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Hudson River to Hurstmonceaux

Articles in This Slice

HUDSON RIVER, the principal river of New York state, and one of the most important highways of commerce in the United States of America. It is not a river in the truest sense of the word, but a river valley into which the ocean water has been admitted by subsidence of the land, transforming a large part of the valley into an inlet, and thus opening it up to navigation.

The Hudson lies entirely in the state of New York, which it crosses in a nearly north-and-south direction near the eastern boundary of the state. The sources of the river are in the wildest part of the Adirondack Mountains, in Essex county, north-eastern New York. There are a number of small mountain streams which contribute to the headwater supply, any one of which might be considered the main stream; but assuming the highest collected and permanent body of water to be the true head, the source of the Hudson is Lake Tear-of-the-Clouds, which lies near Mount Marcy at an elevation of about 4322 ft. This small mountain stream flows irregularly southward with a fall of 64 ft. per mile in the upper 52 miles, then, from the mouth of North Creek to the mouth of the Sacondaga, at the rate of nearly 14 ft. per mile. In this part of its course the Hudson has many falls and rapids, and receives a number of mountain streams as tributaries, the largest being Indian river, Schroon river and Sacondaga river. Below the mouth of the Sacondaga the Hudson turns sharply and flows eastward for about 12 m., passing through the mountains, and leaping over several falls of great height and beauty. At Glens Falls there is a fall of about 50 ft.; and just below this, at Sandy Hill, the river again turns abruptly, and for the rest of its course to New York Bay flows almost due south. There are numerous falls and rapids between Glens Falls and Troy which are used as a source of power and are the seats of busy manufacturing plants. Several large tributaries join this part of the river, including Batten Kill, Fish Creek, Hoosic river and the Mohawk, which is the largest of all the tributaries to the Hudson, and contributes more water than the main river itself.

From Troy to the mouth of the Hudson the river is tidal, and from this point also the river is navigable, not because of the river water itself, but because of the low grade of the river bed by which the tide is able to back up the water sufficiently to float good-sized boats. From Albany, 6 m. below Troy, to the mouth of the Hudson, a distance of 145 m., there is a total fall of only 5 ft. It is this lower, tidal, navigable portion of the Hudson that is of so much importance and general interest. Numerous tributaries enter this part of the Hudson from both the east and the west, the largest and most important being the Wallkill which enters at Kingston. In general there is in this part of the river a broad upper valley with a much narrower gorge cut in its bottom, with its rock floor below sea level and drowned by the entrance of the sea. Although this is true in a general way, the character of the river valley varies greatly in detail from point to point, under the influence of the geological structure of the enclosing rock walls.

Most of these variations may be included in a threefold division of the lower Hudson valley. The uppermost of these extends from the south-eastern base of the Adirondack Mountains to the northern portal of the Highlands in Dutchess and Ulster counties. This is a lowland region of ancient Paleozoic rocks. Into the upper portion of this section of the river the non-tidal Hudson is depositing its load of detritus, building a delta below Troy. This, shifted about by the currents, has interposed an obstacle to navigation which has called for extensive dredging

and other work, for the purpose of maintaining a navigable channel. The width of the tidal river varies somewhat, being about 300 yds. at Albany and thence to the Highlands varying from 300 yds. to 900 yds.

The scenery in this part of the river, though not tame, is a little monotonous, the gently sloping hills, with the variegated colours of wood and cultivated land, and the occasional occurrence of a town or village being repeated, without any marked feature to break their regularity. Thirty miles from Troy noble views begin to be obtained of the Catskill Mountains towering up behind the west bank, the nearest eminence at the distance of about 7 m. Along the immediate banks of the river are great beds of clay which is extensively used in the manufacture of brick; and the brick-burning plants and huge ice houses are conspicuous features in the landscape. Although the river freezes in the winter, so that ice-boating is a favourite winter sport, the summer climate is warm enough for the cultivation of grapes and other fruits, which is aided to a considerable extent by the influence of the large body of water enclosed between the valley walls, which tends to retard both early and late frosts, and thus to extend the growing season. In addition to smaller towns and villages, there are a number of larger towns and cities, including Hudson and Catskill, nearly opposite each other, and farther down Kingston and the thriving city of Poughkeepsie. Near the extreme end of this section of the Hudson lies the city of Newburgh, a short distance below which, at Cornwall Landing, the river enters the Highlands, the second division of the tidal part of the Hudson and far the grandest of all.

The river enters the northern portals of the Highlands between a series of hills whose frequently precipitous sides rise often abruptly from the water’s edge. For about 16 m. the river is bordered by steeply rising hills, giving picturesque and striking views of great variety. These are due to the fact that the river here is crossing a belt of ancient crystalline rocks of moderately high relief, comparable in geological structure to the Adirondack region. The views in this part of the river, often compared with those along the Rhine, are of a character in some respects unparalleled, and at several points they have an impressiveness and surprising grandeur rarely equalled. About 10 m. after the Highlands are entered West Point is reached, a favourite landing-place of tourists and the seat of the United States Military Academy, from whose grounds fine views of the river may be had. This point is historically interesting as the seat of Fort Putnam, now in ruins, built during the American War of Independence, at which time a chain was stretched across the river to prevent the passage of British ships.

The third and lowest section of the tidal part of the Hudson extends from the lower end of the Highlands to New York Bay. This is a region of ancient and metamorphic Paleozoic rocks on the eastern side, and mainly Triassic rocks on the west. Because of their less resistance to denudation, these rocks have permitted a broadening of the valley in this part of the course. Just below Peekskill the river broadens out to form Haverstraw Bay, at the extremity of which is the headland of Croton Point. Below this is the wider expanse of Tappan Bay, which has a length of 12 m. and a breadth of from 4 to 5 m., while below this bay the river narrows to a breadth between 1 and 2 m. On Tappan Bay stands Tarrytown, famous both historically and from its connexion with Washington Irving, whose cottage of Sunnyside is in the vicinity. At Piermont, where the bay ends, the range named the Palisades rises picturesquely from the water’s edge to the height of between 300 and 500 ft., extending along the west bank for about 20 m., the opposite shore being level and dotted with hamlets, villages and towns. The Palisades are a lava rock of the variety called trap, which has been intruded as a sheet into the Triassic sandstones, and, on cooling, has developed the prismatic jointing which is so much more perfectly seen at Fingal’s Cave in Scotland and Giant’s Causeway in Ireland. It is this imperfect hexagonal jointing that has given rise to the name “palisade,” applied to the range whose face fronts the lower Hudson. At its mouth the Hudson both broadens and branches, forming a series of islands and an excellent harbour, owing to the fact that the sinking of the land here has permitted the sea to fill the valleys and even to flood low divides. A submerged valley, traceable over the continental shelf, south-east of New York, is commonly believed to represent an earlier course of the Hudson when the land stood 2000 or 3000 ft. higher than at present, and when the inner gorge above New York was being excavated.

Although the Hudson river has a total length of only about 300 m., and a drainage area of but 13,370 sq. m., it has been one of the most significant factors in the development of the United States. With an excellent harbour at its mouth, and navigable waters leading into a fertile interior for a distance of 150 m., it early invited exploration and settlement. Verrazano proceeded a short distance up the Hudson in a boat in 1524; but the first to demonstrate its extent and importance was Henry Hudson, from whom it derives its name. He sailed above the mouth of the Mohawk in September 1609. The Dutch later explored and settled the valley and proceeded westward along the Mohawk. The Dutch place-names of the region clearly show the significance of this early use of the Hudson highway. Later, in wars, and notably in the American War of Independence, and American War of 1812, the valley became a region of great strategic importance. This was increased by the fact that from the Hudson near Sandy

Hill there are two low gaps into the northern country, one along the valley occupied by Lake George, the other into the Lake Champlain valley. The divide between this part of the Hudson and Lake Champlain is only 147 ft. above sea level, and a depression of the land of only 200 ft. in the region between Albany and the St Lawrence river would convert the Hudson and Champlain valleys into a navigable strait having a depth sufficient for the largest vessels. Movements of armies across these gaps were noteworthy events in the wars between the United States and the French and British; but modern commerce has made far less significant use of this highway, mainly because the gaps lead to a region of little economic importance, and thence to the boundary line of a foreign country. Far more important has been the highway westward along the Mohawk, which has cut a gap across the mountains that has been the most useful of all the gaps through the Appalachians. It has been useful in exploration, in war and in commerce, the latter especially because it leads to the fertile interior and to the waterway of the Great Lakes. By the Erie canal the river is connected with Lake Erie, with a branch to Lake Ontario, and other branches to smaller lakes. The Champlain canal connects the Hudson with Lake Champlain. Although these canals are far less used than formerly, the Hudson is still a busy highway for navigation. It is of interest to note that it was on the Hudson that Fulton, the inventor of steam navigation, made his first successful experiment; and that it was along this same highway, from Albany, that one of the first successful railways of the country was built. A railway line now runs parallel to each bank of the Hudson, the New York Central & Hudson River on the eastern side and the West Shore on the western side, each with connexions to the north, east and west, and each turning westward along the Mohawk to Buffalo. It is largely because of the importance of this highway of commerce, by water and by rail, from the coast to the interior, that the greatest and densest population in the United States has gathered at the seaward end of the route in New York City, Jersey City, Hoboken and other places on and near New York Bay, making one of the leading industrial and commercial centres of the world.

For references to articles on the physiography of the Hudson river see R. S. Tarr, *Physical Geography of New York State* (New York, 1902), pp. 184-190. For Pleistocene conditions see J. B. Woodworth, *Ancient Water Levels of the Champlain and Hudson Valleys* (Albany, 1905), N.Y. State Museum, Bulletin 84. For facts concerning water supply see *Surface Water Supply of the Hudson, Passaic, Raritan and Delaware River Drainages* (1907), being U.S. Geological Survey, Water Supply Paper, No. 202. For relation between physiography and history see chapters in E. C. Semple's *American History and its Geographic Conditions* (Boston, 1903); A. P. Brigham, *Geographic Influences in American History* (Boston, 1903), and *From Trail to Railway through the Appalachians* (Boston, 1907). See also E. M. Bacon, *The Hudson River* (New York, 1902); W. E. Verplanck and M. W. Collyer, *Sloops of the Hudson: Sketch of the Packet and Market Sloops of the Last Century* (New York, 1908), D. L. Buckman, *Old Steamboat Days on the Hudson River* (New York, 1907), and Clifton Johnson, *The Picturesque Hudson* (New York, 1909).

(R. S. T.)

HUDSON'S BAY COMPANY, or "the Governor and Company of Adventurers of England trading into Hudson's Bay," a corporation formed for the purpose of importing into Great Britain the furs and skins which it obtains, chiefly by barter, from the Indians of British North America. The trading stations of the Company are dotted over the immense region (excluding Canada proper and Alaska), which is bounded E. and W. by the Atlantic and Pacific Oceans, and N. and S. by the Arctic Ocean and the United States. From these various stations the furs are despatched in part to posts in Hudson Bay and the coast of Labrador for transportation to England by the Company's ships, and in part by steamboat or other conveyances to points on the railways from whence they can be conveyed to Montreal, St John, N.B., or other Atlantic port, for shipment to London by Canadian Pacific Railway Company's mail ships, or other line of steamers, to be sold at auction.

In the year 1670 Charles II. granted a charter to Prince Rupert and seventeen other noblemen and gentlemen, incorporating them as the "Governor and Company of Adventurers of England trading into Hudson's Bay," and securing to them "the sole trade and commerce of all those seas, straits, bays, rivers, lakes, creeks and sounds, in whatsoever latitude they shall be, that lie within the entrance of the straits commonly called Hudson's Straits, together with all the lands and territories upon the countries, coasts and confines of the seas, bays, &c., aforesaid, that are not already actually possessed by or granted to any of our subjects, or possessed by the subjects of any other Christian prince or state." Besides the complete lordship and entire legislative, judicial and executive power within these vague limits (which

the Company finally agreed to accept as meaning all lands watered by streams flowing into Hudson Bay), the corporation received also the right to “the whole and entire trade and traffic to and from all havens, bays, creeks, rivers, lakes and seas into which they shall find entrance or passage by water or land out of the territories, limits or places aforesaid.” The first settlements in the country thus granted, which was to be known as Rupert’s Land, were made on James Bay and at Churchill and Hayes rivers; but it was long before there was any advance into the interior, for in 1749, when an unsuccessful attempt was made in parliament to deprive the Company of its charter on the plea of “non-user,” it had only some four or five forts on the coast, with about 120 regular employés. Although the commercial success of the enterprise was from the first immense, great losses, amounting before 1700 to £217,514, were inflicted on the Company by the French, who sent several military expeditions against the forts. After the cession of Canada to Great Britain in 1763, numbers of fur-traders spread over that country, and into the north-western parts of the continent, and began even to encroach on the Hudson’s Bay Company’s territories. These individual speculators finally combined into the North-West Fur Company of Montreal.

