of Asia and Afrique*); a third edition followed in 1664, and a fourth in 1677. This is one of the best records of 17th-century travel. Among its illustrations are remarkable sketches of the dodo, cuneiform inscriptions and Persepolis. Herbert's *Threnodia Carolina; or, Memoirs of the two last years of the reign of that unparallell'd prince of ever blessed memory King Charles I.*, was in great part printed at the author's request in Wood's *Athenae Oxonienses*; in full by Dr C. Goodall in his *Collection of Tracts* (1702, repr. G. & W. Nicol, 1813). Sir William Dugdale is understood to have received assistance from Herbert in the *Monasticon Anglicanum*, vol. iv.; see two of Herbert's papers on St John's, Beverley and Ripon collegiate church, now cathedral, in Drake's *Eboracum* (appendix). Cf. also Robert Davies' account of Herbert in *The Yorkshire Archaeological and Topographical Journal*, part iii., pp. 182-214 (1870), containing a facsimile of the inscription on Herbert's tomb; Wood's *Athenae*, iv. 15-41; and *Fasti*, ii. 26, 131, 138, 143-144, 150.

HERBERT OF CHERBURY, EDWARD HERBERT, Baron (1583-1648), English soldier, diplomatist, historian and religious philosopher, eldest son of Richard Herbert of Montgomery Castle (a member of a collateral branch of the family of the earls of Pembroke) and of Magdalen, daughter of Sir Richard Newport, was born at Eyton-on-Severn near Wroxeter on the 3rd of March 1583. After careful private tuition he matriculated at

University College, Oxford, as a gentleman commoner, in May 1596. On the 28th of February 1599 he married his cousin Mary, daughter and heiress of Sir William Herbert (d. 1593). He returned to Oxford with his wife and mother, continued his studies, and obtained proficiency in modern languages as well as in music, riding and fencing. On the accession of James I. he presented himself at court and was created a knight of the Bath on the 24th of July 1603. In 1608 he went to Paris, enjoying the friendship and hospitality of the old constable de Montmorency, and being entertained by Henry IV. On his return, as he says himself with naïve vanity, he was “in great esteem both in court and city, many of the greatest desiring my company.” In 1610 he served as a volunteer in the Low Countries under the prince of Orange, whose intimate friend he became, and distinguished himself at the capture of Juliers from the emperor. He offered to decide the war by engaging in single combat with a champion chosen from among the enemy, but his challenge was declined. During an interval in the fighting he paid a visit to Spinola, in the Spanish camp near Wezel, and afterwards to the elector palatine at Heidelberg, subsequently travelling in Italy. At the instance of the duke of Savoy he led an expedition of 4000 Huguenots from Languedoc into Piedmont to help the Savoyards against Spain, but after nearly losing his life in the journey to Lyons he was imprisoned on his arrival there, and the enterprise came to nothing. Thence he returned to the Netherlands and the prince of Orange, arriving in England in 1617. In 1619 he was made by Buckingham ambassador at Paris, but a quarrel with de Luynes and a challenge sent by him to the latter occasioned his recall in 1621. After the death of de Luynes Herbert resumed his post in February 1622. He was very popular at the French court and showed considerable diplomatic ability, his chief objects being to accomplish the union between Charles and Henrietta Maria and secure the assistance of Louis XIII. for the unfortunate elector palatine. This latter advantage he could not obtain, and he was dismissed in April 1624. He returned home greatly in debt and received little reward for his services beyond the Irish peerage of Castle island in 1624 and the English barony of Cherbury, or Chirbury, on the 7th of May 1629. In 1632 he was appointed a member of the council of war. He attended the king at York in 1639, and in May 1642 was imprisoned by the parliament for urging the addition of the words “without cause” to the resolution that the king violated his oath by making war on parliament. He determined after this to take no further part in the struggle, retired to Montgomery Castle, and declined the king’s summons. On the 5th of September 1644 he surrendered the castle to the parliamentary forces, returned to London, submitted, and was granted a pension of £20 a week. In 1647 he paid a visit to Gassendi at Paris, and died in London on the 20th of August, 1648, being buried in the church of St Giles’s in the Fields.

Lord Herbert left two sons, Richard (*c.* 1600-1655), who succeeded him as 2nd Lord Herbert of Cherbury, and Edward, the title becoming extinct in the person of Henry Herbert, the 4th baron, grandson of the 1st Lord Herbert in 1691. In 1694, however, it was revived in favour of Henry Herbert (1654-1709), son of Sir Henry Herbert (1595-1673), brother of the 1st Lord Herbert of Cherbury. Sir Henry was master of the revels to Charles I. and Charles II., being busily employed in reading and licensing plays and in supervising all kinds of public entertainments. He died in April 1673; his son Henry died in January 1709, when the latter’s son Henry became 2nd Lord Herbert of Cherbury of the second creation. He died without issue in April 1738, and again the barony became extinct. In 1743 it was revived for Henry Arthur Herbert (*c.* 1703-1772), who five years later was created earl of Powis. This nobleman was a great-grandson of the 2nd Lord Herbert of Cherbury of the first creation, and since his time the barony has been held by the earls of Powis. 341

Lord Herbert’s cousin, Sir Edward Herbert (*c.* 1591-1657), was a member of parliament under James I. and Charles I. Having become attorney-general he was instructed by Charles to take proceedings against some members of parliament who had been concerned in the passing of the Grand Remonstrance; the only result, however, was Herbert’s own impeachment by the House of Commons and his imprisonment. Later in life he was with the exiled royal family in Holland and in France, becoming lord keeper of the great seal to Charles II., an office which he had refused in 1645. He died in Paris in December 1657. One of Herbert’s son was Arthur Herbert, earl of Torrington, and another was Sir Edward Herbert (*c.* 1648-1698), titular earl of Portland, who was made chief justice of the king’s bench in 1685 in succession to Lord Jeffreys. It was Sir Edward who declared for the royal prerogative in the case of *Godden* v. *Hales*, asserting that the kings of England, being sovereign princes, could dispense with particular laws in particular cases. After the escape of James II. to France this king made Herbert his lord chancellor and created him earl of Portland, although he was a Protestant and had exhibited a certain amount of independence during 1687.

The first Lord Herbert’s real claim to fame and remembrance is derived from his writings.

Herbert's first and most important work is the *De veritate prout distinguitur a revelatione, a verisimili, a possibili, et a falso* (Paris, 1624; London, 1633; translated into French 1639, but never into English; a MS. in add. MSS. 7081. Another, Sloane MSS. 3957, has the author's dedication to his brother George in his own hand, dated 1622). It combines a theory of knowledge with a partial psychology, a methodology for the investigation of truth, and a scheme of natural religion. The author's method is prolix and often far from clear; the book is no compact system, but it contains the skeleton and much of the soul of a complete philosophy. Giving up all past theories as useless, Herbert professedly endeavours to constitute a new and true system. Truth, which he defines as a just conformation of the faculties with one another and with their objects, he distributed into four classes or stages: (1) truth in the thing or the truth of the object; (2) truth of the appearance; (3) truth of the apprehension (*conceptus*); (4) truth of the intellect. The faculties of the mind are as numerous as the differences of their objects, and are accordingly innumerable; but they may be arranged in four groups. The first and fundamental and most certain group is the *Natural Instinct*, to which belong the κοιναὶ ἔννοιαι, the *notitiae communes*, which are innate, of divine origin and indisputable. The second group, the next in certainty, is the *sensus internus* (under which head Herbert discusses amongst others love, hate, fear, conscience with its *communis notitia*, and free will); the third is the *sensus externus*; and the fourth is *discursus*, reasoning, to which, as being the least certain, we have recourse when the other faculties fail. The ratiocinative faculties proceed by division and analysis, by questioning, and are slow and gradual in their movement; they take aid from the other faculties, those of the *instinctus naturalis* being always the final test. Herbert's categories or questions to be used in investigation are ten in number whether (a thing is), what, of what sort, how much, in what relation, how, when, where, whence, wherefore. No faculty, rightly used, can err "even in dreams"; badly exercised, reasoning becomes the source of almost all our errors. The discussion of the *notitiae communes* is the most characteristic part of the book. The exposition of them, though highly dogmatic, is at times strikingly Kantian in substance. "So far are these elements or sacred principles from being derived from experience or observation that without some of them, or at least some one of them, we can neither experience nor even observe." Unless we felt driven by them to explore the nature of things, "it would never occur to us to distinguish one thing from another." It cannot be said that Herbert proves the existence of the common notions; he does not deduce them or even give any list of them. But each faculty has its common notion; and they may be distinguished by six marks, their *priority*, *independence*, *universality*, *certainty*, *necessity* (for the well-being of man), and *immediacy*. Law is based on certain *common notions*; so is religion. Though Herbert expressly defines the scope of his book as dealing with the intellect, not faith, it is the common notions of religion he has illustrated most fully; and it is plain that it is in this part of his system that he is chiefly interested. The common notions of religion are the famous five articles, which became the charter of the English deists (see DEISM). There is little polemic against the received form of Christianity, but Herbert's attitude towards the Church's doctrine is distinctly negative, and he denies revelation except to the individual soul. In the *De religione gentilium* (completed 1645, published Amsterdam, 1663, translated into English by W. Lewis, London, 1705) he gives what may be called, in Hume's words, "a natural history of religion." By examining the heathen religions Herbert finds, to his great delight, the universality of his five great articles, and that these are clearly recognizable under their absurdities as they are under the rites, ceremonies and polytheism invented by sacerdotal superstition. The same vein is maintained in the tracts *De causis errorum*, an unfinished work on logical fallacies, *Religio laici*, and *Ad sacerdotes de religione laici* (1645). In the *De veritate* Herbert produced the first purely metaphysical treatise written by an Englishman, and in the *De religione gentilium* one of the earliest studies extant in comparative theology; while both his metaphysical speculations and his religious views are throughout distinguished by the highest originality and provoked considerable controversy. His achievements in historical writing are vastly inferior, and vitiated by personal aims and his preoccupation to gain the royal favour. Herbert's first historical work is the *Expeditio Buckinghami ducis* (published in a Latin translation in 1656 and in the original English by the earl of Powis for the Philobiblon Society in 1860), a defence of Buckingham's conduct of the ill-fated expedition of 1627. *The Life and Raigne of King Henry VIII.* (1649) derives its chief value from its composition from original documents, but is ill-proportioned, and the author judges the character and statesmanship of Henry with too obvious a partiality.

His poems, published in 1665 (reprinted and edited by J. Churton Collins in 1881), show him in general a faithful disciple of Donne, obscure and uncouth. His satires are miserable compositions, but a few of his lyrical verses show power of reflection and true inspiration, while his use of the metre afterwards employed by Tennyson in his "In Memoriam" is particularly happy and effective. His Latin poems are evidence of his scholarship. Three of these had appeared together with the *De causis errorum* in 1645. To these works must be added *A Dialogue between a Tutor and a Pupil* (1768; a treatise on education, MS. in the Bodleian Library); a treatise on the king's supremacy in the Church (MS. in the Record

Office and at Queen's College, Oxford), and his well-known autobiography, first published by Horace Walpole in 1764, a naïve and amusing narrative, too much occupied, however, with his duels and amorous adventures, to the exclusion of more creditable incidents in his career, such as his contributions to philosophy and history, his intimacy with Donne, Ben Jonson, Selden and Carew, Casaubon, Gassendi and Grotius, or his embassy in France, in relation to which he only described the splendour of his retinue and his social triumphs.

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HERBERT OF LEA, SIDNEY HERBERT, 1ST BARON (1810-1861), English statesman, was the younger son of the 11th earl of Pembroke. Educated at Harrow and Oriel, Oxford, he made a reputation at the Oxford Union as a speaker, and entered the House of Commons as Conservative member for a division of Wiltshire in 1832. Under Peel he held minor offices, and in 1845 was included in the cabinet as secretary at war, and again held this office in 1852-1855, being responsible for the War Office during the Crimean difficulties, and in 1859. It was Sidney Herbert who sent Florence Nightingale out to the Crimea, and he led the movement for War Office reform after the war, the hard work entailed causing his breakdown in health, so that in July 1861, having been created a baron, he had to resign office, and died on the 2nd of August 1861. His statue was placed in front of the War Office in Pall Mall. He was succeeded in the title by his eldest son, who later became 13th earl of Pembroke, and the barony is now merged in that earldom; his second son became 14th earl. Another son, the Hon. Michael Herbert (1857-1904), was British Ambassador at Washington in succession to Lord Pauncefote.

A life of Lord Herbert by Lord Stanmore was published in 1906.

HERBERTON, a mining town of Cardwell county, Queensland, Australia, 55 m. S.W. of Cairns. Pop. (1901) 2806. Tin was discovered in the locality in 1879, and to this mineral the town chiefly owes its prosperity, though copper, bismuth and some silver and gold are also found. Atherton, 12 m. from the town, is served by rail from Cairns, which is the port for the Herberton district.

HERCULANEUM, an ancient city of Italy, situated about two-thirds of a mile from the Portici station of the railway from Naples to Pompeii. The ruins are less frequently visited than those of Pompeii, not only because they are smaller in extent and of less obvious interest, but also because they are more difficult of access. The history of their discovery and exploration, and the artistic and literary relics which they have yielded, are worthy, however, of particular notice. The small part of the city, which was investigated at the spot called *Gli scavi nuovi* (the new excavations) was discovered in the 19th century. But the more important works were executed in the 18th century; and of the buildings then explored at a great depth, by means of tunnels, none is visible except the theatre, the orchestra of which lies 85 ft. below the surface.

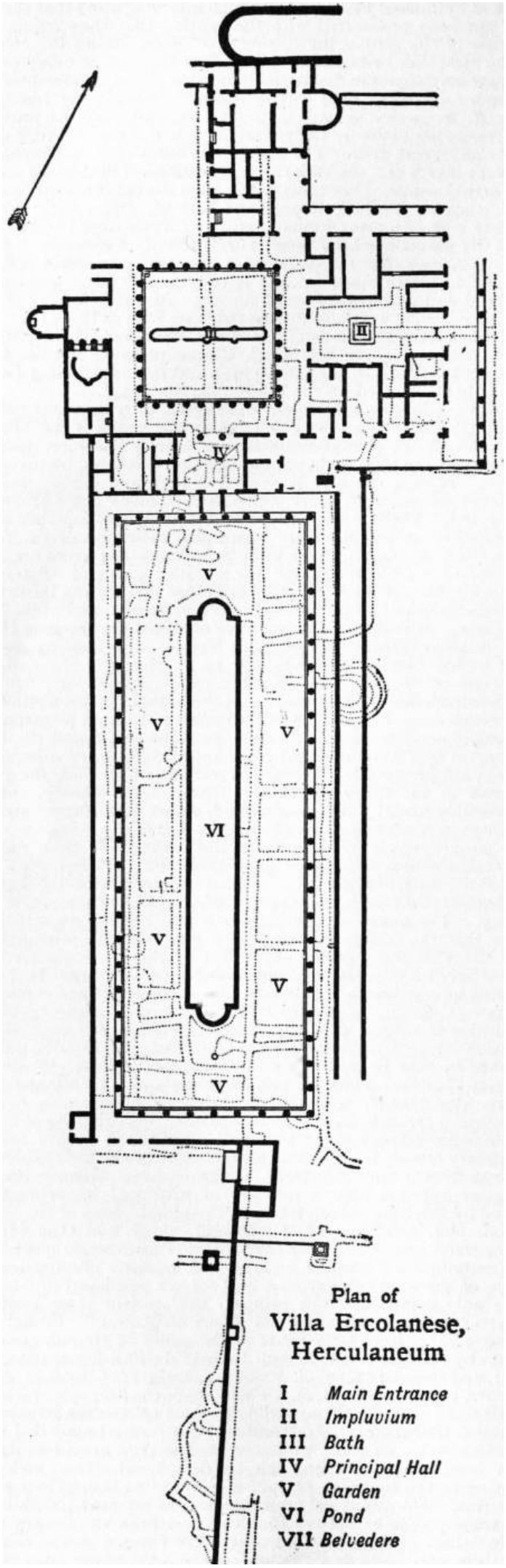
The brief notices of the classical writers inform us that Herculaneum[1] was a small city of Campania between Neapolis and Pompeii, that it was situated between two streams at the foot of Vesuvius on a hill overlooking the sea, and that its harbour was at all seasons safe. With regard to its earlier history nothing is known. The account given by Dionysius repeats a tradition which was most natural for a city bearing the name of Hercules. Strabo follows up the topographical data with a few brief historical statements—Ὄσκοι εἶχον καὶ ταύτην καὶ τὴν ἐφεξῆς Πομπηίαν ... εἶτα Τυῤῥηνοὶ καὶ Πελασγοί, μετὰ ταῦτα Σαυνῖται. But leaving the questions suggested by these names (see Etruria, &c.),[2] as well as those which relate to the origin of Pompeii (*q.v.*), it is sufficient here to say that the first historical record about Herculaneum has been handed down by Livy (viii. 25), where he relates how the city fell under the power of Rome during the Samnite wars. It remained faithful to Rome for a long time, but it joined the Italian allies in the Social War. Having submitted anew in June of the year 665 (88 B.C.), it appears to have been less severely treated than Pompeii, and to have escaped the imposition of a colony of Sulla's veterans, although Zumpt has suspected the contrary (*Comm. epigr.* i. 259). It afterwards became a municipium, and enjoyed great prosperity towards the close of the republic and in the earlier times of the empire, since many noble families of Rome selected this pleasant spot for the construction of splendid villas, one of which indeed belonged to the imperial house (Seneca, *De ira*, iii.), and another to the family of Calpurnius Piso. By means of the Via Campana it had easy communication north-westward with Neapolis, Puteoli and Capua, and thence by the Via Appia with Rome; and southwards with Pompeii and Nuceria, and thence with Lucania and the Bruttii. In the year A.D. 63 it suffered terribly from the earthquake which, according to Seneca, "Campaniam nunquam securam huius mali, indemnem tamen, et toties defunctam metu magna strage vastavit. Nam et Herculanensis oppidi pars ruit dubieque stant etiam quae relicta sunt" (*Nat. quaest.* vi. 1). Hardly had Herculaneum completed the restoration of some of its principal buildings (cf. Mommsen, I.N. n. 2384; *Catalogo del Museo Nazionale di Napoli*, n. 1151) when it fell beneath the great eruption of the year 79, described by Pliny the younger (*Ep.* vi. 16, 20), in which Pompeii also was destroyed, with other flourishing cities of Campania. According to the commonest account, on the 23rd of August of that year Pliny the elder, who had command of the Roman fleet at Misenum, set out to render assistance to a young lady of noble family named Rectina and others dwelling on that coast, but, as there was no escape by sea, the little harbour having been on a sudden filled up so as to be inaccessible, he was obliged to abandon to their fate those people of Herculaneum who had managed to flee from their houses, overwhelmed in a moment by the material poured forth by Vesuvius. But the text of Pliny the younger, where this account is given, has been subjected to various interpretations; and from the comparison of other classical testimonies and the study of the excavations it has been concluded that it is impossible to determine the date of the catastrophe, though there are satisfactory arguments to justify the statement that the event took place in the autumn. The opinion that immediately after the first outbreak of Vesuvius a torrent of lava was ejected over Herculaneum was refuted by the scholars of the 18th century, and their refutation is confirmed by Beulé (*Le Drame du Vésuve*, p. 240 seq.). And the last recensions of the passage quoted from Pliny, aided by an inscription,[3] prove that Rectina cannot have been the name of the harbour described by Beulé (*ib.* pp. 122, 247), but the name of a lady who had implored succour, the wife of Caesius Bassus, or rather Tascius (cf. Pliny, ed. Keil, Leipzig, 1870; Aulus Persius, ed. Jahn, *Sat.* vi.). The shore, moreover, according to the accurate studies of the engineer Michele Ruggiero, director of the excavations, was not altered by the causes adduced by Beulé (p. 125), but by a simpler event. "It is certain," he says (*Pompei e la regione sotterrata dal Vesuvio l'anno 79*, Naples, 1879, p. 21 seq.), "that the districts between the south and west, and those between the south and east, were overwhelmed in two quite different ways. From Torre Annunziata (which is believed to be the site of the ancient Oplontii) to San Giovanni a Teduccio, for a distance of about 9 m., there flowed a muddy eruption which in Herculaneum and the neighbouring places, where it was most abundant, raised the level of the country more than 65 ft. The matter transported consisted of soil of various kinds—sand, ashes, fragments of lava, pozzolana and whitish pumice, enclosing grains of uncalcined lime, similar in every respect to those of Pompeii. In the part of Herculaneum already excavated the corridors in the upper portions of the theatre are compactly filled, up to the head of the arches, with pozzolana and pumice transformed into tufa (which proves that the formation of this stone may take place in a comparatively short time). Tufa is also found in the lowest part of the city towards the sea in front of the few houses that have been discovered; and in the very high banks that surround them, as also in the lowest part of the theatre, there are plainly to be seen earth, sand, ashes, fragments of lava and pumice, with little distinction of strata, almost always confused and mingled together, and varying from spot to spot in degree of compactness. It is clear that this immense congeries of earth and stones could not

flow in a dry state over those 5 m. of country (in the beginning very steep, and at intervals almost level), where certainly it would have been arrested and all accumulated in a mound; but it must have been borne along by a great quantity of water, the effects of which may be distinctly recognized, not only in the filling and choking up even of the most narrow, intricate and remote parts of the buildings, but also in the formation of the tufa, in which water has so great a share; for it cannot be supposed that enough of it has filtered through so great a depth of earth. The torrent ran in a few hours to the sea, and formed that shallow or lagoon called by Pliny *Subitum Vadum*, which prevented the ships approaching the shores." Hence it is that, while many made their escape from Pompeii (which was overwhelmed by the fall of the small stones and afterwards by the rain of ashes), comparatively few can have managed to escape from Herculaneum, and these, according to the interpretation given to the inscription preserved in the National Museum (Mommsen, *I.N.* n. 2455), found shelter in the neighbouring city of Neapolis, where they inhabited a quarter called that of the buried city (Suetonius, *Titus*, 8; *C.I.L.* x. No. 1492, in Naples: "Regio primaria splendidissima Herculanensium"). The name of Herculaneum, which for some time remained attached to the site of the disaster, is mentioned in the later itineraries; but in the course of the middle ages all recollection of it perished.

In 1719, while Prince Elbeuf of the house of Lorraine, in command of the armies of Charles VI., was seeking crushed marble to make plaster for his new villa near Portici, he learned from the peasants that there were in the vicinity some pits from which they not only quarried excellent marble, but had extracted many statues in the course of years (see Jorio, *Notizia degli scavi d' Ercolano*, Naples, 1827). In 1738, while Colonel D. Rocco de Alcubierre was directing the works for the construction of the "Reali Delizie" at Portici, he received orders from Charles IV. (later, Charles III. of Spain) to begin excavations on the spot where it had been reported to the king that the Elbeuf statues had been found. At first it was believed that a temple was being explored, but afterwards the inscriptions proved that the building was a theatre. This discovery excited the greatest commotion among the scholars of all nations; and many of them hastened to Naples to see the marvellous statues of the Balbi and the paintings on the walls. But everything was kept private, as the government wished to reserve to itself the right of illustrating the monuments. First of all Monsignor Bayardi was brought from Rome and commissioned to write about the antiquities which were being collected in the museum at Portici under the care of Camillo Paderni, and when it was recognized that the prelate had not sufficient learning, and by the progress of the excavations other most abundant material was accumulated, about which at once scholars and courtiers were anxious to be informed, Bernardo Tanucci, having become secretary of state in 1755, founded the Accademia Ercolanese, which published the principal works on Herculaneum (*Le Pitture ed i bronzi d' Ercolano*, 8 vols., 1757, 1792; *Dissertations isagogicae ad Herculanensium voluminum explanationem pars prima*, 1797). The criterion which guided the studies of the academicians was far from being worthy of unqualified praise, and consequently their work did not always meet the approval of the best scholars who had the opportunity of seeing the monuments. Among these was Winckelmann, who in his letters gave ample notices of the excavations and the antiquities which he was able to visit on several occasions. Other notices were furnished by Gori, *Symbolae litterariae Florentinae* (1748, 1751), by Marcello Venuti, *Descrizione delle prime scoperte d' Ercolano* (Rome, 1748), and Scipione Maffei, *Tre lettere intorno alle scoperte d' Ercolano* (Verona, 1748). The excavations, which continued for more than forty years (1738-1780), were executed at first under the immediate direction of Alcubierre (1738-1741), and then with the assistance of the engineers Rorro and Bardet (1741-1745), Carl Weber (1750-1764), and Francesco La Vega. After the death of Alcubierre (1780) the last-named was appointed director-in-chief of the excavations; but from that time the investigations at Herculaneum were intermitted, and the researches at Pompeii were vigorously carried on. Resumed in 1827, the excavations at Herculaneum were shortly after suspended, nor were the new attempts made in 1866 with the money bestowed by King Victor Emmanuel attended with success, being impeded by the many dangers arising from the houses built overhead. The meagreness of the results obtained by the occasional works executed in the last century, and the fact that the investigators were unfortunate enough to strike upon places already explored, gave rise to the opinion that the whole area of the city had been crossed by tunnels in the time of Charles III. and in the beginning of the reign of Ferdinand IV. And although it is recognized that the works had not been prosecuted with the caution that they required, yet in view of the serious difficulties that would attend the collection of the little that had been left by the first excavators, every proposal for new investigations has been abandoned. But in a memoir which Professor Barnabei read in the Reale Accademia dei Lincei (*Atti della R. Ac.* series iii. vol. ii. p. 751) he undertook to prove that the researches made by the government in the 18th century did not cover any great area. The antiquities excavated at Herculaneum in that century (*i.e.* the 18th) form a collection of the highest scientific and artistic value. They come partly from the buildings of the ancient city (theatre, basilica,

houses and forum), and partly from the private villa of a great Roman family (cf. Comparetti and de Petra, *La Villa Ercolanese dei Pisoni*, Turin, 1883). From the city come, among many other marble statues, the two equestrian statues of the Balbi (*Museo Borbonico*, vol. ii. pl. xxxviii.-xxxix.), and the great imperial and municipal bronze statues. Mural paintings of extraordinary beauty were also discovered here, such as those that represent Theseus after the slaughter of the Minotaur (Helbig, *Wandgemälde*, Leipzig, 1878, No. 1214), Chiron teaching Achilles the art of playing on the lyre (*ibid.* No. 1291), and Hercules finding Telephus who is being suckled by the hind (*ibid.* No. 1143).

Notwithstanding subsequent discoveries of stupendous paintings in the gardens of the Villa Farnesina on the banks of the Tiber, the monochromes of Herculaneum remain among the finest specimens of the exquisite taste and consummate skill displayed by the ancient artists. Among the best preserved is Leto and Niobe, which has been the subject of so many studies and so many publications (*ibid.* No. 1706). There is also a considerable number of lapidary inscriptions edited in vol. ii. of the epigraphic collection of the *Cat. del Mus. Naz. di Napoli*. The Villa Suburbana has given us a good number of marble busts, and the so-called statue of Aristides, but above all that splendid collection of bronze statues and busts mostly reproductions of famous Greek works now to be found in the Naples Museum. It is thence that we have obtained the reposing Hermes, the drunken Silenus, the sleeping Faunus, the dancing girls, the bust called Plato's, that believed to be Seneca's, the two quoit-throwers or discoboli, and so many masterpieces more, figured by the academicians in their volume on the bronzes. But a still further discovery made in the Villa Suburbana contributed to magnify the greatness of Herculaneum; within its walls was found the famous library, of which, counting both entire and fragmentary volumes, 1803 papyri are preserved. Among the nations which took the greatest interest in the discovery of the Herculaneum library, the most honourable rank belongs to England, which sent Hayter and other scholars to Naples to solicit the publication of the volumes. Of the 341 papyri which have been unrolled, 195 have been published (*Herculanensium voluminum quae supersunt* (Naples, 1793-1809); *Collectio altera*, 1862-1876). They contain works by Epicurus, Demetrius, Polystratus, Colotes, Chrysippus, Carniscus and Philodemus. The names of the authors are in themselves sufficient to show that the library belonged to a person whose principal study was the Epicurean philosophy. But of the great master of this school only a few works have been found. Of his treatise Περὶ φύσεως, divided into 37 books, it is known that there were three copies in the library (*Coll. alt.* vi.). Professor Comparetti, studying the first fasciculus of volume xi. of the same new collection, recognized most important fragments of the *Ethics* of Epicurus, and these he published in 1879 in Nos. ix. and xi. of the *Rivista di filologia e d' istruzione classica* (Turin). Even the other authors above mentioned are but poorly represented, with the exception of Philodemus, of whom 26 different treatises have been recognized. But all these philosophic discussions, belonging for the most part to an author less than secondary among the Epicureans, fall short of the high expectations excited by the first discovery of the library. Among the many volumes unrolled only a few are of historical importance—that edited by Bücheler, which treats of the philosophers of the academy (*Acad. phil. index Hercul.*, Greifswald, 1859), and that edited by Comparetti, which deals with the Stoics ("Papiro ercolanese inedito," in *Rivista di fil. e d' ist. class.* anno iii. fasc. x.-xii.). To appreciate the value of the volumes unrolled but not yet published (for 146 vols. were only copied and not printed) the student must read Comparetti's paper, "Relazione sui papiri ercolanesi." Contributions of some value have been made to the study of Herculaneum fragments by Spengel ("Die hercul. Rollen," in *Philologus*, 1863, suppl. vol.), and Gomperz (*Hercul. Studien*, Leipzig, 1865-1866, cf. *Zeitschr. f. österr. Gymn.*, 1867-1872). There are in the library some volumes written in Latin, which, according to Boot (*Notice sur les manuscrits trouvés à Herculaneum*, Amsterdam, 1845), were found tied up in a bundle apart. Of these we know 18, but they are all so damaged that hardly any of them can be deciphered. One with verses relating to the battle of Actium is believed to belong to a poem of Rabirius. The numerical preponderance of the works of Philodemus led some people to believe that this had been the library of that philosopher. Professor Comparetti has thrown out a conjecture (cf. Comparetti and de Petra, *op. cit.*) that the library was collected by Lucius Piso Caesoninus (see *Regione sotterrata dal Vesuvio*, Naples, 1879, p. 159 sq.), but this conjecture has not found many supporters. Professor de Petra (in the same work) has also published the official notices upon the antiquities unearthed in the sumptuous villa, giving the plan executed by Weber and recovered by chance by the director of excavations, Michele Ruggiero. This plan, which is here reproduced from de Petra[4] is the only satisfactory document for the topography of Herculaneum; for the plan of the theatre published in the *Bullettino archeologico italiano* (Naples, 1861, i. 53, tab. iii.) was executed in 1747, when the excavations were not completed. And even for the history of the "finds" made in the Villa Suburbana the necessity for further studies makes itself felt, since there is a lack of agreement between the accounts given by Alcubierre and Weber and those communicated to the *Philosophical Transactions* (London, vol. x.) by Camillo Paderni, conservator of the Portici Museum.



Plan of
Villa Ercolanese,
Herculaneum

I *Main Entrance*
II *Impluvium*
III *Bath*
IV *Principal Hall*
V *Garden*
VI *Pond*
VII *Belvedere*

Among the older works relating to Herculaneum, in addition to those already quoted, may be mentioned de Brosses, *Lettre sur l'état actuel de la ville souterraine d'Héracléa* (Paris, 1750); Seigneux de Correvon, *Lettre sur la découverte de l'ancienne ville d'Herculane* (Yverdon, 1770); David, *Les Antiquités d'Herculaneum* (Paris, 1780); D' Ancora Gaetano, *Prospetto storico-fisico degli scavi d' Ercolano e di Pompei* (Naples, 1803); Venuti, *Prime Scoverte di Ercolano* (Rome, 1748); and Romanelli, *Viaggio ad Ercolano* (Naples, 1811). A full list will be found in vol. i. of *Museo Borbonico* (Naples, 1824), pp. 1-11.

The most important reference work is C. Waldstein and L. Shoobridge, *Herculaneum, Past, Present and Future* (London, 1908); it contains full references to the history and the explorations, and to the buildings and objects found (with illustrations). Miss E. R. Barker's *Buried Herculaneum* (1908) is exceedingly useful.

In 1904 Professor Waldstein expounded both in Europe and in America an international scheme for thorough investigation of the site. Negotiations of a highly complex character ensued with the Italian government, which ultimately in 1908 decided that the work should be undertaken by Italian scholars with Italian funds. The work was begun in the autumn of 1908, but financial difficulties with property owners in Resina immediately arose with the result that progress was practically stopped.