The fierce competition which at once sprang up between the companies was marked by features which sufficiently demonstrate the advantages of a monopoly in commercial dealings with savages, even although it is the manifest interest of the monopolists to retard the advance of civilization towards their hunting grounds. The Indians were demoralized, body and soul, by the abundance of ardent spirits with which the rival traders sought to attract them to themselves; the supply of furs threatened soon to be exhausted by the indiscriminate slaughter, even during the breeding season, of both male and female animals; the worst passions of both whites and Indians were inflamed to their fiercest (see Red River Settlement). At last, in 1821, the companies, mutually exhausted, amalgamated, obtaining a licence to hold for 21 years the monopoly of trade in the vast regions lying to the west and north-west of the older company’s grant. In 1838 the Hudson’s Bay Company acquired the sole rights for itself, and obtained a new licence, also for 21 years. On the expiry of this it was not renewed, and since 1859 the district has been open to all.

The licences to trade did not of course affect the original possessions of the Company. Under the terms of the Deed of Surrender, dated November 19th, 1869, the Hudson’s Bay Company surrendered “to the Queen’s Most Gracious Majesty, all the rights of Government, and other rights, privileges, liberties, franchises, powers and authorities, granted or purported to be granted to the said Government and Company by the said recited Letters Patent of His Late Majesty King Charles II.; and also all similar rights which may have been exercised or assumed by the said Governor and Company in any parts of British North America, not forming part of Rupert’s Land or of Canada, or of British Columbia, and all the lands and territories within Rupert’s Land (except and subject as in the said terms and conditions mentioned) granted or purported to be granted to the said Governor and Company by the said Letters Patent,” subject to the terms and conditions set out in the Deed of Surrender, including the payment to the Company by the Canadian Government of a sum of £300,000 sterling on the transfer of Rupert’s Land to the Dominion of Canada, the retention by the Company of its posts and stations, with a right of selection of a block of land adjoining each post in conformity with a schedule annexed to the Deed of Surrender; and the right to claim in any township or district within the Fertile Belt in which land is set out for settlement, grants of land not exceeding one-twentieth part of the land so set out. The boundaries of the Fertile Belt were in terms of the Deed of Surrender to be as follows:—“On the south by the United States’ boundary; on the west by the Rocky Mountains; on the north by the northern branch of the Saskatchewan; on the east by Lake Winnipeg, the Lake of the Woods, and the waters connecting them,” and “the Company was to be at liberty to carry on its trade without hindrance, in its corporate capacity; and no exceptional tax was to be placed on the Company’s land, trade or servants, nor any import duty on goods introduced by them previous to the surrender.”

An Order in Council was passed confirming the terms of the Deed of Surrender at the Court of Windsor, the 23rd of June 1870.

In 1872, in terms of the Dominion Lands Act of that year, it was mutually agreed in regard to the one-twentieth of the lands in the Fertile Belt reserved to the Company under the terms of the Deed of Surrender that they should be taken as follows:—

“Whereas by article five of the terms and conditions in the Deed of Surrender from the Hudson’s Bay Company to the Crown, the said Company is entitled to one-twentieth of the lands surveyed into Townships in a certain portion of the territory surrendered, described and designated as the Fertile Belt.

“And whereas by the terms of the said deed, the right to claim the said one-twentieth is extended over the period of fifty years, and it is provided that the lands comprising the same shall be determined by lot, and whereas the said Company and the Government of the Dominion have mutually agreed that with a view to an equitable distribution throughout the

territory described, of the said one-twentieth of the lands, and in order further to simplify the setting apart thereof, certain sections or parts of sections, alike in numbers and position in each township throughout the said Territory, shall, as the townships are surveyed, be set apart and designated to meet and cover such one-twentieth:

"And whereas it is found by computation that the said one-twentieth will be exactly met, by allotting in every fifth township two whole sections of 640 acres each, and in all other townships one section and three quarters of a section each, therefore—

"In every fifth Township in the said Territory; that is to say: in those townships numbered 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 and so on in regular succession northerly from the International boundary, the whole of sections Nos. 8 and 26, and in each and every of the other townships the whole of section No. 8, and the south half and north-west quarter of section 26 (except in the cases hereinafter provided for) shall be known and designated as the lands of the said Company."

See G. Bryce, *Remarkable History of the Hudson's Bay Company* (London, 1900); and A. C Laut, *Conquest of the great North-west; being the story of the adventurers of England known as Hudson's Bay Co.* (New York, 1909).

HUÉ, a town of French Indo-China, capital of Annam, on the Hué river (Song-Huong-Giang) about 8 m. from its mouth in the China Sea. Pop. about 42,000, of whom 240 are Europeans. The country immediately surrounding it is flat, alluvial land, traversed by streams and canals and largely occupied by rice fields. Beyond the plain rises a circle of hills formed by spurs of the mountains of Annam. The official portion of the town, fortified under French superintendence, lies on the left bank of the river within an enclosure over 7300 yds. square. It contains the royal palace, the houses of the native ministers and officials, the arsenals, &c. The palace stands inside a separate enclosure. Once forbidden ground, it is to-day open to foreigners, and the citadel is occupied by French troops. The palace of the French resident-general and the European quarter, opposite the citadel on the right bank of the Hué, are connected with the citadel by an iron bridge. Important suburbs adjoin the official town, the villages of Dõng-Bo, Bo-vinh, Gia-Ho, Kim-Long and Nam-Pho forming a sort of commercial belt around it. Glass- and ivory-working are carried on, but otherwise industry is of only local importance. Rice is imported by way of the river. A frequent service of steam launches connects the town with the ports of Thuan-an, at the mouth of the river, and Tourane, on the bay of that name. Tourane is also united to Hué by a railway opened in 1906. In the vicinity the chief objects of interest are the tombs of the dead kings of Annam.

HUE AND CRY, a phrase employed in English law to signify the old common law process of pursuing a criminal with horn and voice. It was the duty of any person aggrieved, or discovering a felony, to raise the hue and cry,[1] and his neighbours were bound to turn out with him and assist in the discovery of the offender. In the case of a hue and cry, all those joining in the pursuit were justified in arresting the person pursued, even though it turned out that he was innocent. A swift fate awaited any one overtaken by hue and cry, if he still had about him the signs of his guilt. If he resisted he could be cut down, while, if he submitted to capture, his fate was decided. Although brought before a court, he was not allowed to say anything in self-defence, nor was there any need for accusation, indictment or appeal. Although regulated from time to time by writs and statutes, the process of hue and cry continued to retain its summary method of procedure, and proof was not required of a culprit's guilt, but merely that he had been taken red-handed by hue and cry. The various statutes relating to hue and cry were repealed in 1827 (7 and 8 Geo. IV. c. 27). The Sheriffs Act 1887, reenacting 3 Edw. I. c. 9, provides that every person in a county must be ready and apparelled at the command of the sheriff and at the cry of the county to arrest a felon, and in default shall on conviction be liable to a fine.

"Hue and cry" has, from its original meaning, come to be applied to a proclamation for the capture of an offender or for the finding of stolen goods, and to an official publication, issued for the information of the authorities interested, in which particulars are given of offenders

"wanted," offences committed, &c.

For the early history, see Pollock and Maitland, *History of English Law*, vol. ii.; W. Stubbs, *Select Charters*.

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1 The word "hue," which is now obsolete except in this phrase and in the "huers" on the Cornish coast who direct the pilchard-fishing from the cliffs, is generally connected with the Old French verb *huer*, to cry, shout, especially in war or the chase. It has been suggested that while "cry" represents the sound of the voices of the pursuers, "hue" applies to the sound of horns or other instruments used in the pursuit; and so Blackstone, *Comment.* iv. xxi. 293 (1809), "an hue and cry, *hutesium et clamor*, ... with horn and voice." "Hue," appearance, colour, is in Old English *hiew*, *hiw*, cognate with Swedish *hij*, complexion, skin, and probably connected with Sanskrit *chawi*, skin, complexion, beauty.

HUEHUETANANGO (*i.e.* in the local Indian dialect, "City of the Ancients"), the capital of the department of Huehuetanango, western Guatemala, 106 m. W.N.W. of Guatemala city, on the right bank and near the source of the river Salegua, a tributary of the Chiapas. Pop. (1905) about 12,000. Huehuetanango was built near the site of the ancient Indian city of Zakuleu, now represented by some ruins on a neighbouring ridge surrounded by deep ravines. It is the principal town of a fertile upland region, which produces coffee, cocoa and many European and tropical fruits. Chiantla, a neighbouring town mainly inhabited by Indians, was long the headquarters of a successful Dominican mission; its convent, enriched by the gifts of pilgrims and the revenues of the silver mines owned by the monks, became one of the wealthiest foundations in Central America. It was secularized in 1873, and the mines have been abandoned.

HUELVA, a maritime province of south-western Spain, formed in 1833 of districts taken from Andalusia, and bounded on the N. by Badajoz, E. by Seville, S. by the Gulf of Cadiz and W. by Portugal. Pop. (1900) 260,880; area 3913 sq. m. With the exception of its south-eastern angle, where the province merges into the flat waste lands known as Las Marismas, at the mouth of the Guadalquivir, Huelva presents throughout its entire extent an agreeably varied surface. It is traversed in a south-westerly direction by the Sierra Morena, here known, in its main ridge, as the Sierra de Aracena. The principal streams are the navigable lower reaches of the Guadalquivir and Guadiana, which respectively form for some distance the south-eastern and south-western boundaries; the Odiel and the Tinto, which both fall into the Atlantic by navigable *rias* or estuaries; the Malagon, Chanza, Alcalaboza and Murtiga, which belong to the Guadiana system; and the Huelva, belonging to that of the Guadalquivir. Huelva has a mild and equable climate, with abundant moisture and a fertile soil. Among the mountains there are many valuable woodlands, in which oaks, pines, beeches, cork-trees and chestnuts predominate, while the lowlands afford excellent pasturage. But agriculture and stock-breeding are here less important than in most Spanish provinces, although the exports comprise large quantities of fruit, oil and wine, besides cork and esparto grass. The headquarters of the fishing trades, which include the drying and salting of fish, are at Huelva, the capital, and Ayamonte on the Guadiana. There are numerous brandy distilleries; and bricks, pottery, soap, candles and flour are also manufactured; but the great local industry is mining. In 1903 no fewer than 470 mines were at work; and their output, consisting chiefly of copper with smaller quantities of manganese and iron, exceeded £1,500,000 in value. The celebrated Rio Tinto copper mines, near the sources of the Tinto, were, like those of Tharsis, 30 m. N.N.W. of Huelva, exploited long before the Christian era, probably by the Carthaginians, and certainly by the Romans. They are still among the most important copper mines in the world (see Rio Tinto). Saline and other mineral springs are common throughout the province. Huelva is the principal seaport, and is connected with Seville on the east and Mérida on the north by direct railways; while a network of narrow-gauge railways gives access to the chief mining centres. The principal towns, besides Huelva (21,359) and Rio Tinto (11,603), which are described in separate articles, are Alosno (8187), Ayamonte (7530), Bollullos (7922), Moguer (8455), Nerva (7908) and Zalamea la Real (7335). The state and

municipal roads are better engineered and maintained than those of the neighbouring provinces. See also Andalusia.

HUELVA (the ancient Onuba, Onoba, or Onuba Aestuaria), the capital of the Spanish province of Huelva, about 10 m. from the Atlantic Ocean, on the left bank of the river Odiel, and on the Seville-Huelva, Mérida-Huelva and Rio Tinto-Huelva railways, the last-named being a narrow-gauge line. Pop. (1900) 21,357. Huelva is built on the western shore of a triangular peninsula formed by the estuaries of the Odiel and Tinto, which meet below the town. It is wholly modern in character and appearance, and owes its prosperity to an ever-increasing transit trade in copper and other ores, for which it is the port of shipment. After 1872, when the famous Rio Tinto copper mines were for the first time properly exploited, it progressed rapidly in size and wealth. Dredging operations removed a great part of the sandbanks lining the navigable main channel of the Odiel, and deepened the water over the bar at its mouth; new railways were opened, and port works were undertaken on a large scale, including the construction of extensive quays and two piers, and the installation of modern appliances for handling cargo. Many of these improvements were added after 1900. Besides exporting copper, manganese and other minerals, which in 1903 reached 2,750,000 tons, valued at more than £1,500,000, Huelva is the headquarters of profitable sardine, tunny and bonito fisheries, and of a trade in grain, grapes, olives and cork. The copper and cork industries are mainly in British hands, and the bulk of the imports, which consist chiefly of coal, iron and steel and machinery, comes from Great Britain. Foodstuffs and Australian hardwood are also imported.

Huelva was originally a Carthaginian trading-station, and afterwards a Roman colony; but it retains few memorials of its past, except the Roman aqueduct, repaired in modern times, and the colossal statue of Columbus. This was erected in 1892 to commemorate the fourth centenary of his voyage to the new world in 1492-1493, which began and ended in the village of San Pálos de la Frontera on the Tinto. Columbus resided in the neighbouring monastery of Santa Maria la Rabida after his original plans for the voyage had been rejected by King John II. of Portugal in 1484. An exact reproduction of this monastery was erected in 1893 at the World’s Fair, Chicago, U.S.A., and was afterwards converted into a sanatorium. Higher up the Tinto, above San Pálos, is the town of Moguer (pop. 8455), which exports large quantities of oil and wine.