(F. B.)

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1 A fragment of L. Sisenna calls it "Oppidum tumulo in excelso loco propter mare, parvis moenibus, inter duas fluvias, infra Vesuvium collocatum" (lib. iv., fragm. 53, Peters). Of one of these rivers this historian again makes mention in the passage where probably he related the capture of Herculaneum by Minatius Magius and T. Didius (Velleius Paterculus ii. 16). Further topographical details are supplied by Strabo, who, after speaking about Naples, continues—ἐχόμενον δὲ φρούριόν ἐστιν Ἡράκλειον ἐκκειμένην εἰς τὴν θάλατταν ἄκραν ἔχον, καταπνεόμενον Λιβὶ θαυμαστῶς ὥσθ' ὑγιεινὴν ποιεῖν τὴν κατοικίαν. Dionysius of Halicarnassus relates that Heracles, in the place where he stopped with his fleet on the return voyage from Iberia, founded a little city (πολίχνην), to which he gave his own name; and he adds that this city was in his time inhabited by the Romans, and that, situated between Neapolis and Pompeii, it had λιμένας ἐν παντὶ καιρῷ βεβαίους (i. 44).

2 See also Niebuhr, *Hist. of Rome*, i. 76, and Mommsen, *Die unteritalischen Dialekte* (1850), p. 314; for later discussions see OSCA LINGUA, PELASGIANS.

3 *C.I.L.* ii. No. 3866. This Spanish inscription refers to a Rectina who died at the age of 18 and was the wife of Voconius Romanus. It is quite possible that she was the Rectina whom Pliny the elder wished to assist during the disaster of Vesuvius, for her husband, Voconius Romanus, was an intimate friend of Pliny the younger. The latter addressed four letters to Voconius (i. 5, ii. 1, iii. 13, ix. 28), in another letter commended him to the emperor Trajan (x. 3), and in another (ii. 13) says of him: "Hunc ego cum simul studere, mus arte familiariterque dilexi; ille meus in urbe, ille in secessu contubernalis; cum hoc seria et jocos miscui."

4 The diagram shows the arrangement and proportions of the Villa Ercolanese. The dotted lines show the course taken by the excavations, which began at the lower part of the plan.

HERCULANO DE CARVALHO E ARAUJO, ALEXANDRE (1810-1877), Portuguese historian, was born in Lisbon of humble stock, his grandfather having been a foreman stonemason in the royal employ. He received his early education, comprising Latin, logic and rhetoric, at the Necessidades Monastery, and spent a year at the Royal Marine Academy studying mathematics with the intention of entering on a commercial career. In 1828 Portugal fell under the absolute rule of D. Miguel, and Herculano, becoming involved in the unsuccessful military *pronunciamento* of August 1831, had to leave Portugal clandestinely and take refuge in England and France. In 1832 he accompanied the Liberal expedition to Terceira as a volunteer, and was one of D. Pedro's famous army of 7500 men who landed at the Mindello and occupied Oporto. He took part in all the actions of the great siege, and at the same time served as a librarian in the city archives. He published his first volume of verses, *A Voz de Propheta*, in 1832, and two years later another entitled *A Harpa do Crente*.

Privation had made a man of him, and in these little books he proves himself a poet of deep feeling and considerable power of expression. The stirring incidents in the political emancipation of Portugal inspired his muse, and he describes the bitterness of exile, the adventurous expedition to Terceira, the heroic defence of Oporto, and the final combats of liberty. In 1837 he founded the *Panorama* in imitation of the *English Penny Magazine*, and there and in *Illustração* he published the historical tales which were afterwards collected into *Lendas e Narratives*; in the same year he became royal librarian at the Ajuda Palace, which enabled him to continue his studies of the past. The *Panorama* had a large circulation and influence, and Herculano's biographical sketches of great men and his articles of literary and historical criticism did much to educate the middle class by acquainting them with the story of their nation, and with the progress of knowledge and the state of letters in foreign countries. On entering parliament in 1840 he resigned the editorship to devote himself to history, but he still remained its most important contributor.

Up to the age of twenty-five Herculano had been a poet, but he then abandoned poetry to Garrett, and after several essays in that direction he definitely introduced the historical novel into Portugal in 1844 by a book written in imitation of Walter Scott. *Eurico* treats of the fall of the Visigothic monarchy and the beginnings of resistance in the Asturias which gave birth to the Christian kingdoms of the Peninsula, while the *Monge de Cister*, published in 1848, describes the time of King John I., when the middle class and the municipalities first asserted their power and elected a king in opposition to the nobility. From an artistic standpoint, these stories are rather laboured productions, besides being ultra-romantic in tone; but it must be remembered that they were written mainly with an educational object, and, moreover, they deserve high praise for their style. Herculano had greater book learning than Scott, but lacked descriptive talent and skill in dialogue. His touch is heavy, and these novels show no dramatic power, which accounts for his failure as a playwright, but their influence was as great as their followers were many, and they still find readers. These and editions of two old chronicles, the *Chronica de D. Sebastião* (1839) and the *Annaes del rei D. João III* (1844), prepared Herculano for his life's work, and the year 1846 saw the first volume of his *History of Portugal from the Beginning of the Monarchy to the end of the Reign of Affonso III.*, a book written on critical lines and based on documents. The difficulties he encountered in producing it were very great, for the foundations had been ill-prepared by his predecessors, and he was obliged to be artisan and architect at the same time. He had to collect MSS. from all parts of Portugal, decipher, classify and weigh them before he could begin work, and then he found it necessary to break with precedents and destroy traditions. Serious students in Portugal and abroad welcomed the book as an historical work of the first rank, for its evidence of careful research, its able marshalling of facts, its learning and its painful accuracy, while the sculptural simplicity of the style and the correctness of the diction have made it a Portuguese classic. The first volume, however, gave rise to a celebrated controversy, because Herculano had reduced the famous battle of Ourique, which was supposed to have seen the birth of the Portuguese monarchy, to the dimensions of a mere skirmish, and denied the apparition of Christ to King Affonso, a fable first circulated in the 15th century. Herculano was denounced from the pulpit and the press for his lack of patriotism and piety, and after bearing the attack for some time his pride drove him to reply. In a letter to the cardinal patriarch of Lisbon entitled *Eu e o Clero* (1850), he denounced the fanaticism and ignorance of the clergy in plain terms, and this provoked a fierce pamphlet war marked by much personal abuse. The professor of Arabic in Lisbon intervened to sustain the accepted view of the battle, and charged Herculano and his supporter Gayangos with ignorance of the Arab historians and of their language. The conduct of the controversy, which lasted some years, did credit to none of the contending parties, but Herculano's statement of the facts is now universally accepted as correct. The second volume of his history appeared in 1847, the third in 1849 and the fourth in 1853. In his youth, the excesses of absolutism had made Herculano a Liberal, and the attacks on his history turned this man, full of sentiment and deep religious conviction, into an anti-clerical who began to distinguish between political Catholicism and Christianity. His *History of the Origin and Establishment of the Inquisition* (1854-1855), relating the thirty years' struggle between King John III. and the Jews—he to establish the tribunal and they to prevent him—was compiled, as the preface showed, to stem the Ultramontane reaction, but none the less carried weight because it was a recital of events with little or no comment or evidence of passion in its author. Next to these two books his study, *Do Estado das classes servas na Peninsula desde o VII. até o XII. seculo*, is Herculano's most valuable contribution to history. In 1856 he began editing a series of *Portugalliae monumenta historica*, but personal differences between him and the keeper of the Archive office, which he was forced to frequent, caused him to interrupt his historical studies, and on the death of his friend King Pedro V. he left the Ajuda and retired to a country house near Santarem.

Disillusioned with men and despairing of the future of his country, he spent the rest of his life devoted to agricultural pursuits, and rarely emerged from his retirement; when he did so, it was to fight political and religious reaction. Once he had defended the monastic orders, advocating their reform and not their suppression, supported the rural clergy and idealized the village priest in his *Parocho da Aldeia*, after the manner of Goldsmith in the *Vicar of Wakefield*. Unfortunately, however, the brilliant epoch of the alliance of Liberalism and Catholicism, represented on its literary side by Chateaubriand and by Lamartine, to whose poetic school Herculano had belonged, was past, and fanatical attacks and the progress of events drove this former champion of the Church into conflict with the ecclesiastical authorities. His protest against the Concordat of the 21st of February 1857 between Portugal and the Holy See, regulating the Portuguese Padroado in the East, his successful opposition to the entry of foreign religious orders, and his advocacy of civil marriage, were the chief landmarks in his battle with Ultra-montanism, and his *Estudos sobre o Casamento Civil* were put on the Index. Finally in 1871 he attacked the dogmas of the Immaculate Conception and papal infallibility, and fell into line with the Old Catholics. In the domain of letters he remained until his death a veritable pontiff, and an article or book of his was an event celebrated from one end of Portugal to the other. The nation continued to look up to him for mental leadership, but, in his later years, lacking hope himself, he could not stimulate others or use to advantage the powers conferred upon him. In politics he remained a constitutional Liberal of the old type, and for him the people were the middle classes in opposition to the lower, which he saw to have been the supporters of tyranny in all ages, while he considered Radicalism to mean a return via anarchy to absolutism. However, though he conducted a political propaganda in the newspaper press in his early days, Herculano never exercised much influence in politics. Grave as most of his writings are, they include a short description of a crossing from Jersey to Granville, in which he satirizes English character and customs, and reveals an unexpected sense of humour. A rare capacity for tedious work, a dour Catonian rectitude, a passion for truth, pride, irritability at criticism and independence of character, are the marks of Herculano as a man. He could be broken but never bent, and his rude frankness accorded with his hard, sombre face, and alienated men’s sympathies though it did not lose him their respect. His lyrism is vigorous, feeling, austere and almost entirely subjective and personal, while his pamphlets are distinguished by energy of conviction, strength of affirmation, and contempt for weaker and more ignorant opponents. His *History of Portugal* is a great but incomplete monument. A lack of imagination and of the philosophic spirit prevented him from penetrating or drawing characters, but his analytical gift, joined to persevering toil and honesty of purpose enabled him to present a faithful account of ascertained facts and a satisfactory and lucid explanation of political and economic events. His remains lie in a majestic tomb in the Jeronymos at Belem, near Lisbon, which was raised by public subscription to the greatest modern historian of Portugal and of the Peninsula. His more important works have gone through many editions and his name is still one to conjure with.

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(E. PR.)

HERCULES (O. Lat. *Hercoles*, *Hercles*), the latinized form of the mythical Heracles, the chief national hero of Hellas. The name Ἡρακλῆς (Ἥρα, and κλέος = glory) is explained as “renowned through Hera” (*i.e.* in consequence of her persecution) or “the glory of Hera” *i.e.* of Argos. The thoroughly national character of Heracles is shown by his being the mythical ancestor of the Dorian dynastic tribe, while revered by Ionian Athens, Lelegian Opus and Aeolo-Phoenician Thebes, and closely associated with the Achaean heroes Peleus and Telamon. The Perseid Alcmena, wife of Amphitryon of Tiryns, was Hercules’ mother, Zeus his father. After his father he is often called Amphitryoniades, and also Alcides, after the Perseid Alcaeus, father of Amphitryon. His mother and her husband lived at Thebes in exile as guests of King Creon. By the craft of Hera, his foe through life, his birth was delayed, and that of Eurystheus, son of Sthenelus of Argos, hastened, Zeus having in effect sworn that the elder of the two should rule the realm of Perseus. Hera sent two serpents to destroy the new-born Hercules, but he strangled them. He was trained in all manly accomplishments by heroes of the highest renown in each, until in a transport of anger at a reprimand he slew

Linus, his instructor in music, with the lyre. Thereupon he was sent to tend Amphitryon's oxen, and at this period slew the lion of Mount Cithaeron. By freeing Thebes from paying tribute to the Minyans of Orchomenus he won Creon's daughter, Megara, to wife. Her children by him he killed in a frenzy induced by Hera. After purification he was sent by the Pythia to serve Eurystheus. Thus began the cycle of the twelve labours.

1. Wrestling with the Nemean lion.

2. Destruction of the Lernean hydra.

3. Capture of the Arcadian hind (a *stag* in art).

4. Capture of the boar of Erymanthus, while chasing which he fought the Centaurs and killed his friends Chiron and Pholus, this homicide leading to Demeter's institution of *mysteries*.

5. Cleansing of the stables of Augeas.

6. Shooting the Stymphalian birds.

7. Capture of the Cretan bull subsequently slain by Theseus at Marathon.

8. Capture of the man-eating mares of the Thracian Diomedes.

9. Seizure of the girdle of Hippolyte, queen of the Amazons.

10. Bringing the oxen of Geryones from Erythia in the far west, which errand involved many adventures in the coast lands of the Mediterranean, and the setting up of the "Pillars of Hercules" at the Straits of Gibraltar.

11. Bringing the golden apples from the garden of the Hesperides.

12. Carrying Cerberus from Hades to the upper world.

Most of the labours lead to various adventures called πάρεργα. On Hercules' return to Thebes he gave his wife Megara to his friend and charioteer Iolaus, son of Iphicles, and by beating Eurytus of Oechalia and his sons in a shooting match won a claim to the hand of his daughter Iole, whose family, however, except her brother Iphitus, withheld their consent to the union. Iphitus persuaded Hercules to search for Eurytus' lost oxen, but was killed by him at Tiryns in a frenzy. He consulted the Pythia about a cure for the consequent madness, but she declined to answer him. Whereupon he seized the oracular tripod, and so entered upon a contest with Apollo, which Zeus stopped by sending a flash of lightning between the combatants. The Pythia then sent him to serve the Lydian queen Omphale. He then, with Telamon, Peleus and Theseus, took Troy. He next helped the gods in the great battle against the giants. He destroyed sundry sea-monsters, set free the bound Prometheus, took part in the Argonautic voyage and the Calydonian boar hunt, made war against Augeas, and against Nestor and the Pylians, and restored Tyndareus to the sovereignty of Lacedaemon. He sustained many single combats, one very famous struggle being the wrestling with the Libyan Antaeus, son of Poseidon and Ge (Earth), who had to be held in the air, as he grew stronger every time he touched his mother, Earth. Hercules withstood Ares, Poseidon and Hera, as well as Apollo. The close of his career is assigned to Aetolia and Trachis. He wrestles with Achelous for Deianeira ("destructive to husband"), daughter of Oeneus, king of Calydon, vanquishes the river god, and breaks off one of his horns, which as a horn of plenty is found as an attribute of Hercules in art. Driven from Calydon for homicide, he goes with Deianeira to Trachis. On the way he slays the centaur Nessus, who persuades Deianeira that his blood is a love-charm. From Trachis he wages successful war against the Dryopes and Lapithae as ally of Aegimius, king of the Dorians, who promised him a third of his realm, and after his death adopted Hyllus, his son by Deianeira. Finally Hercules attacks Eurytus, takes Oechalia and carries off Iola. Thereupon Deianeira, prompted by love and jealousy, sends him a tunic dipped in the blood of Nessus, and the unsuspecting hero puts it on just before sacrificing at the headland of Cenaeum in Euboea. (So far the dithyramb of Bacchylides xv. [xvi.], agrees with Sophocles' *Trachiniae* as to the hero's end.) Mad with pain, he seizes Lichas, the messenger who had brought the fatal garment, and hurls him on the rocks; and then he wanders in agony to Mount Oeta, where he mounts a pyre, which, however, no one will kindle. At last Poeas, father of Philoctetes, takes pity on him, and is rewarded with the gift of his bow and arrows. The immortal part of Hercules passes to Olympus, where he is reconciled to Hera and weds her daughter Hebe. This account of the hero's principal labours, exploits and crimes is derived from the mythologists Apollodorus and Diodorus, who probably followed the *Heracleia* by Peisander of Rhodes as to the twelve labours or that of Panyasis of Halicarnassus, but sundry variations of order and incident are found in classical literature.

In one aspect Hercules is clearly a sun-god, being identified, especially in Cyprus and in Thasos (as Makar), with the Tyrian Melkarth. The third and twelfth labours may be solar, the horned hind representing the moon, and the carrying of Cerberus to the upper world an eclipse, while the last episode of the hero's tragedy is possibly a complete solar myth developed at Trachis. The winter sun is seen rising over the Cenaean promontory to toil across to Mount Oeta and disappear over it in a bank of fiery cloud. But more important and less speculative is the hero's aspect as a national type or an amalgamation of tribal types of physical force, of dauntless effort and endurance, of militant civilization, and of Hellenic enterprise, "stronger than everything except his own passions," and "at once above and below the noblest type of man" (Jebb). The fifth labour seems to symbolize some great improvement in the drainage of Elis. Strenuous devotion to the deliverance of mankind from dangers and pests is the "virtue" which, in Prodicus' famous apologue on the *Choice of Hercules*, the hero preferred to an easy and happy life. Ethically, Hercules symbolizes the attainment of glory and immortality by toil and suffering.

The Old-Dorian Hercules is represented in three cycles of myth, the Argive, the Boeotian and the Thessalian; the legends of Arcadia, Aetolia, Lydia, &c., and Italy are either local or symbolical and comparatively late. The fatality by which Hercules kills so many friends as well as foes recalls the destroying Apollo; while his career frequently illustrates the Delphic views on blood-guiltiness and expiation. As Apollo's champion Hercules is Daphnephoros, and fights Cycnus and Amyntor to keep open the sacred way from Tempe to Delphi. As the Dorian tutelar he aids Tyndareus and Aegimius. As patron of maritime adventure (ἡγεμόνιος) he struggles with Nereus and Triton, slays Eryx and Busiris, and perhaps captures the wild horses and oxen, which may stand for pirates. As a god of athletes he is often a wrestler (παλαίμων), and founds the Olympian games. In comedy and occasionally in myths he is depicted as voracious (βουφάγος). He is also represented as the companion of Dionysus, especially in Asia Minor. The "Resting" (ἀναπαυόμενος) Hercules is, as at Thermopylae and near Himera, the natural tutelar of hot springs in conjunction with his protectress Athena, who is usually depicted attending him on ancient vases. The glorified Hercules was worshipped both as a god and a hero. In the Attic deme Melita he was invoked as ἀλεξίκακος ("Helper in ills"), at Olympia as καλλίνικος ("Nobly-victorious"), in the rustic worship of the Oetaeans as κορνοπίων (κόρνοπες, "locusts"), by the Erythraeans of Ionia as ἰποκτόνος ("Canker-worm-slayer"). He was σωτήρ ("Saviour"), *i.e.* a protector of voyagers, at Thasos and Smyrna. Games in his honour were held at Thebes and Marathon and annual festivals in every deme of Attica, in Sicyon and Agyrium (Sicily). His guardian goddess was Athena (Homer, *Il.* viii. 638; Bacchylides v. 91 f.). In early poetry, as often in art, he is an archer, afterwards a club-wielder and fully-armed warrior. In early art the adult Hercules is bearded, but not long-haired. Later he is sometimes youthful and beardless, always with short curly hair and thick neck, the lower part of the brow prominent. A lion's skin is generally worn or carried. Lysippus worked out the finest type of sculptured Hercules, of which the Farnese by Glycon is a grand specimen. The infantine struggle with serpents was a favourite subject.

Quite distinct was the Idaean Hercules, a Cretan Dactyl connected with the cult of Rhea or Cybele. The Greeks recognized Hercules in an Egyptian deity *Chons* and an Indian *Dorsanes*, not to mention personages of other mythologies.

Hercules is supposed to have visited Italy on his return from Erythia, when he slew Cacus, son of Vulcan, the giant of the Aventine mount of Rome, who had stolen his oxen. To this victory was assigned the founding of the *Ara maxima* by Evander. His worship, introduced from the Greek colonies in Etruria and in the south of Italy, seems to have been established in Rome from the earliest times, as two old Patrician *gentes* were associated with his cult and the Fabii claimed him as their ancestor. The tithes vowed to him by Romans and men of Sora and Reate, for safety on journeys and voyages, furnished sacrifices and (in Rome) public entertainment (*polluctum*). Tibur was a special seat of his cult. In Rome he was patron of gladiators, as of athletes in Greece. With respect to the Roman relations of the hero, it is manifest that the native myths of Recaranus, or Sancus, or Dius Fidius, were transferred to the Hellenic Hercules.

(C. A. M. F.)

See L. Preller, *Griechische Mythologie* (4th ed., Berlin, 1900); W. H. Roscher, *Ausführliches Lexikon der griechischen und römischen Mythologie* (1884); Sir R. C. Jebb, *Trachiniae* of Sophocles (Introd.), (1892); Ch. Daremberg and E. Saglio, *Dictionnaire des antiquités grecques et romaines*; Bréal, *Hercule et Cacus*, 1863; J. G. Winter, *Myth of Hercules at Rome* (New York, 1910).

In the article Greek Art, fig. 16 represents Heracles wrestling with the river-god Achelous;

fig. 20 (from a small pediment, possibly of a shrine of the hero) the slaying of the Hydra; fig. 35 Heracles holding up the sky on a cushion.

Hercules was a favourite figure in French medieval literature. In the romance of Alexander the tent of the hero is decorated with incidents from his adventures. In the prose romance *Les Prouesses et vaillances du preux Hercule* (Paris, 1500), the hero's labours are represented as having been performed in honour of a Boeotian princess; Pluto is a king dwelling in a dismal castle; the Fates are duennas watching Proserpine; the entrance to Pluto's castle is watched by the giant Cerberus. Hercules conquers Spain and takes Merida from Geryon. The book is translated into English as *Hercules of Greece* (n. d.). Fragments of a French poem on the subject will be found in the *Bulletin de la soc. des anciens textes français* (1877). Don Enrique de Villena took from *Les Prouesses* his prose *Los Doze Trabajos de Hercules* (Zamora, 1483 and 1499), and Fernandez de Heredia wrote *Trabajos y afanes de Hercules* (Madrid, 1682), which belies its title, being a collection of adages and allegories. *Le Fatiche d'Ercole* (1475) is a romance in poetic prose by Pietro Bassi, and the *Dodeci Travagli di Ercole* (1544) a poem by J. Perillos.

HERCULES, in astronomy, a constellation of the northern hemisphere, mentioned by Eudoxus (4th century B.C.) and Aratus (3rd century B.C.) and catalogued by Ptolemy (29 stars) and Tycho Brahe (28 stars). Represented by a man kneeling, this constellation was first known as "the man on his knees," and was afterwards called Cetheus, Theseus and Hercules by the ancient Greeks. Interesting objects in this constellation are: α *Herculis*, a fine coloured double star, composed of an orange star of magnitude 2½, and a blue star of magnitude 6; ζ *Herculis*, a binary star, discovered by Sir William Herschel in 1782; one component is a yellow star of the third magnitude, the other a bluish, which appears to vary from red to blue, of magnitude 6; *g* and *u Herculis*, irregularly variable stars; and the cluster *M. 13 Herculis*, the finest globular cluster in the northern hemisphere, containing at least 5000 stars and of the 1000 determined only 2 are variable.

HERD (a word common to Teutonic languages; the O. Eng. form was *heord*; cf. Ger. *Herde*, Swed. and Dan. *hjord*; the Sans. *ca'rdhas*, which shows the pre-Teutonic form, means a troop), a number of animals of one kind driven or fed together, usually applied to cattle as "flock" is to sheep, but used also of whales, porpoises, &c., and of birds, as swans, cranes and curlews. A "herd-book" is a book containing the pedigree and other information of any breed of cattle or pigs, like the "flock-book" for sheep or "stud-book" for horses. Formerly the word "herdwick" was applied to the pasture ground under the care of a shepherd, and it is now used of a special hardy breed of sheep in Cumberland and Westmorland. The word "herd" is also applied in a disparaging sense to a company of people, a mob or rabble, as "the vulgar herd." As the name for a keeper of a herd or flock of domestic animals, the herdsman, it is usually qualified to denote the kind of animal under his protection, as swine-herd, shepherd, &c., but in Ireland, Scotland and the north of England, "herd" alone is commonly used.

HERDER, JOHANN GOTTFRIED VON (1744-1803), one of the most prolific and influential writers that Germany has produced, was born in Mohrungen, a small town in East Prussia, on the 25th of August 1744. Like his contemporary Lessing, Herder had throughout his life to struggle against adverse circumstances. His father was poor, having to put together a subsistence by uniting the humble offices of sexton, choir-singer and petty schoolmaster. After receiving some rudimentary instruction from his father, the boy was sent to the grammar school of his native town. The mode of discipline practised by the

pedantic and irritable old man who stood at the head of this institution was not at all to the young student's liking, and the impression made upon him stimulated him later on to work out his projects of school reform. The hardships of his early years drove him to introspection and to solitary communion with nature, and thus favoured a more than proportionate development of the sentimental and poetic side of his mind. When quite young he expressed a wish to become a minister of the gospel, but his aspirations were discouraged by the local clergyman. In 1762, at the age of eighteen, he went up to Königsberg with the intention of studying medicine, but finding himself unequal to the operations of the dissecting-room, he abandoned this object, and, by the help of one or two friends and his own self-supporting labours, followed out his earlier idea of the clerical profession by joining the university. There he came under the influence of Kant, who was just then passing from physical to metaphysical problems. Without becoming a disciple of Kant, young Herder was deeply stimulated to fresh critical inquiry by that thinker's revolutionary ideas in philosophy. To Kant's lectures and conversations he further owed something of his large interest in cosmological and anthropological problems. Among the writers whom he most carefully read were Plato, Hume, Shaftesbury, Leibnitz, Diderot and Rousseau. Another personal influence under which he fell at Königsberg, and which was destined to be far more permanent, was that of J. G. Hamann, "the northern Mage." This writer had already won a name, and in young Herder he found a mind well fitted to be the receptacle and vehicle of his new ideas on literature. From this vague, incoherent, yet gifted writer our author acquired some of his strong feeling for the naïve element in poetry, and for the earliest developments of national literature. Even before he went to Königsberg he had begun to compose verses, and at the age of twenty he took up the pen as a chief occupation. His first published writings were occasional poems and reviews contributed to the *Königsbergische Zeitung*. Soon after this he got an appointment at Riga, as assistant master at the cathedral school, and a few years later, became assistant pastor. In this busy commercial town, in somewhat improved pecuniary and social circumstances, he developed the main ideas of his writings. In the year 1767 he published his first considerable work *Fragmente über die neuere deutsche Literatur*, which at once made him widely known and secured for him the favourable interest of Lessing. From this time he continued to pour forth a number of critical writings on literature, art, &c. His bold ideas on these subjects, which were a great advance even on Lessing's doctrines, naturally excited hostile criticism, and in consequence of this opposition, which took the form of aspersions on his religious orthodoxy, he resolved to leave Riga. He was much carried away at this time by the idea of a radical reform of social life in Livonia, which (after the example of Rousseau) he thought to effect by means of a better method of school-training. With this plan in view he began (1769) a tour through France, England, Holland, &c., for the purpose of collecting information respecting their systems of education. It was during the solitude of his voyage to France, when on deck at night, that he first shaped his idea of the genesis of primitive poetry, and of the gradual evolution of humanity. Having received an offer of an appointment as travelling tutor and chaplain to the young prince of Eutin-Holstein, he abandoned his somewhat visionary scheme of a social reconstruction of a Russian province. He has, however, left a curious sketch of his projected school reforms. His new duties led him to Strassburg, where he met the young Goethe, on whose poetical development he exercised so potent an influence. At Darmstadt he made the acquaintance of Caroline Flachsland, to whom he soon became betrothed, and who for the rest of his life supplied him with that abundance of consolatory sympathy which his sensitive and rather querulous nature appeared to require. The engagement as tutor did not prove an agreeable one, and he soon threw it up (1771) in favour of an appointment as court preacher and member of the consistory at Bückeburg. Here he had to encounter bitter opposition from the orthodox clergy and their followers, among whom he was regarded as a freethinker. His health continued poor, and a fistula in the eye, from which he had suffered from early childhood, and to cure which he had undergone a number of painful operations, continued to trouble him. Further, pecuniary difficulties, from which he never long managed to keep himself free, by delaying his marriage, added to his depression. Notwithstanding these trying circumstances he resumed literary work, which his travels had interrupted. For some time he had been greatly interested by the poetry of the north, more particularly Percy's *Reliques*, the poems of "Ossian" (in the genuineness of which he like many others believed) and the works of Shakespeare. Under the influence of this reading he now finally broke with classicism and became one of the leaders of the new *Sturm und Drang* movement. He co-operated with a band of young writers at Darmstadt and Frankfort, including Goethe, who in a journal of their own sought to diffuse the new ideas. His marriage took place in 1773. In 1776 he obtained through Goethe's influence the post of general superintendent and court preacher at Weimar, where he passed the rest of his life. There he enjoyed the society of Goethe,

Wieland, Jean Paul (who came to Weimar in order to be near Herder), and others, the patronage of the court, with whom as a preacher he was very popular, and an opportunity of carrying out some of his ideas of school reform. Yet the social atmosphere of the place did not suit him. His personal relations with Goethe again and again became embittered. This, added to ill-health, served to intensify a natural irritability of temperament, and the history of his later Weimar days is a rather dreary page in the chronicles of literary life. He had valued more than anything else a teacher's influence over other minds, and as he began to feel that he was losing it he grew jealous of the success of those who had outgrown this influence. Yet while presenting these unlovely traits, Herder's character was on the whole a worthy and attractive one. This seems to be sufficiently attested by the fact that he was greatly liked and esteemed, not only in the pulpit but in private intercourse, by cultivated women like the countess of Bückeburg, the duchess of Weimar and Frau von Stein, and, what perhaps is more, was exceedingly popular among the gymnasium pupils, in whose education he took so lively an interest. While much that Herder produced after settling in Weimar has little value, he wrote also some of his best works, among others his collection of popular poetry on which he had been engaged for many years, *Stimmen der Völker in Liedern* (1778-1779); his translation of the Spanish romances of the *Cid* (1805); his celebrated work on Hebrew poetry, *Vom Geist der hebräischen Poesie* (1782-1783); and his *opus magnum*, the *Ideen zur Philosophie der Geschichte der Menschheit* (1784-1791). Towards the close of his life he occupied himself, like Lessing, with speculative questions in philosophy and theology. The boldness of some of his ideas cost him some valuable friendships, as that of Jacobi, Lavater and even of his early teacher Hamann. He died on the 18th of December 1803, full of new literary plans up to the very last.

Herder's writings were for a long time regarded as of temporary value only, and fell into neglect. Recent criticism, however, has tended very much to raise their value by tracing out their wide and far-reaching influence. His works are very voluminous, and to a large extent fragmentary and devoid of artistic finish; nevertheless they are nearly always worth investigating for the brilliant suggestions in which they abound. His place in German literature has already been indicated in tracing his mental development. Like Lessing, whose work he immediately continued, he was a pioneer of the golden age of this literature. Lessing had given the first impetus to the formation of a national literature by exposing the folly of the current imitation of French writers. But in doing this he did not so much call his fellow-countrymen to develop freely their own national sentiments and ideas as send them back to classical example and principle. Lessing was the exponent of German classicism; Herder, on the contrary, was a pioneer of the romantic movement. He fought against all imitation as such, and bade German writers be true to themselves and their national antecedents. As a sort of theoretic basis for this adhesion to national type in literature, he conceived the idea that literature and art, together with language and national culture as a whole, are evolved by a natural process, and that the intellectual and emotional life of each people is correlated with peculiarities of physical temperament and of material environment. In this way he became the originator of that genetic or historical method which has since been applied to all human ideas and institutions. Herder was thus an evolutionist, but an evolutionist still under the influence of Rousseau. That is to say, in tracing back the later acquisitions of civilization to impulses which are as old as the dawn of primitive culture, he did not, as the modern evolutionist does, lay stress on the superiority of the later to the earlier stages of human development, but rather became enamoured of the simplicity and spontaneity of those early impulses which, since they are the oldest, easily come to look like the most real and precious. Yet even in this way he helped to found the historical school in literature and science, for it was only after an excessive and sentimental interest in primitive human culture had been awakened that this subject would receive the amount of attention which was requisite for the genetic explanation of later developments. This historical idea was carried by Herder into the regions of poetry, art, religion, language, and finally into human culture as a whole. It colours all his writings, and is intimately connected with some of the most characteristic attributes of his mind, a quick sympathetic imagination, a fine feeling for local differences, and a scientific instinct for seizing the sequences of cause and effect.

Herder's works may be arranged in an ascending series, corresponding to the way in which the genetic or historical idea was developed and extended. First come the works on poetic literature, art, language and religion as special regions of development. Secondly, we have in the *Ideen* a general account of the process of human evolution. Thirdly, there are a number of writings which, though inferior in interest to the others, may be said to supply the philosophic basis of his leading ideas.

1. In the region of poetry Herder sought to persuade his countrymen, both by example and

precept, to return to a natural and spontaneous form of utterance. His own poetry has but little value; Herder was a skilful verse-maker but hardly a creative poet. He was most successful in his translation of popular song, in which he shows a rare sympathetic insight into the various feelings and ideas of peoples as unlike as Greenlanders and Spaniards, Indians and Scots. In the *Fragmente* he aims at nationalizing German poetry and freeing it from all extraneous influence. He ridicules the ambition of German writers to be classic, as Lessing had ridiculed their eagerness to be French. He looked at poetry as a kind of "proteus among the people, which changes its form according to language, manners, habits, according to temperament and climate, nay, even according to the accent of different nations." This fact of the idiosyncrasy of national poetry he illustrated with great fulness and richness in the case of Homer, the nature of whose works he was one of the first to elucidate, the Hebrew poets, and the poetry of the north as typified in "Ossian." This same idea of necessary relation to national character and circumstance is also applied to dramatic poetry, and more especially to Shakespeare. Lessing had done much to make Shakespeare known to Germany, but he had regarded him in contrast to the French dramatists with whom he also contrasted the Greek dramatic poets, and accordingly did not bring out his essentially modern and Teutonic character. Herder does this, and in doing so shows a far deeper understanding of Shakespeare's genius than his predecessor had shown.

2. The views on art contained in Herder's *Kritische Wälder* (1769), *Plastik* (1778), &c., are chiefly valuable as a correction of the excesses into which reverence for Greek art had betrayed Winckelmann and Lessing, by help of his fundamental idea of national idiosyncrasy. He argues against the setting up of classic art as an unchanging type, valid for all peoples and all times. He was one of the first to bring to light the characteristic excellences of Gothic art. Beyond this, he eloquently pleaded the cause of painting as a distinct art, which Lessing in his desire to mark off the formative arts from poetry and music had confounded with sculpture. He regarded this as the art of the eye, while sculpture was rather the art of the organ of touch. Painting being less real than sculpture, because lacking the third dimension of space, and a kind of dream, admitted of much greater freedom of treatment than this last. Herder had a genuine appreciation for early German painters, and helped to awaken the modern interest in Albrecht Dürer.

3. By his work on language *Über den Ursprung der Sprache* (1772), Herder may be said to have laid the first rude foundations of the science of comparative philology and that deeper science of the ultimate nature and origin of language. It was specially directed against the supposition of a divine communication of language to man. Its main argument is that speech is a necessary outcome of that special arrangement of mental forces which distinguishes man, and more particularly from his habits of reflection. "If," Herder says, "it is incomprehensible to others how a human mind could invent language, it is as incomprehensible to me how a human mind could be what it is without discovering language for itself." The writer does not make that use of the fact of man's superior organic endowments which one might expect from his general conception of the relation of the physical and the mental in human development.

4. Herder's services in laying the foundations of a comparative science of religion and mythology are even of greater value than his somewhat crude philological speculations. In opposition to the general spirit of the 18th century he saw, by means of his historic sense, the naturalness of religion, its relation to man's wants and impulses. Thus with respect to early religious beliefs he rejected Hume's notion that religion sprang out of the fears of primitive men, in favour of the theory that it represents the first attempts of our species to explain phenomena. He thus intimately associated religion with mythology and primitive poetry. As to later forms of religion, he appears to have held that they owe their vitality to their embodiment of the deep-seated moral feelings of our common humanity. His high appreciation of Christianity, which contrasts with the contemptuous estimate of the contemporary rationalists, rested on a firm belief in its essential humanity, to which fact, and not to conscious deception, he attributes its success. His exposition of this religion in his sermons and writings was simply an unfolding of its moral side. In his later life, as we shall presently see, he found his way to a speculative basis for his religious beliefs.

5. Herder's masterpiece, the *Ideen zur Philosophie der Geschichte*, has the ambitious aim of explaining the whole of human development in close connexion with the nature of man's physical environment. Man is viewed as a part of nature, and all his widely differing forms of development as strictly natural processes. It thus stands in sharp contrast to the anthropology of Kant, which opposes human development conceived as the gradual manifestation of a growing faculty of rational free will to the operations of physical nature. Herder defines human history as "a pure natural history of human powers, actions and propensities, modified by time and place." The *Ideen* shows us that Herder is an evolutionist after the manner of Leibnitz, and not after that of more modern evolutionists. The lower forms of life prefigure man in unequal degrees of imperfection; they exist for his sake, but

they are not regarded as representing necessary antecedent conditions of human existence. The genetic method is applied to varieties of man, not to man as a whole. It is worth noting, however, that Herder in his provokingly tentative way of thinking comes now and again very near ideas made familiar to us by Spencer and Darwin. Thus in a passage in book xv. chap, ii., which unmistakably foreshadows Darwin's idea of a struggle for existence, we read: "Among millions of creatures whatever could preserve itself abides, and still after the lapse of thousands of years remains in the great harmonious order. Wild animals and tame, carnivorous and graminivorous, insects, birds, fishes and man are adapted to each other." With this may be compared a passage in the *Ursprung der Sprache*, where there is a curious adumbration of Spencer's idea that intelligence, as distinguished from instinct, arises from a growing complexity of action, or, to use Herder's words, from the substitution of a more for a less contracted sphere. Herder is more successful in tracing the early developments of particular peoples than in constructing a scientific theory of evolution. Here he may be said to have laid the foundations of the science of primitive culture as a whole. His account of the first dawnings of culture, and of the ruder Oriental civilizations, is marked by genuine insight. On the other hand the development of classic culture is traced with a less skilful hand. Altogether this work is rich in suggestion to the philosophic historian and the anthropologist, though marked by much vagueness of conception and hastiness of generalization.

6. Of Herder's properly metaphysical speculations little needs to be said. He was too much under the sway of feeling and concrete imagination to be capable of great things in abstract thought. It is generally admitted that he had no accurate knowledge either of Spinoza, whose monism he advocated, or of Kant, whose critical philosophy he so fiercely attacked. Herder's Spinozism, which is set forth in his little work, *Vom Erkennen und Empfinden der menschlichen Seele* (1778), is much less logically conceived than Lessing's. It is the religious aspect of it which attracts him, the presentation in God of an object which at once satisfies the feelings and the intellect. With respect to his attacks on the critical philosophy in the *Metakritik* (1799), it is easy to understand how his concrete mind, ever alive to the unity of things, instinctively rebelled against that analytic separation of the mental processes which Kant attempted. However crude and hasty this critical investigation, it helped to direct philosophic reflection to the unity of mind, and so to develop the post-Kantian line of speculation. Herder was much attracted by Schelling's early writings, but appears to have disliked Hegelianism because of the atheism it seemed to him to involve. In the *Kalligone* (1800), work directed against Kant's *Kritik der Urteilskraft,* Herder argues for the close connexion of the beautiful and the good. To his mind the content of art, which he conceived as human feeling and human life in its completeness, was much more valuable than the form, and so he was naturally led to emphasize the moral element in art. Thus his theoretic opposition to the Kantian aesthetics is but the reflection of his practical opposition to the form-idolatry of the Weimar poets.

(J. S.)

BIBLIOGRAPHY.—An edition of Herder's *Sämtliche Werke* in 45 vols. was published after his death by his widow (1805-1820); a second in 60 vols. followed in 1827-1830; a third in 40 vols. in 1852-1854. There is also an edition by H. Düntzer (24 vols., 1869-1879). But these have all been superseded by the monumental critical edition by B. Suphan (32 vols., 1877 *sqq.*). Of the many "selected works," mention may be made of those by B. Suphan (4 vols., 1884-1887); by H. Lambel, H. Meyer and E. Kühnemann in Kürschner's *Deutsche Nationalliteratur* (10 vols., 1885-1894). For Herder's correspondence, see *Aus Herders Nachlass* (3 vols., 1856-1857), *Herders Reise nach Italien* (1859), *Von und an Herder: Ungedruckte Briefe* (3 vols., 1861-1862)—all three works edited by H. Düntzer and F. G. von Herder. Herder's *Briefwechsel mit Nicolai* and his *Briefe an Hamann* have been edited by O. Hoffmann (1887 and 1889). For biography and criticism, see *Erinnerungen aus dem Leben Herders*, by his wife, edited by J. G. Müller (2 vols., 1820); *J. G. von Herders Lebensbild* (with his correspondence), by his son, E. G. von Herder (6 vols., 1846); C. Joret, *Herder et la renaissance littéraire en Allemagne au XVIII^{e} siècle* (1875); F. von Bärenbach, *Herder als Vorgänger Darwins* (1877); R. Haym, *Herder nach seinem Leben und seinen Werken* (2 vols., 1880-1885); H. Nevinson, *A Sketch of Herder and his Times* (1884); M. Kronenberg, *Herders Philosophie nach ihrem Entwicklungsgang* (1889); E. Kühnemann, *Herders Leben* (1895); R. Bürkner, *Herder, sein Leben und Wirken* (1904).

HEREDIA, JOSÉ MARIA DE (1842-1905), French poet, the modern master of the French sonnet, was born at Fortuna Cafeyere, near Santiago de Cuba, on the 22nd of November

1842, being in blood part Spanish Creole and part French. At the age of eight he came from the West Indies to France, returning thence to Havana at seventeen, and finally making France his home not long afterwards. He received his classical education with the priests of Saint Vincent at Senlis, and after a visit to Havana he studied at the École des Chartes at Paris. In the later 'sixties, with François Coppée, Sully-Prudhomme, Paul Verlaine and others less distinguished, he made one of the band of poets who gathered round Leconte de Lisle, and received the name of Parnassiens. To this new school, form—the technical side of their art—was of supreme importance, and, in reaction against the influence of Musset, they rigorously repressed in their work the expression of personal feeling and emotion. "True poetry," said M. de Heredia in his discourse on entering the Academy—"true poetry dwells in nature and in humanity, which are eternal, and not in the heart of the creature of a day, however great." M. de Heredia's place in the movement was soon assured. He wrote very little, and published even less, but his sonnets circulated in MS., and gave him a reputation before they appeared in 1893, together with a few longer poems, as a volume, under the title of *Les Trophées*. He was elected to the Academy on the 22nd of February 1894, in the place of Louis de Mazade-Percin the publicist. Few purely literary men can have entered the Academy with credentials so small in quantity. A small volume of verse—a translation, with introduction, of Diaz del Castillo's *History of the Conquest of New Spain* (1878-1881)—a translation of the life of the nun Alferez (1894), de Quincey's "Spanish Military Nun"—and one or two short pieces of occasional verse, and an introduction or so—this is but small literary baggage, to use the French expression. But the sonnets are of their kind among the most superb in modern literature. "A *Légende des siècles* in sonnets" M. François Coppée called them. Each presents a picture, striking, brilliant, drawn with unfaltering hand—the picture of some characteristic scene in man's long history. The verse is flawless, polished like a gem; and its sound has distinction and fine harmony. If one may suggest a fault, it is that each picture is sometimes too much of a picture only, and that the poetical line, like that of M. de Heredia's master, Leconte de Lisle himself, is occasionally overcrowded. M. de Heredia was none the less one of the most skilful craftsmen who ever practised the art of verse. In 1901 he became librarian of the Bibliothèque de l'Arsénal at Paris. He died at the Château de Bourdonné (Seine-et-Oise) on the 3rd of October 1905, having completed his critical edition of André Chénier's works.

HEREDIA Y CAMPUZANO, JOSÉ MARIA (1803-1839), Cuban poet, was born at Santiago de Cuba on the 31st of December 1803, studied at the university of Havana, and was called to the bar in 1823. In the autumn of 1823 he was arrested on a charge of conspiracy against the Spanish government, and was sentenced to banishment for life. He took refuge in the United States, published a volume of verses at New York in 1825, and then went to Mexico, where, becoming naturalized, he obtained a post as magistrate. In 1832 a collection of his poems was issued at Toluca, and in 1836 he obtained permission to visit Cuba for two months. Disappointed in his political ambitions, and broken in health, Heredia returned to Mexico in January 1837, and died at Toluca on the 21st of May 1839. Many of his earlier pieces are merely clever translations from French, English and Italian; but his originality is placed beyond doubt by such poems as the *Himno del desterrado*, the epistle to Emilia, *Desengaños*, and the celebrated ode to Niagara. Bello may be thought to excel Heredia in execution, and a few lines of Olmedo's *Canto á Junín* vibrate with a virile passion to which the Cuban poet rarely attained; but the sincerity of his patriotism and the sublimity of his imagination have secured for Heredia a real supremacy among Spanish-American poets.

The best edition of his works is that published at Paris in 1893 with a preface by Elias Zerolo.

HEREDITAMENT (from Lat. *hereditare*, to inherit, *heres*, heir), in law, every kind of property that can be *inherited*. Hereditaments are divided into corporeal and incorporeal; corporeal hereditaments are "such as affect the senses, and may be seen and handled by the

body; incorporeal are not the subject of sensation, can neither be seen nor handled, are creatures of the mind, and exist only in contemplation" (Blackstone, *Commentaries*). An example of a corporeal hereditament is land held in freehold, of incorporeal hereditaments, tithes, advowsons, pensions, annuities, rents, franchises, &c. It is still used in the phrase "lands, tenements and hereditaments" to describe property in land, as distinguished from goods and chattels or movable property.

HEREDITY, in biological science, the name given to the generalization, drawn from the observed facts, that animals and plants closely resemble their progenitors. (That the resemblance is not complete involves in the first place the subject of variation (see VARIATION AND SELECTION); but it must be clearly stated that there is no adequate ground for the current loose statements as to the existence of opposing "laws" or "forces" of heredity and variation.) In the simplest cases there seems to be no separate problem of heredity. When a creeping plant propagates itself by runners, when a *Nais* or *Myrianida* breaks up into a series of similar segments, each of which becomes a worm like the parent, we have to do with the general fact that growing organisms tend to display a symmetrical repetition of equivalent parts, and that reproduction by fission is simply a special case of metamerism. When we try to answer the question why the segments of an organism resemble one another, whether they remain in association to form a segmented animal, or break into different animals, we come to the conclusion, which at least is on the way to an answer, that it is because they are formed from pieces of the same protoplasm, growing under similar conditions. It is apparently a fundamental property of protoplasm to be able to multiply by division into parts, the properties of which are similar to each other and to those of the parent.

This leads us directly to the cases of reproduction where there is an obvious problem of heredity. In the majority of cases among animals and plants the new organisms arise from portions of living matter, separated from the parents, but different from the parents in size and structure. These germs of the new organisms may be spores, reproductive cells, fused reproductive cells or multicellular masses (see REPRODUCTION). For the present purpose it is enough to state that they consist of portions of the parental protoplasm. These pass through an embryological history, in which by growth, multiplication and specialization they form structures closely resembling the parents. Now, if it could be shown that these reproductive masses arose directly from the reproductive masses which formed the parent body, the problems of heredity would be extremely simplified. If the first division of a reproductive cell set apart one mass to lie dormant for a time and ultimately to form the reproductive cells of the new generation, while the other mass, exactly of the same kind, developed directly into the new organism, then heredity would simply be a delayed case of what is called organic symmetry, the tendency of similar living material to develop in similar ways under the stimulus of similar external conditions. The cases in which this happens are very rare. In the Diptera the first division of the egg-cell separates the nuclear material of the subsequent reproductive cells from the material that is elaborated into the new organism to contain these cells. In the *Daphnidae* and in *Sagitta* a similar separation occurs at slightly later stages; in vertebrates it occurs much later; while in some hydroids the germ-cells do not arise in the individual which is developed from the egg-cell at all, but in a much later generation, which is produced from the first by budding. However, it is not necessary to dismiss the fertile idea of what Moritz Nussbaum and August Weismann, who drew attention to it, called "continuity of the germ-plasm." Weismann has shown that an actual series of organic forms might be drawn up in which the formation of germ-cells begins at stages successively more remote from the first division of the egg-cell. He has also shown evidence, singularly complete in the case of the hydroids, for the existence of an actual migration of the place of formation of the germ-cells, the migration reaching farther and farther from the egg-cell. He has elaborated the conception of the germ-track, a chain of cell generations in the development of any creature along which the reproductive material saved over from the development of one generation for the germ-cells of the next generation is handed on in a latent condition to its ultimate position. And thus he supposes a real continuity of the germ-plasm, extending from generation to generation in spite of the apparent discontinuity in the observed cases. The conception certainly ranks among the most luminous and most fertile contributions of the 19th century to biological thought, and it is necessary to examine at greater length the superstructure which Weismann has raised upon it.

Weismann's Theory of the Germ-plasm.—A living being takes its individual origin only where there is separated from the stock of the parent a little piece of the peculiar reproductive plasm, the so-called germ-plasm. In sexless reproduction one parent is enough; in sexual reproduction equivalent masses of germ-plasm from each parent combine to form the new individual. The germ-plasm resides in the nucleus of cells, and Weismann identifies it with the nuclear material named chromatin. Like ordinary protoplasm, of which the bulk of cell bodies is composed, germ-plasm is a living material, capable of growing in bulk without alteration of structure when it is supplied with appropriate food. But it is a living material much more complex than protoplasm. In the first place, the mass of germ-plasm which is the starting-point of a new individual consists of several, sometimes of many, pieces named "idants," which are either the chromosomes into a definite number of which the nuclear material of a dividing cell breaks up, or possibly smaller units named chromomeres. These idants are a collection of "ids," which Weismann tentatively identifies with the microsomata contained in the chromosomes, which are visible after treatment with certain reagents. Each id contains all the possibilities—generic, specific, individual—of a new 351
organism, or rather the directing substance which in appropriate surroundings of food, &c., forms a new organism. Each id is a veritable microcosm, possessed of an historic architecture that has been elaborated slowly through the multitudinous series of generations that stretch backwards in time from every living individual. This microcosm, again, consists of a number of minor vital units called "determinants," which cohere according to the architecture of the whole id. The determinants are hypothetical units corresponding to the number of parts of the organism independently variable. Lastly, each determinant consists of a number of small hypothetical units, the "biophores." These are adaptations of a conception of H. de Vries, and are supposed to become active by leaving the nucleus of the cell in which they lie, passing out into the general protoplasm of the cell and ruling its activities. Each new individual begins life as a nucleated cell, the nucleus of which contains germ-plasm of this complex structure derived from the parent. The reproductive cell gives rise to the new individual by continued absorption of food, by growth, cell-divisions and cell-specializations. The theory supposes that the first divisions of the nucleus are "doubling," or homogeneous divisions. The germ-plasm has grown in bulk without altering its character in any respect, and, when it divides, each resulting mass is precisely alike. From these first divisions a chain of similar doubling divisions stretches along the "germ-tracks," so marshalling unaltered germ-plasm to the generative organs of the new individual, to be ready to form the germ-cells of the next generation. In this mode the continuity of the germ-plasm from individual to individual is maintained. This also is the immortality of the germ-cells, or rather of the germ-plasm, the part of the theory which has laid so large a hold on the popular imagination, although it is really no more than a reassertion in new terms of biogenesis. With this also is connected the celebrated denial of the inheritance of acquired characters. It seemed a clear inference that, if the hereditary mass for the daughters were separated off from the hereditary mass that was to form the mother, at the very first, before the body of the mother was formed, the daughters were in all essentials the sisters of their mother, and could take from her nothing of any characters that might be impressed on her body in subsequent development. In the later elaboration of his theory Weismann has admitted the possibility of some direct modification of the germ-plasm within the body of the individual acting as its host.

The mass of germ-plasm which is not retained in unaltered form to provide for the generative cells is supposed to be employed for the elaboration of the individual body. It grows, dividing and multiplying, and forms the nuclear matter of the tissues of the individual, but the theory supposes this process to occur in a peculiar fashion. The nuclear divisions are what Weismann calls "differentiating" or heterogeneous divisions. In them the microcosms of the germ-plasm are not doubled, but slowly disintegrated in accordance with the historical architecture of the plasm, each division differentiating among the determinants and marshalling one set into one portion, another into another portion. There are differences in the observed facts of nuclear division which tend to support the theoretical possibility of two sorts of division, but as yet these have not been correlated definitely with the divisions along the germ-tracks and the ordinary divisions of embryological organogeny. The theoretical conception is, that when the whole body is formed, the cells contain only their own kind of determinants, and it would follow from this that the cells of the tissues cannot give rise to structures containing germ-plasm less disintegrated than their own nuclear material, and least of all to reproductive cells which must contain the undisintegrated microcosms of the germ-plasm. Cases of bud-formation and of reconstructions of lost parts (see Regeneration Of Lost Parts) are regarded as special adaptations made possible by the provision of latent groups of accessory determinants, to become active only on emergency.

It is to be noticed that Weismann's conception of the processes of ontogeny is strictly evolutionary, and in so far is a reversion to the general opinion of biologists of the 17th and 18th centuries. These supposed that the germ-cell contained an image-in-little of the adult, and that the process of development was a mere unfolding or evolution of this, under the influence of favouring and nutrient forces. Hartsoeker, indeed, went so far as to figure the human spermatozoon with a mannikin seated within the "head," and similar extremes of imagination were indulged in by other writers for the spermatozoon or ovum, according to the view they took of the relative importance of these two bodies. C. F. Wolff, in his *Theoria generationis* (1759), was the first distinguished anatomist to make assault on these evolutionary views, but his direct observations on the process of development were not sufficient in bulk nor in clarity of interpretation to convince his contemporaries. Naturally the improved methods and vastly greater knowledge of modern days have made evolution in the old sense an impossible conception; we know that the egg is morphologically unlike the adult, that various external conditions are necessary for its subsequent progress through a slow series of stages, each of which is unlike the adult, but gradually approaching it until the final condition is reached. None the less, Weismann's theory supposes that the important determining factor in these gradual changes lies in the historical architecture of the germ-plasm, and from the theoretical point of view his theory remains strictly an unfolding, a becoming manifest of hidden complexity.

Hertwig's View.—The chief modern holder of the rival view, and the writer who has put together in most cogent form the objections to Weismann's theory, is Oscar Hertwig. He points out that there is no direct evidence for the existence of differentiating as opposed to doubling divisions of the nuclear matter, and, moreover, he thinks that there is very generally diffused evidence as to the universality of doubling division. In the first place, there is the fundamental fact that single-celled organisms exhibit only doubling division, as by that the persistence of species which actually occurs alone is possible. In the case of higher plants, the widespread occurrence of tissues with power of reproduction, the occurrence of budding in almost any part of the body in lower animals and in plants, and the widespread powers of regeneration of lost parts, are easily intelligible if every cell like the egg-cell has been formed by doubling division, and so contains the germinal material for every part of the organism, and thus, on the call of special conditions, can become a germ-cell again. He lays special stress on those experiments in which the process of development has been interfered with in various ways at various stages, as showing that the cells which arise from the division of the egg-cell were not predestined unalterably for a particular rôle, according to a predetermined plan. He dismisses Weismann's suggestion of the presence of accessory determinants which remain latent unless they happen to be required, as being too complicated a supposition to be supported without exact evidence, a view in which he has received strong support from those who have worked most at the experimental side of the question. From consideration of a large number of physiological facts, such as the results of grafting, transplantations of tissues and transfusions of blood, he concludes that the cells of an organism possess, in addition to their patent microscopical characters, latent characters peculiar to the species, and pointing towards a fundamental identity of the germinal substance in every cell.

The Nuclear Matter.—Apart from these two characteristic protagonists of extreme and opposing views, the general consensus of biological opinion does not take us very far beyond the plainest facts of observation. The resemblances of heredity are due to the fact that the new organism takes its origin from a definite piece of the substance of its parent or parents. This piece always contains protoplasm, and as the protoplasm of every animal and plant appears to have its own specific reactions, we cannot exclude this factor; indeed many, following the views of M. Verworn, and seeing in the specific metabolisms of protoplasm a large part of the meaning of life, attach an increasing importance to the protoplasm in the hereditary mass. Next, it always contains nuclear matter, and, in view of the extreme specialization of the nuclear changes in the process of maturation and fertilization of the generative cells, there is more than sufficient reason for believing that the nuclear substance, if not actually the specific germ-plasm, is of vast importance in heredity. The theory of its absolute dominance depends on a number of experiments, the interpretation of which is doubtful. Moritz Nussbaum showed that in Infusoria non-nucleated fragments of a cell always died, while nucleated fragments were able to complete themselves; but it may be said with almost equal confidence that nuclei separated from protoplasm also invariably die —at least, all attempts to preserve them have failed. Hertwig and others, in their brilliant work on the nature of fertilization, showed that the process always involved the entrance into the female cell of the nucleus of the male cell, but we now know that part of the protoplasm of the spermatozoon also enters. T. Boveri made experiments on the cross-

fertilization of non-nucleated fragments of the eggs of *Sphaerechinus granularis* with spermatozoa of *Echinus microtuberculatus*, and obtained dwarf larvae with only the paternal characters; but the nature of his experiments was not such as absolutely to exclude doubt. Finally, in addition to the nucleus and the protoplasm, another organism of the cell, the centrosome, is part of the hereditary mass. In sum, while most of the evidence points to a preponderating importance of the nuclear matter, it cannot be said to be an established proposition that the nuclear matter is the germ-plasm. Nor are we yet definitely in a position to say that the germinal mass (nuclear matter, protoplasm, &c., of the reproductive cells) differs essentially from the general substance of the organism—whether, in fact, there is continuity of *germ-plasm* as opposed to continuity of living material from individual to individual. The origin of sexual cells from only definite places, in the vast majority of cases, and such phenomena as the phylo-genetic migration of their place of origin among the Hydro-medusae, tell strongly in favour of Weismann's conception. Early experiments on dividing eggs, in which, by separation or transposition, cells were made to give rise to tissues and parts of the organism which in the natural order they would not have produced, tell strongly against any profound separation between germ-plasm and body-plasm. It is also to be noticed that the failure of germ-cells to arise except in specific places may be only part of the specialized ordering of the whole body, and does not necessarily involve the interpretation that reproductive material is absolutely different in kind.

Amphimixis.—Hitherto we have considered the material bearer of heredity apart from the question of sexual union, and we find that the new organism takes origin from a portion of living matter, forming a material which may be called germ-plasm, in which resides the capacity to correspond to the same kind of surrounding forces as stimulated the parent germ-plasm by growth of the same fashion. In many cases (*e.g.* asexual spores) the piece of germ-plasm comes from one parent, and from an organ or tissue not associated with sexual reproduction; in other cases (parthenogenetic eggs) it comes from the ovary of a female, and may have the apparent characters of a sexual egg, except that it develops without fertilization; here also are to be included the cases where normal female ova have been induced to develop, not by the entrance of a spermatozoon, but by artificial chemical stimulation. In such cases the problem of heredity does not differ fundamentally from the symmetrical repetition of parts. In most of the higher plants and animals, however, sexual reproduction is the normal process, and from our present point of view the essential feature of this is that the germ-plasm which starts the new individual (the fertilized egg) is derived from the male (the spermatozoon) and from the female parent (the ovum). Although it cannot yet be set down sharply as a general proposition, there is considerable evidence to show that in the preparation of the ovum and spermatozoon for fertilization the nuclear matter of each is reduced by half (reducing division of the chromosomes), and that fertilization means the restoration of the normal bulk in the fertilized cell by equal contributions from male and female. So far as the known facts of this process of union of germ-plasms go, they take us no farther than to establish such a relation between the offspring and two parents as exists between the offspring and one parent in the other cases. Amphimixis has a vast importance in the theory of evolution (Weismann, for instance, regards it as the chief factor in the production of variations); for its relation to heredity we are as yet dependent on empirical observations.

Heredity and Development.—The actual process by which the germinal mass slowly assumes the characters of the adult—that is, becomes like the parent—depends on the interaction of two sets of factors: the properties of the germinal material itself, and the influences of substances and conditions external to the germinal material. Naturally, as K. W. von Nägeli and Hertwig in particular have pointed out, there is no perpetual sharp contrast between the two sets of factors, for, as growth proceeds, the external is constantly becoming the internal; the results of influences, which were in one stage part of the environment, are in the next and subsequent stages part of the embryo. The differences between the exponents of evolution and epigenesis offer practical problems to be decided by experiment. Every phenomenon in development that is proved the direct result of epigenetic factors can be discounted from the complexity of the germinal mass. If, for instance, as H. Driesch and Hertwig have argued, much of the differentiation of cells and tissues is a function of locality and is due to the action of different external forces on similar material, then just so much burden is removed from what evolutionists have to explain. That much remains cannot be doubted. Two eggs similar in appearance develop side by side in the same sea-water, one becoming a mollusc, the other an *Amphioxus*. Hertwig would say that the slight differences in the original eggs would determine slight differences in metabolism and so forth, with the result that the segmentation of the two is slightly different; in the next stage the differences in metabolisms and other relations will be increased, and so on

indefinitely. But in such cases *c'est le premier pas qui coûte*, and the absolute cost in theoretical complexity of the germinal material can be estimated only after a prolonged course of experimental work in a field which is as yet hardly touched.

Empirical Study of Heredity.—The fundamental basis of heredity is the separation of a mass from the parent (germ-plasm) which under certain conditions grows into an individual resembling the parent. The goal of the study of heredity will be reached only when all the phenomena can be referred to the nature of the germ-plasm and of its relations to the conditions under which it grows, but we have seen how far our knowledge is from any attempt at such references. In the meantime, the empirical facts, the actual relations of the characters in the offspring to the characters of the parents and ancestors, are being collected and grouped. In this inquiry it at once becomes obvious that every character found in a parent may or may not be present in the offspring. When any character occurs in both, it is generally spoken of as transmissible and of having been transmitted. In this broad sense there is no character that is not transmissible. In all kinds of reproduction, the characters of the class, family, genus, species, variety or race, and of the actual individual, are transmissible, the certainty with which any character appears being almost in direct proportion to its rank in the descending scale from order to individual. The transmitted characters are anatomical, down to the most minute detail; physiological, including such phenomena as diatheses, timbre of voice and even compound phenomena, such as *gaucherie* and peculiarity of handwriting; psychological; pathological; teratological, such as syndactylism and all kinds of individual variations. Either sex may transmit characters which in themselves are necessarily latent, as, for instance, a bull may transmit a good milking strain. In forms of asexual reproduction, such as division, budding, propagation by slips and so forth, every character of the parent may appear in the descendant, and apparently even in the descendants produced from that descendant by the ordinary sexual processes. In reproduction by spore formation, in parthenogenesis and in ordinary sexual modes, where there is an embryological history between the separated mass and the new adult, it is necessary to attempt a difficult discrimination between acquired and innate characters. 353

Acquired Characters.—Every character is the result of two sets of factors, those resident in the germinal material and those imposed from without. Our knowledge has taken us far beyond any such idea as the formation of a germinal material by the collection of particles from the adult organs and tissues (gemmules of C. Darwin). The inheritance of any character means the transmission in the germinal material of matter which, brought under the necessary external conditions, develops into the character of the parent. There is necessarily an acquired or epigenetic side to every character; but there is nothing in our knowledge of the actual processes to make necessary or even probable the supposition that the result of that factor in one generation appears in the germ-plasm of the subsequent generations, in those cases where an embryological development separates parent and offspring. The development of any normal, so-called "innate," character, such as, say, the assumption of the normal human shape and relations of the frontal bone, requires the co-operation of many factors external to the developing embryo, and the absence of abnormal distorting factors. When we say that such an innate character is transmitted, we mean only that the germ-plasm has such a constitution that, in the presence of the epigenetic factors and the absence of abnormal epigenetic factors, the bone will appear in due course and in due form. If an abnormal epigenetic factor be applied during development, whether to the embryo *in utero*, to the developing child, or in after life, abnormality of some kind will appear in the bone, and such an abnormality is a good type of what is spoken of as an "acquired" character. Naturally such a character varies with the external stimulus and the nature of the material to which the stimulus is applied, and probability and observation lead us to suppose that as the germ-plasm of the offspring is similar to that of the parent, being a mass separated from the parent, abnormal epigenetic influences would produce results on the offspring similar to those which they produced on the parent. Scrutiny of very many cases of the supposed inheritance of acquired characters shows that they may be explained in this fashion—that is to say, that they do not necessarily involve any feature different in kind from what we understand to occur in normal development. The effects of increased use or of disuse on organs or tissues, the reactions of living tissues to various external influences, to bacteria, to bacterial or other toxins, or to different conditions of respiration, nutrition and so forth, we know empirically to be different in the case of different individuals, and we may expect that when the living matter of a parent responds in a certain way to a certain external stimulus, the living matter of the descendant will respond to similar circumstances in a similar fashion. The operation of similar influences on similar material accounts for a large proportion of the facts. In the important case of the transmission of disease from parent to offspring it is plain that three sets of normal factors may operate, and other cases of

transmission must be subjected to similar scrutiny: (1) a child may inherit the anatomical and physiological constitution of either parent, and with that a special liability of failure to resist the attacks of a widespread disease; (2) the actual bacteria may be contained in the ovum or possibly in the spermatozoon; (3) the toxins of the disease may have affected the ovum, or the spermatozoon, or through the placenta the growing embryo. Obviously in the first two cases the offspring cannot be said in any strict sense to have inherited the disease; in the last case, the theoretical nomenclature is more doubtful, but it is at least plain that no inexplicable factor is involved.