HUÉRCAL OVERA, a town of south-eastern Spain, in the province of Almería, on the Lorca-Baza railway, and between two branches of the river Almanzora. Pop. (1900) 15,763. Huércal Overa is the chief town of a thriving agricultural district, largely dependent for its prosperity on the lead mining carried on among the surrounding highlands.

HUESCA, a frontier province of northern Spain, formed in 1833 of districts previously belonging to Aragon; and bounded on the N. by France, E. and S.E. by Lérida, S.W. and W. by Saragossa, and N.W. by Navarre. Pop. (1900) 244,867; area 5848 sq. m. The entire northern half of Huesca belongs to the mountain system of the Pyrenees, which here attain their greatest altitudes in Aneto, the highest point of the Maladetta ridge (11,168 ft.), and in Monte Perdido (10,997 ft.). The southern half forms part of the rugged and high-lying plateau of Aragon. Its only conspicuous range of hills is the Sierra de Alcubierre on the south-western border. The whole province is included in the basin of the Ebro, and is drained by four of its principal tributaries—the Aragon in the north-west, the Gallego in the west, the Cinca in the centre, and the Noguera Ribagorzana along part of the eastern border. These rivers rise among the Pyrenees, and take a southerly course; the two last-named unite with the Segre on their way to join the Ebro. The Cinca receives the combined waters of the Alcanadre and

Isuela on the right and the Esera on the left.

The climate varies much according to the region; in the north, cold winds from the snow-capped Pyrenees prevail, while in the south, the warm summers are often unhealthy from the humidity of the atmosphere. Agriculture, the leading industry of Huesca, is facilitated by a fairly complete system of irrigation, by means of which much waste land has been reclaimed, although large tracts remain barren. There is good summer pasturage on the mountains, where cattle, sheep and swine are reared. The mountains are richly clothed with forests of pine, beech, oak and fir; and the southern regions, wherever cultivation is possible, produce abundant crops of wheat and other cereals, vines, mulberries and numerous other fruits and vegetables. The mineral resources include argentiferous lead, copper, iron and cobalt, with salt, lignite, limestone, millstone, gypsum, granite and slate. None of these, however, occurs in large quantities; and in 1903 only salt, lignite and fluor-spar were worked, while the total output was worth less than £1500. Mineral springs are numerous, and the mining industry was formerly much more important; but the difficulties of transport hinder the development of this and other resources. Trade is most active with France, whither are sent timber, millstones, cattle, leather, brandy and wine. Between 1882 and 1892 the wine trade throve greatly, owing to the demand for common red wines, suitable for blending with finer French vintages; but the exports subsequently declined, owing to the protective duties imposed by France. The manufactures, which are of little importance, include soap, spirits, leather, pottery and coarse cloth.

The Saragossa-Lérida-Barcelona railway traverses the province, and gives access, by two branch lines, to Jaca, by way of Huesca, the provincial capital, and to Barbastro. Up to the beginning of the 20th century this was the only railway completed, although it was supplemented by many good roads. But by the Railway Convention of 1904, ratified by the Spanish government in 1906, France and Spain agreed jointly to construct a Transpyrenean line from Oloron, in the Basses Pyrénées, to Jaca, which should pass through the Port de Canfranc, and connect Saragossa with Pau. Apart from the episcopal cities of Huesca (pop. 1900, 12,626) and Jaca (4934), which are separately described, the only towns in the province with more than 5000 inhabitants are Barbastro (7033), an agricultural market, and Fraga (6899), an ancient residence of the kings of Aragon, with a fine 12th century parish church and a ruined Moorish citadel. Monzon, long celebrated as the meeting-place of the Aragonese and Catalonian parliaments, is a town on the lower Cinca, with the ruins of a Roman fortification, and of a 12th century castle, which was owned by the Knights Templar. (See also Aragon.)

HUESCA (anc. *Osca*), the capital of the Spanish province of Huesca, 35 m. N.N.E. of Saragossa, on the Tardienta-Huesca-Jaca railway. Pop. (1900), 12,626. Huesca occupies a height near the right bank of the river Isuela, overlooking a broad and fertile plain. It is a very ancient city and bears many traces of its antiquity. The streets in the older part are narrow and crooked, though clean, and many of the houses witness by their size and style to its former magnificence. It is an episcopal see and has an imposing Gothic cathedral, begun in 1400, finished in 1515, and enriched with fine carving. In the same plaza is the old palace of the kings of Aragon, formerly given up for the use of the now closed Sertoria (the university), so named in memory of a school for the sons of native chiefs, founded at Huesca by Sertorius in 77 B.C. (Plut. *Sert.* 15). Among the other prominent buildings are the interesting parish churches (San Pedro, San Martin and San Juan), the episcopal palace, and various benevolent and religious foundations. Considerable attention is paid to public education, and there are not only several good primary schools, but schools for teachers, an institute, an ecclesiastical seminary, an artistic and archaeological museum, and an economic society. Huesca manufactures cloth, pottery, bricks and leather; but its chief trade is in wine and agricultural produce. The development of these industries caused an increase in the population which, owing to emigration to France, had declined by nearly 2000 between 1887 and 1897.

Strabo (iii. 161, where some editors read Ileosca) describes Osca as a town of the Ilergetes, and the scene of Sertorius's death in 72 B.C.; while Pliny places the Oscenses in *regio Vescitania*. Plutarch (*loc. cit.*) calls it a large city. Julius Caesar names it Vencedora; and the name by which Augustus knew it, Urbs victrix Osca, was stamped on its coins, and is still preserved on its arms. In the 8th century A.D. it was captured by the Moors; but in 1096 Pedro I. of Aragon regained it, after winning the decisive battle of Alcoraz.

HUET, PIERRE DANIEL (1630-1721), bishop of Avranches, French scholar, was born at Caen in 1630. He was educated at the Jesuit school of Caen, and also received lessons from the Protestant pastor, Samuel Bochart. At the age of twenty he was recognized as one of the most promising scholars of the time. He went in 1651 to Paris, where he formed a friendship with Gabriel Naudé, conservator of the Mazarin library. In the following year Samuel Bochart, being invited by Queen Christina to her court at Stockholm, took his friend Huet with him. This journey, in which he saw Leiden, Amsterdam and Copenhagen, as well as Stockholm, resulted chiefly in the discovery, in the Swedish royal library, of some fragments of Origen's *Commentary on St Matthew*, which gave Huet the idea of editing Origen, a task he completed in 1668. He eventually quarrelled with his friend Bochart, who accused him of having suppressed a line in Origen in the Eucharistic controversy. In Paris he entered into close relations with Chapelain. During the famous dispute of Ancients and Moderns Huet took the side of the Ancients against Charles Perrault and Desmarets. Among his friends at this period were Conrart and Pellisson. His taste for mathematics led him to the study of astronomy. He next turned his attention to anatomy, and, being himself shortsighted, devoted his inquiries mainly to the question of vision and the formation of the eye. In this pursuit he made more than 800 dissections. He then learned all that was then to be learned in chemistry, and wrote a Latin poem on salt. All this time he was no mere book-worm or recluse, but was haunting the salons of Mlle de Scudéry and the studios of painters; nor did his scientific researches interfere with his classical studies, for during this time he was discussing with Bochart the origin of certain medals, and was learning Syriac and Arabic under the Jesuit Parvilliers. He also translated the pastorals of Longus, wrote a tale called *Diane de Castro*, and defended, in a treatise on the origin of romance, the reading of fiction. On being appointed assistant tutor to the Dauphin in 1670, he edited with the assistance of Anne Lefèvre, afterwards Madame Dacier, the well-known edition of the Delphin Classics. This series was a comprehensive edition of the Latin classics in about sixty volumes, and each work was accompanied by a Latin commentary, *ordo verborum*, and verbal index. The original volumes have each an engraving of Arion and the Dolphin, and the appropriate inscription *in usum serenissimi Delphini*. Huet was admitted to the Academy in 1674. He issued one of his greatest works, the *Demonstratio evangelica*, in 1679. He took holy orders in 1676, and two years later the king gave him the abbey of Aulnay, where he wrote his *Questiones Aletuanae* (Caen, 1690), his *Censura philosophiae Cartesianae* (Paris, 1689), his *Nouveau mémoire pour servir à l'histoire du Cartésianisme* (1692), and his discussion with Boileau on the Sublime. In 1685 he was made bishop of Soissons, but after waiting for installation for four years he took the bishopric of Avranches instead. He exchanged the cares of his bishopric for what he thought would be the easier chair of the Abbey of Fontenay, but there he was vexed with continual lawsuits. At length he retired to the Jesuits' House in the Rue Saint Antoine at Paris, where he died in 1721. His great library and manuscripts, after being bequeathed to the Jesuits, were bought by the king for the royal library.

In the *Huetiana* (1722) of the abbé d'Olivet will be found material for arriving at an idea of his prodigious labours, exact memory and wide scholarship. Another posthumous work was his *Traité philosophique de la faiblesse de l'esprit humain* (Amsterdam, 1723), His autobiography, found in his *Commentarius de rebus ad eum pertinentibus* (Paris, 1718), has been translated into French and into English.

See de Gournay, *Huet, évêque d'Avranches, sa vie et ses ouvrages* (Paris, 1854).

HUFELAND, CHRISTOPH WILHELM (1762-1836), German physician, was born at Langensalza on the 12th of August 1762. His early education was carried on at Weimar, where his father held the office of court physician to the grand duchess. In 1780 he entered the university of Jena, and in the following year proceeded to Göttingen, where in 1783 he graduated in medicine. After assisting his father for some years at Weimar, he was called in 1793 to the chair of medicine at Jena, receiving at the same time the dignities of court physician and councillor at Weimar. In 1798 he was placed at the head of the medical college and generally of state medical affairs in Berlin. He filled the chair of pathology and therapeutics in the university of Berlin, founded in 1809, and in 1810 became councillor of

state. He died at Berlin on the 25th of August 1836. Hufeland is celebrated as the most eminent practical physician of his time in Germany, and as the author of numerous works displaying extensive reading and cultivated and critical faculty.

The most widely known of his many writings is the treatise entitled *Makrobiotik, oder die Kunst, das menschliche Leben zu verlängern* (1796), which was translated into many languages. Of his practical works, the *System of Practical Medicine* (*System der praktischen Heilkunde*, 1818-1828) is the most elaborate. From 1795 to 1835 he published a *Journal der praktischen Arznei und Wundarzneikunde*. His autobiography was published in 1863. There are sketches of his life and labours by Augustin and Stourdza (1837).

HUFELAND, GOTTLIEB (1760-1817), German economist and jurist, was born at Dantzig on the 19th of October 1760. He was educated at the gymnasium of his native town, and completed his university studies at Leipzig and Göttingen. He graduated at Jena, and in 1788 was there appointed to an extraordinary professorship. Five years later he was made ordinary professor. His lectures on natural law, in which he developed with great acuteness and skill the formal principles of the Kantian theory of legislation, attracted a large audience, and contributed to raise to its height the fame of the university of Jena, then unusually rich in able teachers. In 1803, after the secession of many of his colleagues from Jena, Hufeland accepted a call to Würzburg, from which, after but a brief tenure of a professorial chair, he proceeded to Landshut. From 1808 to 1812 he acted as burgomaster in his native town of Dantzig. Returning to Landshut, he lived there till 1816, when he was invited to Halle, where he died on the 25th of February 1817.

Hufeland's works on the theory of legislation—*Versuch über den Grundsatz Naturrechts* (1785); *Lehrbuch des Naturrechts* (1790); *Institutionen des gesammten positiven Rechts* (1798); and *Lehrbuch der Geschichte und Encyclopädie aller in Deutschland geltenden positiven Rechte* (1790), are distinguished by precision of statement and clearness of deduction. They form on the whole the best commentary upon Kant's *Rechtslehre*, the principles of which they carry out in detail, and apply to the discussion of positive laws. In political economy Hufeland's chief work is the *Neue Grundlegung der Staatswirthschaftskunst* (2 vols., 1807 and 1813), the second volume of which has the special title, *Lehre vom Gelde und Geldumlaufe*. The principles of this work are for the most part those of Adam Smith's *Wealth of Nations*, which were then beginning to be accepted and developed in Germany; but both in his treatment of fundamental notions, such as economic good and value, and in details, such as the theory of money, Hufeland's treatment has a certain originality. Two points in particular seem deserving of notice. Hufeland was the first among German economists to point out the profit of the *entrepreneur* as a distinct species of revenue with laws peculiar to itself. He also tends towards, though he does not explicitly state, the view that rent is a general term applicable to all payments resulting from differences of degree among productive forces of the same order. Thus the superior gain of a specially gifted workman or specially skilled employer is in time assimilated to the payment for a natural agency of more than the minimum efficiency.

See Roscher, *Geschichte der Nationalökonomik in Deutschland*, 654-662.

HUG, JOHANN LEONHARD (1765-1846), German Roman Catholic theologian, was born at Constance on the 1st of June 1765. In 1783 he entered the university of Freiburg, where he became a pupil in the seminary for the training of priests, and soon distinguished himself in classical and Oriental philology as well as in biblical exegesis and criticism. In 1787 he became superintendent of studies in the seminary, and held this appointment until the breaking up of the establishment in 1790. In the following year he was called to the Freiburg chair of Oriental languages and Old Testament exegesis; to the duties of this post were added in 1793 those of the professorship of New Testament exegesis. Declining calls to Breslau, Tübingen, and thrice to Bonn, Hug continued at Freiburg for upwards of thirty years, taking an occasional literary tour to Munich, Paris or Italy. In 1827 he resigned some of his professorial work, but continued in active duty until in the autumn of 1845 he was seized with a painful illness, which proved fatal on the 11th of March 1846.