It is to be noticed, however, that “Lamarckians” and “Neo-Lamarckians” in their advocacy of an inheritance of “acquired characters” make a theoretical assumption of a different kind, which applies equally to “acquired” and to “innate” characters. They suppose that the result of the epigenetic factors is reflected on the germ-plasm in such a mode that in development the products would display the same or a similar character without the co-operation of the epigenetic factors on the new individual, or would display the result in an accentuated form if with the renewed co-operation of the external factors. Such an assumption presents its greatest theoretical difficulty if, with Weismann, we suppose the germ-plasm to be different in kind from the general soma-plasm, and its least theoretical difficulty if, with Hertwig, we suppose the essential matter of the reproductive cells to be similar in kind to the essential substance of the general body cells. But, apart from the differences between such theories, it supposes, in all cases where an embryological development lies between parent and descendant, the existence of a factor towards which our present knowledge of the actual processes gives us no assistance. The separated hereditary mass does not contain the organs of the adult; the Lamarckian factor would involve the translation of the characters of the adult back into the characters of the germ-cell in such a fashion that when the germ-cell developed these characters would be re-translated again into those which originally had been produced by co-operation between germ-plasm characters and epigenetic factors. In the present state of our knowledge the theoretical difficulty is not fatal to the Lamarckian supposition; it does no more than demand a much more careful scrutiny of the supposed cases. Such a scrutiny has been going on since Weismann first raised the difficulty, and the present result is that no known case has appeared which cannot be explained without the Lamarckian factor, and the vast majority of cases have been resolved without any difficulty into the ordinary events of which we have full experience. Taking the empirical data in detail, it would appear first that the effects of single mutilations are not inherited. The effects of long-continued mutilations are not inherited, but Darwin cites as a possible case the Mahommedans of Celebes, in whom the prepuce is very small. C. E. Brown-Séquard thought that he had shown in the case of guinea-pigs the inheritance of the results of nervous lesions, but analyses of his results leave the question extremely doubtful. The inheritance of the effects of use and disuse is not proved. The inheritance of the effects of changed conditions of life is quite uncertain. Nägeli grew Alpine plants at Munich, but found that the change was produced at once and was not increased in a period of thirteen years. Alphonse de Candolle starved plants, with the result of producing better blooms, and found that seedlings from these were also above the average in luxuriance of blossom, but in these experiments the effects of selection during the starvation, and of direct effect on the nutrition of the seeds, were not eliminated. Such results are typical of the vast number of experiments and observations recorded. The empirical issue is doubtful, with a considerable balance against the supposed inheritance of acquired characters.

Empirical Study of Effects of Amphimixis.—Inheritance is theoretically possible from each parent and from the ancestry of each. In considering the total effect it is becoming customary to distinguish between “blended” inheritance, where the offspring appears in respect of any character to be intermediate between the conditions in the parents; “prepotent” inheritance, where one parent is supposed to be more effective than the other in stamping the offspring (thus, for instance, Negroes, Jews and Chinese are stated to be prepotent in crosses); “exclusive” inheritance, where the character of the offspring is definitely that of one of the parents. Such a classification depends on the interpretation of the word character, and rests on no certain grounds. An apparently blended character or a prepotent character may on analysis turn out to be due to the inheritance of a certain proportion of minuter characters derived exclusively from either parent. H. de Vries and later on a number of other biologists have advanced the knowledge of heredity in crosses by carrying out further the experimental and theoretical work of Gregor Mendel (see Mendelism and Hybridism), and results of great practical importance to breeders have already been obtained. These experiments and results, however, appear to relate exclusively to sexual reproduction and almost entirely to the crossing of artificial varieties of animals and plants. So far as they go, they point strongly to the occurrence of alternate inheritance instead of

blended inheritance in the case of artificial varieties. On the other hand, in the case of natural varieties it appears that blended inheritance predominates. The difficulty of the interpretation of the word “character” still remains and the Mendelian interpretation cannot be dismissed with regard to the behaviour of any “character” in inheritance until it is certain that it is a unit and not a composite. There is another fundamental difficulty in making empirical comparisons between the characters of parents and offspring. At first sight it seems as if this mode of work were sufficiently direct and simple, and involved no more than a mere collection of sufficient data. The cranial index, or the height of a human being and of so many of his ancestors being given, it would seem easy to draw an inference as to whether or no in these cases brachycephaly or stature were inherited. But our modern conceptions of the individual and the race make it plain that the problems are not so simple. With regard to any character, the race type is not a particular measurement, but a curve of variations derived from statistics, and any individual with regard to the particular character may be referable to any point of the curve. A tall race like the modern Scots may contain individuals of any height within the human limits; a dolichocephalic race like the modern Spaniards may contain extremely round-headed individuals. What is meant by saying that one race is tall or the other dolichocephalic, is merely that if a sufficiently large number be chosen at random, the average height of the one race will be great, the cranial index of the other low. It follows that the study of variation must be associated with, or rather must precede, the empirical study of heredity, and we are beginning to know enough now to be certain that in both cases the results to be obtained are practically useless for the individual case, and of value only when large masses of statistics are collected. No doubt, when general conclusions have been established, they must be acted on for individual cases, but the results can be predicted not for the individual case, but only for the average of a mass of individual cases. It is impossible within the limits of this article to discuss the mathematical conceptions involved in the formation and applications of the method, but it is necessary to insist on the fact that these form an indispensable part of any valuable study of empirical data. One interesting conclusion, which may be called the “ancestral law” of heredity, with regard to any character, such as height, which appears to be a blend of the male and female characters, whether or no the apparent blend is really due to an exclusive inheritance of separate components, may be given from the work of F. Galton and K. Pearson. Each parent, on the average, contributes ¼ or $(0.5)^2$, each grandparent $\frac{1}{16}$ or $(0.5)^4$, and each ancestor of n^{th} place $(0.5)^{2n}$. But this, like all other deductions, is applicable only to the mass of cases and not to any individual case.

Regression.—An important result of quantitative work brings into prominence the steady tendency to maintain the type which appears to be one of the most important results of amphimixis. In the tenth generation a man has 1024 tenth grandparents, and is thus the product of an enormous population, the mean of which can hardly differ from that of the general population. Hence this heavy weight of mediocrity produces regression or progression to type. Thus in the case of height, a large number of cases being examined, it was found that fathers of a stature of 72 in. had sons with a mean stature of 70.8 in., a regression towards the normal stature of the race. Fathers with a stature of 66 in. had sons with a mean of 68.3 in., a progression towards the normal. It follows from this that where there is much in-and-in breeding the weight of mediocrity will be less, and the peculiarities of the breed will be accentuated.

Atavism.—Under this name a large number of ordinary cases of variation are included. A tall man with very short parents would probably be set down as a case of atavism if the existence of a very tall ancestor were known. He would, however, simply be a case of normal variation, the probability of which may be calculated from a table of stature variations in his race. Less marked cases set down to atavism may be instances merely of normal regression. Many cases of more abnormal structure, which are really due to abnormal embryonic or post-embryonic development, are set down to atavism, as, for instance, the cervical fistulae, which have been regarded as atavistic persistences of the gill clefts. It is also used to imply the reversion that takes place when domestic varieties are set free and when species or varieties are crossed (see Hybridism). Atavism is, in fact, a misleading name covering a number of very different phenomena.

Telegony is the name given to the supposed fact that offspring of a mother to one sire may inherit characters from a sire with which the mother had previously bred. Although breeders of stock have a strong belief in the existence of this, there are no certain facts to support it, the supposed cases being more readily explained as individual variations of the kind generally referred to as “atavism.” None the less, two theoretical explanations have been suggested: (1) that spermatozoa, or portions of spermatozoa, from the first sire may occasionally survive within the mother for an abnormally long period; (2) that the body, or

the reproductive cells of the mother, may be influenced by the growth of the embryo within her, so that she acquires something of the character of the sire. The first supposition has no direct evidence to support it, and is made highly improbable from the fact that a second impregnation is always necessary. Against the second supposition Pearson brings the cogent empirical evidence that the younger children of the same sire show no increased tendency to resemble him. (See TELEGONY.)

AUTHORITIES.—The following books contain a fair proportion of the new and old knowledge on this subject:—W. Bateson, *Materials for the Study of Variation* (1894); Y. Delage, *La Structure du protoplasma et les théories sur l'hérédité* (a very full discussion and list of literature); G. H. T. Eimer, *Organic Evolution*, Eng. trans. by Cunningham (1890); J. C. Ewart, *The Penycuik Experiments* (1899); F. Galton, *Natural Inheritance* (1887); O. Hertwig, *Evolution or Epigenesis?* Eng. trans. by P. C. Mitchell (1896); K. Pearson, *The Grammar of Science* (1900); Verworn, *General Physiology*, Eng. trans. (1899); A. Weismann, *The Germ Plasm*, Eng. trans. by Parker (1893). Lists of separate papers are given in the annual volumes of the *Zoological Record* under heading "General Subject."

(P. C. M.)

HEREFORD, a city and municipal and parliamentary borough, and the county town of Herefordshire, England, on the river Wye, 144 m. W.N.W. of London, on the Worcester-Cardiff line of the Great Western railway and on the west-and-north joint line of that company and the North-Western. It is connected with Ross and Gloucester by a branch of the Great Western, and is the terminus of a line from the west worked by the Midland and Neath & Brecon companies. Pop. (1901) 21,382. It is mainly on the left bank of the river, which here traverses a broad valley, well wooded and pleasant. The cathedral of St Ethelbert exemplifies all styles from Norman to Perpendicular. The see was detached from Lichfield in 676, Putta being its first bishop; and the modern diocese covers most of Herefordshire, a considerable part of Shropshire, and small portions of Worcestershire, Staffordshire and Monmouthshire; extending also a short distance across the Welsh border. The removal of murdered Aethelbert's body from Marden to Hereford led to the foundation of a superior church, reconstructed by Bishop Athelstane, and burnt by the Welsh in 1055. Begun again in 1079 by Bishop Robert Losinga, it was carried on by Bishop Reynelm and completed in 1148 by Bishop R. de Betun. In 1786 the great western tower fell and carried with it the west front and the first bay of the nave, when the church suffered much from unhappy restoration by James Wyatt, but his errors were partly corrected by the further work of Lewis Cottingham and Sir Gilbert Scott in 1841 and 1863 respectively, while the present west front is a reconstruction completed in 1905. The total length of the cathedral outside is 342 ft., inside 327 ft. 5 in., the nave being 158 ft. 6 in., the choir from screen to reredos 75 ft. 6 in. and the lady chapel 93 ft. 5 in. Without, the principal features are the central tower, of Decorated work with ball-flower ornament, formerly surmounted by a timber spire; and the north porch, rich Perpendicular with parvise. The lady chapel has a bold east end with five narrow lancet windows. The bishop's cloisters, of which only two walks remain, are Perpendicular of curious design, with heavy tracery in the bays. A picturesque tower at the south-east corner, in the same style, is called the "Lady Arbour," but the origin of the name is unknown. Of the former fine decagonal Decorated chapter-house, only the doorway and slight traces remain. Within, the nave has Norman arcades, showing the wealth of ornament common to the work of this period in the church. Wyatt shortened it by one bay, and the clerestory is his work. There is a fine late Norman font, springing from a base with the rare design of four lions at the corners. The south transept is also Norman, but largely altered by the introduction of Perpendicular work. The north transept was wholly rebuilt in 1287 to contain the shrine of St Thomas de Cantilupe, bishop of Hereford, of which there remains the magnificent marble pedestal surmounted by an ornate arcade. The fine lantern, with its many shafts and vaulting, was thrown open to the floor of the bell-chamber by Cottingham. The choir screen is a florid design by Sir Gilbert Scott, in light wrought iron, with a wealth of ornament in copper, brass, mosaic and polished stones. The dark choir is Norman in the arcades and the stage above, with Early English clerestory and vaulting. At the east end is a fine Norman arch, blocked until 1841 by a Grecian screen erected in 1717. The choir stalls are largely Decorated. The organ contains original work by the famous builder Renatus Harris, and was the gift of Charles II. to the cathedral. The small north-east and south-east transepts are Decorated but retain traces of

the Norman apsidal terminations eastward. The eastern lady chapel, dated about 1220, shows elaborate Early English work. On the south side opens the little Perpendicular chantry of Bishop Audley (1492-1502). In the north choir aisle is the beautiful fan-vaulted chantry of Bishop Stanbury (1470). The crypt is remarkable as being, like the lady chapel, Early English, and is thus the only cathedral crypt in England of a later date than the 11th century. The ancient monastic library remains in the archive room, with its heavy oak cupboards. Deeds, documents and several rare manuscripts and relics are preserved, and several of the precious books are still secured by chains. But the most celebrated relic is in the south choir aisle. This is the Map of the World, dating from about 1314, the work of a Lincolnshire monk, Richard of Haldingham. It represents the world as surrounded by ocean, and embodies many ideas taken from Herodotus, Pliny and other writers, being filled with grotesque figures of men, beasts, birds and fishes, together with representations of famous cities and scenes of scriptural classical story, such as the Labyrinth of Crete, the Egyptian pyramids, Mount Sinai and the journeyings of the Israelites. The map is surmounted by representations of Paradise and the Day of Judgment.

From the south-east transept of the cathedral a cloister leads to the quadrangular college of the Vicars-Choral, a beautiful Perpendicular building. On this side of the cathedral, too, the bishop’s palace, originally a Norman hall, overlooks the Wye, and near it lies the castle green, the site of the historic castle, which is utterly effaced. There is here a column (1809) commemorating the victories of Nelson. The church of All Saints is Early English and Decorated, and has a lofty spire. Both this and St Peter’s (originally Norman) have good carved stalls, but the fabric of both churches is greatly restored. One only of the six gates and a few fragments of the old walls are still to be seen, but there are ruins of the Black Friars’ Monastery in Widemarsh, and a mile out of Hereford on the Brecon Road, the White Cross, erected in 1347 by Bishop Louis Charlton, and restored by Archdeacon Lord Saye and Sele, commemorates the departure of the Black Plague. Of domestic buildings the “Old House” is a good example of the picturesque half-timbered style, dating from 1621, and the Coningsby Hospital (almshouses) date from 1614. The inmates wear a remarkable uniform of red, designed by the founder, Sir T. Coningsby. St Ethelbert’s hospital is an Early English foundation. Old-established schools are the Cathedral school (1384) and the Blue Coat school (1710); there is also the County College (1880). The public buildings are the shire hall in St Peter’s Street, in the Grecian Doric style, with a statue in front of it of Sir George Cornewall Lewis, who represented the county in parliament from 1847 to 1852, the town hall (1904), the corn-exchange (1858), the free library and museum in Broad Street; the guildhall and mansion house. A musical festival of the choirs of Hereford, Gloucester and Worcester cathedrals is held annually in rotation at these cities.

The government is in the hands of a municipal council consisting of a mayor, 6 aldermen and 18 councillors. Area, 5031 acres.

Hereford (*Herefortuna*), founded after the crossing of the Severn by the West Saxons early in the 7th century, had a strategic importance due to its proximity to the Welsh March. The foundation of the castle is ascribed to Earl Harold, afterwards Harold II. The castle was successfully besieged by Stephen, and was the prison of Prince Edward during the Barons’ Wars. The pacification of Wales deprived Hereford of military significance until it became a Royalist stronghold during the Civil Wars. It surrendered easily to Waller in 1643; but was reoccupied by the king’s troops and received Rupert on his march to Wales after Naseby. It was besieged by the Scots during August 1645 and relieved by the king. It fell to the Parliamentarians in this year. In 1086 the town included fees of the bishop, the dean and chapter, and the Knights Hospitallers, but was otherwise royal demesne. Richard I. in 1189 sold their town to the citizens at a fee farm rent, which grant was confirmed by John, Henry III., Edward II., Edward III., Richard II., Henry IV. and Edward IV. Incorporation was granted to the mayor, aldermen and citizens in 1597, and confirmed in 1620 and 1697-1698. Hereford returned two members to parliament from 1295 until 1885, when the Redistribution Act deprived it of one representative. In 1116-1117 a fair beginning on St Ethelberta’s day was conferred on the bishop, the antecedent of the modern fair in the beginning of May. A fair beginning on St Denis’ day, granted to the citizens in 1226-1227, is represented by that held in October. The fair of Easter Wednesday was granted in 1682. In 1792 the existing fairs of Candlemas week and the beginning of July were held. Market days were, under Henry VIII. and in 1792, Wednesday, Friday and Saturday; the Friday market was discontinued before 1835. Hereford was the site of a provincial mint in 1086 and later. A grant of an exclusive merchant gild, in 1215-1216, was several times confirmed. The trade in wool was important in 1202, and eventually responsible for gilds of tailors, drapers, mercers, dyers, fullers, cloth workers, weavers and haberdashers; it brought into the market Welsh friezes and white cloth; but declined in the 16th century, although it existed in 1835.

The leather trade was considerable in the 13th century. In 1835 the glove trade had declined. The city anciently had an extensive trade in bread with Wales. It was the birthplace of David Garrick, the actor, in 1716, and probably of Nell Gwyn, mistress of Charles II., to whose memory a tablet was erected in 1883, marking the supposed site of her house.

See R. Johnson, *Ancient Customs of Hereford* (London, 1882); J. Duncumbe, *History of Hereford* (Hereford, 1882); *Journal* of Brit. Arch. Assoc. xxvi.

HEREFORDSHIRE, an inland county of England on the south Welsh border, bounded N. by Shropshire, E. by Worcestershire, S. by Monmouthshire and Gloucestershire, and W. by Radnorshire and Brecknockshire. The area is 839.6 sq. m. The county is almost wholly drained by the Wye and its tributaries, but on the north and east includes a small portion of the Severn basin. The Wye enters Herefordshire from Wales at Hay, and with a sinuous and very beautiful course crosses the south-western part of the county, leaving it close above the town of Monmouth. Of its tributaries, the Lugg enters in the north-west near Presteign, and has a course generally easterly to Leominster, where it turns south, receives the Arrow from the west, and joins the Wye 6 m. below Hereford, the Frome flowing in from the east immediately above the junction. The Monnow rising in the mountains of Brecknockshire forms the boundary between Herefordshire and Monmouthshire over one-half of its course (about 20 m.), but it joins the main river at Monmouth. Its principal tributary in Herefordshire is the Dore, which traverses the picturesque Golden Valley. The Wye is celebrated for its salmon fishing, which is carefully preserved, while the Lugg, Arrow and Frome abound in trout and grayling, as does the Teme. This last is a tributary of the Severn, and only two short reaches lie within this county in the north, while it also forms parts of the northern and eastern boundary. The Leddon, also flowing to the Severn, rises in the east of the county and leaves it in the south-east, passing the town of Ledbury. High ground, of an elevation from 500 to 800 ft., separates the various valleys, while on the eastern boundary rise the Malvern Hills, reaching 1194 ft. in the Herefordshire Beacon, and 1395 ft. in the Worcestershire Beacon, and on the boundary with Brecknockshire the Black Mountains exceed 2000 ft. The scenery of the Wye, with its wooded and often precipitous banks, is famous, the most noteworthy point in this county being about Symond’s Yat, on the Gloucestershire border below Ross.

Geology.—The Archean or Pre-Cambrian rocks, the most ancient in the county, emerge from beneath the newer deposits in three small isolated areas. On the western border, Stanner Rock, a picturesque craggy hill near Kington, consists of igneous materials (granitoid rock, felstone, dolerite and gabbro), apparently of intrusive origin and possibly of Uriconian age. In Brampton Bryan Park, a few miles to the north-east, some ancient conglomerates emerge and may be of Longmyndian age. On the east of the county the Herefordshire Beacon in the Malvern chain consists of gneisses and schists and Uriconian volcanic rocks; these have been thrust over various members of the Cambrian and Silurian systems, and owing to their hard and durable nature they form the highest ground in the county. The Cambrian rocks (Tremadoc Beds) come next in order of age and consist of quartzites, sandstones and shales, well exposed at the southern end of the Malvern chain and also at Pedwardine near Brampton Bryan. The Silurian rocks are well developed in the north-west part of the county, between Presteign and Ludlow; also along the western flanks of the Malvern Hills and in the eroded dome of Woolhope. Smaller patches come to light at Westhide east of Hereford and at May Hill near Newent. They consist of highly fossiliferous sandstones, mudstones, shales and limestones, known as the Llandovery, Wenlock and Ludlow Series; the Woolhope, Wenlock and Aymestry Limestones are famed for their rich fossil contents. The remainder and by far the greater part of the county is occupied by the Old Red Sandstone, through which the rocks above described project in detached areas. The Old Red Sandstone consists of a great thickness of red sandstones and marls, with impersistent bands of impure concretionary limestone known as cornstones, which by their superior hardness give rise to scarps and rounded ridges; they have yielded remains of fishes and crustaceans. Some of the upper beds are conglomeratic. On its south-eastern margin the county just reaches the Carboniferous Limestone cliffs of the Wye Valley near Ross. Glacial deposits, chiefly sand and gravel, are found in the lower ground along the river-courses, while caves in the Carboniferous Limestone have yielded remains of the hyena, cave-lion, rhinoceros, mammoth and reindeer.

Agriculture and Industries.—The soil is generally marl and clay, but in various parts contains calcareous earth in mixed proportions. Westward the soil is tenacious and retentive of water; on the east it is a stiff and often reddish clay. In the south is found a light sandy loam. More than four-fifths of the total area of the county is under cultivation and about two-thirds of this is in permanent pasture. Ash and oak coppices and larch plantations clothe its hillsides and crests. The rich red soil of the Old Red Sandstone formation is famous for its pear and apple orchards, the county, notwithstanding its much smaller area, ranking in this respect next to Devonshire. The apple crop, generally large, is enormous one year out of four. Twenty hogsheads of cider have been made from an acre of orchard, twelve being the ordinary yield. Cider is the staple beverage of the county, and the trade in cider and perry is large. Hops are another staple of the county, the vines of which are planted in rows on ploughed land. As early as Camden's day a Herefordshire adage coupled Weobley ale with Leominster bread, indicating the county's capacity to produce fine wheat and barley, as well as hops.

Herefordshire is also famous as a breeding county for its cattle of bright red hue, with mottled or white faces and sleek silky coats. The Herefords are stalwart and healthy, and, though not good milkers, put on more meat and fat at an early age, in proportion to food consumed, than almost any other variety. They produce the finest beef, and are more cheaply fed than Devons or Durhams, with which they are advantageously crossed. As a dairy county Herefordshire does not rank high. Its small, white-faced, hornless, symmetrical breed of sheep known as "the Ryelands," from the district near Ross, where it was bred in most perfection, made the county long famous both for the flavour of its meat and the merino-like texture of its wool. Fuller says of this that it was best known as "Lempster ore," and the finest in all England. In its original form the breed is extinct, crossing with the Leicester having improved size and stamina at the cost of the fleece, and the chief breeds of sheep on Herefordshire farms at present are Shropshire Downs, Cotswolds and Radnors, with their crosses. Agricultural horses of good quality are bred in the north, and saddle and coach horses may be met with at the fairs. Breeders' names from the county are famous at the national cattle shows, and the number, size and quality of the stock are seen in their supply of the metropolitan and other markets. Prize Herefords are constantly exported to the colonies.

Manufacturing enterprise is small. There are some iron foundries and factories for agricultural implements, and some paper is made. There are considerable limestone quarries, as near Ledbury.

Communications.—Hereford is an important railway centre. The Worcester and Cardiff line of the Great Western railway, entering on the east, runs to Hereford by Ledbury and then southward. The joint line of the Great Western and North-Western companies runs north from Hereford by Leominster, proceeding to Shrewsbury and Crewe. At Leominster a Great Western branch crosses, connecting Worcester, Bromyard and New Radnor. From Hereford a Great Western branch follows the Wye south to Ross, and thence to the Forest of Dean and to Gloucester; a branch connects Ledbury with Gloucester, and the Golden Valley is traversed by a branch from Pontrilas on the Worcester-Cardiff line. From Hereford the Midland and Neath and Brecon line follows the Wye valley westward. None of the rivers is commercially navigable and the canals are out of use.

Population and Administration.—The area of the ancient county is 537,363 acres, with a population in 1891 of 115,949 and in 1901 of 114,380. The area of the administrative county is 538,921 acres. The county contains 12 hundreds. It is divided into two parliamentary divisions, Leominster (N.) and Ross (S.), and it also includes the parliamentary borough of Hereford, each returning one member. There are two municipal boroughs—Hereford (pop. 21,382) and Leominster (5826). The other urban districts are Bromyard (1663), Kington (1944), Ledbury (3259) and Ross (3303). The county is in the Oxford circuit, and assizes are held at Hereford. It has one court of quarter sessions and is divided into 11 petty sessional divisions. The boroughs of Hereford and Leominster have separate commissions of the peace, and the borough of Hereford has in addition a separate court of quarter sessions. There are 260 civil parishes. The ancient county, which is almost entirely in the diocese of Hereford, with small parts in those of Gloucester, Worcester and Llandaff, contains 222 ecclesiastical parishes or districts, wholly or in part.

History.—At some time in the 7th century the West Saxons pushed their way across the Severn and established themselves in the territory between Wales and Mercia, with which kingdom they soon became incorporated. The district which is now Herefordshire was occupied by a tribe the Hecanas, who congregated chiefly in the fertile area about Hereford and in the mining districts round Ross. In the 8th century Offa extended the Mercian

frontier to the Wye, securing it by the earthwork known as Offa's dike, portions of which are visible at Knighton and Moorhampton in this county. In 915 the Danes made their way up the Severn to the district of Archenfield, where they took prisoner Cyfeiliawg bishop of Llandaff, and in 921 they besieged Wigmore, which had been rebuilt in that year by Edward. From the time of its first settlement the district was the scene of constant border warfare with the Welsh, and Harold, whose earldom included this county, ordered that any Welshman caught trespassing over the border should lose his right hand. In the period preceding the Conquest much disturbance was caused by the outrages of the Norman colony planted in this county by Edward the Confessor. Richard's castle in the north of the county was the first Norman fortress erected on English soil, and Wigmore, Ewyas Harold, Clifford, Weobley, Hereford, Donnington and Caldecot were all the sites of Norman strongholds. The conqueror entrusted the subjugation of Herefordshire to William FitzOsbern, but Edric the Wild in conjunction with the Welsh prolonged resistance against him for two years.

In the wars of Stephen's reign Hereford and Weobley castles were held against the king, but were captured in 1138. Edward, afterwards Edward I., was imprisoned in Hereford Castle, and made his famous escape thence in 1265. In 1326 the parliament assembled at Hereford which deposed Edward II. In the 14th and 15th centuries the forest of Deerfold gave refuge to some of the most noted followers of Wycliffe. During the Wars of the Roses the influence of the Mortimers led the county to support the Yorkist cause, and Edward, afterwards Edward IV., raised 23,000 men in this neighbourhood. The battle of Mortimer's Cross was fought in 1461 near Wigmore. Before the outbreak of the civil war of the 17th century, complaints of illegal taxation were rife in Herefordshire, but a strong anti-puritan feeling induced the county to favour the royalist cause. Hereford, Goodrich and Ledbury all endured sieges.

The earldom of Hereford was granted by William I. to William FitzOsbern, about 1067, but on the outlawry of his son Roger in 1074 the title lapsed until conferred on Henry de Bohun about 1199. It remained in the possession of the Bohuns until the death of Humphrey de Bohun in 1373; in 1397 Henry, earl of Derby, afterwards King Henry IV., who had married Mary Bohun, was created duke of Hereford. Edward VI. created Walter Devereux, a descendant of the Bohun family, Viscount Hereford, in 1550, and his grandson, the famous earl of Essex, was born in this county. Since this date the viscounty has been held by the Devereux family, and the holder ranks as the premier viscount of England. The families of Clifford, Giffard and Mortimer figured prominently in the warfare on the Welsh border, and the Talbots, Lacys, Crofts and Scudamores also had important seats in the county, Sir James Scudamore of Holme Lacy being the original of the Sir Scudamore of Spenser's *Faery Queen*. Sir John Oldcastle, the leader of the Lollards, was sheriff of Herefordshire in 1406.

Herefordshire probably originated as a shire in the time of Æthelstan, and is mentioned in the Saxon Chronicle in 1051. In the Domesday Survey parts of Monmouthshire and Radnorshire are assessed under Herefordshire, and the western and southern borders remained debatable ground until with the incorporation of the Welsh marches in 1535 considerable territory was restored to Herefordshire and formed into the hundreds of Wigmore, Ewyas Lacy and Huntingdon, while Ewyas Harold was united to Webtree. At the time of the Domesday Survey the divisions of the county were very unsettled. As many as nineteen hundreds are mentioned, but these were of varying extent, some containing only one manor, some from twenty to thirty. Of the twelve modern hundreds, only Greytree, Radlow, Stretford, Wolphy and Wormelow retain Domesday names. Herefordshire has been included in the diocese of Hereford since its foundation in 676. In 1291 it comprised the deaneries of Hereford, Weston, Leominster, Weobley, Frome, Archenfield and Ross in the archdeaconry of Hereford, and the deaneries of Burford, Stottesdon, Ludlow, Pontesbury, Clun and Wenlock, in the archdeaconry of Shropshire. In 1877 the name of the archdeaconry of Shropshire was changed to Ludlow, and in 1899 the deaneries of Abbey Dore, Bromyard, Kingsland, Kington and Ledbury were created in the archdeaconry of Hereford.

Herefordshire was governed by a sheriff as early as the reign of Edward the Confessor, the shire-court meeting at Hereford where later the assizes and quarter sessions were also held. In 1606 an act was passed declaring Hereford free from the jurisdiction of the council of Wales, but the county was not finally relieved from the interference of the Lords Marchers until the reign of William and Mary.

Herefordshire has always been esteemed an exceptionally rich agricultural area, the manufactures being unimportant, with the sole exception of the woollen and the cloth trade which flourished soon after the Conquest. Iron was worked in Wormelow hundred in Roman times, and the Domesday Survey mentions iron workers in Marcle. At the time of Henry VIII. the towns had become much impoverished, and Elizabeth in order to encourage local

industries, insisted on her subjects wearing English-made caps from the factory of Hereford. Hops were grown in the county soon after their introduction into England in 1524. In 1580 and again in 1637 the county was severely visited by the plague, but in the 17th century it had a flourishing timber trade and was noted for its orchards and cider.

Herefordshire was first represented in parliament in 1295, when it returned two members, the boroughs of Ledbury, Hereford, Leominster and Weobley being also represented. Hereford was again represented in 1299, and Bromyard and Ross in 1304, but the boroughs made very irregular returns, and from 1306 until Weobley regained representation in 1627, only Hereford and Leominster were represented. Under the act of 1832 the county returned three members and Weobley was disfranchised. The act of 1868 deprived Leominster of one member, and under the act of 1885 Leominster was disfranchised, and Hereford lost one member.

Antiquities.—There are remains of several of the strongholds which Herefordshire possessed as a march county, some of which were maintained and enlarged, after the settlement of the border, to serve in later wars. To the south of Ross are those of Wilton and Goodrich, commanding the Wye on the right bank, the latter a ruin of peculiar magnificence, and both gaining picturesqueness from their beautiful situations. Of the several castles in the valleys of the boundary-river Monnow and its tributaries, those in this county include Pembridge, Kilpeck and Longtown; of which the last shows extensive remains of the strong keep and thick walls. In the north the finest example is Wigmore, consisting of a keep on an artificial mound within outer walls, the seat of the powerful family of Mortimer.

Beside the cathedral of Hereford, and the fine churches of Ledbury, Leominster and Ross, described under separate headings, the county contains some churches of almost unique interest. In that of Kilpeck remarkable and unusual Norman work is seen. It consists of the three divisions of nave, choir and chancel, divided by ornate arches, the chancel ending in an apse, with a beautiful and elaborate west end and south doorway. The columns of the choir arch are composed of figures. A similar plan is seen in Peterchurch in the Golden Valley, and in Moccas church, on the Wye above Hereford. Among the large number of churches exhibiting Norman details that at Bromyard is noteworthy. At Abbey Dore, the Cistercian abbey church, still in use, is a large and beautiful specimen of Early English work, and there are slight remains of the monastic buildings. At Madley, south of the Wye 5 m. W. of Hereford, is a fine Decorated church (with earlier portions), with the rare feature of a Decorated apsidal chancel over an octagonal crypt. Of the churches in mixed styles those in the larger towns are the most noteworthy, together with that of Weobley.

The half-timbered style of domestic architecture, common in the west and midlands of England in the 16th and 17th centuries, beautifies many of the towns and villages. Among country houses, that of Treago, 9 m. W. of Ross, is a remarkable example of a fortified mansion of the 13th century, in a condition little altered. Rudhall and Sufton Court, between Ross and Hereford, are good specimens of 15th-century work, and portions of Hampton Court, 8 m. N. of Hereford, are of the same period, built by Sir Rowland Lenthall, a favourite of Henry IV. Holme Lacy, 5 m. S.E. of Hereford, is a fine mansion of the latter part of the 17th century, with picturesque Dutch gardens, and much wood-carving by Grinling Gibbons within. This was formerly the seat of the Scudamores, from whom it was inherited by the Stanhopes, earls of Chesterfield, the 9th earl of Chesterfield taking the name of Scudamore-Stanhope. His son, the 10th earl, has recently (1909) sold Holme Lacy to Sir Robert Lucas-Tooth, Bart. Downton Castle possesses historical interest in having been designed in 1774, in a strange mixture of Gothic and Greek styles, by Richard Payne Knight (1750-1824), a famous scholar, numismatist and member of parliament for Leominster and Ludlow; while Eaton Hall, now a farm, was the seat of the family of the famous geographer Richard Hakluyt.

See *Victoria County History, Herefordshire*; J. Duncomb, *Collections towards the History and Antiquities of the County of Hereford* (Hereford, 1804-1812); John Allen, *Bibliotheca Herefordiensis* (Hereford, 1821); John Webb, *Memorials of the Civil War between Charles I. and the Parliament of England as it affected Herefordshire and the adjacent Counties* (London, 1879); R. Cooke, *Visitation of Herefordshire, 1569* (Exeter, 1886); F. T. Havergal, *Herefordshire Words and Phrases* (Walsall, 1887); J. Hutchinson, *Herefordshire Biographies* (Hereford, 1890).

HERERO, or Ovaherero (“merry people”), a Bantu people of German South-West Africa, living in the region known as Damaraland or Hereroland. They call themselves Ovaherero and their language Otshi-herero. Sometimes they are described as Cattle Damara or “Damara of the Plains” in distinction from the Hill Damara who are of mixed blood and Hottentots in language. The Herero, whose main occupation is that of cattle-rearing, are a warlike race, possessed of considerable military skill, as was shown in their campaigns of 1904-5 against the Germans. (See further German South-West Africa.)

HERESY, the English equivalent of the Greek word αἵρεσις which is used in the Septuagint for “free choice,” in later classical literature for a philosophical school or sect as “chosen” by those who belong to it, in Philo for religion, in Josephus for a religious party (the Sadducees, the Pharisees and the Essenes).

It is in this last sense that the term is used in the New Testament, usually with an implicit censure of the factious spirit to which such divisions are due. The term is applied to the Sadducees (Acts v. 17) and Pharisees (Acts xv. 5, xxvi. 5). From the standpoint of opponents, Christianity is itself so described (Acts xxiv. 14, xxviii. 22). In the Pauline Epistles it is used with severe condemnation of the divisions within the Christian Church itself. Heresies with “enmities, strife, jealousies, wraths, factions, divisions, envyings” are reckoned among “the works of the flesh” (Gal. v. 20). Such divisions, proofs of a carnal mind, are censured in the church of Corinth (1 Cor. iii. 3, 4); and the church of Rome is warned against those who cause them (Rom. xvi. 17). The term “schism,” afterwards distinguished from “heresy,” is also used of these divisions (1 Cor. i. 10). The estrangements of the rich and the poor in the church at Corinth, leading to a lack of Christian fellowship even at the Lord’s Supper, is described as “heresy” (1 Cor. xi. 19). Breaches of the law of love, not errors about the truth of the Gospel, are referred to in these passages. But the first step towards the ecclesiastical use of the term is found already in 2 Peter ii. 1, “Among you also there shall be false teachers who shall privily bring in destructive heresies (R.V. margin “sects of perdition”), denying even the Master that bought them, bringing upon themselves swift destruction.” The meaning here suggested is “falsely chosen or erroneous tenets. Already the emphasis is moving from persons and their temper to mental products—from the sphere of sympathetic love to that of objective truth” (Bartlet, art. “Heresy,” Hastings’s *Bible Dictionary*). As the parallel passage in Jude, verse 4, shows, however, that these errors had immoral consequences, the moral reference is not absent even from this passage. The first employment of the term outside the New Testament is also its first use for theological error. Ignatius applies it to Docetism (*Ad Trall.* 6). As doctrine came to be made more important, heresy was restricted to any departure from the recognized creed. Even Constantine the Great describes the Christian Church as “the Catholic heresy,” “the most sacred heresy” (Eusebius, *Ecclesiastical History*, x. c. 5, the letter to Chrestus, bishop of Syracuse); but this use was very soon abandoned, and the Catholic Church distinguished itself from the dissenting minorities, which it condemned as “heresies.” The use of the term heresy in the New Testament cannot be regarded as defining the attitude of the Christian Church, even in the Apostolic age, towards errors in belief. The Apostolic writings show a vehement antagonism towards all teaching opposed to the Gospel. Paul declares *anathema* the Judaizer, who required the circumcision of the Gentiles (Gal. i. 8), and even calls them the “dogs of the concision” and “evil workers” (Phil. iii. 2). The elders of Ephesus are warned against the false teachers who would appear in the church after the apostle’s death as “grievous wolves not sparing the flock” (Acts xx. 29); and the speculations of the Gnostics are denounced as “seducing spirits and doctrines of devils” (1 Tim. iv. 1), as “profane babblings and oppositions of the knowledge which is falsely so called” (vi. 20). John’s warnings are as earnest and severe. Those who deny the fact of the Incarnation are described as “antichrist,” and as “deceivers” (1 John iv. 3; 2 John 7). The references to heretics in 2 Peter and Jude have already been dealt with. This antagonism is explicable by the character of the heresies that threatened the Christian Church in the Apostolic age. Each of these heresies involved such a blending of the Gospel with either Jewish or pagan elements, as would not only pollute its purity, but destroy its power. In each of these the Gospel was in danger of being made of none effect by the environment, which it must resist in order that it might transform (see Burton’s Bampton Lectures on *The Heresies of the Apostolic Age*).

New Testament.

These Gnostic heresies, which threatened to paganize the Christian Church, were condemned in no measured terms by the fathers. These false teachers are denounced as "servants of Satan, beasts in human shape, dealers in deadly poison, robbers and pirates." Polycarp, Ignatius, Justin Martyr, Irenaeus, Hippolytus, Tertullian and even Clement of Alexandria and Origen are as severe in condemnation as the later fathers (cf. Matt. xiii. 35-43; Tertullian, *Praescr.* 31). While the necessity of the heresies is admitted in accordance with 1 Cor. xi. 19, yet woe is pronounced on those who have introduced them, according to Matt. xviii. 7. (This application of these passages, however, is of altogether doubtful validity.) "It was necessary," says Tertullian (*ibid.* 30), "that the Lord should be betrayed; but woe to the traitor." The very worst motives, "pride, disappointed ambition, sensual lust, and avarice," are recklessly imputed to the heretics; and no possibility of morally innocent doubt, difficulty or difference in thought is admitted. Origen and Augustine do, however, recognize that even false teachers may have good motives. While we must admit that there was a very serious peril to the thought and life of the Christian Church in the teaching thus denounced, yet we must not forget that for the most part these teachers are known to us only in the *ex parte* representation that their opponents have given of them; and we must not assume that even their doctrines, still less their characters, were so bad as they are described.

Gnosticism.

The attitude of the church in the post-Nicene period differs from that in the ante-Nicene in two important respects. (1) As has already been indicated, the earlier heresies threatened to introduce Jewish or pagan elements into the faith of the church, and it was necessary that they should be vigorously resisted if the church was to retain its distinctive character. Many of the later heresies were differences in the interpretation of Christian truth, which did not in the same way threaten the very life of the church. No vital interest of Christian faith justified the extravagant denunciations in which theological partisanship so recklessly and ruthlessly indulged. (2) In the ante-Nicene period only ecclesiastical penalties, such as reproof, deposition or excommunication, could be imposed. In the post-Nicene the union of church and state transformed theological error into legal offence (see below).

We must now consider the definition of heresy which was gradually reached in the Christian Church. It is "a religious error held in wilful and persistent opposition to the truth after it has been defined and declared by the church in an authoritative manner," or "pertinax defensio dogmatis ecclesiae universalis judicio condemnati" (Schaff's *Ante-Nicene* Christianity, ii. 512-516). (i.) It "denotes an opinion antagonistic to a fundamental article of the Christian faith," due to the introduction of "foreign elements" and resulting in a perversion of Christianity, and an amalgamation with it of ideas discordant with its nature (Fisher's *History of Christian Doctrine*, p. 9). It has been generally assumed that the ecclesiastical authority was always competent to determine what are the fundamental articles of the Christian faith, and to detect any departures from them; but it is necessary to admit the possibility that the error was in the church, and the truth was with the heresy. (ii.) There cannot be any heresy where there is no orthodoxy, and, therefore, in the definition it is assumed that the church has declared what is the truth or the error in any matter. Accordingly "heresy is to be distinguished from defective stages of Christian knowledge. For example, the Jewish believers, including the Apostles themselves, at the outset required the Gentile believers to be circumcised. They were not on this account chargeable with heresy. Additional light must first come in, and be rejected, before that earlier opinion could be thus stigmatized. Moreover, heresies are not to be confounded with tentative and faulty hypotheses broached in a period prior to the scrutiny of a topic of Christian doctrine, and before that scrutiny has led the general mind to an assured conclusion. Such hypotheses—for example, the idea that in the person of Christ the Logos is substituted for a rational human spirit—are to be met with in certain early fathers" (*ibid.* p. 10). Origen indulged in many speculations which were afterwards condemned, but, as these matters were still open questions in his day, he was not reckoned a heretic. (iii.) In accordance with the New Testament use of the term heresy, it is assumed that moral defect accompanies the intellectual error, that the false view is held pertinaciously, in spite of warning, remonstrance and rebuke; aggressively to win over others, and so factiously, to cause division in the church, a breach in its unity.

Christian definition.

A distinction is made between "heresy" and "schism" (from Gr. σχίζειν, rend asunder, divide). "The fathers commonly use 'heresy' of false teaching in opposition to Catholic doctrine, and 'schism' of a breach of discipline, in opposition to Catholic government" (Schaff). But as the claims of the church to be the guardian through its episcopate of the apostolic tradition, of the Christian faith itself, were magnified, and unity in practice as well as in doctrine came to be regarded as essential, this distinction became a theoretical rather than a practical one. While severely

Schism.

condemning, both Irenaeus and Tertullian distinguished schismatics from heretics. “Though we are by no means entitled to say that they acknowledged orthodox schismatics they did not yet venture to reckon them simply as heretics. If it was desired to get rid of these, an effort was made to impute to them some deviation from the rule of faith; and under this pretext the church freed herself from the Montanists and the Monarchians. Cyprian was the first to proclaim the identity of heretics and schismatics by making a man’s Christianity depend on his belonging to the great episcopal church confederation. But in both East and West, this theory of his became established only by very imperceptible degrees, and indeed, strictly speaking, the process was never completed. The distinction between heretics and schismatics was preserved because it prevented a public denial of the old principles, because it was advisable on political grounds to treat certain schismatic communities with indulgence, and because it was always possible in case of need to prove heresy against the schismatics.” (Harnack’s *History of Dogma*, ii. 92-93).

Heretical baptism.

There was considerable controversy in the early church as to the validity of heretical baptism. As even “the Christian virtues of the heretics were described as hypocrisy and love of ostentation,” so no value whatever was attached by the orthodox party to the sacraments performed by heretics. Tertullian declares that the church can have no communion with the heretics, for there is nothing common; as they have not the same God, and the same Christ, so they have not the same baptism (*De bapt.* 15). Cyprian agreed with him. The validity of heretical baptism was denied by the church of Asia Minor as well as of Africa; but the practice of the Roman Church was to admit without second baptism heretics who had been baptized with the name of Christ, or of the Holy Trinity. Stephen of Rome attempted to force the Roman practice on the whole church in 253. The controversy his intolerance provoked was closed by Augustine’s controversial treatise *De Baptismo*, in which the validity of baptism administered by heretics is based on the objectivity of the sacrament. Whenever the name of the three-one God is used, the sacrament is declared valid by whomsoever it may be performed. This was a triumph of sacramentarianism, not of charity.

Types of heresy.

Three types of heresy have appeared in the history of the Christian Church.[1] The earliest may be called the *syncretic*; it is the fusion of Jewish or pagan with Christian elements. *Ebionitism* asserted “the continual obligation to observe the whole of the Mosaic law,” and “outran the Old Testament monotheism by a barren monarchianism that denied the divinity of Christ” (Kurtz, *Church History*, i. 120). “*Gnosticism* was the result of the attempt to blend with Christianity the religious notions of pagan mythology, mysterology, theosophy and philosophy” (p. 98). The Judaizing and the paganizing tendency were combined in *Gnostic Ebionitism* which was prepared for in *Jewish Essenism*. In the later heresy of *Manichaeism* there were affinities to Gnosticism, but it was a mixture of many elements, Babylonian-Chaldaic theosophy, Persian dualism and even Buddhist ethics (p. 126).

The next type of heresy may be called *evolutionary* or *formatory*. When the Christian faith is being formulated, undue emphasis may be put on one aspect, and thus so partial a statement of truth may result in error. Thus when in the ante-Nicene age the doctrine of the Trinity was under discussion, dynamic *Monarchianism* “regarded Christ as a mere man, who, like the prophets, though in a much higher measure, had been endued with divine wisdom and power”; modal *Monarchianism* saw in the Logos dwelling in Christ “only a mode of the activity of the Father”; *Patripassianism* identified the Logos with the Father; and *Sabellianism* regarded Father, Son and Spirit as “the *rôles* which the God who manifests Himself in the world assumes in succession” (Kurtz, *Church History*, i. 175-181). When Arius asserted the subordination of the Son to the Father, and denied the eternal generation, Athanasius and his party asserted the *Homoousia*, the cosubstantiality of the Father and the Son. This assertion of the divinity of Christ triumphed, but other problems at once emerged. How was the relation of the humanity to the divinity in Christ to be conceived? Apollinaris denied the completeness of the human nature, and substituted the divine Logos for the reasonable soul of man. Nestorius held the two natures so far apart as to appear to sacrifice the unity of the person of Christ. Eutyches on the contrary “taught not only that after His incarnation Christ had only one nature, but also that the body of Christ as the body of God is not of like substance with our own” (Kurtz, *Church History*, i, 330-334). The Church in the Creed of Chalcedon in A.D. 451 affirmed “that Christ is true God and true man, according to His Godhead begotten from eternity and like the Father in everything, only without sin; and that after His incarnation the unity of the person consists in two natures which are conjoined without confusion, and without change, but also without rending and without separation.” The problem was not solved, but the inadequate solutions were excluded, and the data to be considered in any adequate solution were affirmed. After this decision the

controversies about the Person of Christ degenerated into mere hair-splitting; and the interference of the imperial authority from time to time in the dispute was not conducive to the settlement of the questions in the interests of truth alone. This problem interested the East for the most part; in the West there was waged a theological warfare around the nature of man and the work of Christ. To Augustine's doctrine of man's total depravity, his incapacity for any good, and the absolute sovereignty of the divine grace in salvation according to the divine election, Pelagius opposed the view that "God's grace is destined for all men, but man must make himself worthy of it by honest striving after virtue" (Kurtz, *Church History*, i. 348). While Pelagius was condemned, it was only a modified Augustinianism which became the doctrine of the church. It is not necessary in illustration of the second type of heresy—that which arises when the contents of the Christian faith are being defined—to refer to the doctrinal controversies of the middle ages. It may be added that after the Reformation Arianism was revived in Socinianism, and Pelagianism in Arminianism; but the conception of heresy in Protestantism demands subsequent notice.

The third type of heresy is the *revolutionary* or *reformatory*. This is not directed against doctrine as such, but against the church, its theory and its practice. Such movements of antagonism to the errors or abuses of ecclesiastical authority may be so permeated by defective conceptions and injurious influences as by their own character to deserve condemnation. But on the other hand the church in maintaining its place and power may condemn as heretical genuine efforts at reform by a return, though partial, to the standard set by the Holy Scriptures or the Apostolic Church. On the one hand there were during the middle ages sects, like the Catharists and Albigenses, whose "opposition as a rule developed itself from dualistic or pantheistic premises (surviving effects of old Gnostic or Manichaean views)" and who "stood outside of ordinary Christendom, and while no doubt affecting many individual members within it, had no influence on church doctrine." On the other hand there were movements, such as the Waldensian, the Wycliffite and Hussite, which are often described as "reformations anticipating the Reformation" which "set out from the Augustinian conception of the Church, but took exception to the development of the conception," and were pronounced by the medieval church as heretical for (1) "contesting the hierarchical gradation of the priestly order; or (2) giving to the religious idea of the Church implied in the thought of predestination a place superior to the conception of the empirical Church; or (3) applying to the priests, and thereby to the authorities of the Church, the test of the law of God, before admitting their right to exercise, as holding the keys, the power of binding and loosing" (Harnack's *History of Dogma*, vi. 136-137). The Reformation itself was from the standpoint of the Roman Catholic Church heresy and schism.

Modern use of the term.

"In the present divided state of Christendom," says Schaff (*Ante-Nicene Christianity*, ii. 513-514), "there are different kinds of orthodoxy and heresy. Orthodoxy is conformity to the recognized creed or standard of public doctrine; heresy is a wilful departure from it. The Greek Church rejects as heretical, because contrary to the teaching of the first seven ecumenical councils, the Roman dogmas of the papacy, of the double procession of the Holy Ghost, the immaculate conception of the Virgin Mary, and the infallibility of the Pope. The Roman Church anathematized, in the council of Trent, all the distinctive doctrines of the Protestant Reformation. Among Protestant churches again there are minor doctrinal differences, which are held with various degrees of exclusiveness or liberality according to the degree of departure from the Roman Catholic Church. Luther, for instance, would not tolerate Zwingli's view on the Lord's Supper, while Zwingli was willing to fraternize with him notwithstanding this difference." At the colloquy of Marburg "Zwingli offered his hand to Luther with the entreaty that they be at least Christian brethren, but Luther refused it and declared that the Swiss were of another spirit. He expressed surprise that a man of such views as Zwingli should wish brotherly relations with the Wittenberg reformers" (Walker, *The Reformation*, p. 174). A difference of opinion on the question of the presence of Christ in the elements at the Lord's Supper was thus allowed to divide and to weaken the forces of the Reformation. On the problem of divine election Lutheranism and Calvinism remained divided. The Formula of Concord (1577), which gave to the whole Lutheran Church of Germany a common doctrinal system, declined to accept the Calvinistic position that man's condemnation as well as his salvation is an object of divine predestination. Within Calvinism itself Pelagianism was revived in Arminianism, which denied the irresistibility, and affirmed the universality of grace. This heresy was condemned by the synod of Dort (1619). The standpoint of the Reformed churches was the substitution of the authority of the Scriptures for the authority of the church. Whatever was conceived as contrary to the teaching of the Bible was regarded as heresy. The position is well expressed in the *Scotch Confession*

(1559). “Protesting, that if any man will note in this our Confession any article or sentence repugning to God’s Holy Word, that it would please him, of his gentleness, and for Christian charity’s sake, to admonish us of the same in writ, and we of our honour and fidelity do promise unto him satisfaction from the mouth of God; that is, from His Holy Scripture, or else reformation of that which he shall prove to be amiss. In God we take to record in our consciences that from our hearts we abhor all sects of heresy, and all teachers of erroneous doctrines; and that with all humility we embrace purity of Christ’s evangel, which is the only food of our souls” (Preface).

Although subsequently to the Reformation period the Protestant churches for the most part relapsed into the dogmatism of the Roman Catholic Church, and were ever ready with censure for every departure from orthodoxy—yet to-day a spirit of diffidence in regard to one’s own beliefs, and of tolerance towards the beliefs of others, is abroad. The enlargement of the horizon of knowledge by the advance of science, the recognition of the only relative validity of human opinions and beliefs as determined by and adapted to each stage of human development, which is due to the growing historical sense, the alteration of view regarding the nature of inspiration, and the purpose of the Holy Scriptures, the revolt against all ecclesiastical authority, and the acceptance of reason and conscience as alone authoritative, the growth of the spirit of Christian charity, the clamorous demand of the social problem for immediate attention, all combine in making the Christian churches less anxious about the danger, and less zealous in the discovery and condemnation of heresy.

Having traced the history of opinion in the Christian churches on the subject of heresy, we must now return to resume a subject already mentioned, the persecution of heretics.

Persecution of heretics.

According to the Canon Law, which “was the ecclesiastical law of medieval Europe, and is still the law of the Roman Catholic Church,” heresy was defined as “error which is voluntarily held in contradiction to a doctrine which has been clearly stated in the creed, and has become part of the defined faith of the church,” and which is “persisted in by a member of the church.” It was regarded not only as an error, but also as a crime to be detected and punished. As it belongs, however, to a man’s thoughts and not his deeds, it often can be proved only from suspicions. The canonists define the degrees of suspicion as “light” calling for vigilance, “vehement” demanding denunciation, and “violent” requiring punishment. The grounds of suspicion have been formulated “Pope Innocent III. declared that to lead a solitary life, to refuse to accommodate oneself to the prevailing manners of society and to frequent unauthorized religious meetings were abundant grounds of suspicion; while later canonists were accustomed to give lists of deeds which made the doers suspect: a priest who did not celebrate mass, a layman who was seen in clerical robes, those who favoured heretics, received them as guests, gave them safe conduct, tolerated them, trusted them, defended them, fought under them or read their books were all to be suspect” (T. M. Lindsay in article “Heresy,” *Ency. Brit.* 9th edition). That the dangers of heresy might be avoided, laymen were forbidden to argue about matters of faith by Pope Alexander IV., an oath “to abjure every heresy and to maintain in its completeness the Catholic faith” was required by the council of Toledo (1129), the reading of the Scriptures in the vulgar tongue was not allowed to the laity by Pope Pius IV. The reading of books was restricted and certain books were prohibited. Regarding heresy as a crime, the church was not content with inflicting its spiritual penalties, such as excommunication and such civil disabilities as its own organization allowed it to impose (*e.g.* the heretics were forbidden to give evidence in ecclesiastical courts, fathers were forbidden to allow a son or a daughter to marry a heretic, and to hold social intercourse with a heretic was an offence). It regarded itself as justified in invoking the power of the state to suppress heresy by civil pains and penalties, including even torture and death.

The story of the persecution of heretics by the state must be briefly sketched.

As long as the Christian Church was itself persecuted by the pagan empire, it advocated freedom of conscience, and insisted that religion could be promoted only by instruction and persuasion (Justin Martyr, Tertullian, Lactantius); but almost immediately after Christianity was adopted as the religion of the Roman empire the persecution of men for religious opinions began. While Constantine at the beginning of his reign (313) declared complete religious liberty, and kept on the whole to this declaration, yet he confined his favours to the orthodox hierarchical church, and even by an edict of the year 326 formally asserted the exclusion from these of heretics and schismatics. Arianism, when favoured by the reigning emperor, showed itself even more intolerant than Catholic Orthodoxy. Theodosius the Great, in 380, soon after his baptism, issued, with his co-emperors, the following edict: “We, the three emperors, will that all our subjects steadfastly adhere to the religion which was taught

by St Peter to the Romans, which has been faithfully preserved by tradition, and which is now professed by the pontiff Damasus of Rome, and Peter, bishop of Alexandria, a man of apostolic holiness. According to the institution of the Apostles, and the doctrine of the Gospel, let us believe in the one Godhead of the Father, the Son, and the Holy Ghost, of equal majesty in the Holy Trinity. We order that the adherents of this faith be called *Catholic Christians*; we brand all the senseless followers of the other religions with the infamous name of *heretics*, and forbid their conventicles assuming the name of churches. Besides the condemnation of divine justice, they must expect the heavy penalties which our authority, guided by heavenly wisdom, shall think proper to inflict" (Schaff's *Nicene and Post-Nicene Christianity*, i. 142). The fifteen penal laws which this emperor issued in as many years deprived them of all right to the exercise of their religion, "excluded them from all civil offices, and threatened them with fines, confiscation, banishment and even in some cases with death." In 385 Maximus, his rival and colleague, caused seven heretics to be put to death at Treves (Trier). Many bishops approved the act, but Ambrose of Milan and Martin of Tours condemned it. While Chrysostom disapproved of the execution of heretics, he approved "the prohibition of their assemblies and the confiscation of their churches." Jerome by an appeal to Deut. xiii. 6-10 appears to defend even the execution of heretics. Augustine found a justification for these penal measures in the "compel them to come in" of Luke xiv. 23, although his personal leanings were towards clemency. Only the persecuted themselves insisted on toleration as a Christian duty. In the middle ages the church showed no hesitation about persecuting unto death all who dared to contradict her doctrine, or challenge her practice, or question her authority. The instruction and persuasion which St Bernard favoured found little imitation. Even the Dominicans, who began as a preaching order to convert heretics, soon became persecutors. In the Albigensian Crusade (A.D. 1209-1229) thousands were slaughtered. As the bishops were not zealous enough in enforcing penal laws against heretics, the Tribunal of the Inquisition was founded in 1232 by Gregory IX., and was entrusted to the Dominicans who "as *Domini canes* subjected to the most cruel tortures all on whom the suspicion of heresy fell, and all the resolute were handed over to the civil authorities, who readily undertook their execution" (Kurtz, *Church History*, ii. 137-138).

At the Reformation Luther laid down the principle that the civil government is concerned with the province of the external and temporal life, and has nothing to do with faith and conscience. "How could the emperor gain the right," he asks, "to rule my faith?" With that only the Word of God is concerned. "Heresy is a spiritual thing," he says, "which one cannot hew with any iron, burn with any fire, drown with any water. The Word of God alone is there to do it." Nevertheless Luther assigned to the state, which he assumes to be Christian, the function of maintaining the Gospel and the Word of God in public life. He was not quite consistent in carrying out his principle (see Luthard's *Geschichte der christlichen Ethik*, ii. 33). In the Religious Peace of Augsburg the principle "cujus regio ejus religio" was accepted; by it a ruler's choice between Catholicism and Lutheranism bound his subjects, but any subject unwilling to accept the decision might emigrate without hindrance.

In Geneva under Calvin, while the *Consistoire*, or ecclesiastical court, could inflict only spiritual penalties, yet the medieval idea of the duty of the state to co-operate with the church to maintain the religious purity of the community in matters of belief as well as of conduct so far survived that the civil authority was sure to punish those whom the ecclesiastical had censured. Calvin consented to the death of Servetus, whose views on the Trinity he regarded as most dangerous heresy, and whose denial of the full authority of the Scriptures he dreaded as overthrowing the foundations of all religious authority. Protestantism generally, it is to be observed, quite approved the execution of the heretic. The Synod of Dort (1619) not only condemned Arminianism, but its defenders were expelled from the Netherlands; only in 1625 did they venture to return, and not till 1630 were they allowed to erect schools and churches. In modern Protestantism there is a growing disinclination to deal even with errors of belief by ecclesiastical censure; the appeal to the civil authority to inflict any penalty is abandoned. During the course of the 19th century in Scottish Presbyterianism the affirmation of Christ's atoning death for *all* men, the denial of eternal punishment, the modification of the doctrine of the inspiration of the Scriptures by acceptance of the results of the Higher Criticism, were all censured as perilous errors.

The subject cannot be left without a brief reference to the persecution of witches. To the beginning of the 13th century the popular superstitions regarding sorcery, witchcraft and compacts with the devil were condemned by the ecclesiastical authorities as heathenish, sinful and heretical. But after the establishment of the Inquisition "heresy and sorcery were regarded as correlates, like two agencies resting on and serviceable to the demoniacal powers, and were therefore treated in the same way as offences to be punished with torture

and the stake" (Kurtz, *Church History*, ii. 195). While the Franciscans rejected the belief in witchcraft, the Dominicans were most zealous in persecuting witches. In the 15th century this delusion, fostered by the ecclesiastical authorities, took possession of the mind of the people, and thousands, mostly old women, but also a number of girls, were tortured and burned as witches. Protestantism took over the superstition from Catholicism. It was defended by James I. of England. As late as the 18th century death was inflicted in Germany and Switzerland on men, women and even children accused of this crime. This superstition dominated Scotland. Not till 1736 were the statutes against witchcraft repealed; an act which the Associate Presbytery at Edinburgh in 1743 declared to be "contrary to the express law of God, for which a holy God may be provoked in a way of righteous judgment."

Non-Christian religions.

The recognition and condemnation of errors in religious belief is by no means confined to the Christian Church. Only a few instances of heresy in other religions can be given. In regard to the fetishism of the Gold Coast of Africa, Jevons (*Introduction to the History of Religion*, pp. 165-166) maintains that "public opinion does not approve of the worship by an individual of a *suhman*, or private tutelary deity, and that his dealings with it are regarded in the nature of 'black art' as it is not a god of the community." In China there is a "classical or canonical, primitive and therefore alone orthodox (*tsching*) and true religion," Confucianism and Taoism, while the "heterodox (*sic*)," Buddhism especially, is "partly tolerated, but generally forbidden, and even cruelly persecuted" (Chantepie de la Saussaye, *Religionsgeschichte*, i. 57). In Islam "according to an unconfirmed tradition Mahomet is said to have foretold that his community would split into seventy-three sects (see Mahommedan Religion, § *Sects*), of which only one would escape the flames of hell." The first split was due to uncertainty regarding the principle which should rule the succession to the Caliphate. The Arabic and orthodox party (*i.e.* the Sunnites, who held by the Koran and tradition) maintained that this should be determined by the choice of the community. The Persian and heterodox party (the Shiites) insisted on heredity. But this political difference was connected with theological differences. The sect of the Mu'tazilites which affirmed that the Koran had been created, and denied predestination, began to be persecuted by the government in the 9th century, and discussion of religious questions was forbidden (see Caliphate, sections B and C). The mystical tendency in Islam, Sufism, is also regarded as heretical (see Kuenen's Hibbert Lecture, pp. 45-50). Buddhism is a wide departure in doctrine and practice from Brahmanism, and hence after a swift unfolding and quick spread it was driven out of India and had to find a home in other lands. Essenism from the standpoint of Judaism was heterodox in two respects, the abandonment of animal sacrifices and the adoration of the sun.

Although in Greece there was generally wide tolerance, yet in 399 B.C. Socrates "was indicted as an irreligious man, a corrupter of youth, and an innovator in worship."

Besides the works quoted above, see Gottfried Arnold's *Unparteiische Kirchen- und Ketzer-Historie* (1699-1700; ed. Schaffhausen, 1740). A very good list of writers on heresy, ancient and medieval, is given in Burton's *Bampton Lectures on Heresies of the Apostolic Age* (1829). The various Trinitarian and Christological heresies may be studied in Dorner's *History of the Doctrine of the Person of Christ* (1845-1856; Eng. trans., 1861-1862); the Gnostic and Manichaean heresies in the works of Mansel, Matter and Beausobre; the medieval heresies in Hahn's *Geschichte der Ketzer im Mittelalter* (1846-1850), and Preger's *Geschichte der deutschen Mystik* (1875); Quietism in Heppe's *Geschichte der quietistischen Mystik* (1875); the Pietist sects in Palmer's *Gemeinschaften und Secten Württembergs* (1875); the Reformation and 17th-century heresies and sects in the *Anabaptisticum et enthusiasticum Pantheon und geistliches Rüst-Haus* (1702). Böhmer's *Jus ecclesiasticum Protestantium* (1714-1723), and van Espen's *Jus ecclesiasticum* (1702) detail at great length the relations of heresy to canon and civil law. On the question of the baptism of heretics see Smith and Cheetham's *Dict. of Eccl. Antiquities*, "Baptism, Iteration of"; and on that of the readmission of heretics into the church, compare Martene, *De ritibus*, and Morinus, *De poenitentia*.