Hug's earliest publication was the first instalment of his *Einleitung*; in it he argued with much acuteness against J. G. Eichhorn in favour of the "borrowing hypothesis" of the origin of the synoptical gospels, maintaining the priority of Matthew, the present Greek text having been the original. His subsequent works were dissertations on the origin of alphabetical writing (*Die Erfindung der Buchstabenschrift*, 1801), on the antiquity of the *Codex Vaticanus* (1810), and on ancient mythology (*Über den Mythos der alten Völker*, 1812); a new interpretation of the Song of Solomon (*Das hohe Lied in einer noch unversuchten Deutung*, 1813), to the effect that the lover represents King Hezekiah, while by his beloved is intended the remnant left in Israel after the deportation of the ten tribes; and treatises on the indissoluble character of the matrimonial bond (*De conjugii christiani vinculo indissolubili commentatio exegetica*, 1816) and on the Alexandrian version of the Pentateuch (1818). His *Einleitung in die Schriften des Neuen Testaments*, undoubtedly his most important work, was completed in 1808 (fourth German edition, 1847; English translations by D. G. Wait, London, 1827, and by Fosdick, New York, 1836; French partial translation by J. E. Cellerier, Geneva, 1823). It is specially valuable in the portion relating to the history of the text (which up to the middle of the 3rd century he holds to have been current only in a common edition (κοινὴ ἔκδοσις), of which recensions were afterwards made by Hesychius, an Egyptian bishop, by Lucian of Antioch, and by Origen) and in its discussion of the ancient versions. The author's intelligence and acuteness are more completely hampered by doctrinal presuppositions when he comes to treat questions relating to the history of the individual books of the New Testament canon. From 1839 to his death Hug was a regular and important contributor to the *Freiburger Zeitschrift für kathol. Theologie*.

See A. Maier, *Gedächtnisrede auf J. L. Hug* (1847); K. Werner, *Geschichte der kath. Theol. in Deutschland*, 527-533 (1866).

HUGGINS, SIR WILLIAM (1824-1910), English astronomer, was born in London on the 7th of February 1824, and was educated first at the City of London School and then under various private teachers. Having determined to apply himself to the study of astronomy, he built in 1856 a private observatory at Tulse Hill, in the south of London. At first he occupied himself with ordinary routine work, but being far from satisfied with the scope which this afforded, he seized eagerly upon the opportunity for novel research, offered by Kirchhoff's discoveries in spectrum analysis. The chemical constitution of the stars was the problem to which he turned his attention, and his first results, obtained in conjunction with Professor W. A. Miller, were presented to the Royal Society In 1863, in a preliminary note on the "Lines of some of the fixed stars." His experiments, in the same year, on the photographic registration of stellar spectra, marked an innovation of a momentous character. But the wet collodion process was then the only one available, and its inconveniences were such as to preclude its extensive employment; the real triumphs of photographic astronomy began in 1875 with Huggins's adoption and adaptation of the gelatine dry plate. This enabled the observer to make exposures of any desired length, and, through the cumulative action of light on extremely sensitive surfaces, to obtain permanent accurate pictures of celestial objects so faint as to be completely invisible to the eye, even when aided by the most powerful telescopes. In the last quarter of the 19th century spectroscopy and photography together worked a revolution in observational astronomy, and in both branches Huggins acted as pioneer. Many results of great importance are associated with his name. Thus in 1864 the spectroscope yielded him evidence that planetary and irregular nebulae consist of luminous gas—a conclusion tending to support the nebular hypothesis of the origin of stars and planets by condensation from glowing masses of fluid material. On the 18th of May 1866 he made the first spectroscopic examination of a temporary star (Nova Coronae), and found it to be enveloped in blazing hydrogen. In 1868 he proved incandescent carbon-vapours to be the main source of cometary light; and on the 23rd of April in the same year applied Doppler's principle to the detection and measurement of stellar velocities in the line of sight. Data of this kind, which are by other means inaccessible to the astronomer, are obviously indispensable to any adequate conception of the stellar system as a whole or in its parts. In solar physics Huggins suggested a spectroscopic method for viewing the red prominences in daylight; and his experiments went far towards settling a much-disputed question regarding the solar distribution of calcium. In the general solar spectrum this element is represented by a large number of lines, but in the spectrum of the prominences and chromosphere one pair only can be detected. This circumstance appeared so anomalous that some astronomers doubted whether the surviving lines were really due to calcium; but Sir William and Lady Huggins (*née* Margaret Lindsay Murray, who, after their marriage in 1875, actively assisted

her husband) successfully demonstrated in the laboratory that calcium vapour, if at a sufficiently low pressure, gives under the influence of the electric discharge precisely these lines and no others. The striking discovery was, in 1903, made by the same investigators that the spontaneous luminosity of radium gives a spectrum of a kind never before obtained without the aid of powerful excitation, electrical or thermal. It consists, that is to say, in a range of bright lines, the agreement of which with the negative pole bands of nitrogen, together with details of interest connected with its mode of production, was ascertained by a continuance of the research. Sir William Huggins, who was made K.C.B. in 1897, received the Order of Merit in 1902, and was awarded many honours, academic and other. He presided over the meeting of the British Association in 1891, and during the five years 1900-1905 acted as president of the Royal Society, from which he at different times received a Royal, a Copley and a Rumford medal. Four of his presidential addresses were republished in 1906, in an illustrated volume entitled *The Royal Society*. A list of his scientific papers is contained in chapter ii. of the magnificent *Atlas of Representative Stellar Spectra*, published in 1899, by Sir William and Lady Huggins conjointly, for which they were adjudged the Actonian prize of the Royal Institution. Sir William Huggins died on the 12th of May 1910.

See ch. i. of *Atlas of Stellar Spectra*, containing a history of the Tulse Hill observatory; Sir W. Huggins's personal retrospect in the *Nineteenth Century* for June 1897; "Scientific Worthies," with photogravure portrait (*Nature*); *Astronomers of To-Day*, by Hector Macpherson, junr. (1905) (portrait); *Month. Notices Roy. Astr. Society*, xxvii. 146 (C. Pritchard).

(A. M. C.)

HUGH, ST. St Hugh of Avalon (*c.* 1140-1200), bishop of Lincoln, who must be distinguished from Hugh of Wells, and also from St Hugh of Lincoln (see below), was born of a noble family at Avalon in Burgundy. At the age of eight he entered along with his widowed father the neighbouring priory of canons regular at Villard-Benoît, where he was ordained deacon at nineteen. Appointed not long after prior of a dependent cell, Hugh was attracted from that position by the holy reputation of the monks of the Grande Chartreuse, whose house he finally entered despite an oath to the contrary which he had given his superior. There he remained about ten years, receiving priest's orders, and rising to the important office of procurator, which brought him into contact with the outer world. The wide reputation for energy and tact which Hugh speedily attained penetrated to the ears of Henry II. of England, and induced that monarch to request the procurator's assistance in establishing at Witham in Somersetshire the first English Carthusian monastery. Hugh reluctantly consented to go to England, where in a short time he succeeded in overcoming every obstacle, and in erecting and organizing the convent, of which he was appointed first prior. He speedily became prime favourite with Henry, who in 1186 procured his election to the see of Lincoln. He took little part in political matters, maintaining as one of his chief principles that a churchman should hold no secular office. A sturdy upholder of what he believed to be right, he let neither royal nor ecclesiastical influence interfere with his conduct, but fearlessly resisted whatever seemed to him an infringement of the rights of his church or diocese. But with all his bluff firmness Hugh had a calm judgment and a ready tact, which almost invariably left him a better friend than before of those whom he opposed; and the astute Henry, the impetuous Richard, and the cunning John, so different in other points, agreed in respecting the bishop of Lincoln. Hugh's manners were a little rigid and harsh; but, though an ascetic to himself, he was distinguished by a broad kindliness to others, so that even the Jews of Lincoln wept at his funeral. He had great skill in taming birds, and for some years had a pet swan, which occupies a prominent place in all histories and representations of the saint. In 1200 Bishop Hugh revisited his native country and his first convents, and on the return journey was seized with an illness, of which he died at London on the 16th of November 1200. He was canonized by Honorius III. on the 17th of February 1220. His feast day is kept on the 17th of November in the Roman Church.

The chief life of St Hugh, the *Magna vita S. Hugonis*, probably written by Adam, afterwards abbot of Eynsham, the bishop's chaplain, was edited by J. F. Dimock in *Rer. Britan. med. aevi script*. No. xxxvii, (London, 1864). MSS. of this are in the Bodleian Library (Digby, 165 of the 13th century) and in Paris (*Bib. Nat.* 5575, Fonds Latin); the Paris MS. fortunately makes good the portions lacking in the Oxford one. Mr Dimock also edited a *Metrical Life of St Hugh of Avalon* (London, 1860), from two MSS. in the British Museum and the Bodleian Library. The best modern source for information as to St Hugh and his time is the *Vie de St Hugues, évêque de Lincoln* (1140-1200) *par un religieux de la Grande Chartreuse* (Montreuil, 1890),

Eng. trans. edited by H. Thurston, S.J., with valuable appendices and notes (London, 1898). A complete bibliography is given in U. Chevalier, *Bio-bibliographie* (Paris, 1905, 2206-2207); see also A. Potthast, *Bibliotheca med. aev.*, 1380.

Hugh of Wells, one of King John's officials and councillors, became bishop of Lincoln in 1209. He soon fell into disfavour with John, and the earlier years of his bishopric were mainly spent abroad, while the king seized the revenues of his see. However, he was one of John's supporters when Magna Carta was signed, and after the accession of Henry III. he was able to turn his attention to his episcopal duties. His chief work was the establishment of vicarages in his diocese, thus rendering the parish priest more independent of the monastic houses; this policy, and consequently Hugh himself, was heartily disliked by Matthew Paris and other monastic writers. The bishop, who did some building at Lincoln and also at Wells, died on the 7th of February 1235.

St Hugh of Lincoln, a native of Lincoln, was a child about ten years old when he was found dead on premises belonging to a Jew. It was said, and the story was generally believed, that the boy had been scourged and crucified in imitation of the death of Jesus Christ. Great and general indignation was aroused, and a number of Jews were hanged or punished in other ways. The incident is referred to by Chaucer in the *Prioresses Tale* and by Marlowe in the *Jew of Malta*.

HUGH, called The Great (d. 956), duke of the Franks and count of Paris, son of King Robert I. of France (d. 923) and nephew of King Odo or Eudes (d. 898), was one of the founders of the power of the Capetian house in France. Hugh's first wife was Eadhild, a sister of the English king, Æthelstan. At the death of Raoul, duke of Burgundy, in 936, Hugh was in possession of nearly all the region between the Loire and the Seine, corresponding to the ancient Neustria, with the exception of the territory ceded to the Normans in 911. He took a very active part in bringing Louis IV. (d'Outremer) from England in 936, but in the same year Hugh married Hadwig, sister of the emperor Otto the Great, and soon quarrelled with Louis. Hugh even paid homage to Otto, and supported him in his struggle against Louis. When Louis fell into the hands of the Normans in 945, he was handed over to Hugh, who released him in 946 only on condition that he should surrender the fortress of Laon. At the council of Ingelheim (948) Hugh was condemned, under pain of excommunication, to make reparation to Louis. It was not, however, until 950 that the powerful vassal became reconciled with his suzerain and restored Laon. But new difficulties arose, and peace was not finally concluded until 953. On the death of Louis IV. Hugh was one of the first to recognize Lothair as his successor, and, at the intervention of Queen Gerberga, was instrumental in having him crowned. In recognition of this service Hugh was invested by the new king with the duchies of Burgundy (his suzerainty over which had already been nominally recognized by Louis IV.) and Aquitaine. But his expedition in 955 to take possession of Aquitaine was unsuccessful. In the same year, however, Giselbert, duke of Burgundy, acknowledged himself his vassal and betrothed his daughter to Hugh's son Otto. At Giselbert's death (April 8, 956) Hugh became effective master of the duchy, but died soon afterwards, on the 16th or 17th of June 956.