(A. E. G.*)

Heresy according to the Law of England.—The highest point reached by the ecclesiastical power in England was in the Act *De Haeretico comburendo* (2 Henry IV. c. 15). Some have supposed that a writ of that name is as old as the common law, but its execution might be arrested by a pardon from the crown. The Act of Henry IV. enabled the diocesan alone, without the co-operation of a synod, to pronounce sentence of heresy, and required the sheriff to execute it by burning the offender, without waiting for the consent of the crown.[2] A large number of penal statutes were enacted in the following reigns, and the statute 1 Eliz. c. 1 is regarded by lawyers as limiting for the first time the description of heresy to tenets declared heretical either by the canonical Scripture or by the first four general councils, or

such as should thereafter be so declared by parliament with the assent of Convocation. The writ was abolished by 29 Car. II. c. 9, which reserved to the ecclesiastical courts their jurisdiction over heresy and similar offences, and their power of awarding punishments not extending to death. Heresy became henceforward a purely ecclesiastical offence, although disabling laws of various kinds continued to be enforced against Jews, Catholics and other dissenters. The temporal courts have no knowledge of any offence known as heresy, although incidentally (*e.g.* in questions of copyright) they have refused protection to persons promulgating irreligious or blasphemous opinions. As an ecclesiastical offence it would at this moment be almost impossible to say what opinion, in the case of a layman at least, would be deemed heretical. Apparently, if a proper case could be made out, an ecclesiastical court might still sentence a layman to excommunication for heresy, but by no other means could his opinions be brought under censure. The last case on the subject (Jenkins *v.* Cook, *L.R.* 1 P.D. 80) leaves the matter in the same uncertainty. In that case a clergyman refused the communion to a parishioner who denied the personality of the devil. The judicial committee held that the rights of the parishioners are expressly defined in the statute of I Edw. VI. c. i, and, without admitting that the canons of the church, which are not binding on the laity, could specify a lawful cause for rejection, held that no lawful cause within the meaning of either the canons or the rubric had been shown. It was maintained at the bar that the denial of the most fundamental doctrines of Christianity would not be a lawful cause for such rejection, but the judgment only queries whether a denial of the personality of the devil or eternal punishment is consistent with membership of the church. The right of every layman to the offices of the church is established by statute without reference to opinions, and it is not possible to say what opinions, if any, would operate to disqualify him.

The case of clergymen is entirely different. The statute 13 Eliz. c. 12, § 2, enacts that “if any person ecclesiastical, or which shall have an ecclesiastical living, shall advisedly maintain or affirm any doctrine directly contrary or repugnant to any of the said articles, and by conventicle before the bishop of the diocese, or the ordinary, or before the queen’s highness’s commissioners in matters ecclesiastical, shall persist therein or not revoke his error, or after such revocation eftsoons affirm such untrue doctrine,” he shall be deprived of his ecclesiastical promotions. The act it will be observed applies only to clergymen, and the punishment is strictly limited to deprivation of benefice. The judicial committee of the privy council, as the last court of appeal, has on several occasions pronounced judgments by which the scope of the act has been confined to its narrowest legal effect. The court will construe the Articles of Religion and formularies according to the *legal rules for the interpretation of statutes and written instruments*. No rule of doctrine is to be ascribed to the church which is not distinctly and expressly stated or plainly involved in the *written law of the Church*, and where there is no rule, a clergyman may express his opinion without fear of penal consequences. In the *Essays and Reviews* cases (Williams *v.* the Bishop of Salisbury, and Wilson *v.* Fendall, 2 *Moo.* P.C.C., N.S. 375) it was held to be not penal for a clergyman to speak of merit by transfer as a “fiction,” or to express a hope of the ultimate pardon of the wicked, or to affirm that any part of the Old or New Testament, however unconnected with religious faith or moral duty, was not written under the inspiration of the Holy Spirit. In the case of Noble *v.* Voysey (*L.R.* 3 P.C. 357) in 1871 the committee held that it was not bound to affix a meaning to articles of really dubious import, as it would have been in cases affecting property. At the same time any manifest contradiction of the Articles, or any obvious evasion of them, would subject the offender to the penalties of deprivation. In some of the cases the question has been raised how far the doctrine of the church could be ascertained by reference to the opinions generally expressed by divines belonging to its communion. Such opinions, it would seem, might be taken into account as showing the extent of liberty which had been in practice, claimed and exercised on the interpretation of the articles, but would certainly not be allowed to increase their stringency. It is not the business of the court to pronounce upon the absolute truth or falsehood of any given opinion, but simply to say whether it is formally consistent with the legal doctrines of the Church of England. Whether Convocation has any jurisdiction in cases of heresy is a question which has occasioned some difference of opinion among lawyers. Hale, as quoted by Phillimore (*Ecc. Law*), says that before the time of Richard II., that is, before any acts of Parliament were made about heretics, it is without question that in a convocation of the clergy or provincial synod “they might and frequently did here in England proceed to the sentencing of heretics.” But later writers, while adhering to the statement that Convocation might declare opinions to be heretical, doubted whether it could proceed to punish the offender, even when he was a clerk in orders. Phillimore states that there is no longer any doubt, even apart from the effect of the Church Discipline Act 1840, that Convocation has no power to condemn clergymen for heresy. The supposed right of Convocation to stamp heretical opinions with its disapproval was exercised on a somewhat memorable occasion. In 1864 the Convocation of the province of Canterbury, having taken the opinion of two of the most eminent lawyers of the day (Sir Hugh Cairns and Sir John Rolt), passed judgment upon the volume entitled *Essays and Reviews*. The judgment purported to “synodically condemn the said volume as

containing teaching contrary to the doctrine received by the United Church of England and Ireland, in common with the whole Catholic Church of Christ." These proceedings were challenged in the House of Lords by Lord Houghton, and the lord chancellor (Westbury), speaking on behalf of the government, stated that if there was any "synodical judgment" it would be a violation of the law, subjecting those concerned in it to the penalties of a *praemunire*, but that the sentence in question, was "simply nothing, literally no sentence at all." It is thus at least doubtful whether Convocation has a right even to express an opinion unless specially authorized to do so by the crown, and it is certain that it cannot do anything more. Heresy or no heresy, in the last resort, like all other ecclesiastical questions, is decided by the judicial committee of the council.

The English lawyers, following the Roman law, distinguish between heresy and apostasy. The latter offence is dealt with by an act which still stands on the statute book, although it has long been virtually obsolete—the 9 & 10 Will. III. c. 35. If any person *who has been educated in or has professed the Christian religion* shall, by writing, printing, teaching, or advised speaking, assert or maintain that there are more Gods than one, or shall deny any of the persons of the Holy Trinity to be God, or shall deny the Christian religion to be true or the Holy Scriptures of the Old and New Testament to be of divine authority, he shall for the first offence be declared incapable of holding any ecclesiastical, civil, or military office or employment, and for the second incapable of bringing any action, or of being guardian, executor, legatee, or grantee, and shall suffer three years' imprisonment without bail. Unitarians were saved from these atrocious penalties by a later act (53 Geo. III. c. 160), which permits Christians to deny any of the persons in the Trinity without penal consequences. 363

1 For fuller details see separate articles.

2 Stephen's *Commentaries*, bk. iv. ch. 7.

HEREWARD, usually but erroneously styled "the Wake" (an addition of later days), an Englishman famous for his resistance to William the Conqueror. It is now established that he was a tenant of Peterborough Abbey, from which he held lands at Witham-on-the-Hill and Barholme with Stow in the south-western corner of Lincolnshire, and of Crowland Abbey at Rippingale in the neighbouring fenland. His first authentic act is the storm and sacking of Peterborough in 1070, in company with outlaws and Danish invaders. The next year he took part in the desperate stand against the Conqueror's rule made in the isle of Ely, and, on its capture by the Normans, escaped with his followers through the fens. That his exploits made an exceptional impression on the popular mind is certain from the mass of legendary history that clustered round his name; he became, says Mr Davis, "in popular eyes the champion of the English national cause." The Hereward legend has been fully dealt with by him and by Professor Freeman, who observed that "with no name has fiction been more busy."

See E. A. Freeman, *History of the Norman Conquest*, vol. iv.; J. H. Round, *Feudal England*; H. W. C. Davis, *England under the Normans and Angevins*.

(J. H. R.)

HERFORD, a town in the Prussian province of Westphalia, situated at the confluence of the Werre and Aa, on the Minden & Cologne railway, 9 m. N.E. of Bielefeld, and at the junction of the railway to Detmold and Altenbeken. Pop. (1885) 15,902; (1905) 24,821. It possesses six Evangelical churches, notably the Münsterkirche, a Romanesque building with a Gothic apse of the 15th century; the Marienkirche, in the Gothic style; and the Johanniskirche, with a steeple 280 ft. high. The other principal buildings are the Roman Catholic church, the synagogue, the gymnasium founded in 1540, the agricultural school and the theatre. There is a statue of Frederick William of Brandenburg. The industries include cotton and flax-spinning, and the manufacture of linen cloth, carpets, furniture, machinery, sugar, tobacco and leather.

Herford owes its origin to a Benedictine nunnery which is said to have been founded in 832, and was confirmed by the emperor Louis the Pious in 839. From the emperor Frederick I. the abbess obtained princely rank and a seat in the imperial diet. Among the abbesses was the celebrated Elizabeth (1618-1680), eldest daughter of the elector palatine Frederick V., who was a philosophical princess, and a pupil of Descartes. Under her rule the sect of the Labadists settled for some time in Herford. The foundation was secularized in 1803. Herford was a member of the Hanseatic League, and its suzerainty passed in 1547 from the abbesses to the dukes of Juliers. In 1631 it became a free imperial town, but in 1647 it was subjugated by the elector of Brandenburg. It came into the possession of Westphalia in 1807, and in 1813 into that of Prussia.

See L. Hölscher, *Reformationsgeschichte der Stadt Herford* (Gütersloh, 1888).

HERGENRÖTHER, JOSEPH VON (1824-1890), German theologian, was born at Würzburg in Bavaria on the 15th of September 1824. He studied at Würzburg and at Rome. After spending a year as parish priest at Zellingen, near his native city, he went, in 1850, at his bishop's command, to the university of Munich, where he took his degree of doctor of theology the same year, becoming in 1851 *Privatdozent*, and in 1855 professor of ecclesiastical law and history. At Munich he gained the reputation of being one of the most learned theologians on the Ultramontane side of the Infallibility question, which had begun to be discussed; and in 1868 he was sent to Rome to arrange the proceedings of the Vatican Council. He was a stanch supporter of the infallibility dogma; and in 1870 he wrote *Anti-Janus*, an answer to *The Pope and the Council*, by "Janus" (Döllinger and J. Friedrich), which made a great sensation at the time. In 1877 he was made prelate of the papal household; he became cardinal deacon in 1879, and was afterwards made curator of the Vatican archives. He died in Rome on the 3rd of October 1890.

Hergenröther's first published work was a dissertation on the doctrine of the Trinity according to Gregory Nazianzen (Regensburg, 1850), and from this time onward his literary activity was immense. After several articles and brochures on Hippolytus and the question of the authorship of the *Philosophumena*, he turned to the study of Photius, patriarch of Constantinople, and the history of the Greek schism. For twelve years he was engaged upon this work, the result being his monumental *Photius, Patriarch von Constantinopel. Sein Leben, seine Schriften und das griechische Schisma* (3 vols., Regensburg, 1867-1869); an additional volume (1869) gave, under the title *Monumenta Graeca ad Photium ... pertinentia*, a collection of the unpublished documents on which the work was largely based. Of Hergenröther's other works, the most important are his history of the Papal States since the Revolution (*Der Kirchenstaat seit der französischen Revolution*, Freiburg i. B., 1860; Fr. trans., Leipzig, 1860), his great work on the relations of church and state (*Katholische Kirche und christlicher Staat in ihrer geschichtlichen Entwickelung und in Beziehung auf Fragen der Gegenwart*, 2 parts, Freiburg i. B., 1872; 2nd ed. expanded, 1876; Eng. trans., London, 1876, Baltimore, 1889), and his universal church history (*Handbuch der allgemeinen Kirchengeschichte*, 3 vols., Freiburg i. B., 1876-1880; 2nd ed., 1879, &c.; 3rd ed., 1884-1886; 4th ed., by Peter Kirsch, 1902, &c.; French trans., Paris, 1880, &c.). He also found time for a while to edit the new edition of Wetzer and Welte's *Kirchenlexikon* (1877), to superintend the publication of part of the *Regesta* of Pope Leo X. (Freiburg i. B., 1884-1885), and to add two volumes to Hefele's *Conciliengeschichte* (*ib.*, 1887 and 1890).

HERINGSDORF, a seaside resort of Germany, in the Prussian province of Pomerania, on the north coast of the island of Usedom, 5 m. by rail N.W. of Swinemünde. It is surrounded by beech woods, and is perhaps the most popular seaside resort on the German shore of the Baltic, being frequented by some 12,000 visitors annually.

HERIOT, GEORGE (1563-1623), the founder of Heriot's Hospital, Edinburgh, was descended from an old Haddington family; his father, a goldsmith in Edinburgh, represented the city in the Scottish parliament. George was born in 1563, and after receiving a good education was apprenticed to his father's trade. In 1586 he married the daughter of a deceased Edinburgh merchant, and with the assistance of her patrimony set up in business on his own account. At first he occupied a small "buith" at the north-east corner of St Giles's church, and afterwards a more pretentious shop at the west end of the building. To the business of a goldsmith he joined that of a money-lender, and in 1597 he had acquired such a reputation that he was appointed goldsmith to Queen Anne, consort of James VI. In 1601 he became jeweller to the king, and followed him to London, occupying a shop opposite the Exchange. Heriot was largely indebted for his fortune to the extravagance of the queen, and the imitation of this extravagance by the nobility. Latterly he had such an extensive business as a jeweller that on one occasion a government proclamation was issued calling upon all the magistrates of the kingdom to aid him in securing the workmen he required. He died in London on the 10th of February 1623. In 1608, having some time previously lost his first wife, he married Alison Primrose, daughter of James Primrose, grandfather of the first earl of Rosebery, but she died in 1612; by neither marriage had he any issue. The surplus of his estate, after deducting legacies to his nearest relations and some of his more intimate friends, was bequeathed to found a hospital for the education of freemen's sons of the town of Edinburgh; and its value afterwards increased so greatly as to supply funds for the erection of several Heriot foundation schools in different parts of the city.

Heriot takes a leading part in Scott's novel, *The Fortunes of Nigel* (see also the Introduction). A *History of Heriot's Hospital, with a Memoir of the Founder*, by William Steven, D.D., appeared in 1827; 2nd ed. 1859.

HERIOT, by derivation the arms and equipment (*geatwa*) of a soldier or army (*here*); the O. Eng. word is thus here-geatwa. The lord of a fee provided his tenant with arms and a horse, either as a gift or loan, which he was to use in the military service paid by him. On the death of the tenant the lord claimed the return of the equipment. When by the 10th century land was being given instead of arms, the heriot was still paid, but more in the nature of a "relief" (*q.v.*). There seems to have been some connexion between the payment of the heriot and the power of making a will (F. W. Maitland, *Domesday Book and Beyond*, p. 298). By the 13th century the payment was made either in money or in kind by the handing over of the best beast or of the best other chattel of the tenant (see Pollock and Maitland, *History of English Law*, i. 270 sq.). For the manorial law relating to heriots, see COPYHOLD.

HERISAU, the largest town in the entire Swiss canton of Appenzell, built on the Glatt torrent, and by light railway 7 m. south-west of St Gall or 13½ m. north of Appenzell. In 1900 it had 13,497 inhabitants, mainly Protestant and German-speaking. The lower portion of the massive tower of the parish church (Protestant) dates from the 11th century or even earlier. It is a prosperous little industrial town in the Ausser Rhoden half of the canton, especially busied with the manufacture of embroidery by machinery, and of muslins. Near it is the goats' whey cure establishment of Heinrichsbad, and the two castles of Rosenberg and Rosenburg, ruined in 1403 when the land rose against its lord, the abbot of St Gall. About 5 m. to the south-east is Hundwil, a village of 1523 inhabitants, where the *Landsgemeinde* of Ausser Rhoden meets In the odd years (in other years at Trogen) on the last Sunday in April.

HERITABLE JURISDICTIONS, in the law of Scotland, grants of jurisdiction made to a man and his heirs. They were a usual accompaniment to feudal tenures, and the power

which they conferred on great families, being recognized as a source of danger to the state, led to frequent attempts being made by statute to restrict them, both before and after the Union. They were all abolished in 1746.

HERKIMER, a village and the county-seat of Herkimer county, New York, U.S.A., in the township of the same name, on the Mohawk river, about 15 m. S.E. of Utica. Pop. (1900) 5555 (724 being foreign-born); (1905, state census) 6596; (1910) 7520. It is served by the New York Central & Hudson River railway, a branch of which (the Mohawk & Malone railway) extends through the Adirondacks to Malone, N.Y.; by inter-urban electric railway to Little Falls, Syracuse, Richfield Springs, Cooperstown and Oneonta, and by the Erie canal. The village has a public library, and is the seat of the Folts Mission Institute (opened 1893), a training school for young women, controlled by the Women's Foreign Missionary Society of the Methodist Episcopal Church. Herkimer is situated in a rich dairying region, and has various manufactures. The municipality owns and operates its water-supply system and electric-lighting plant. Herkimer, named in honour of General Nicholas Herkimer (*c.* 1728-1777), who was mortally wounded in the Battle of Oriskany, and in whose memory there is a monument (unveiled on the 6th of August 1907) in the village, was settled about 1725 by Palatine Germans, who bought from the Mohawk Indians a large tract of land including the present site of the village and established thereon several settlements which became known collectively as the "German Flats." In 1756 a stone house, built in 1740 by General Herkimer's father, John Jost Herkimer (d. 1775)—apparently one of the original group of settlers—a stone church, and other buildings, standing within what is now Herkimer village, were enclosed in a stockade and ditch fortifications by Sir William Johnson, and this post, at first known as Fort Kouari (the Indian name), was subsequently called Fort Herkimer. Another fort (Ft. Dayton) was built within the limits of the present village in 1776 by Colonel Elias Dayton (1737-1807), who later became a brigadier-general (1783) and served in the Confederation Congress in 1787-1788. During the French and Indian War the settlement was attacked (12th November 1757) and practically destroyed, many of the settlers being killed or taken prisoners; and it was again attacked on the 30th of April 1758. In the War of Independence General Herkimer assembled here the force which on the 6th of August 1777 was ambushed near Oriskany on its march from Ft. Dayton to the relief of Ft. Schuyler (see ORISKANY); and the settlement was attacked by Indians and "Tories" in September 1778 and in June 1782. The township of Herkimer was organized in 1788, and in 1807 the village was incorporated.

See Nathaniel I. Benton, *History of Herkimer County* (Albany, 1856); and Phoebe S. Cowen, *The Herkimers and Schuylers*, (1903).

HERKOMER, SIR HUBERT VON (1849-), British painter, was born at Waal, in Bavaria, and eight years later was brought to England by his father, a wood-carver of great ability. He lived for some time at Southampton and in the school of art there began his art training; but in 1866 he entered upon a more serious course of study at the South Kensington Schools, and in 1869 exhibited for the first time at the Royal Academy. By his picture, "The Last Muster," at the Academy in 1875, he definitely established his position as an artist of high distinction. He was elected an associate of the Academy in 1879, and academician in 1890; an associate of the Royal Society of Painters in Water Colours in 1893, and a full member in 1894; and in 1885 he was appointed Slade professor at Oxford. He exhibited a very large number of memorable portraits, figure subjects and landscapes, in oil and water colour; he achieved marked success as a worker in enamel, as an etcher, mezzotint engraver and illustrative draughtsman; and he exercised wide influence upon art education by means of the Herkomer School (Incorporated), at Bushey, which he founded in 1883 and directed gratuitously until 1904, when he retired. It was then voluntarily wound up, and is now conducted privately. Two of his pictures, "Found" (1885) and "The Chapel of the Charterhouse" (1889), are in the National Gallery of British Art. In the year 1907 he received the honorary degree of D.C.L. at Oxford, and a knighthood was conferred upon him

by the king in addition to the commandership of the Royal Victorian Order with which he was already decorated.

See *Hubert von Herkomer, R.A., a Study and a Biography*, by A. L. Baldry (London, 1901); *Professor Hubert Herkomer, Royal Academician, His Life and Work*, by W. L. Courtney (London, 1892).

HERLEN (or HERLIN), **FRITZ,** of Nördlingen, German artist of the early Swabian school, in the 15th century. The date and place of his birth are unknown, but his name is on the roll of the tax-gatherers of Ulm in 1449; and in 1467 he was made citizen and town painter at Nördlingen, "because of his acquaintance with Flemish methods of painting." One of the first of his acknowledged productions is a shrine on one of the altars of the church of Rothenburg on the Tauber, the wings of which were finished in 1466, with seven scenes from the lives of Christ and the Virgin Mary. In the town-hall of Rothenburg is a Madonna and St Catherine of 1467; and in the choir of Nördlingen cathedral a triptych of 1488, representing the "Nativity" and "Christ amidst the Doctors," at the side of a votive Madonna attended by St Joseph and St Margaret as patrons of a family. In each of these works the painter's name certifies the picture, and the manner is truly that of an artist "acquainted with Flemish methods." We are not told under whom Herlen laboured in the Netherlands, but he probably took the same course as Schongauer and Hans Holbein the elder, who studied in the school of van der Weyden. His altarpiece at Rothenburg contains groups and figures, as well as forms of action and drapery, which seem copied from those of van der Weyden's or Memlinc's disciples, and the votive Madonna of 1488, whilst characterized by similar features, only displays such further changes as may be accounted for by the master's constant later contact with contemporaries in Swabia. Herlen had none of the genius of Schongauer. He failed to acquire the delicacy even of the second-rate men who handed down to Matsys the traditions of the 15th century; but his example was certainly favourable to the development of art in Swabia. By general consent critics have assigned to him a large altar-piece, with scenes from the gospels and figures of St Florian and St Floriana, and a Crucifixion, the principal figure of which is carved in high relief on the surface of a large panel in the church of Dinkelsbühl. A Crucifixion, with eight scenes from the New Testament, is shown as his in the cathedral, a "Christ in Judgment, with Mary and John," and the "Resurrection of Souls" in the town-hall of Nördlingen. A small Epiphany, once in the convent of the Minorites of Ulm, is in the Holzschuher collection at Augsburg, a Madonna and Circumcision in the National Museum at Munich. Herlen's epitaph, preserved by Rathgeber, states that he died on the 12th of October 1491, and was buried at Nördlingen.

HERMAE, in Greek antiquities, quadrangular pillars, broader above than at the base, surmounted by a head or bust, so called either because the head of Hermes was most common or from their etymological connexion with the Greek word ἕρματα (blocks of stone), which originally had no reference to Hermes at all. In the oldest times Hermes, like other divinities, was worshipped in the form of a heap of stones or of an amorphous block of wood or stone, which afterwards took the shape of a phallus, the symbol of productivity. The next step was the addition of a head to this phallic column which became quadrangular (the number 4 was sacred to Hermes, who was born on the fourth day of the month), with the significant indication of sex still prominent. In this shape the number of herms rapidly increased, especially those of Hermes, for which the distinctive name of Hermhermae has been suggested. In Athens they were found at the corners of streets; before the gates and in the courtyards of houses, where they were worshipped by women as having the power to make them prolific; before the temples; in the gymnasia and palaestrae. On each side of the road leading from the Stoa Poikile to the Stoa Basileios, rows of Hermae were set up in such numbers by the piety of private individuals or public corporations, that the Stoa Basileios was called the Stoa of the Hermae. The function of Hermes as protector of the roads, of merchants and of commerce, explains the number of Hermae that served the purpose of signposts on the roads outside the city. It is stated in the pseudo-Platonic *Hipparchus* that

the son of Peisistratus had set up marble pillars at suitable places on the roads leading from the different country districts to Athens, having the places connected with the roads inscribed on the one side in a hexameter verse, and on the other a pentameter containing a short proverb or moral precept for the edification of travellers. Sometimes they bore inscriptions celebrating the valour of those who had fought for their country. Just as it was customary for the passer-by to show respect to the rudest form of the god (the heap of stones) by contributing a stone to the heap or anointing it with oil, in like manner small offerings, generally of dried figs, were deposited near the Hermae, to appease the hunger of the necessitous wayfarer. Garlands of flowers were also suspended on the two arm-like tenons projecting from either side of the column at the top (for the oracle at Pharae see HERMES). These pillars were also used to mark the frontier boundaries or the limits of different estates. The great respect attaching to them is shown by the excitement caused in Athens by the "Mutilation of the Hermae" just before the departure of the Sicilian expedition (May 415 B.C.). They formed the object of a special industry, the makers of them being called Hermoglyphi. The surmounting heads were not, however, confined to those of Hermes; those of other gods and heroes, and even of distinguished mortals, were of frequent occurrence. In this case a compound was formed: Hermathena (a herm of Athena), Hermares, Hermaphroditus, Hermanubis, Hermalcibiades, and so on. In the case of these compounds it is disputed whether they indicated a herm with the head of Athena, or with a Janus-like head of both Hermes and Athena, or a figure compounded of both deities. The Romans not only borrowed the Hermes pillars for their deities which at an early period they assimilated to those of the Greeks (as Heracles—Hercules) but also for the indigenous gods who preserved their individuality. Thus herms of Jupiter Terminalis (the hermae being identified with the Roman termini) and of Silvanus occur. Under the empire, the function of the hermae was rather architectural than religious. They were used to keep up the draperies in the interior of a house, and in the Circus Maximus they were used to support the barriers.

See the article with bibliography by Pierre Paris in Daremberg and Saglio's *Dictionnaire des antiquités*; for the mutilation of the Hermae, Thucydides vi. 27; Andocides, *De mysteriis*; Grote, *Hist. of Greece*, ch. 58; H. Weil, *Études sur l'antiquité grecque* (1900); Burolt, *Griech. Gesch.* (ed. 1904), III. ii. p. 1287.

HERMAGORAS, of Temnos, Greek rhetorician of the Rhodian school and teacher of oratory in Rome, flourished during the first half of the 1st century B.C. He obtained a great reputation among a certain section and founded a special school, the members of which called themselves Hermagorei. His chief opponent was Posidonius of Rhodes, who is said to have contended with him in argument in the presence of Pompey (Plutarch, *Pompey*, 42). Hermagoras devoted himself particularly to the branch of rhetoric known as οἰκονομία (*inventio*), and is said to have invented the doctrine of the four στάσεις (*status*) and to have arranged the parts of an oration differently from his predecessors. Cicero held an unfavourable opinion of his methods, which were approved by Quintilian, although he considers that Hermagoras neglected the practical side of rhetoric for the theoretical. According to Suidas and Strabo, he was the author of τέχναι ῥητορικαί (rhetorical manuals) and of other works, which should perhaps be attributed to his younger namesake, surnamed Carion, the pupil of Theodorus of Gadara.

See Strabo xiii. p. 621; Cicero, *De inventione*, i. 6. 8, *Brutus*, 76, 263. 78, 271; Quintilian, *Instit.* iii. 1. 16, 3. 9, 11. 22; C. W. Piderit, *De Hermagora rhetore* (1839); G. Thiele, *Hermagoras Ein Beitrag zur Geschichte der Rhetorik* (1893).

HERMANDAD (from *hermano*, Lat. *germanus*, a brother), a Castilian word meaning, strictly speaking, a brotherhood. In the Romance language spoken on the east coast of Spain in Catalonia it is written *germandat* or *germania*. In the form *germania* it has acquired the significance of "thieves' Latin" or "thieves' cant," and is applied to any jargon supposed to be understood only by the Initiated. But the typical "germania" is a mixture of slang and of

the gipsy language. The hermandades have played a conspicuous part in the history of Spain. The first recorded case of the formation of an hermandad occurred in the 12th century when the towns and the peasantry of the north united to police the pilgrim road to Santiago in Galicia, and protect the pilgrims against robber knights. Throughout the middle ages such alliances were frequently formed by combinations of towns to protect the roads connecting them, and were occasionally extended to political purposes. They acted to some extent like the Fehmic courts of Germany. The Catholic sovereigns, Ferdinand and Isabella, adapted an existing hermandad to the purpose of a general police acting under officials appointed by themselves, and endowed with large powers of summary jurisdiction even in capital cases. The hermandad became, in fact, a constabulary, which, however, fell gradually into neglect. In Catalonia and Valencia the “germanias” were combinations of the peasantry to resist the exactions of the feudal lords.

HERMAN DE VALENCIENNES, 12th-century French poet, was born at Valenciennes, of good parentage. His father and mother, Robert and Hérembourg, belonged to Hainault, and gave him for god-parents Count Baldwin and Countess Yoland—doubtless Baldwin IV. of Hainault and his mother Yoland. Herman was a priest and the author of a verse *Histoire de la Bible*, which includes a separate poem on the Assumption of the Virgin. The work is generally known as *Le Roman de sapience*, the name arising from a copyist’s error in the first line of the poem:

“Comens de sapiense, ce est la cremors de Deu”

the first word being miswritten in one MS. *Romens*, and In another *Romanz*. His work has, indeed, the form of an ordinary romance, and cannot be regarded as a translation. He selects such stories from the Bible as suit his purpose, and adds freely from legendary sources, displaying considerable art in the selection and use of his materials. This scriptural poem, very popular in its day, mentions Henry II. of England as already dead, and must therefore be assigned to a date posterior to 1189.

See *Notices et extraits des manuscrits* (Paris, vol. 34), and Jean Bonnard, *Les Traductions de la Bible en vers français au moyen âge* (1884).

HERMANN I. (d. 1217), landgrave of Thuringia and count palatine of Saxony, was the second son of Louis II. the Hard, landgrave of Thuringia, and Judith of Hohenstaufen, sister of the emperor Frederick I. Little is known of his early years, but in 1180 he joined a coalition against Henry the Lion, duke of Saxony, and with his brother, the landgrave Louis III., suffered a short imprisonment after his defeat at Weissensee by Henry. About this time he received from his brother Louis the Saxon palatinate, over which he strengthened his authority by marrying Sophia, sister of Adalbert, count of Sommerschenburg, a former count palatine. In 1190 Louis died and Hermann by his energetic measures frustrated the attempt of the emperor Henry VI. to seize Thuringia as a vacant fief of the Empire, and established himself as landgrave. Having joined a league against the emperor he was accused, probably wrongly, of an attempt to murder him. Henry was not only successful in detaching Hermann from the hostile combination, but gained his support for the scheme to unite Sicily with the Empire. In 1197 Hermann went on crusade. When Henry VI. died in 1198 Hermann’s support was purchased by the late emperor’s brother Philip, duke of Swabia, but as soon as Philip’s cause appeared to be weakening he transferred his allegiance to Otto of Brunswick, afterwards the emperor Otto IV. Philip accordingly invaded Thuringia in 1204 and compelled Hermann to come to terms by which he surrendered the lands he had obtained in 1198. After the death of Philip and the recognition of Otto he was among the princes who invited Frederick of Hohenstaufen, afterwards the emperor Frederick II., to come to Germany and assume the crown. In consequence of this step the Saxons attacked Thuringia, but the landgrave was saved by Frederick’s arrival in Germany in 1212. After the death of his first wife in 1195 Hermann married Sophia, daughter of Otto I., duke of Bavaria. By her he had four sons, two of whom, Louis and Henry Raspe, succeeded their father in turn as landgrave.

Hermann died at Gotha on the 25th of April 1217, and was buried at Reinhardsbrunn. He was fond of the society of men of letters, and Walther von der Vogelweide and other Minnesingers were welcomed to his castle of the Wartburg. In this connexion he figures in Wagner's *Tannhäuser*.

See E. Winkelmann, *Philipp von Schwaben und Otto IV. von Braunschweig* (Leipzig, 1873-1878); T. Knochenhauer, *Geschichte Thüringens* (Gotha, 1871); and F. Wachter, *Thüringische und obersächsische Geschichte* (Leipzig, 1826).

HERMANN OF REICHENAU (HERIMANNUS AUGIENSIS), commonly distinguished as Hermannus Contractus, *i.e.* the Lame (1013-1054), German scholar and chronicler, was the son of Count Wolferad of Alshausen in Swabia. Hermann, who became a monk of the famous abbey of Reichenau, is at once one of the most attractive and one of the most pathetic figures of medieval monasticism. Crippled and distorted by gout from his childhood, he was deprived of the use of his legs; but, in spite of this, he became one of the most learned men of his time, and exercised a great personal and intellectual influence on the numerous band of scholars he gathered round him. He died on the 24th of September 1054, at the family castle of Alshausen near Biberach. Besides the ordinary studies of the monastic scholar, he devoted himself to mathematics, astronomy and music, and constructed watches and instruments of various kinds.

His chief work is a *Chronicon ad annum* 1054, which furnishes important and original material for the history of the emperor Henry III. The first edition, from a MS. no longer extant, was printed by J. Sichard at Basel in 1529, and reissued by Heinrich Peter in 1549; another edition appeared at St Blaise in 1790 under the supervision of Ussermann; and a third, as a result of the collation of numerous MSS., forms part of vol. v. of Pertz's *Monumenta Germaniae historica*. A German translation of the last is contributed by K. F. A. Nobbe to *Die Geschichtsschreiber der deutschen Vorzeit* (1st ed., Berlin, 1851; 2nd ed., Leipzig, 1893). The separate lives of Conrad II. and Henry III., often ascribed to Hermann, appear to have perished. His treatises *De mensura astrolabii* and *De utilitatibus astrolabii* (to be found, on the authority of Salzburg MSS., in Pez, *Thesaurus anecdotorum novissimus*, iii.) being the first contributions of moment furnished by a European to this subject, Hermann was for a time considered the inventor of the astrolabe. A didactic poem from his pen, *De octo vitiis principalibus*, is printed in Haupt's *Zeitschrift für deutsches Alterthum* (vol. xiii.); and he is sometimes credited with the composition of the Latin hymns *Veni Sancte Spiritus, Salve Regina*, and *Alma Redemptoris*. A *martyrologium* by Hermann was discovered by E. Dümmler in a MS. at Stuttgart, and was published by him in "Das Martyrologium Notkers und seine Verwandten" in *Forschungen zur deutschen Geschichte*, xxv. (Göttingen, 1885).

See H. Hansjakob, *Herimann der Lahme* (Mainz, 1875); Potthast, *Bibliotheca med. aev.* s. "Herimannus Augiensis."

HERMANN OF WIED (1477-1552), elector and archbishop of Cologne, was the fourth son of Frederick, count of Wied (d. 1487), and was born on the 14th of January 1477. Educated for the Church, he became elector and archbishop in 1515, and ruled his electorate with vigour and intelligence, taking up at first an attitude of hostility towards the reformers and their teaching. A quarrel with the papacy turned, or helped to turn, his thoughts in the direction of Church reform, but he hoped this would come from within rather than from without, and with the aid of his friend John Gropper (1503-1559), began, about 1536, to institute certain reforms in his own diocese. One step led to another, and as all efforts at union failed the elector invited Martin Bucer to Cologne in 1542. Supported by the estates of the electorate, and relying upon the recess of the diet of Regensburg in 1541, he encouraged Bucer to press on with the work of reform, and in 1543 invited Melanchthon to his assistance. His conversion was hailed with great joy by the Protestants, and the league of Schmalkalden declared they were resolved to defend him; but the Reformation in the electorate received checks from the victory of Charles V. over William, duke of Cleves, and the hostility of the citizens of Cologne. Summoned both before the emperor and the pope,

the elector was deposed and excommunicated by Paul III. in 1546. He resigned his office in February 1547, and retired to Wied. Hermann, who was also a bishop of Paderborn from 1532 to 1547, died on the 15th of August 1552.

See C. Varrentrapp, *Hermann von Wied* (Leipzig, 1878).

HERMANN, FRIEDRICH BENEDICT WILHELM VON (1795-1868), German economist, was born on the 5th of December 1795, at Dinkelsbühl in Bavaria. After finishing his primary education he was for some time employed in a draughtsman's office. He then resumed his studies, partly at the gymnasium in his native town, partly at the universities of Erlangen and Würzburg. In 1817 he took up a private school at Nuremberg, where he remained for four years. After filling an appointment as teacher of mathematics at the gymnasium of Erlangen, he became in 1823 *Privatdozent* at the university in that town. His inaugural dissertation was on the notions of political economy among the Romans (*Dissertatio exhibens sententias Romanorum ad oeconomiam politicam pertinentes*, Erlangen, 1823). He afterwards acted as professor of mathematics at the gymnasium and polytechnic school in Nuremberg, where he continued till 1827. During his stay there he published an elementary treatise on arithmetic and algebra (*Lehrbuch der Arith. u. Algeb.*, 1826), and made a journey to France to inspect the organization and conduct of technical schools in that country. The results of his investigation were published in 1826 and 1828 (*Über technische Unterrichts-Anstalten*). Soon after his return from France he was made *professor extraordinarius* of political science of the university of Munich, and in 1833 he was advanced to the rank of ordinary professor. In 1832 appeared the first edition of his great work on political economy, *Staatswirthschaftliche Untersuchungen*. In 1835 he was made member of the Royal Bavarian Academy of Sciences. From the year 1836 he acted as inspector of technical instruction in Bavaria, and made frequent journeys to Berlin and Paris in order to study the methods there pursued. In the state service of Bavaria, to which he devoted himself, he rose rapidly. In 1837 he was placed on the council for superintendence of church and school work; in 1839 he was entrusted with the direction of the bureau of statistics; in 1845 he was one of the councillors for the interior; in 1848 he sat as member for Munich in the national assembly at Frankfort. In this assembly Hermann, with Johann Heckscher and others, was mainly instrumental in organizing the so-called "Great German" party, and was selected as one of the representatives of their views at Vienna. Warmly supporting the customs union (Zollverein), he acted in 1851 as one of its commissioners at the great industrial exhibition at London, and published an elaborate report on the woollen goods. Three years later he was president of the committee of judges at the similar exhibition at Munich, and the report of its proceedings was drawn up by him. In 1855 he became councillor of state, the highest honour in the service. From 1835 to 1847 he contributed a long series of reviews, mainly of works on economical subjects, to the *Münchener gelehrte Anzeigen* and also wrote for Rau's *Archiv der politischen Ökonomie* and the *Augsburger allgemeine Zeitung*. As head of the bureau of statistics he published a series of valuable annual reports (*Beiträge zur Statistik des Königreichs Bayern*, Hefte 1-17, 1850-1867). He was engaged at the time of his death, on the 23rd of November 1868, upon a second edition of his *Staatswirthschaftliche Untersuchungen*, which was published in 1870.

Hermann's rare technological knowledge gave him a great advantage in dealing with some economic questions. He reviewed the principal fundamental ideas of the science with great thoroughness and acuteness. "His strength," says Roscher, "lies in his clear, sharp, exhaustive distinction between the several elements of a complex conception, or the several steps comprehended in a complex act." For keen analytical power his German brethren compare him with Ricardo. But he avoids several one-sided views of the English economist. Thus he places public spirit beside egoism as an economic motor, regards price as not measured by labour only but as a product of several factors, and habitually contemplates the consumption of the labourer, not as a part of the cost of production to the capitalist, but as the main practical end of economics.

See Kautz, *Gesch. Entwicklung d. National-Ökonomik*, pp. 633-638; Roscher, *Gesch. d. Nat.-Ökon. in Deutschland*, pp. 860-879.

HERMANN, JOHANN GOTTFRIED JAKOB (1772-1848), German classical scholar and philologist, was born at Leipzig on the 28th of November 1772. Entering the university of his native city at the age of fourteen, Hermann at first studied law, which he soon abandoned for the classics. After a session at Jena in 1793-1794, he became a lecturer on classical literature in Leipzig, in 1798 *professor extraordinarius* of philosophy in the university, and in 1803 professor of eloquence (and poetry, 1809). He died on the 31st of December 1848. Hermann maintained that an accurate knowledge of the Greek and Latin languages was the only road to a clear understanding of the intellectual life of the ancient world, and the chief, if not the only, aim of philology. As the leader of this grammatico-critical school, he came into collision with A. Böckh and Otfried Müller, the representatives of the historico-antiquarian school, which regarded Hermann's view of philology as inadequate and one-sided.

Hermann devoted his early attention to the classical poetical metres, and published several works on that subject, the most important being *Elementa doctrinae metricae* (1816), in which he set forth a scientific theory based on the Kantian categories. His writings on Greek grammar are also valuable, especially *De emendanda ratione Graecae grammaticae* (1801), and notes and excursus on Viger's treatise on Greek idioms. His editions of the classics include several of the plays of Euripides; the *Clouds* of Aristophanes (1799); *Trinummus* of Plautus (1800); *Poëtica* of Aristotle (1802); *Orphica* (1805); the Homeric *Hymns* (1806); and the *Lexicon* of Photius (1808). In 1825 Hermann finished the edition of Sophocles begun by Erfurdt. His edition of Aeschylus was published after his death in 1852. The *Opuscula*, a collection of his smaller writings in Latin, appeared in seven volumes between 1827 and 1839.

See monographs by O. Jahn (1849) and H. Köchly (1874); C. Bursian, *Geschichte der klassischen Philologie in Deutschland* (1883); art. in *Allgem. deutsche Biog.*; Sandys, *Hist. Class. Schol.* iii.

HERMANN, KARL FRIEDRICH (1804-1855), German classical scholar and antiquary, was born on the 4th of August 1804, at Frankfort-on-Main. Having studied at the universities of Heidelberg and Leipzig, he went for a tour in Italy, on his return from which he lectured as *Privatdozent* in Heidelberg. In 1832 he was called to Marburg as *professor ordinarius* of classical literature; and in 1842 he was transferred to Göttingen to the chair of philology and archaeology, vacant by the death of Otfried Müller. He died at Göttingen on the 31st of December 1855. His knowledge of all branches of classical learning was profound, but he was chiefly distinguished for his works on Greek antiquities and ancient philosophy. Among these may be mentioned the *Lehrbuch der griechischen Antiquitäten* (new ed., 1889) dealing with political, religious and domestic antiquities; the *Geschichte und System der Platonischen Philosophie* (1839), unfinished; an edition of the Platonic Dialogues (6 vols., 1851-1853); and *Culturgeschickte der Griechen und Römer* (1857-1858), published after his death by C. G. Schmidt. He also edited the text of Juvenal and Persius (1854) and Lucian's *De conscribenda historia* (1828). A collection of *Abhandlungen und Beiträge* appeared in 1849.

See M. Lechner, *Zur Erinnerung an K. F. Hermann* (1864), and article by C. Halm in *Allgemeine deutsche Biographie*, xii. (1880).

HERMAPHRODITUS, in Greek mythology, a being, partly male, partly female, originally worshipped as a divinity. The conception undoubtedly had its origin in the East, where deities of a similar dual nature frequently occur. The oldest traces of the cult in Greek countries are found in Cyprus. Here, according to Macrobius (*Saturnalia*, iii. 8) there was a bearded statue of a male aphrodite, called Aphroditos by Aristophanes (probably in his Νίοβος, a similar variant). Philochorus in his *Atthis* (*ap.* Macrobius *loc. cit.*) further identified this divinity, at whose sacrifices men and women exchanged garments, with the moon. This double sex also attributed to Dionysus and Priapus—the union in one being of the two

principles of generation and conception—denotes extensive fertilizing and productive powers. This Cyprian Aphrodite is the same as the later Hermaphroditos, which simply means Aphroditos in the form of a herm (see HERMAE), and first occurs in the *Characteres* (16) of Theophrastus. After its introduction at Athens (probably in the 5th century B.C.), the importance of this being seems to have declined. It appears no longer as the object of a special cult, but limited to the homage of certain sects, expressed by superstitious rites of obscure significance. The still later form of the legend, a product of the Hellenistic period, is due to a mistaken etymology of the name. In accordance with this, Hermaphroditus is the son of Hermes and Aphrodite, of whom the nymph of the fountain of Salmacis in Caria became enamoured while he was bathing. When her overtures were rejected, she embraced him and entreated the gods that she might be for ever united with him. The result was the formation of a being, half man, half woman. This story is told by Ovid (*Metam.* iv. 285) to explain the peculiarly enervating qualities of the water of the fountain. Strabo (xiv. p. 656) attributes its bad reputation to the attempt of the inhabitants of the country to find some excuse for the demoralization caused by their own luxurious and effeminate habits of life. There was a famous statue of Hermaphroditus by Polycles of Athens, probably the younger of the two statuaries of that name. In later Greek art he was a favourite subject.

See articles in Daremberg and Saglio, *Dictionnaire des antiquités*, and Roscher's *Lexikon der Mythologie*; and for art, A. Baumeister, *Denkmäler des klassischen Altertums* (1884-1888).

HERMAS, SHEPHERD OF, one of the works representing the Apostolic Fathers (*q.v.*), a hortatory writing which "holds the mirror up" to the Church in Rome during the 3rd Christian generation. This is the period indicated by the evidence of the Muratorian Canon, which assigns it to the brother of Pius, Roman bishop *c.* 139-154. Probably it was not the fruit of a single effort of its author. Rather its contents came to him piecemeal and at various stages in his ministry as a Christian "prophet," extending over a period of years; and, like certain Old Testament prophets, he shows us how by his own experiences he became the medium of a divine message to his church and to God's "elect" people at large.

In its present form it falls under three heads: *Visions*, *Mandates*, *Similitudes*. But these divisions are misleading. The personal and preliminary revelation embodied in *Vision* i. brings the prophet a new sense of sin as essentially a matter of the heart, and an awakened 368
conscience as before the "glory of God," the Creator and Upholder of all things. His responsibility also for the sad state of religion at home is emphasized, and he is given a mission of repentance to his erring children. How far in all this and in the next vision the author is describing facts, and how far transforming his personal history into a type (after the manner of Bunyan's *Pilgrim's Progress*), the better to impress his moral upon his readers, is uncertain. But the whole style of the work, with its use of conventional apocalyptic forms, favours the more symbolic view. *Vision* ii. records his call proper, through revelation of his essential message, to be delivered both to his wife and children and to "all the saints who have sinned unto this day" (2. 4). It contains the assurances of forgiveness even for the gravest sins after baptism (save blasphemy of the Name and betrayal of the brethren, *Sim.* ix. 19), "if they repent with their whole heart and remove doubts from their minds. For the Master hath sworn by His glory ('His Son,' below) touching His elect, that if there be more sinning after this day which He hath limited, they shall not obtain salvation. For the repentance of the righteous hath an end; the days of repentance for all saints are fulfilled.... Stand fast, then, ye that work righteousness and be not of doubtful mind.... Happy are all ye that endure the great tribulation which is to come.... *The Lord is nigh unto them that turn to Him*, as it is written in the book of Eldad and Modad, who prophesied to the people in the wilderness."

Here, in the gist of the "booklet" received from the hand of a female figure representing the Church, we have in germ the message of *The Shepherd*. But before Hermas announces it to the Roman Church, and through "Clement"[1] to the churches abroad, there are added two *Visions* (iii. iv.) tending to heighten its impressiveness. He is shown the "holy church" under the similitude of a tower in building, and the great and final tribulation (already alluded to as near at hand) under that of a devouring beast, which yet is innocuous to undoubting faith.

Hermas begins to deliver the message of *Vis.* i.-iv., as bidden. But as he does so, it is

added to, in the way of detail and illustration, by a fresh series of revelations through an angel in the guise of a Shepherd, who in a preliminary interview announces himself as the Angel of Repentance, sent to administer the special "repentance" which it was Hermas's mission to declare. This interview appears in our MSS. as *Vis.* v.,[2] but is really a prelude to the *Mandates* and *Similitudes* which form the bulk of the whole work, hence known as "The Shepherd." The relation of this second part to *Vis.* i.-iv. is set forth by the Shepherd himself. "I was sent, quoth he, to show thee *again* all that thou sawest before, to wit the sum of the things profitable for thee. First of all write thou my mandates and similitudes; and *the rest*, as I will show thee, so shalt thou write." This programme is fulfilled in the xii. *Mandates*—perhaps suggested by the *Teaching of the Twelve Apostles* (see DIDACHE), which Hermas knows—and *Similitudes* i.-viii., while *Simil.* ix. is "the rest" and constitutes a distinct "book" (*Sim.* ix. 1. 1, x. 1. 1). In this latter the building of the Tower, already shown in outline in *Vis.* iii., is shown "more carefully" in an elaborate section dealing with the same themes. One may infer that *Sim.* ix. represents a distinctly later stage in Hermas's ministry—during the whole of which he seems to have committed to writing what he received on each occasion,[3] possibly for recital to the church (cf. *Vis.* ii. *fin.*). Finally came *Sim.* x., really an epilogue in which Hermas is "delivered" afresh to the Shepherd, for the rest of his days. He is "to continue in this ministry" of proclaiming the Shepherd's teaching, "so that they who have repented or are about to repent may have the same mind with thee," and so receive a good report before God (*Sim.* x. 2 2-4). Only they must "make haste to do aright," lest while they delay the tower be finished (4. 4), and the new aeon dawn (after the final tribulation: cf. *Vis.* iv. 3. 5).

The relation here indicated between the Shepherd's instruction and the initial message of one definitive repentance, open to those believers who have already "broken" their "seal" of baptism by deadly sins, as announced in *Visions* i.-iv. is made yet plainer by *Sim.* vi. 1. 3 f. "These mandates are profitable to such as are about to repent; for except they walk in them their repentance is in vain." Hermas sees that mere repentance is not enough to meet the backsliding condition in which so many Christians then were, owing to the recoil of inveterate habits of worldliness[4] entrenched in society around and within. It is, after all, too negative a thing to stand by itself or to satisfy God. "Cease, Hermas," says the Church, "to pray all about thy sins. Ask for righteousness also" (*Vis.* iii. 1. 6). The positive Christian ideal which "the saints" should attain, "the Lord enabling," it is the business of the Shepherd to set forth.

Here lies a great merit of Hermas's book, his insight into experimental religion and the secret of failure in Christians about him, to many of whom Christianity had come by birth rather than personal conviction. They shared the worldly spirit in its various forms, particularly the desire for wealth and the luxuries it affords, and for a place in "good society"—which meant a pagan atmosphere. Thus they were divided in soul between spiritual goods and worldly pleasures, and were apt to doubt whether the rewards promised by God to the life of "simplicity" (all Christ meant by the childlike spirit, including generosity in giving and forgiving) and self-restraint, were real or not. For while the expected "end of the age" delayed, persecutions abounded. Such "doubled-souled" persons, like Mr Facing-both-ways, inclined to say, "The Christian ideal may be glorious, but is it practicable?" It is this most fatal doubt which evokes the Shepherd's sternest rebuke; and he meets it with the ultimate religious appeal, viz. to "the glory of God." He who made man "to rule over all things under heaven," could He have given behests beyond man's ability? If only a man "hath the Lord in his heart," he "shall know that there is nothing easier nor sweeter nor gentler than these mandates" (*Mand.* xii. 3-4). So in the forefront of the *Mandates* stands the secret of all: "First of all believe that there is one God.... Believe therefore in Him, and fear Him, and fearing Him have self-mastery. For the fear of the Lord dwelleth in the good desire," and to "put on" this master-desire is to possess power to curb "evil desire" in all its shapes (*Mand.* xii. 1-2). Elsewhere "good desire" is analysed into the "spirits" of the several virtues, which yet are organically related, Faith being mother, and Self-mastery her daughter, and so on (*Vis.* iii. 8. 3 seq.; cf. *Sim.* ix. 15). These are the specific forms of the Holy Spirit power, without whose indwelling the mandates cannot be kept (*Sim.* x. 3; cf. ix. 13. 2, 24. 2).

Thus the "moralism" sometimes traced in Hermas is apparent rather than real, for he has a deep sense of the enabling grace of God. His defect lies rather in not presenting the historic Christ as the Christian's chief inspiration, a fact which connects itself with the strange absence of the names "Jesus" and "Christ." He uses rather "the Son of God," in a peculiar Adoptianist sense, which, as taken for granted in a work by the bishop's own brother, must be held typical of the Roman Church of his day. But as it is implicit and not part of his distinctive message, it did not hinder his book from enjoying wide quasi-canonical

honour during most of the Ante-Nicene period.

The absence of the historic names, “Jesus” and “Christ,” may be due to the form of the book as purporting to quote angelic communications. This would also explain the absence of explicit scriptural citations generally, though knowledge both of the Old Testament and of several New Testament books—including the congenially symbolic Gospel of John—is clear (cf. *The New Testament in the Apostolic Fathers*, Oxford, 1905, 105 seq.). The one exception is a prophetic writing, the apocryphal *Book of Eldad and Modad*, which is cited apparently as being similar in the scope of its message. Among its non-scriptural sources may be named the allegoric picture of human life known as *Tabula Cebetis* (cf. C. Taylor, as below), the *Didache*, and perhaps certain “Sibylline Oracles.”

Hermas regarded Christians as “justified by the most reverend Angel” (*i.e.* the pre-existent Holy Spirit or Son, who dwelt in Christ’s “flesh”), in baptism, the “seal” which even Old Testament saints had to receive in Hades (*Sim.* ix. 16. 3-7) and so attain to “life.” Yet the degree of “honour” (*e.g.* that of martyrs, *Vis.* iii. 2; *Sim.* ix. 28), the exact place in the kingdom or consummated church (the Tower), is given as reward for zeal in doing God’s will beyond the minimum requisite in all. Here comes in Hermas’s doctrine of works of supererogation, in fulfilment of counsels of perfection, on lines already seen in *Did.* vi. 2, cf. i. 4, and reappearing in the two types of Christian recognized by Clement and Origen and in later Catholicism. Again his doctrine of fasting is a spiritualizing of a current *opus operatum* conception on Jewish lines as though “keeping a watch” (*statio*) in that way atoned for sins (*Sim.* v.). The Shepherd enjoins instead, first, as “a perfect fast,” a fast “from every evil word and every evil desire, ... from all the vanities of this world-age” (3. 6; cf. *Barn.* iii. and the Oxyrhynchus Saying, “except ye fast from the world”); and next, as a counsel of perfection, a fast to yield somewhat for the relief of the widow and orphan, that this extra “service” may be to God for a “sacrifice.”

Generally speaking, Hermas’s piety, especially in its language, adheres closely to Old Testament forms. But it is doubtful (*pace* Spina and Völter, who assume a Jewish or a proselyte basis) whether this means more than that the Old Testament was still *the* Scriptures of the Church. In this respect, too, Hermas faithfully reflects the Roman Church of the early 2nd century (cf. the language of 1 Clem., esp. the liturgical parts, and even the Roman Mass). Indeed the prime value of the *Shepherd* is the light it casts on Christianity at Rome in the otherwise obscure period *c.* 110-140, when it had as yet hardly felt the influences converging on it from other centres of tradition and thought. Thus Hermas’s comparatively mild censures on Gnostic teachers in *Sim.* ix. suggest that the greater systems, like the Valentinian and Marcionite, had not yet made an impression there, as Harnack argues that they must have done by *c.* 145. This date, then, is a likely lower limit for Hermas’s revision of his earlier prophetic memoranda, and their publication in a single homogeneous work, such as the *Shepherd* appears to be. Its wider historic significance—it was felt by its author to be adapted to the needs of the Church at large, and was generally welcomed as such—is great but hard to determine in detail.[5] What is certain is its influence on the development of the Church’s policy as to discipline in grave cases, like apostasy and adultery—a burning question for some generations from the end of the 2nd century, particularly in Rome and North Africa. Indirectly, too, Hermas tended to keep alive the idea of the Christian prophet, even after Montanism had helped to discredit it.

LITERATURE.—The chief modern edition is by O. von Gebhardt and A. Harnack, in Fasc. iii. of their *Patr. apost. opera* (Leipzig, 1877); it is edited less fully by F. X. Funk, *Patr. apost.* (Tübingen, 1901), and in an English trans., with Introduction and occasional notes, by Dr C. Taylor (S.P.C.K., 2 vols., 1903-1906). For the wide literature of the subject, see the two former editions, also Harnack’s *Chronologie der altchr. Lit.* i. 257 seq., and O. Bardenhewer, *Gesch. der altkirchl. Lit.* i. 557 seq. For the authorship see APOCALYPTIC LITERATURE, sect. III.

(J. V. B.)

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1 More than one interpretation, typical or otherwise, of this “Clement” is possible; but none justifies us in assigning even to this *Vision* a date consistent with that usually given to the traditional bishop of this name (see CLEMENT I.). Yet we may have to correct the dubious chronology of the first Roman bishops by this datum, and prolong his life to about A.D. 110. This is Harnack’s date for the nucleus of *Vis.* ii., though he places our *Vis.* i.-iii. later in Trajan’s reign, and thinks *Vis.* iv. later still.

2 That a prior vision in which Hermas was “delivered” to the Shepherd’s charge, has dropped out, seems implied by *Vis.* v. 3 f., *Sim.* x. 1. 1.

3 Harnack places “The Shepherd” proper mostly under Hadrian (117-138), and the completed work *c.* 140-145.

4 A careful study of practical Christian ethics at Rome as implied in the *Shepherd*, will be found in E. von Dobschütz, *Christian Life in the Primitive Church* (1904).

5 Note the prestige of martyrs and confessors, the ways of true and false prophets in *Mand.* xi., and the different types of evil and good "walk" among Christians, *e.g.* in *Vis.* iii. 5-7; *Mand.* viii.; *Sim.* viii.

HERMENEUTICS (Gr. ἑρμηνευτική, *sc.* τέχνη, Lat. *ars hermeneutica*, from ἑρμηνεύειν, to interpret, from Hermes, the messenger of the gods), the science or art of interpretation or explanation, especially of the Holy Scriptures (see THEOLOGY).

HERMES, a Greek god, identified by the Romans with Mercury. The derivation of his name and his primitive character are very uncertain. The earliest centres of his cult were Arcadia, where Mt. Cyllene was reputed to be his birthplace, the islands of Lemnos, Imbros and Samothrace, in which he was associated with the Cabeiri and Attica. In Arcadia he was specially worshipped as the god of fertility, and his images were ithyphallic, as also were the "Hermae" at Athens. Herodotus (ii. 51) states that the Athenians borrowed this type from the Pelasgians, thus testifying to the great antiquity of the phallic Hermes. At Cyllene in Elis a mere phallus served as his emblem, and was highly venerated in the time of Pausanias (vi. 26. 3). Both in literature and cult Hermes was constantly associated with the protection of cattle and sheep; at Tanagra and elsewhere his title was κριοφόρος, the ram-bearer. As a pastoral god he was often closely connected with deities of vegetation, especially Pan and the nymphs. His pastoral character is recognized in the *Iliad* (xiv. 490) and the later epic hymn to Hermes; and his Homeric titles ἀκάκητα, ἐριούνιος, δώτωρ ἐάων, probably refer to him as the giver of fertility. In the *Odyssey*, however, he appears mainly as the messenger of the gods, and the conductor of the dead to Hades. Hence in later times he is often represented in art and mythology as a herald. The conductor of souls was naturally a chthonian god; at Athens there was a festival in honour of Hermes and the souls of the dead, and Aeschylus (*Persae*, 628) invokes Hermes, with Earth and Hades, in summoning a spirit from the underworld. The function of a messenger-god may have originated the conception of Hermes as a dream-god; he is called the "conductor of dreams" (ἡγήτωρ ὀνείρων), and the Greeks offered to him the last libation before sleep. As a messenger he may also have become the god of roads and doorways; he was the protector of travellers and his images were used for boundary-marks (see HERMAE). It was a custom to make a cairn of stones near the wayside statues of Hermes, each passer-by adding a stone; the significance of the practice, which is found in many countries, is discussed by Frazer (*Golden Bough*, 2nd ed., iii. 10 f.) and Hartland (*Legend of Perseus*, ii. 228). Treasure found in the road (ἕρμαιον) was the gift of Hermes, and any stroke of good luck was attributed to him; but it may be doubted whether his patronage of luck in general was developed from his function as a god of roads. As the giver of luck he became a deity of gain and commerce (κερδῷος, ἀγοραῖος), an aspect which caused his identification with Mercury, the Roman god of trade. From this conception his thievish character may have been evolved. The trickery and cunning of Hermes is a prominent theme in literature from Homer downwards, although it is very rarely recognized in official cult.[1] In the hymn to Hermes the god figures as a precocious child (a type familiar in folk-lore), who when a new-born babe steals the cows of Apollo. In addition to these characteristics various other functions were assigned to Hermes, who developed, perhaps, into the most complete type of the versatile Greek. In many respects he was a counterpart of Apollo, less dignified and powerful, but more human than his greater brother. Hermes was a patron of music, like Apollo, and invented the cithara; he presided over the games, with Apollo and Heracles, and his statues were common in the stadia and gymnasia. He became, in fact, the ideal Greek youth, equally proficient in the "musical" and "gymnastic" branches of Greek education. On the "musical" side he was the special patron of eloquence (λόγιος); in gymnastic, he was the giver of grace rather than of strength, which was the province of Heracles. Though athletic, he was one of the least militant of the gods; a title πρόμαχος, the Defender, is found only in connexion with a victory of young men ("ephebes") in a battle at Tanagra. A further point of contact between Hermes and Apollo may here be noted: both had prophetic powers, although Hermes held a place far inferior to that of the Pythian god,

and possessed no famous oracle. Certain forms of popular divination were, however, under his patronage, notably the world-wide process of divination by pebbles (θριαί). The "Homeric" Hymn to Hermes explains these minor gifts of prophecy as delegated by Apollo, who alone knew the mind of Zeus. Only a single oracle is recorded for Hermes, in the market-place of Pharae in Achaea, and here the procedure was akin to popular divination. An altar, furnished with lamps, was placed before the statue; the inquirer, after lighting the lamps and offering incense, placed a coin in the right hand of the god; he then whispered his question into the ear of the statue, and, stopping his own ears, left the market place. The first sound which he heard outside was an omen.

From the foregoing account it will be seen that it is difficult to derive the many-sided character of Hermes from a single elemental conception. The various theories which identified him with the sun, the moon or the dawn, may be dismissed, as they do not rest on evidence to which value would now be attached. The Arcadian or "Pelasgic" Hermes may have been an earth-deity, as his connexion with fertility suggests; but his symbol at Cyllene 370
rather points to a mere personification of reproductive powers. According to Plutarch the ancients "set Hermes by the side of Aphrodite," *i.e.* the male and female principles of generation; and the two deities were worshipped together in Argos and elsewhere. But this phallic character does not explain other aspects of Hermes, as the messenger-god, the master-thief or the ideal Greek ephebe. It is impossible to adopt the view that the Homeric poets turned the rude shepherd-god of Arcadia into a messenger, in order to provide him with a place in the Olympian circle. To their Achaean audience Hermes must have been more than a phallic god. It is more probable that the Olympian Hermes represents the fusion of several distinct deities. Some scholars hold that the various functions of Hermes may have originated from the idea of good luck which is so closely bound up with his character. As a pastoral god he would give luck to the flocks and herds; when worshipped by townspeople, he would give luck to the merchant, the orator, the traveller and the athlete. But though the notion of luck plays an important part in early thought, it seems improbable that the primitive Greeks would have personified a mere abstraction. Another theory, which has much to commend it, has been advanced by Roscher, who sees in Hermes a wind-god. His strongest arguments are that the wind would easily develop into the messenger of the gods (Διὸς οὖρος), and that it was often thought to promote fertility in crops and cattle. Thus the two aspects of Hermes which seem most discordant are referred to a single origin. The Homeric epithet Ἀργειφόντης, which the Greeks interpreted as "the slayer of Argus," inventing a myth to account for Argus, is explained as originally an epithet of the wind (ἀργεστής), which clears away the mists (ἀργός, φαίνω). The uncertainty of the wind might well suggest the trickery of a thief, and its whistling might contain the germ from which a god of music should be developed. But many of Roscher's arguments are forced, and his method of interpretation is not altogether sound. For example, the last argument would equally apply to Apollo, and would lead to the improbable conclusion that Apollo was a wind-god. It must, in fact, be remembered that men make their gods after their own likeness; and, whatever his origin, Hermes in particular was endowed with many of the qualities and habits of the Greek race. If he was evolved from the wind, his character had become so anthropomorphic that the Greeks had practically lost the knowledge of his primitive significance; nor did Greek cult ever associate him with the wind.