HUGH CAPET (*c.* 938-996), king of France and founder of the Capetian dynasty, was the eldest son of Hugh the Great by his wife Hadwig. When his father died in 956 he succeeded to his numerous fiefs around Paris and Orleans, and thus becoming one of the most powerful of the feudatories of his cousin, the Frankish king Lothair, he was recognized somewhat reluctantly by that monarch as duke of the Franks. Many of the counts of northern France did homage to him as their overlord, and Richard I., duke of Normandy, was both his vassal and his brother-in-law. His authority extended over certain districts south of the Loire, and, owing to his interference, Lothair was obliged to recognize his brother Henry as duke of Burgundy. Hugh supported his royal suzerain when Lothair and the emperor Otto II. fought for the possession of Lorraine; but chagrined at the king's conduct in making peace in 980, he went to Rome to conclude an alliance with Otto. Laying more stress upon independence than upon loyalty, Hugh appears to have acted in a haughty manner toward Lothair, and also towards

his son and successor Louis V.; but neither king was strong enough to punish this powerful vassal, whose clerical supporters already harboured the thought of securing for him the Frankish crown. When Louis V. died without children in May 987, Hugh and the late king's uncle Charles, duke of Lower Lorraine, were candidates for the vacant throne, and in this contest the energy of Hugh's champions, Adalberon, archbishop of Reims, and Gerbert, afterwards Pope Sylvester II., prevailed. Declaring that the Frankish crown was an elective and not an hereditary dignity, Adalberon secured the election of his friend, and crowned him, probably at Noyon, in July 987.

The authority of the new king was quickly recognized in his kingdom, which covered the greater part of France north of the Loire with the exception of Brittany, and in a shadowy fashion he was acknowledged in Aquitaine; but he was compelled to purchase the allegiance of the great nobles by large grants of royal lands, and he was hardly more powerful as king than he had been as duke. Moreover, Charles of Lorraine was not prepared to bow before his successful rival, and before Hugh had secured the coronation of his son Robert as his colleague and successor in December 987, he had found allies and attacked the king. Hugh was worsted during the earlier part of this struggle, and was in serious straits, until he was saved by the wiles of his partisan Adalberon, bishop of Laon, who in 991 treacherously seized Charles and handed him over to the king. This capture virtually ended the war, but one of its side issues was a quarrel between Hugh and Pope John XV., who was supported by the empire, then under the rule of the empresses Adelaide and Theophano as regents for the young emperor Otto III. In 987 the king had appointed to the vacant archbishopric of Reims a certain Arnulf, who at once proved himself a traitor to Hugh and a friend to Charles of Lorraine. In June 991, at the instance of the king, the French bishops deposed Arnulf and elected Gerbert in his stead, a proceeding which was displeasing to the pope, who excommunicated the new archbishop and his partisans. Hugh and his bishops remained firm, and the dispute was still in progress when the king died at Paris on the 24th of October 996.

Hugh was a devoted son of the church, to which, it is not too much to say, he owed his throne. As lay abbot of the abbeys of St Martin at Tours and of St Denis he was interested in clerical reform, was fond of participating in religious ceremonies, and had many friends among the clergy. His wife was Adelaide, daughter of William III., duke of Aquitaine, by whom he left a son, Robert, who succeeded him as king of France. The origin of Hugh's surname of *Capet*, which was also applied to his father, has been the subject of some discussion. It is derived undoubtedly from the Lat. *capa*, *cappa*, a cape, but whether Hugh received it from the cape which he wore as abbot of St Martin's, or from his youthful and playful habit of seizing caps, or from some other cause, is uncertain.

See Richerus, *Historiarum libri IV.*, edited by G. Waitz (Leipzig, 1877); F. Lot, *Les Derniers Carolingiens* (Paris, 1891), and *Études sur le règne de Hugues Capet* (Paris, 1900); G. Monod, "Les Sources du règne de Hugues Capet," in the *Revue historique*, tome xxviii. (Paris, 1891); P. Viollet, *La Question de la légitimité à l'avènement à Hugues Capet* (Paris, 1892); and E. Lavisse, *Histoire de France*, tome ii. (Paris, 1903-1905).

HUGH DE PUISET (*c.* 1125-1195), bishop of Durham, was the nephew of Stephen and Henry of Blois; the latter brought him to England and made him an archdeacon of the see of Winchester. Hugh afterwards became archdeacon and treasurer of York. In 1153 he was chosen bishop of Durham, in spite of the opposition of the archbishop of York; but he only obtained consecration by making a personal visit to Rome. Hugh took little part in politics in the reign of Henry II., remaining in the north, immersed in the affairs of his see. He was, however, present with Roger, archbishop of York, at the coronation of young Henry (1170), and was in consequence suspended by Alexander III. He remained neutral, as far as he could, in the quarrel between Henry and Becket, but he at least connived at the rebellion of 1173 and William the Lion's invasion of England in that year. After the failure of the rebellion the bishop was compelled to surrender Durham, Norham and Northallerton to the king. In 1179 he attended the Lateran Council at Rome, and in 1181 by the pope's order he laid Scotland under an interdict. In 1184 he took the cross. At the general sale of offices with which Richard began his reign (1189) Hugh bought the earldom of Northumberland. The archbishopric of York had been vacant since 1181. This vacancy increased Hugh's power vastly, and when the vacancy was filled by the appointment of Geoffrey he naturally raised objections. This quarrel with Geoffrey lasted till the end of his life. Hugh was nominated justiciar jointly with William Longchamp when Richard left the kingdom. But Longchamp soon deprived the bishop of his

place (1191), even going so far as to imprison Hugh and make him surrender his castle, his earldom and hostages. Hugh's chief object in politics was to avoid acknowledging Geoffrey of York as his ecclesiastical superior, but this he was compelled to do in 1195. On Richard's return Hugh joined the king and tried to buy back his earldom. He seemed on the point of doing so when he died. Hugh was one of the most important men of his day, and left a mark upon the north of England which has never been effaced. Combining in his own hands the palatinate of Durham and the earldom of Northumberland, he held a position not much dissimilar to that of the great German princes, a local sovereign in all but name.

See Kate Norgate's *England under the Angevin Kings* (1887); Stubbs's preface to Hoveden, iii.

HUGH OF ST CHER (*c.* 1200-1263), French cardinal and Biblical commentator, was born at St Cher, a suburb of Vienne, Dauphiné, and while a student in Paris entered the Dominion convent of the Jacobins in 1225. He taught philosophy, theology and canon law. As provincial of his order, which office he held during most of the third decade of the century, he contributed largely to its prosperity, and won the confidence of the popes Gregory IX., Innocent IV. and Alexander IV., who charged him with several important missions. Created cardinal-priest in 1244, he played an important part in the council of Lyons in 1245, 859 contributed to the institution of the Feast of Holy Sacrament, the reform of the Carmelites (1247), and the condemnations of the *Introductorius in evangelium aeternum* of Gherardino del Borgo San Donnino (1255), and of William of St Amour's *De periculis novissimorum temporum*. He died at Orvieto on the 19th of March 1263. He directed the first revision of the text of the Vulgate, begun in 1236 by the Dominicans; this first "correctorium," vigorously criticized by Roger Bacon, was revised in 1248 and in 1256, and forms the base of the celebrated *Correctorium Bibliae Sorbonicum*. With the aid of many of his order he edited the first concordance of the Bible (*Concordantiae Sacrorum Bibliorum* or *Concordantiae S. Jacobi*), but the assertion that we owe the present division of the chapters of the Vulgate to him is false.

Besides a commentary on the book of Sentences, he wrote the *Postillae in sacram scripturam juxta quadruplicem sensum, litteralem, allegoricum, anagogicum et moralem*, published frequently in the 15th and 16th centuries. His *Sermones de tempore et sanctis* are apparently only extracts. His exegetical works were published at Venice in 1754 in 8 vols.

See, for sources, Quetif-Echard, *Scriptores ordinis praedicatorum*; Denifle, in *Archiv für Litteratur und Kirchengeschichte des Mittelalters*, i. 49, ii. 171, iv. 263 and 471; *L'Année dominicaine*, iii. (1886) 509 and 883; *Chartularium universitatis Parisiensis*, i. 158.

(H. L.)

HUGH OF ST VICTOR (*c.* 1078-1141), mystic philosopher, was probably born at Hartingam, in Saxony. After spending some time in a house of canons regular at Hamersleben, in Saxony, where he completed his studies, he removed to the abbey of St Victor at Marseilles, and thence to the abbey of St Victor in Paris. Of this last house he rose to be canon, in 1125 *scholasticus*, and perhaps even prior, and it was there that he died on the 11th of February 1141. His eloquence and his writings earned for him a renown and influence which far exceeded St Bernard's, and which held its ground until the advent of the Thomist philosophy. Hugh was more especially the initiator of a movement of ideas—the mysticism of the school of St Victor—which filled the whole of the second part of the 12th century. "The mysticism which he inaugurated," says Ch. V. Langlois, "is learned, unctuous, ornate, florid, a mysticism which never indulges in dangerous temerities; it is the orthodox mysticism of a subtle and prudent rhetorician." This tendency undoubtedly shows a marked reaction from the contentious theology of Roscellinus and Abelard. For Hugh of St Victor dialectic was both insufficient and perilous. Yet he did not profess the haughty contempt for science and philosophy which his followers the Victorines expressed; he regarded knowledge, not as an end in itself, but as the vestibule of the mystic life. The reason, he thought, was but an aid to the understanding of the truths which faith reveals. The ascent towards God and the functions

of the “threefold eye of the soul”—*cogitatio*, *meditatio* and *contemplatio*—were minutely taught by him in language which is at once precise and symbolical.

Manuscript copies of his works abound, and are to be found in almost every library which possesses a collection of ancient writings. The works themselves are very numerous and very diverse. The middle ages attributed to him sixty works, and the edition in Migne’s *Patr. Lat.* vols. clxxv.-clxxvii. (Paris, 1854) contains no fewer than forty-seven treatises, commentaries and collections of sermons. Of that number, however, B. Hauréau (*Les Œuvres de Hugues de St Victor* (1st ed., Paris, 1859; 2nd ed., Paris, 1886) contests the authenticity of several, which he ascribes with some show of probability to Hugh of Fouilloi, Robert Paululus or others. Among those works with which Hugh of St Victor may almost certainly be credited may be mentioned the celebrated *De sacramentis christianae fidei*; the *Didascalicon de studio legendi*; the treatises on mysticism entitled *Soliloquium de arrha animae*, *De contemplatione et ejus operibus*, *Aureum de meditando opusculum*, *De arca Noë morali*, *De arca Noë mystica*, *De vanitate mundi*, *De arrha animae*, *De amore sponsi ad sponsam*, &c.; the introduction (*Praenotatiunculae*) to the study of the Scriptures; homilies on the book of Ecclesiastes; commentaries on other books of the Bible, *e.g.* the Pentateuch, Judges, Kings, Jeremiah, &c.

See B. Hauréau, *op. cit.* and *Notices et extraits des MSS. latins de la Bibliothèque Nationale*, passim; De Wulf, *Histoire de la philosophie médiévale* (Louvain, 1900), pp. 220-221; article by H. Denifle in *Archiv für Literatur und Kirchengeschichte des Mittelalters*, iii. 634-640 (1887); A. Mignon, *Les Origines de la scholastique et Hugues de St Victor* (Paris, 1895); J. Kilgenstein, *Die Gotteslehre des Hugo von St Victor* (1898).

(P. A.)

HUGHES, DAVID EDWARD (1831-1900), Anglo-American electrician, was born on the 16th of May 1831 in London, but the earlier part of his life was spent in America, whither his parents emigrated when he was about seven years old. In 1850 he became professor of music at the college of Bardstown, Kentucky, and soon afterwards his attainments in physical science procured his appointment as teacher of natural philosophy at the same place. His professorial career, however, was brief, for in 1854 he removed to Louisville to supervise the manufacture of the type-printing telegraph instrument which he had been thinking out for some time, and which was destined to make both his name and his fortune. The patent for this machine was taken out in the United States in 1855, and its success was immediate. After seeing it well established on one side of the Atlantic, Hughes in 1857 brought it over to his native country, where, however, the telegraph companies did not receive it with any favour. Two or three years afterwards he introduced it to the notice of the French Government, who, after submitting it to severe tests, ultimately adopted it, and in the succeeding ten years it came into extensive use all over Europe, gaining for its inventor numerous honours and prizes. In the development of telephony also Hughes had an important share, and the telephone has attained its present perfection largely as a result of his investigations. The carbon transmitters which in various forms are in almost universal use are modifications of a simple device which he called a microphone, and which consists essentially of two pieces of carbon, in loose contact one with the other. The arrangement constitutes a variable electrical resistance of the most delicate character; if it is included in an electric circuit with a battery and subjected to the influence of sonorous vibrations, its resistance varies in such a way as to produce an undulatory current which affords an exact representation of the sound waves as to height, length and form. These results were published in 1878, but Hughes did much more work on the properties of such microphonic joints, of which he said nothing till many years afterwards. When towards the end of 1879 he found that they were also sensitive to “sudden electric impulses, whether given out to the atmosphere through the extra current from a coil or from a frictional machine,” he in fact discovered the phenomena on which depends the action of the so-called “coherers” used in wireless telegraphy. But he went further and practised wireless telegraphy himself, surmising, moreover, that the agency he was employing consisted of true electric waves. Setting some source of the “sudden electric impulses” referred to above into operation in his house, he walked along the street carrying a telephone in circuit with a small battery and one of these microphonic joints, and found that the sounds remained audible in the telephone until he had traversed a distance of 500 yards. This experiment he showed to several English men of science, among others to Sir G. G. Stokes, to whom he broached the theory that the results were due to electric waves. That physicist, however, was not disposed to accept this explanation, considering that a sufficient one could be found in well-known electromagnetic induction effects, and Hughes was so

discouraged at that high authority taking this view of the matter that he resolved to publish no account of his inquiry until further experiments had enabled him to prove the correctness of his own theory. These experiments were still in progress when H. R. Hertz settled the question by his researches on electric waves in 1887-1889. Hughes, who is also known for his invention of the induction balance and for his contributions to the theory of magnetism, died in London on the 22nd of January 1900. As an investigator he was remarkable for the simplicity of the apparatus which served his purposes, domestic articles like jam-pots, pins, &c., forming a large part of the equipment of his laboratory. His manner of life, too, was simple and frugal in the extreme. He amassed a large fortune, which, with the exception of some bequests to the Royal Society, the Paris Academy of Sciences, the Institution of Electrical Engineers, and the Paris Société Internationale des Électriciens, for the establishment of scholarships and prizes in physical science, was left to four London hospitals, subject only to certain life annuities.