The oldest form under which Hermes was represented was that of the Hermae mentioned above. Alcamenes, the rival or pupil of Pheidias, was the sculptor of a herm at Athens, a copy of which, dating from Roman times, was discovered at Pergamum in 1903. But side by side with the Hermae there grew up a more anthropomorphic conception of the god. In archaic art he was portrayed as a full-grown and bearded man, clothed in a long chiton, and often wearing a cap (κυνῆ) or a broad-brimmed hat (πέτασος), and winged boots. Sometimes he was represented in his pastoral character, as when he bears a sheep on his shoulders; at other times he appears as the messenger or herald of the gods with the κηρυκεῖον, or herald's staff, which is his most frequent attribute. From the latter part of the 5th century his art-type was changed in conformity with the general development of Greek sculpture. He now became a nude and beardless youth, the type of the young athlete. In the 4th century this type was probably fixed by Praxiteles in his statue of Hermes at Olympia.

AUTHORITIES.—F. G. Welcker, *Griech. Götterl.* i. 342 f. (Göttingen, 1857-1863); L. Preller, ed. C. Robert, *Griech. Mythologie*, ii. 385 seq. (Berlin, 1894); W. H. Roscher, *Lex. der griech. u. röm. Mythologie*, s.v. (Leipzig, 1884-1886); A. Lang, *Myth, Ritual and Religion*, ii. 225 seq. (London, 1887); C. Daremberg and E. Saglio, *Dict. des ant. grecques et rom.*; Farnell, *Cults* v. (1909); O. Gruppe, *Griech. Mythologie u. Religionsgesch.* p. 1318 seq. (Munich, 1906). In the article GREEK ART, figs. 43 and 82 (Plate VI.) represent the Hermes of Praxiteles; fig. 57 (Plate II.), a professed copy of the Hermes of Alcamenes.

1 We only hear of a Hermes δόλιος at Pellene (Paus. vii. 27. 1) and of the custom of allowing promiscuous thieving during the festival of Hermes at Samos (Plut. *Quaest. Graec.* 55).

HERMES, GEORG (1775-1831), German Roman Catholic theologian, was born on the 22nd of April 1775, at Dreyerwalde, in Westphalia, and was educated at the gymnasium and university of Münster, in both of which institutions he afterwards taught. In 1820 he was appointed professor of theology at Bonn, where he died on the 26th of May 1831. Hermes had a devoted band of adherents, of whom the most notable was Peter Josef Elvenich (1796-1886), who became professor at Breslau in 1829, and in 1870 threw in his lot with the Old Catholic movement. His works were *Untersuchungen über die innere Wahrheit des Christenthums* (Münster, 1805), and *Einleitung in die christkatholische Theologie*, of which the first part, a philosophical introduction, was published in 1819, the second part, on positive theology, in 1829. The *Einleitung* was never completed. His *Christkatholische Dogmatik* was published, from his lectures, after his death by two of his students, Achterfeld and Braun (3 vols., 1831-1834).

The *Einleitung* is a remarkable work, both in itself and in its effect upon Catholic theology in Germany. Few works of modern times have excited a more keen and bitter controversy. Hermes himself was very largely under the influence of the Kantian and Fichtean ideas, and though in the philosophical portion of his *Einleitung* he criticizes both these thinkers severely, rejects their doctrine of the moral law as the sole guarantee for the existence of God, and condemns their restricted view of the possibility and nature of revelation, enough remained of purely speculative material to render his system obnoxious to his church. After his death, the contests between his followers and their opponents grew so bitter that the dispute was referred to the papal see. The judgment was adverse, and on the 25th of September 1835 a papal bull condemned both parts of the *Einleitung* and the first volume of the *Dogmatik*. Two months later the remaining volumes of the *Dogmatik* were likewise condemned. The controversy did not cease, and in 1845 a systematic attempt was made anonymously by F. X. Werner to examine and refute the Hermesian doctrines, as contrasted with the orthodox Catholic faith (*Der Hermesianismus*, 1845). In 1847 the condemnation of 1835 was confirmed by Pius IX.

See K. Werner, *Geschichte der katholischen Theologie* (1866), pp. 405 sqq.

HERMES TRISMEGISTUS (“the thrice greatest Hermes”), an honorific designation of the Egyptian Hermes, *i.e.* Thoth (*q.v.*), the god of wisdom. In late hieroglyphic the name of Thoth often has the epithet “the twice very great,” sometimes “the thrice very great”; in the popular language (demotic) the corresponding epithet is “the five times very great,” found as early as the 3rd century B.C. Greek translations give ὁ μέγας καὶ μέγας and μέγιστος: τρίσμεγας occurs in a late magical text. ὁ τρισμέγιστος has not yet been found earlier than the 2nd century A.D., but there can now be no doubt of its origin in the above Egyptian epithets.

Thoth was “the scribe of the gods,” “Lord of divine words,” and to Hermes was attributed the authorship of all the strictly sacred books generally called by Greek authors Hermetic. These, according to Clemens Alexandrinus, our sole ancient authority (*Strom.* vi. p. 268 et seq.), were forty-two in number, and were subdivided into six divisions, of which the first, containing ten books, was in charge of the “prophet” and dealt with laws, deities and the education of priests; the second, consisting of the ten books of the *stolistes*, the official whose duty it was to dress and ornament the statues of the gods, treated of sacrifices and offerings, prayers, hymns, festive processions; the third, of the “hierogrammatist,” also in ten books, was called “hieroglyphics,” and was a repertory of cosmographical, geographical and topographical information; the four books of the “horoscopus” were devoted to astronomy and astrology; the two books of the “chanter” contained respectively a collection

of songs in honour of the gods and a description of the royal life and its duties; while the sixth and last division, consisting of the six books of the "pastophorus," was medical. Clemens's statement cannot be contradicted. Works are extant in papyri and on temple walls, treating of geography, astronomy, ritual, myths, medicine, &c. It is probable that the native priests would have been ready to ascribe the authorship or inspiration, as well as the care and protection of all their books of sacred lore to Thoth, although there were a goddess of writing (Seshit), and the ancient deified scribes Imuthes and Amenophis, and later inspired doctors Petosiris, Nechepso, &c., to be reckoned with; there are indeed some definite traces of such an attribution extant in individual cases. Whether a canon of such books was ever established, even in the latest times, may be seriously doubted. We know, however, that the vizier of Upper Egypt (at Thebes) in the eighteenth dynasty, had 40 (not 42) parchment rolls laid before him as he sat in the hall of audience. Unfortunately we have no hint of their contents. Forty-two was the number of divine assessors at the judgment of the dead before Osiris, and was the standard number of the nomes or counties in Egypt.

The name of Hermes seems during the 3rd and following centuries to have been regarded as a convenient pseudonym to place at the head of the numerous syncretistic writings in which it was sought to combine Neo-Platonic philosophy, Philonic Judaism and cabalistic theosophy, and so provide the world with some acceptable substitute for the Christianity which had even at that time begun to give indications of the ascendancy it was destined afterwards to attain. Of these pseudepigraphic Hermetic writings some have come down to us in the original Greek; others survive in Latin or Arabic translations; but the majority appear to have perished. That which is best known and has been most frequently edited is the Ποιμάνδρης *sive De potestate et sapientia divina* (Ποιμάνδρης being the Divine Intelligence, ποιμὴν ἀνδρῶν), which consists of fifteen chapters treating of such subjects as the nature of God, the origin of the world, the creation and fall of man, and the divine illumination which is the sole means of his deliverance. The *editio princeps* appeared in Paris in 1554; there is also an edition by G. Parthey (1854); the work has also been translated into German by D. Tiedemann (1781). Other Hermetic writings which have been preserved, and which have been for the most part collected by Patricius in the *Nova de universis philosophia* (1593), are (in Greek) Ἰατρομαθηματικά πρὸς Ἄμμωνα Αἰγύπτιον, Περὶ κατακλίσεως νοσούντων περιγνωστικά, Ἐκ τῆς μαθηματικῆς ἐπιστήμης πρὸς Ἄμμωνα: (in Latin) *Aphorismi sive Centiloquium, Cyranides*; (in Arabic, but doubtless from a Greek original) an address to the human soul, which has been translated by H. L. Fleischer (*An die menschliche Seele*, 1870).

The connexion of the name of Hermes with alchemy will explain what is meant by hermetic sealing, and will account for the use of the phrase "hermetic medicine" by Paracelsus, as also for the so-called "hermetic freemasonry" of the middle ages.

Besides Thoth, Anubis (*q.v.*) was constantly identified with Hermes; see also Horus.

See Ursinus, *De Zoroastre, Hermete*, &c. (Nuremberg, 1661); Nicolas Lenglet-Dufresnoy, *L'Histoire de la philosophie hermétique* (Paris, 1742); Baumgarten-Crusius, *De librorum hermeticorum origine atque indole* (Jena, 1827); B. J. Hilgers, *De Hermetis Trismegisti Poëmandro* (1855); R. Ménard, *Hermès Trismégiste, traduction complète, précédée d'une étude sur l'origine des livres hermétiques* (1866); R. Pietschmann, *Hermes Trismegistus, nach ägyptischen, griechischen, und orientalischen Überlieferungen* (1875); R. Reitzenstein, *Poimandres, Studien zur griechisch-ägyptischen und frühchristlichen Literatur* (Leipzig, 1904); G. R. S. Mead, *Thrice Greatest Hermes* (1907), introduction and translation.

(F. Ll. G.)

HERMESIANAX, of Colophon, elegiac poet of the Alexandrian school, flourished about 330 B.C. His chief work was a poem in three books, dedicated to his mistress Leontion. Of this poem a fragment of about one hundred lines has been preserved by Athenaeus (xiii. 597). Plaintive in tone, it enumerates instances, mythological and historical, of the irresistible power of love. Hermesianax, whose style is characterized by alternate force and tenderness, was exceedingly popular in his own times, and was highly esteemed even in the Augustan period.

Many separate editions have been published of the fragment, the text of which is in a very unsatisfactory condition: by F. W. Schneidewin (1838), J. Bailey (1839, with notes, glossary,

and Latin and English versions), and others; R. Schulze's *Quaestiones Hermesianacteae* (1858), contains an account of the life and writings of the poet and a section on the identity of Leontion.

HERMIAS. (1) A Greek philosopher of the Alexandrian school. A disciple of Proclus, he was known best for the lucidity of his method rather than for any original ideas. His chief works were a study of the *Isagoge* of Porphyry and a commentary on Plato's *Phaedrus*. Unlike the majority of logicians of the time, he admitted the absolute validity of the second and third figures of the syllogism.

(2) A Christian apologist and philosopher who flourished probably in the 4th and 5th centuries. Nothing is known about his life, but there has been preserved of his writings a small thesis entitled Διασυρμὸς τῶν ἔξω φιλοσόφων. In this work he attacked pagan philosophy for its lack of logic in dealing with the root problems of life, the soul, the cosmos and the first cause or vital principle. There is an edition by von Otto published in the *Corpus apologetarum* (Jena, 1872). It is interesting, but without any claim to profundity of reasoning.

Two minor philosophers of the same name are known. Of these, one was a disciple of Plato and a friend of Aristotle; he became tyrant of Atarneus and invited Aristotle to his court. Aristotle subsequently married Pythias, who was either niece or sister of Hermias. Another Hermias was a Phoenician philosopher of the Alexandrian school; when Justinian closed the school of Athens, he was one of the five representatives of the school who took refuge at the Persian court.

HERMIPPUS, "the one-eyed," Athenian writer of the Old Comedy, flourished during the Peloponnesian War. He is said to have written 40 plays, of which the titles and fragments of nine are preserved. He was a bitter opponent of Pericles, whom he accused (probably in the Μοῖραι) of being a bully and a coward, and of carousing with his boon companions while the Lacedaemonians were invading Attica. He also accused Aspasia of impiety and offences against morality, and her acquittal was only secured by the tears of Pericles (Plutarch, *Pericles*, 32). In the Ἀρτοπωλίδες ("Bakeresses") he attacked the demagogue Hyperbolus. The Φορμοφόροι (Mat-carriers) contains many parodies of Homer. Hermippus also appears to have written scurrilous iambic poems after the manner of Archilochus.

Fragments in T. Kock, *Comicorum Atticorum fragmenta*, i. (1880), and A. Meineke, *Poëtarum Graecorum comicorum fragmenta* (1855).

HERMIT, a solitary, one who withdraws from all intercourse with other human beings in order to live a life of religious contemplation, and so marked off from a "coenobite" (Gr. κοινός, common, and βίος, life), one who shares this life of withdrawal with others in a community (see Asceticism and Monasticism). The word "hermit" is an adaptation through the O. Fr. *ermite* or *hermite*, from the Lat. form, *eremite*, of the Gr. ἐρεμίτης, a solitary, from ἐρημία, a desert. The English form "eremite," which was used, according to the *New English Dictionary*, quite indiscriminately with "hermit" till the middle of the 17th century, is now chiefly used in poetry or rhetorically, except with reference to the early hermits of the Libyan desert, or sometimes to such particular orders as the eremites of St Augustine (see Augustinian Hermits). Another synonym is "anchoret" or "anchorite." This comes through the French and Latin forms from the Gr. ἀναχωρητής, from ἀναχωρεῖν, to withdraw. A form nearer to the Greek original, "anachoret," is sometimes used of the early Christian recluses in the East.

HERMOGENES, of Tarsus, Greek rhetorician, surnamed Ξυστήρ (the polisher), flourished in the reign of Marcus Aurelius (A.D. 161-180). His precocious ability secured him a public appointment as teacher of his art while as yet he was only a boy; but at the age of twenty-five his faculties gave way, and he spent the remainder of his long life in a state of intellectual impotence. During his early years, however, he had composed a series of rhetorical treatises, which became popular text-books, and the subject of subsequent commentaries. Of his Τέχνη ῥητορική we still possess the sections Περὶ τῶν στάσεων (on legal issues), Περὶ εὑρέσεως (on the invention of arguments), Περὶ ἰδεῶν (on the various kinds of style), Περὶ μεθόδου δεινότητος (on the method of speaking effectively), and Προγυμνάσματα (rhetorical exercises).

Editions by C. Walz (1832), and by L. Spengel (1854), in their *Rhetores Graeci*; bibliographical note on the commentaries in W. Christ, *Geschichte der griechischen Literatur* (1898).

HERMON, the highest mountain in Syria (estimated at 9050 to 9200 ft.), an outlier of the Anti-Lebanon. As the Hebrew name (חרמון, "belonging to a sanctuary," "separate") shows, it was always a sacred mountain. The Sidonians called it *Sirion*, and the Amorites *Shenir* 372
(Deut. iii. 9). According to one theory it is the "high mountain" near Caesarea Philippi, which was the scene of the Transfiguration (Mark ix. 2). A curious reference in Enoch vi. 6, says that in the days of Jared the wicked angels descended on the summit of the mountain and named it Hermon. The modern name is *Jebel es-Sheikh*, or "mountain of the chief or elder." It is also called *Jebel eth-Thelj*, "snowy mountain." The ridge of Hermon, rising into a dome-shaped summit, is 20 m. long, extending north-east and south-west. The formation of the lower part is Nubian sandstone, that of the upper part is a hard dark-grey crystalline limestone belonging to the Neocomian period, and full of fossils. The spurs consist in some cases of white chalk covering the limestone, and on the south there are several basaltic outbreaks. The view from Hermon is very extensive, embracing all Lebanon and the plains east of Damascus, with Palestine as far as Carmel and Tabor. On a clear day Jaffa also may be seen. The mountain in spring is covered with snow, but in autumn there is occasionally none left, even in the ravines. To the height of 500 ft. it is clothed with oaks, poplars and brush, while luxuriant vineyards abound. Foxes, wolves and Syrian bears are not infrequently met with, and there is a heavy dew or night mist. Above the snow-limit the mountain is bare and covered with fine limestone shingle. The summit is a plateau from which three rocky knolls rise up, that on the west being the lowest, that on the south-east the highest. On the south slope of the latter are remains of a small temple or *sacellum* described by St Jerome. A semicircular dwarf wall of good masonry runs round this peak, and a trench excavated in the rock may perhaps indicate the site of an altar. On the plateau is a cave about 25 ft. sq. with the entrance on the east. A rock column supports the roof, and a building (possibly a Mithraeum) once stood above. Other small temples are found on the sides of Hermon, of which twelve in all have been explored. They face the east and are dated by architects about A.D. 200. The most remarkable are those of Deir el 'Ashaiyir, Hibbariyeh, Hosn Niha and Tell Thatha. At the ruined town called Rukleh on the northern slopes are remains of a temple, the stones of which have been built into a church. A large medallion, 5 ft. in diameter, with a head supposed to represent the sun-god, is built into the wall. Several Greek inscriptions occur among these ruins. In the 12th century Psalm lxxxix. 12 was supposed to indicate the proximity of Hermon to Tabor. The conical hill immediately south of Tabor was thus named Little Hermon, and is still so called by some of the inhabitants of the district.

HERMSDORF, a village of Germany, in the Prussian province of Silesia. Pop. (1900) 10,975. There are coal and iron mines and lime quarries in the vicinity, and in the town there are large iron-works. Hermsdorf is known as Niederhermsdorf to distinguish it from other places of the same name. Perhaps the most noteworthy of these is a village in Silesia at the foot of the Riesengebirge, chiefly famous for the ruins of the castle of Kynast. This castle, formerly the seat of the Schaffgotsch family, was destroyed by lightning in 1675. A third Hermsdorf is a village in Saxe-Altenburg, where porcelain is made.

HERNE, JAMES A. [originally AHERNE] (1840-1901), American actor and playwright, was born in Troy, New York, and after theatrical experiences in various companies produced his own first play, *Hearts of Oak*, in 1878, and his great success *Shore Acres* in 1882. It was in rural drama that his humour and pathos found their proper setting, and *Shore Acres* was seen throughout the United States almost continuously for six seasons, being followed by the less successful *Sag Harbor*, 1900.

HERNE, a town of Germany, in the Prussian province of Westphalia, 15 m. by rail N.W. of Dortmund. Pop. (1905) 33,258. It has coal mines, boiler-works, gunpowder mills, &c. Herne was made a town in 1897.

HERNE BAY, a seaside resort in the St Augustine's parliamentary division of Kent, England, 8 m. N. by E. of Canterbury, on the South Eastern and Chatham railway. Pop. of urban district (1901) 6726. It has grown up since 1830, above a sandy and pebbly shore, and has a pier ¾ m. long. The church of St Martin in the village of Herne, 1½ m. inland, is Early English and later; the living was held by Nicholas Ridley (1538), afterwards Bishop of London. At Reculver, 3 m. E. of Herne Bay on the coast, is the site of the Roman station of *Regulbium*. The fortress occupied about 8 acres, but only traces of the south and east walls remain. In Saxon times it was converted into a palace by King Ethelbert, and in 669 a monastery was founded here by Egbert. The Early English church was taken down early in the 19th century owing to the encroachment of the sea, and parts of its fabric were preserved in the modern church of St Mary. But its twin towers, known as the Sisters from the tradition that they were built by a Benedictine abbess of Faversham in memory of her sister, were preserved by Trinity House as a conspicuous landmark.

HERNE THE HUNTER, a legendary huntsman who was alleged to haunt Windsor Great Park at night, especially around an aged tree, long known as Herne's oak, said to be nearly 700 years old. This was blown down in 1863, and a young oak was planted by Queen Victoria on the spot. Herne has his French counterpart in the *Grand Veneur* of Fontainebleau. Mention is made of Herne in *The Merry Wives of Windsor* and in Harrison Ainsworth's *Windsor Castle*. Nothing definite is known of the Herne legend. It is suggested that it originated in the life-story of some keeper of the forest; but more probably it is only a variant of the "Wild Huntsman" myth common to folk-lore, which (E. B. Tylor, *Primitive Culture*, 4th ed. pp. 361-362) is almost certainly the modern form of a prehistoric storm-myth.

HERNIA (Lat. *hernia*, perhaps from Gr. ἔρνος, a sprout), in surgery, the protrusion of a viscus, or part of a viscus, from its normal cavity; thus, *hernia cerebri* is a protrusion of brain-substance, *hernia pulmonum*, a protrusion of a portion of lung, and *hernia iridis*, a protrusion of some of the iris through an aperture in the cornea. But, used by itself, hernia implies a protrusion from the abdominal cavity, or, in common language, a "rupture." A rupture may occur at any weak point in the abdominal wall. The common situations are the groin (*inguinal hernia*), the upper part of the thigh (*femoral hernia*), and the navel (*umbilical hernia*). The more movable the viscus the greater the liability to protrusion, and therefore one commonly finds some of the small intestine, or of the fatty apron (omentum), in the hernia. The tumour may contain intestine alone (enterocele), omentum alone (epiplocele), or both intestine and omentum (entero-epiplocele). The predisposing cause of rupture is abnormal length of the suspensory membrane of the bowel (the mesentery), or of the omentum, in conjunction with some weak spot in the abdominal wall, as in an inguinal hernia, which descends along the canal in which the spermatic cord lies in the male and the round ligament of the womb in the female. A femoral hernia comes through a weak spot in the abdomen to the inner side of the great femoral vessels; a ventral hernia takes place by the yielding of the scar tissue left after an operation for appendicitis or ovarian disease. The exciting cause of hernia is generally some over-exertion, as in lifting a heavy weight, jumping off a high wall, straining (as in difficult micturition), constipation or excessive coughing. The pressure of the diaphragm above and the abdominal wall in front acting on the abdominal viscera causes a protrusion at the weakest point.

Rupture is either congenital or acquired. A child may be born with a hernia in the inguinal or umbilical region, the result of an arrest of development in these parts; or the rupture may be acquired, first appearing, perhaps, in adult life as the result of a strain or hurt. Men suffer more frequently than women, because of their physical labours, because they are more liable to accidents, and because of the passage for the spermatic cord out of the abdomen being more spacious than that for the round ligament of the womb.

At first the rupture is small, and it gradually increases in bulk. It varies from the size of a marble to a child's head. The swelling consists of three parts—the coverings, sac and contents. The "coverings" are the structures which form the abdominal wall at the part where the rupture occurs. In femoral hernia the coverings are the structures at the upper part of the thigh which are stretched, thinned and matted together as the result of pressure; in other cases there is an increase in their thickness, the result of repeated attacks of inflammation. The "sac" is composed of the peritoneum or membrane lining the abdominal cavity; in some rare cases the sac is wanting. The neck of the sac is the narrowed portion where the peritoneum forming the sac becomes continuous with the general peritoneal cavity. The neck of the sac is often thickened, indurated and adherent to surrounding parts, the result of chronic inflammation. The "contents" are bowel, omental fat, or, in children, an ovary.

The hernia may be reducible, irreducible or strangulated. A "reducible" hernia is one in which the contents can be pushed back into the abdomen. In some cases this reduction is effected with ease, in others it is a matter of great difficulty. At any moment a reducible hernia may become "irreducible," that is to say, it cannot be pushed back into the abdominal cavity, perhaps because of inflammatory adhesions in and around the fatty contents, or because of extra fullness of the bowel in the sac. A "strangulated" hernia is one in which the circulation of the blood through the hernial contents is interfered with, by the pinching at the narrowest part of the passage. The interference is at first slight, but it quickly becomes more pronounced; the pinched bowel in the hernial sac swells as a finger does when a string is tightly wound round its base. At first there is congestion, and this may go on to inflammation, to infection by micro-organisms and to mortification. The rapidity with which the change from simple congestion to mortification takes place depends on the tightness of the constriction, and on the virulence of the bacterial infection from the bowel. As a rule, the more rapidly a hernia forms the greater the rapidity of serious change in the conditions of the bowel or omentum, and the more urgent are the symptoms. The constricting band may be one of the structures which form the boundaries of the openings through which the hernia has travelled, or it may be the neck of the sac, which has become thickened in consequence of inflammation—especially is this the case in an inguinal hernia.

Reducible Hernia.—With a reducible hernia there is a soft compressible tumour (elastic

when it contains intestine, doughy when it contains omentum), its size increasing in the erect, and diminishing in the horizontal posture. As a rule, it causes no trouble during the night. It gives an impulse on coughing, and when the intestinal contents are pushed back into the abdomen a gurgling sensation is perceptible by the fingers. Such a tumour may be met with in any part of the abdominal wall, but the chief situations are as follows. The inguinal region, in which the neck of the tumour lies immediately above Poupart's ligament (a cord-like ligamentous structure which can be felt stretching from the front of the hip-bone to a ridge of bone immediately above the genital organs); the femoral region, in the upper part of the thigh, in which the neck of the sac lies immediately below the inner end of Poupart's ligament; the umbilical region, in which the tumour appears at or near the navel. As the inguinal hernia increases in size it passes into the scrotum in the male, into the labium in the female; while the femoral hernia gradually pushes upwards to the abdomen.

The palliative treatment of a reducible hernia consists in pushing back the contents of the tumour into the abdomen and applying a truss or elastic bandage to prevent their again escaping. The younger the patient the more chance there is of the truss acting as a curative agent. The truss may generally be left off at night, but it should be put on in the morning before the patient leaves his bed. If, after the hernia has been once returned, it is not allowed again to come down, there is a probability of an actual cure taking place; but if it is allowed to come down occasionally, as it may do, even during the night, in consequence of a cough, or from the patient turning suddenly in bed, the weak spot is again opened out, and the improvement which might have been going on for weeks is undone. It is sometimes found impossible to keep up a hernia by means of a truss, and an operation becomes necessary. The operation is spoken of as "the radical treatment of hernia," in contra-distinction to the so-called "palliative treatment" by means of a truss. It should not be spoken of as the radical cure, for skilfully as the operation may have been performed it is not always a cure. The principles involved in the operation are the emptying of the sac and its entire removal, and the closure of the opening into the abdomen by strong sutures; and, in this way, great advance has been made by modern surgery. Without tiresome delay, and the tedious and sometimes disappointing application of trusses, the weak spot in the abdominal wall is exposed, the sac of the hernia is tied and removed, and the canal by which the rupture descended is blockaded by buried sutures, and with no material risk to life. Thus the patient's worries become a thing of the past, and he is rendered a fit and normal member of society. Experience has shown that very few ruptures are unsuited for successful treatment by operation. No boy should now be sent to school compelled to wear a truss, and so hindered in his games and rendered an object of remark.

Irreducible Hernia.—The main symptom is a tumour in one of the situations already referred to, of long standing and perhaps of large size, in which the contents of the tumour, in whole or in part, cannot be pushed back into the abdomen. The irreducibility is due either to its large size or to changes which have taken place by indurations or adhesions. Such a tumour is a constant source of danger: its contents are liable, from their exposed situation, to injury from external violence; it has a constant risk of increase; it may at any time become strangulated, or the contents may inflame, and strangulation may occur secondarily to the inflammation. It gives rise to dragging sensations (referred to the abdomen), colic, dyspepsia and constipation, which may lead to obstruction, that is to say, a stoppage may occur of the passage of the contents of that portion of the intestinal canal which lies in the hernia. When an irreducible hernia becomes painful and tender, a local peritonitis has occurred, which resembles in many of its symptoms a case of strangulation, and must be regarded with suspicion and anxiety. Indeed, the only safe treatment is by operation.

The treatment of irreducible hernia may be palliative; a "bag truss" may be worn in the hope of preventing the hernia getting larger; the bowels must be kept open, and all irregularities of diet avoided. A person with such a hernia is in constant danger, and if his general condition does not contra-indicate it he should be submitted to operative treatment. That is to say, the surgeon should cut down on the hernia, open the sac, divide any omental adhesions, tie and cut away indurated omentum, return the bowel, and complete the radical operation by closing the aperture by strong sutures.

In *Strangulated Hernia* the bowel or omentum is being nipped at the neck of the sac, and the flow of blood into and from the delicate tissues is stopped. The symptoms are—nausea, vomiting of bilious matter, and after a time of faecal-smelling matter; a twisting, burning pain generally referred to the region of the navel, intestinal obstruction; a quick, wiry pulse and pain on pressure over the tumour; the expression grows anxious, the abdomen becomes tense and drum-like, and there is no impulse in the tumour on coughing, because its contents are practically pinched off from the general abdominal cavity. Sometimes there is

complete absence of pain and tenderness in the hernia itself, and in an aged person all the symptoms may be very slight. Sooner or later, from eight hours to eight days, if the strangulation is unrelieved, the tumour becomes livid, crackling with gas, mortification of the bowel at the neck of the sac takes place, followed by extravasation of the intestinal contents into the abdominal cavity; the patient has hiccough; he becomes collapsed; and dies comatose from blood-poisoning.

The treatment of a strangulated hernia admits of no delay; if the hernia does not "go back" on the surgeon trying to reduce it, it must be operated on at once, the constriction being relieved, the bowel returned and the opening closed. There should be no treatment by hot-bath or ice-bag: operation is urgently needed. An anaesthetic should be administered, and perhaps one gentle attempt to return the contents by pressure (termed "taxis") may be made, but no prolonged attempts are justifiable, because the condition of the hernial contents may be such that they cannot bear the pressure of the fingers. "Think well of the hernia," says the aphorism, "which has been little handled."

The taxis to be successful should be made in a direction opposite to the one in which the hernia has come down. The inguinal hernia should be pressed upwards, outwards and backwards, the femoral hernia downwards, backwards and upwards. The larger the hernia the greater is the chance of success by taxis, and the smaller the hernia the greater the risk of its being injured by manipulation and delay. In every case the handling must be absolutely gentle. If taxis does not succeed the surgeon must at once cut down on the tumour, carefully dividing the different coverings until he reaches the sac. The sac is then opened, the constriction divided, care being taken not to injure the bowel. The bowel must be examined before it is returned into the abdomen, and if its lustreless appearance, its dusky colour, or its smell, suggests that it is mortified, or is on the point of mortifying, it must not be put back or perforation would give rise to septic peritonitis which would probably have a fatal ending. In such a case the damaged piece of bowel must be resected and the healthy ends of the bowel joined together by fine suturing. Matted or diseased omentum must be tied off and removed. Should peritonitis supervene after the operation on account of bacillary infection, the bowels should be quickly made to act by repeated doses of Epsom salts in hot water.

A person who is the subject of a reducible hernia should take great care to obtain an accurately fitting truss, and should remember that whenever symptoms resembling in any degree those of strangulation occur, delay in treatment may prove fatal. A surgeon should at once be communicated with, and he should come prepared to operate.

(E. O.*)

HERNICI, an ancient people of Italy, whose territory was in Latium between the Fucine Lake and the Trerus, bounded by the Volscian on the S., and by the Aequian and the Marsian on the N. They long maintained their independence, and in 486 B.C. were still strong enough to conclude an equal treaty with the Latins (Dion. Hal. viii. 64 and 68). They broke away from Rome in 362 (Livy vii. 6 ff.) and in 306 (Livy ix. 42), when their chief town Anagnia (*q.v.*) was taken and reduced to a praefecture, but Ferentinum, Aletrium and Verulae were rewarded for their fidelity by being allowed to remain free *municipia*, a position which at that date they preferred to the *civitas*. The name of the Hernici, like that of the Volsci, is missing from the list of Italian peoples whom Polybius (ii. 24) describes as able to furnish troops in 225 B.C.; by that date, therefore, their territory cannot have been distinguished from Latium generally, and it seems probable (Beloch, *Ital. Bund*, p. 123) that they had then received the full Roman citizenship. The oldest Latin inscriptions of the district (from Ferentinum, *C.I.L.* x. 5837-5840) are earlier than the Social War, and present no local characteristic.

For further details of their history see *C.I.L.* x. 572.

There is no evidence to show that the Hernici ever spoke a really different dialect from the Latins; but one or two glosses indicate that they had certain peculiarities of vocabulary, such as might be expected among folk who clung to their local customs. Their name, however, with its *Co*-termination, classes them along with the *Co*-tribes, like the Volsci, who would seem to have been earlier inhabitants of the west coast of Italy, rather than with the tribes whose names were formed with the *No*-suffix. On this question see Volsci and Sabini.

See Conway's *Italic Dialects* (Camb. Univ. Press, 1897), p. 306 ff., where the glosses and the local and personal names of the district will be found.

(R. S. C.)

HERNÖSAND, a seaport of Sweden, chief town of the district (*län*) of Vesternorrland on the Gulf of Bothnia. Pop. (1900) 7890. It stands on the island of Hernö (which is connected with the mainland by bridges) near the mouth of the Ångerman river, 423 m. N. of Stockholm by rail. It is the seat of a bishop and possesses a fine cathedral. There are engine-works, timber-yards and saw-mills. The harbour is good, but generally ice-bound from December to May. Timber, iron and wood-pulp are exported. There are a school of navigation and an institute for pisciculture. Hernösand was founded in 1584, and received its first town-privileges from John III. in 1587. It was the first town in Europe to be lighted by electricity (1885). The poet Franzen (*q.v.*), Bishop of Hernösand, is buried here.

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