HUGHES, SIR EDWARD (*c.* 1720-1794), British admiral, entered the Royal Navy in 1735, and four years later was present at Porto Bello. In 1740 he became lieutenant, and in that rank served in the Cartagena expedition of 1741, and at the indecisive battle of Toulon (1744). In H.M.S. “Warwick” he was present at the action with the “Glorioso,” but in default of proper support from the “Lark” (which was sailing in company with the “Warwick”), the combat ended with the enemy’s escape. The commander of the “Lark” was subsequently tried and condemned for his conduct, and Hughes received the vacant command. Captain Hughes was with Boscawen at Louisburg and with Saunders at Quebec. He was in continual employment during the peace, and as Commodore commanded in the East Indies from 1773 to 1777. It was not long before he returned to the East as a rear-admiral, with an overwhelming naval force. On his outward voyage he retook Goree from the French, and he was called upon to conduct only minor operations for the next two years, as the enemy could not muster any force fit to meet the powerful squadron Hughes had brought from the Channel. In 1782 he stormed Trincomalee a few days before the squadron of Suffren arrived in the neighbourhood. For the next year these Indian waters were the scene of one of the most famous of naval campaigns. Suffren (*q.v.*) was perhaps the ablest sea-commander that France ever produced, but his subordinates were factious and unskilful; Hughes on the other hand, whose ability was that born of long experience rather than genius, was well supported. No fewer than five fiercely contested general actions were fought by two fleets, neither of them gaining a decisive advantage. In the end Hughes held his ground. After the peace he returned to England, and, though further promotions came to him, he never again hoisted his flag. He had accumulated considerable wealth during his Indian service, which for the most part he spent in unostentatious charity. He died at his seat of Luxborough in Essex in 1794.

HUGHES, HUGH PRICE (1847-1902), British Nonconformist divine, was born at Carmarthen on the 8th of February 1847, the son of a surgeon. He began to preach when he was fourteen, and in 1865 entered Richmond College to study for the Wesleyan Methodist ministry under the Rev. Alfred Barrett, one of whose daughters he married in 1873. He graduated at London University in 1869, the last year of his residence. He established in 1887 the West London Mission, holding popular services on Sunday in St James’s Hall, Piccadilly, when he preached from time to time on the housing of the poor, sweating, gambling and other subjects of social interest. In connexion with this mission he founded a sisterhood to forward the social side of the work, which was presided over by Mrs Hughes. He had started in 1885 the *Methodist Times*, and rapidly made it a leading organ of Nonconformist opinion. He was a born fighter, and carried the fire and eloquence he showed on the platform and in the pulpit into journalism. He supported Mr W. T. Stead in 1885, as he had earlier supported Mrs Josephine Butler in a similar cause; he attacked the trade in alcohol; was an anti-vivisectionist; he advocated arbitration; and his vehement attacks on Sir Charles Dilke and Charles Stewart Parnell originated the phrase the “Nonconformist conscience.” He differed strongly, however, from a large section of Nonconformist opinion in his defence of the South African War. He was long regarded with some distrust by the more conservative section of his

own church, but in 1898 he was made president of the Wesleyan Conference He raised large sums for church work, amounting it is said to over a quarter of a million of money. His energies were largely devoted to co-operation among the various Nonconformist bodies, and he was one of the founders and most energetic members of the National Council of the Evangelical Free Churches. He had long been in failing health when he died suddenly in London on the 17th of November 1902.

See his *Life* (1904) by his daughter, Dorothea Price Hughes.

HUGHES, JOHN (1677-1720), English poet and miscellaneous writer, was born at Marlborough, Wiltshire, on the 29th of January 1677. His father was a clerk in a city office, and his grandfather was ejected from the living of Marlborough in 1662 for his Nonconformist opinions. Hughes was educated at a dissenting academy in London, where Isaac Watts was among his fellow scholars. He became a clerk in the Ordnance Office, and served on several commissions for the purchase of land for the royal dockyards. In 1717 Lord Chancellor Cowper made him secretary to the commissions of the peace in the court of chancery. He died on the night of the production of his most celebrated work, *The Siege of Damascus*, the 17th of February 1720.

His poems include occasional pieces in honour of William III., imitations of Horace, and a translation of the tenth book of the *Pharsalia* of Lucan. He was an amateur of the violin, and played in the concerts of Thomas Britton, the "musical small-coal man." He wrote some of the libretti of the cantatas (2 vols., 1712) set to music by Dr John Christopher Pepusch. To these he prefixed an essay advocating the claims of English libretti, and insisting on the value of recitative. Others of his pieces were set to music by Ernest Galliard and by Händel. In the masque of *Apollo and Daphne* (1716) he was associated with Pepusch, and in his opera of *Calypso and Telemachus* (1712) with John E. Galliard. He was a contributor to the *Tatler*, the *Spectator* and the *Guardian*, and he collaborated with Sir Richard Blackmore in a series of essays entitled *The Lay Monastery* (1713-1714). He persuaded Joseph Addison to stage Cato. Addison had requested Hughes to write the last act, but eventually completed the play himself. He wrote a version of the *Letters of Abelard and Heloise ...* (1714) chiefly from the French translation printed at the Hague in 1693, which went through several editions, and is notable as the basis of Pope's "Eloisa to Abelard" (1717). He also made translations from Molière, Fontenelle and the Abbé Vertot, and in 1715 edited *The Works of Edmund Spenser ...* (another edition, 1750). His last work, the tragedy of *The Siege of Damascus*, is his best. It remained on the list of acting plays for a long time, and is to be found in various collected editions of British drama.

His *Poems on Several Occasions, with some Select Essays in Prose ...* were edited with a memoir in 1735, by William Duncombe, who had married his sister Elizabeth. See also *Letters by several eminent persons* (2 vols., 1772) and *The Correspondence of John Hughes, Esq. ... and Several of his Friends ...* (2 vols., 1773), with some additional poems. There is a long and eulogistic account of Hughes, with some letters, in the *Biographia Britannica*.

HUGHES, JOHN (1797-1864), American Roman Catholic divine, was born in Annaloghan, Co. Tyrone, Ireland, on the 24th of June 1797. In 1817 he followed his father to Chambersburg, Pennsylvania. He was ordained deacon in 1825 and priest in 1826; and as vicar in St Augustine's and other churches in Philadelphia he took a prominent part in the defence of ecclesiastical authority against the lay trustee system. In 1837 he was consecrated coadjutor to Bishop Dubois in New York. In the New York diocese, of which he was made administrator in 1839 and bishop in 1842, besides suppressing (1841) church control by lay trustees, he proved himself an active, almost pugnacious, leader. His unsuccessful attempt to build in Lafargeville, Jefferson county, a seminary of St Vincent de Paul, was followed by the transfer of the school to Fordham, where St John's College (now Fordham University) was established (1841), largely out of funds collected by him in Europe in 1839-1840. His demand for state support for parochial schools was favoured by Governor Seward and was half victorious: it was in this controversy that he was first accused of forming a Catholic party in

politics. John McCloskey was consecrated his coadjutor in 1844; in 1847 the diocese of New York was divided; and in 1850 Hughes was named the first archbishop of New York, with suffragan bishops of Boston, Hartford, Albany and Buffalo. In the meantime, during the "Native American" disturbances of 1844, he had been viciously attacked together with his Church; he kept his parishioners in check, but bade them protect their places of worship. His attitude was much the same at the time of the Anti-Popery outcry of the "Know-Nothings" in 1854. His early anti-slavery views had been made much less radical by his travels in the South and in the West Indies, but at the outbreak of the Civil War he was strongly pro-Union, and in 1861 he went to France to counteract the influence of the Slidell mission. He met with success not only in France, but at Rome and in Ireland, where, however, he made strong anti-English speeches. He died in New York City on the 3rd of January 1864. Hughes was a hard fighter and delighted in controversy. In 1826 he wrote *An Answer to Nine Objections Made by an Anonymous Writer Against the Catholic Religion*; he was engaged in a bitter debate with Dr John Breckenridge (Presbyterian), partly in letters published in 1833 and partly in a public discussion in Philadelphia in 1835, on the subject of civil and religious liberty as affected by the Roman Catholic and the Presbyterian "religions"; in 1856, through his organ, the *Metropolitan Record*, he did his best to discredit any attempts by the Catholic press to forward either the movement to "Americanize" the Catholic Church or that to disseminate the principles of "Young Ireland."

His works were edited by Laurence Kehoe (2 vols., New York, 1864-1865). See John R. G. Hassard, *Life of the Most Rev. John Hughes* (New York, 1866); and Henry A. Brann, *John Hughes* (New York, 1894), a briefer sketch, in "The Makers of America" series.

HUGHES, THOMAS, English dramatist, a native of Cheshire, entered Queens' College, Cambridge, in 1571. He graduated and became a fellow of his college in 1576, and was afterwards a member of Gray's Inn. He wrote *The Misfortunes of Arthur Uther Pendragon's son reduced into tragical notes by Thomas Hughes*, which was performed at Greenwich in the Queen's presence on the 28th of February 1588. Nicholas Trotte provided the introduction, Francis Flower the choruses of Acts I. and II., William Fulbeck two speeches, while three other gentlemen of Gray's Inn, one of whom was Francis Bacon, undertook the care of the dumb show. The argument of the play, based on a story of incest and crime, was borrowed, in accordance with Senecan tradition, from mythical history, and the treatment is in close accordance with the model. The ghost of Gorlois, who was slain by Uther Pendragon, opens the play with a speech that reproduces passages spoken by the ghost of Tantalus in the *Thyestes*; the tragic events are announced by a messenger, and the chorus comments on the course of the action. Dr W. J. Cunliffe has proved that Hughes's memory was saturated with Seneca, and that the play may be resolved into a patchwork of translations, with occasional original lines. Appendix II. to his exhaustive essay *On the Influence of Seneca on Elizabethan Tragedy* (1893) gives a long list of parallel passages.

The Misfortunes of Arthur was reprinted in J. P. Collier's supplement to Dodsley's *Old Plays*; and by Harvey Carson Grumline (Berlin, 1900), who points out that Hughes's source was Geoffrey of Monmouth's *Historia Britonum*, not the *Morte D'Arthur*.

HUGHES, THOMAS (1822-1896), English lawyer and author, second son of John Hughes of Donnington Priory, editor of *The Boscobel Tracts* (1830), was born at Uffington, Berks, on the 20th of October 1822. In February 1834 he went to Rugby School, to be under Dr Arnold, a contemporary of his father at Oriel. He rose steadily to the sixth form, where he came into contact with the headmaster whom he afterwards idealized; but he excelled rather in sports than in scholarship, and his school career culminated in a cricket match at Lord's. In 1842 he proceeded to Oriel, Oxford, and graduated B.A. in 1845. He was called to the bar in 1848, became Q.C. in 1869, a bencher in 1870, and was appointed to a county court judgeship in the Chester district in July 1882. While at Lincoln's Inn he came under the dominating influence of his life, that of Frederick Denison Maurice. In 1848 he joined the Christian Socialists, under Maurice's banner, among his closest allies being Charles Kingsley. In January 1854 he was

one of the original promoters of the Working Men's College in Great Ormond Street, and whether he was speaking on sanitation, sparring or singing his favourite ditty of "Little Billee," his work there continued one of his chief interests to the end of his life. After Maurice's death he held the principalship of the college. His *Manliness of Christ* (1879) grew out of a Bible class which he held there. Hughes had been influenced mentally by Arnold, Carlyle, Thackeray, Lowell and Maurice, and had developed into a liberal churchman, extremely religious, with strong socialistic leanings; but the substratum was still and ever the manly country squire of old-fashioned, sport-loving England. In Parliament, where he sat for Lambeth (1865-1868), and for Frome (1868-1874), he reproduced some of the traits of Colonel Newcome. Hughes was an energetic supporter of the claims of the working classes, and introduced a trades union Bill which, however, only reached its second reading. Of Mr Gladstone's home rule policy he was an uncompromising opponent. Thrice he visited America and received a warm welcome, less as a propagandist of social reform than as a friend of Lowell and of the North, and an author. In 1879, in a sanguine humour worthy of Mark Tapley, he planned a cooperative settlement, "Rugby," in Tennessee, over which he lost money. In 1848 Hughes had married Frances, niece of Richard Ford, of Spanish *Handbook* fame. They settled in 1853 at Wimbledon, and there was written his famous story, *Tom Brown's School-Days*, "by an Old Boy" (dedicated to Mrs Arnold of Fox Howe), which came out in April 1857. It is probably impossible to depict the schoolboy in his natural state and in a realistic manner; it is extremely difficult to portray him at all in such a way as to interest the adult. Yet this last has certainly been achieved twice in English literature—by Dickens in *Nicholas Nickleby*, and by Hughes in *Tom Brown*. In both cases interest is concentrated upon the master, in the first a demon, in the second a demigod. *Tom Brown* did a great deal to fix the English concept of what a public school should be. Hughes also wrote *The Scouring of the White Horse* (1859), *Tom Brown at Oxford* (1861), *Religio laici* (1868), *Life of Alfred the Great* (1869) and the *Memoir of a Brother*. The brother was George Hughes, who was in the main the original "Tom Brown," just as Dean Stanley was in the main the original of "Arthur." Hughes died at Brighton, on 22nd March 1896. He was English of the English, a typical broad-churchman, full of "muscular Christianity," straightforward and unsuspicious to a fault, yet attaching a somewhat exorbitant value to "earnestness"—a favourite expression of Doctor Arnold.

(T. Se.)

HUGLI, or Hooghly, the most westerly and commercially the most important channel by which the Ganges enters the Bay of Bengal. It takes its distinctive name near the town of Santipur, about 120 m. from the sea. The stream now known as the Hugli represents three western deltaic distributaries of the Ganges—viz. (1) the Bhagirathi, (2) the Jalangi and (3) part of the Matabhanga. The Bhagirathi and Jalangi unite at Nadia, above the point of their junction with the lower waters of the Matabhanga, which has taken the name of the Churni before the point of junction and thrown out new distributaries of its own. These three western distributaries are known as the Nadia rivers, and are important, not only as great highways for internal traffic, but also as the headwaters of the Hugli. Like other deltaic distributaries, they are subject to sudden changes in their channels, and to constant silting up. The supervising and keeping open of the Nadia rivers, therefore, forms one of the great tasks of fluvial engineering in Bengal. Proceeding south from Santipur, with a twist to the east, the Hugli river divides Nadia from Hugli district, until it touches the district of the Twenty-Four Parganas. It then proceeds almost due south to Calcutta, next twists to the south-west and finally turns south, entering the Bay of Bengal in 21° 41′ N., 88° E.

In the 40 miles of its course above Calcutta, the channels of the Hugli are under no supervision, and the result is that they have silted up and shifted to such an extent as to be no longer navigable for sea-going ships. Yet it was upon this upper section that all the famous ports of Bengal lay in olden times. From Calcutta to the sea (about 80 m.) the river is a record of engineering improvement and success. A minute supervision, with steady dredging and constant readjustment of buoys, now renders it a safe waterway to Calcutta for ships of the largest tonnage. Much attention has also been paid to the port of Calcutta (*q.v.*).

The tide runs rapidly on the Hugli, and produces a remarkable example of the fluvial phenomenon known as a "bore." This consists of the head-wave of the advancing tide, hemmed in where the estuary narrows suddenly into the river, and often exceeds 7 ft. in height. It is felt as high up as Calcutta, and frequently destroys small boats. The difference from the lowest point of low-water in the dry season to the highest point of high-water in the

rains is reported to be 20 ft. 10 in. The greatest mean rise of tide, about 16 ft., takes place in March, April or May—with a declining range during the rainy season to a mean of 10 ft., and a minimum during freshets of 3 ft. 6 in.

HUGLI, or HOOGHLY, a town and district of British India, in the Burdwan division of Bengal, taking their name from the river Hugli. The town, situated on the right bank of the Hugli, 24 m. above Calcutta by rail, forms one municipality with Chinsura, the old Dutch settlement, lower down the river. Pop. (1901) 29,383. It contains the Hooghly College at Chinsura, a Mahommedan college, two high schools and a hospital with a Lady Dufferin branch for female patients. The principal building is a handsome *imambara*, or mosque, constructed out of funds which had accumulated from an endowment originally left for the purpose by a wealthy Shia gentleman, Mahommed Mohsin. The town was founded by the Portuguese in 1537, on the decay of Satgaon, the royal port of Bengal. Upon establishing themselves, they built a fort at a place called Gholghat (close to the present jail), vestiges of which are still visible in the bed of the river. This fort gradually grew into the town and port of Hugli.

The DISTRICT comprises an area of 1191 sq. m. In 1901 the population was 1,049,282, showing an increase of 1% in the decade. It is flat, with a gradual ascent to the north and north-west. The scenery along the high-lying bank of the Hugli has a quiet beauty of its own, presenting the appearance of a connected series of orchards and gardens, interspersed with factories, villages and temples. The principal rivers, besides the Hugli, are the Damodar and the Rupnarayan. As in other deltaic districts, the highest land lies nearest the rivers, and the lowest levels are found midway between two streams. There are in consequence considerable marshes both between the Hugli and the Damodar and between the latter river and the Rupnarayan. The district is traversed by the main line of the East Indian railway, with a branch to the pilgrim resort of Tarakeswar, whence a steam tramway has been constructed for a further distance of 31 m. The Eden canal furnishes irrigation, and there are several embankments and drainage works. Silk and indigo are both decaying industries, but the manufacture of brass and bell-metal ware is actively carried on at several places. There are several jute mills, a large flour mill, bone-crushing mills and a brick and tile works.

From an historical point of view the district possesses as much interest as any in Bengal. In the early period of Mahommedan rule Satgaon was the seat of the governors of Lower Bengal and a mint town. It was also a place of great commercial importance. In consequence of the silting up of the Saraswati, the river on which Satgaon was situated, the town became inaccessible to large ships, and the Portuguese settled at Hugli. In 1632 the latter place, having been taken from the Portuguese by the Mahommedans, was made the royal port of Bengal; and all the public offices and records were withdrawn from Satgaon, which rapidly fell into decay. In 1640 the East India Company established a factory at Hugli, their first settlement in Lower Bengal. In 1685, a dispute having taken place between the English factors and the nawab, the town was bombarded and burned to the ground. This was not the first time that Hugli had been the scene of a struggle deciding the fate of a European power in India. In 1629, when held by the Portuguese, it was besieged for three months and a half by a large Mahommedan force sent by the emperor Shah Jahan. The place was carried by storm; more than 1000 Portuguese were killed, upwards of 4000 prisoners taken, and of 300 vessels only 3 escaped. But Hugli district possesses historical interest for other European nations besides England and Portugal. The Dutch established themselves at Chinsura in the 17th century, and held the place till 1825, when it was ceded to Great Britain in exchange for the island of Sumatra. The Danes settled at Serampur in 1616, where they remained till 1845, when all Danish possessions in India were transferred to the East India Company. Chandernagore became a French settlement in 1688. The English captured this town twice, but since 1816 it has remained in the possession of the French.

See D. G. Crawford, *A Brief History of the Hooghly District* (Calcutta, 1903).

HUGO, GUSTAV VON (1764-1844), German jurist, was born at Lörrach in Baden, on the 23rd of November 1764. From the gymnasium at Carlsruhe he passed in 1782 to the

university of Göttingen, where he studied law for three years. Having received the appointment of tutor to the prince of Anhalt-Dessau, he took his doctor's degree at the university of Halle in 1788. Recalled in this year to Göttingen as extraordinary professor of law, he became ordinary professor in 1792. In the preface to his *Beiträge zur zivilistischen Bücherkenntnis der letzten vierzig Jahre* (1828-1829) he gives a sketch of the condition of the civil law teaching at Göttingen at that time. The Roman Canon and German elements of the existing law were, without criticism or differentiation, welded into an ostensible whole for practical needs, with the result that it was difficult to say whether historical truth or practical ends were most prejudiced. One man handed on the inert mass to the next in the same condition as he had received it, new errors crept in, and even the best of teachers could not escape from the false method which had become traditional. These were the evils which Hugo set himself to combat, and he became the founder of that historical school of jurisprudence which was continued and further developed by Savigny. His *magna opera* are the *Lehrbuch eines zivilistischen Kursus* (7 vols., 1792-1821), in which his method is thoroughly worked out, and the *Zivilistisches Magazin* (6 vols., 1790-1837). He died at Göttingen on the 15th of September 1844.

For an account of his life see Eyssenhardt, *Zur Erinnerung an Gustav Hugo* (Berlin, 1845).

HUGO, VICTOR MARIE (1802-1885), French poet, dramatist and romance-writer, youngest son of General J. L. S. Hugo (1773-1828), a distinguished soldier in Napoleon's service, was born at Besançon on the 26th of February 1802. The all but still-born child was only kept alive and reared by the indefatigable devotion of his mother Sophie Trébuchet (d. 1821), a royalist of La Vendée. Educated first in Spain and afterwards in France, the boy whose infancy had followed the fortunes of the imperial camp grew up a royalist and a Catholic. His first work in poetry and in fiction was devoted to the passionate proclamation of his faith in these principles.

The precocious eloquence and ardour of these early works made him famous before his time. The odes which he published at the age of twenty, admirable for their spontaneous fervour and fluency, might have been merely the work of a marvellous boy; the ballads which followed them two years later revealed him as a great poet, a natural master of lyric and creative song. In 1823, at the age of twenty-one, he married his cousin Adèle Foucher (d. 1868). In the same year his first romance, *Han d'Islande*, was given to the press; his second, *Bug-Jargal*, appeared three years later. In 1827 he published the great dramatic poem of *Cromwell*, a masterpiece at all points except that of fitness for the modern stage. Two years afterwards he published *Les Orientales*, a volume of poems so various in style, so noble in spirit, so perfect in workmanship, in music and in form, that they might alone suffice for the foundation of an immortal fame. In the course of nine years, from 1831 to 1840, he published *Les Feuilles d'automne*, *Les Chants du crépuscule*, *Les Voix intérieures* and *Les Rayons et les ombres*.

That their author was one of the greatest elegiac and lyric poets ever born into the world, any one of these volumes would amply suffice to prove. That he was the greatest tragic and dramatic poet born since the age of Shakespeare, the appearance of *Hernani* in 1830 made evident for ever to all but the meanest and most perverse of dunces and malignants. The earlier and even greater tragedy of *Marion de Lorme* (1828) had been proscribed on the ground that it was impossible for royalty to tolerate the appearance of a play in which a king was represented as the puppet of a minister. In all the noble and glorious life of the greatest poet of his time there is nothing on record more chivalrous and characteristic than the fact that Victor Hugo refused to allow the play which had been prohibited by the government of Charles X. to be instantly produced under the government of his supersessor. *Le Roi s'amuse* (1832), the next play which Hugo gave to the stage, was prohibited by order of Louis Philippe after a tumultuous first night—to reappear fifty years later on the very same day of the same month, under the eyes of its author, with atoning acclamation from a wider audience than the first. Terror and pity had never found on the stage word or expression which so exactly realized the ideal aim of tragic poetry among the countrymen of Aeschylus and Sophocles since the time or since the passing of Shakespeare, of Marlowe and of Webster. The tragedy of *Lucrèce Borgia*, coequal in beauty and power with its three precursors, followed next year in the humbler garb of prose; but the prose of Victor Hugo stands higher on the record of poetry than the verse of any lesser dramatist or poet. *Marie Tudor* (1833), his next play, was hardly more daring in its Shakespearean defiance of historic fact, and hardly more triumphant

in its Shakespearean loyalty to the everlasting truth of human character and passion. *Angelo, Tyran de Padoue* (1835), the last of the tragic triad to which their creator denied the transfiguration of tragic verse, is inferior to neither in power of imagination and of style, in skill of invention and construction, and in mastery over all natural and noble sources of pity and of terror. *La Esmeralda*, the libretto of an opera founded on his great tragic romance of *Notre-Dame de Paris*, is a miracle of lyric melody and of skilful adaptation. *Ruy Blas* (1838) was written in verse, and in such verse as none but he could write. In command and in expression of passion and of pathos, of noble and of evil nature, it equals any other work of this great dramatic poet; in the lifelike fusion of high comedy with deep tragedy it excels them all. *Les Burgraves*, a tragic poem of transcendent beauty in execution and imaginative audacity in conception, found so little favour on the stage that the author refused to submit his subsequent plays to the verdict of a public audience.

Victor Hugo's first mature work in prose fiction, *Le Dernier Jour d'un condamné*, has appeared thirteen years earlier (1829). As a tragic monodrama it is incomparable for sustained power and terrible beauty. The story of *Claude Gueux*, published five years later (1834), another fervent protest against the infliction of capital punishment, was followed by many other eloquent and passionate appeals to the same effect, written or spoken on various occasions which excited the pity or the indignation of the orator or the poet. In 1831 appeared the greatest of all tragic or historic or romantic poems in the form of prose narrative, *Notre-Dame de Paris*. Three years afterwards the author published, under the title of *Littérature et philosophie mêlées*, a compilation or selection of notes and essays ranging and varying in date and in style from his earliest effusions of religious royalism to the magnificent essay on Mirabeau which represents at once the historical opinion and the critical capacity of Victor Hugo at the age of thirty-two. Next year he published *Le Rhin*, a series of letters from Germany, brilliant and vivid beyond all comparison, containing one of the most splendid stories for children ever written, and followed by a political supplement rather pathetically unprophetic in its predictions.

At the age of thirty-eight he honoured the French Academy by taking his place among its members; the speech delivered on the occasion was characteristically generous in its tribute to an undeserving memory, and significantly enthusiastic in its glorification of Napoleon. Idolatry of his father's hero and leader had now superseded the earlier superstition inculcated by his mother. In 1846 his first speech in the chamber of peers—Louis Philippe's House of Lords—was delivered on behalf of Poland; his second, on the subject of coast defence, is memorable for the evidence it bears of careful research and practical suggestion. His pleading on behalf of the exiled family of Bonaparte induced Louis Philippe to cancel the sentence which excluded its members from France. After the fall and flight of the house of Orleans, his parliamentary eloquence was never less generous in aim and always as fervent in its constancy to patriotic and progressive principle. When the conspiring forces of clerical venality and political prostitution had placed a putative Bonaparte in power attained by perjury after perjury, and supported by massacre after massacre, Victor Hugo, in common with all honourable men who had ever taken part in political or public life under the government superseded by force of treason and murder, was driven from his country into an exile of well-nigh twenty years. Next year he published *Napoléon le petit*; twenty-five years afterwards, *Histoire d'un crime*. In these two books his experience and his opinion of the tactics which founded the second French empire stand registered for all time. In the deathless volume of *Châtiments*, which appeared in 1853, his indignation, his genius, and his faith found such utterance and such expression as must recall to the student alternately the lyric inspiration of Coleridge and Shelley, the prophetic inspiration of Dante and Isaiah, the satiric inspiration of Juvenal and Dryden. Three years after *Les Châtiments*, a book written in lightning, appeared *Les Contemplations*, a book written in sunlight and starlight. Of the six parts into which it is divided, the first translates into many-sided music the joys and sorrows, the thoughts and fancies, the studies and ardours and speculations of youth; the second, as full of light and colour, grows gradually deeper in tone of thought and music; the third is yet riper and more various in form of melody and in fervour of meditation; the fourth is the noblest of all tributes ever paid by song to sorrow—a series of poems consecrated to the memory of the poet's eldest daughter, who was drowned, together with her husband, by the upsetting of a boat off the coast of Normandy, a few months after their wedding-day, in 1843; the fifth and the sixth books, written during his first four years of exile (all but one noble poem which bears date nine years earlier than its epilogue or postscript), contain more than a few poems unsurpassed and unsurpassable for depth and clarity and trenchancy of thought, for sublimity of inspiration, for intensity of faith, for loyalty in translation from nature, and for tenderness in devotion to truth; crowned and glorified and completed by their matchless dedication to the dead. Three years later again, in 1859, Victor Hugo gave to the world the first instalment of the greatest book published in the 19th century, *La Légende des siècles*.

Opening with a vision of Eve in Paradise which eclipses Milton's in beauty no less than in sublimity—a dream of the mother of mankind at the hour when she knew the first sense of dawning motherhood, it closes with a vision of the trumpet to be sounded on the day of judgment which transcends the imagination of Dante by right of a realized idea which was utterly impossible of conception to a believer in Dante's creed: the idea of real and final equity; the concept of absolute and abstract righteousness. Between this opening and this close the pageant of history and of legend, marshalled and vivified by the will and the hand of the poet, ranges through an infinite variety of action and passion, of light and darkness, of terror and pity, of lyric rapture and of tragic triumph.

After yet another three years' space the author of *La Légende des siècles* reappeared as the author of *Les Misérables*, the greatest epic and dramatic work of fiction ever created or conceived: the epic of a soul transfigured and redeemed, purified by heroism and glorified through suffering; the tragedy and the comedy of life at its darkest and its brightest, of humanity at its best and at its worst. Two years afterwards the greatest man born since the death of Shakespeare paid homage to the greatest of his predecessors in a volume of magnificent and discursive eloquence which bore the title of *William Shakespeare*, and might, as its author admitted and suggested, more properly have been entitled *À propos de Shakespeare*. It was undertaken with the simple design of furnishing a preface to his younger son's translation of Shakespeare; a monument of perfect scholarship, of indefatigable devotion, and of literary genius, which eclipses even Urquhart's Rabelais—its only possible competitor; and to which the translator's father prefixed a brief and admirable note of introduction in the year after the publication of the volume which had grown under his hand into the bulk and the magnificence of an epic poem in prose. In the same year *Les Chansons des rues el des bois* gave evidence of new power and fresh variety in the exercise and display of an unequalled skill and a subtle simplicity of metre and of style employed on the everlasting theme of lyric and idyllic fancy, and touched now and then with a fire more sublime than that of youth and love. Next year the exile of Guernsey published his third great romance, *Les Travailleurs de la mer*, a work unsurpassed even among the works of its author for splendour of imagination and of style, for pathos and sublimity of truth. Three years afterwards the same theme was rehandled with no less magnificent mastery in *L'Homme qui rit*; the theme of human heroism confronted with the superhuman tyranny of blind and unimaginable chance, overpowered and unbroken, defeated and invincible. Between the dates of these two great books appeared *La Voix de Guernesey*, a noble and terrible poem on the massacre of Mentana which branded and commemorated for ever the papal and imperial infamy of the colleagues in that crime. In 1872 Victor Hugo published in imperishable verse his record of the year which followed the collapse of the empire, *L'Année terrible*. All the poet and all the man spoke out and stood evident in the perfervid patriotism, the filial devotion, the fatherly tenderness, the indignation and the pity, which here find alternate expression in passionate and familiar and majestic song. In 1874 he published his last great romance, the tragic and historic poem in prose called *Quatrevingt-treize*; a work as rich in thought, in tenderness, in wisdom and in humour and in pathos, as ever was cast into the mould of poetry or of fiction.

The introduction to his first volume of *Actes et paroles*, ranging in date from 1841 to 1851, is dated in June 1875; it is one of his most earnest and most eloquent appeals to the conscience and intelligence of the student. The second volume contains the record of his deeds and words during the years of his exile; like the first and the third, it is headed by a memorable preface, as well worth the reverent study of those who may dissent from some of the writer's views as of those who may assent to all. The third and fourth volumes preserve the register of his deeds and words from 1870 to 1885; they contain, among other things memorable, the nobly reticent and pathetic tribute to the memory of the two sons, Charles (1826-1871) and François (1828-1873), he had lost since their common return from exile. In 1877 appeared the second series of *La Légende des siècles*; and in the same year the author of that colossal work, treating no less of superhuman than of human things, gave us the loveliest and most various book of song on the loveliest and simplest of subjects ever given to man, *L'Art d'être grandpère*. Next year he published *Le Pape*, a vision of the spirit of Christ in appeal against the spirit of Christianity, his ideal follower confronted and contrasted with his nominal vicar; next year again *La Pitié suprême*, a plea for charity towards tyrants who know not what they do, perverted by omnipotence and degraded by adoration; two years later *Religions et religion*, a poem which is at once a cry of faith and a protest against the creeds which deform and distort and leave it misshapen and envenomed and defiled; and in the same year *L'Ane*, a paean of satiric invective against the past follies of learned ignorance, and lyric rapture of confidence in the future wisdom and the final conscience of the world. These four great poems, one in sublimity of spirit and in supremacy of style, were succeeded next year by a fourfold gift of even greater price, *Les Quatre Vents de l'esprit*: the first book, that of satire,

is as full of fiery truth and radiant reason as any of his previous work in that passionate and awful kind; the second or dramatic book is as full of fresh life and living nature, of tragic humour and of mortal pathos, as any other work of the one great modern dramatist's; the third or lyric book would suffice to reveal its author as incomparably and immeasurably the greatest poet of his age, and one great among the greatest of all time; the fourth or epic book is the sublimest and most terrible of historic poems—a visionary pageant of French history from the reign and the revelries of Henry IV. to the reign and the execution of Louis XVI. Next year the great tragic poem of *Torquemada* came forth to bear witness that the hand which wrote *Ruy Blas* had lost nothing of its godlike power and its matchless cunning, if the author of *Le Roi s'amuse* had ceased to care much about coherence of construction from the theatrical point of view as compared with the perfection of a tragedy designed for the devotion of students not unworthy or incapable of the study; that his command of pity and terror, his powers of intuition and invention, had never been more absolute and more sublime; and that his infinite and illimitable charity of imagination could transfigure even the most monstrous historic representative of Christian or Catholic diabolatry into the likeness of a terribly benevolent and a tragically magnificent monomaniac. Two years later Victor Hugo published the third and concluding series of *La Légende des siècles*.

On the 22nd of May 1885 Victor Hugo died. He was given a magnificent public funeral, and his remains were laid in the Pantheon. The first volume published of his posthumous works was the exquisite and splendid *Théâtre en liberté*, a sequence if not a symphony of seven poems in dramatic form, tragic or comic or fanciful eclogues, incomparable with the work of any other man but the author of *The Tempest* and *The Winter's Tale* in combination and alternation of gayer and of graver harmonies. The unfinished poems, *Dieu* and *La Fin de Satan*, are full to overflowing of such magnificent work, such wise simplicity of noble thought, such heroic and pathetic imagination, such reverent and daring faith, as no other poet has ever cast into deathless words and set to deathless music. *Les Jumeaux*, an unfinished tragedy, would possibly have been the very greatest of his works if it had been completed on the same scale and on the same lines as it was begun and carried forward to the point at which it was cut short for ever. His reminiscences of "Things Seen" in the course of a strangely varied experience, and his notes of travel among the Alps and Pyrenees, in the north of France and in Belgium, in the south of France and in Burgundy, are all recorded by such a pen and registered by such a memory as no other man ever had at the service of his impressions or his thoughts. *Toute la lyre*, his latest legacy to the world, would be enough, though no other evidence were left, to show that the author was one of the very greatest among poets and among men; unsurpassed in sublimity of spirit, in spontaneity of utterance, in variety of power, and in perfection of workmanship; infinite and profound beyond all reach of praise at once in thought and in sympathy, in perception and in passion; master of all the simplest as of all the subtlest melodies or symphonies of song that ever found expression in a Border ballad or a Pythian ode.

(A. C. S.)

BIBLIOGRAPHY.—Victor Hugo's complete works were published in a definitive edition at Paris in 58 volumes (1885-1902). The critical literature which has grown up round his name is very extensive, from the time of Sainte-Beuve onwards, and only a few of the more important books need here be mentioned for reference on biographical and other details: F. T. Marzials, *Life of Hugo*, with bibliography (1888); A. C. Swinburne, *Study of Hugo* (1886); E. Dupuy, *Victor Hugo, l'homme et le poète* (1886); Paul de Saint Victor, *Victor Hugo* (1885); F. Brunetière, *Victor Hugo* (1903); Jules Claretie, *Victor Hugo, souvenirs intimes* (1902). See also *The Bookman* for August 1904; Francis Gribble, "The Hugo Legend," an adverse view, in *Fortnightly Review* (February 1910); and the article FRENCH LITERATURE.

HUGUENOTS, the name given from about the middle of the 16th century to the Protestants of France. It was formerly explained as coming from the German *Eidgenossen*, the designation of the people of Geneva at the time when they were admitted to the Swiss confederation. This explanation is now abandoned. The words *Huguenot*, *Huguenote* are old French words, common in 14th and 15th-century charters. As the Protestants called the Catholics *papistes*, so the Catholics called the Protestants *huguenots*. Henri Estienne, one of the great savants of his time, in the introduction to his *Apologie d'Herodote* (1566) gives a very clear explanation of the term *huguenots*. The Protestants at Tours, he says, used to assemble by night near the gate of King Hugo, whom the people regarded as a spirit. A monk, therefore, in a sermon declared that the Lutherans ought to be called *Huguenots* as kinsmen

of King Hugo, inasmuch as they would only go out at night as he did. This nickname became popular from 1560 onwards, and for a long time the French Protestants were always known by it.

France could not stand outside the religious movement of the 16th century. It is true that the French reform movement has often been regarded as an offshoot of Lutheranism; up to I he middle of the century its adherents were known as Lutherans. But it should not be forgotten that so early as 1512 Jacobus Faber (*q.v.*) of Étaples published his *Santi Pauli Epistolae xiv. ... cum commentariis*, which enunciates the cardinal doctrine of reform, justification by faith, and that in 1523 appeared his French translation of the New Testament. The first Protestants were those who set the teachings of the Gospel against the doctrines of the Roman Church. As early as 1525 Jacques Pavannes, the hermit of Livry, and shortly afterwards Louis de Berquin, the first martyrs, were burned at the stake. But no persecution could stop the Reform movement, and on the walls of Paris and even at Amboise, on the very door of Francis I.'s bedroom, there were found placards condemning the mass (1534). On the 29th of January 1535 an edict was published ordering the extermination of the heretics. From this edict dates the emigration of French Protestants, an emigration which did not cease till the middle of the 18th century. Three years later (1538) at Strassburg the first French Protestant Church, composed of 1500 refugees, was founded.

Of all these exiles the most famous was John Calvin (*q.v.*), the future leader of the movement, who fled to Basel, where he is said to have written the famous *Institutio christianae religionis*, preceded by a letter to Francis I. in which he pleaded the cause of the reformers. The first Protestant community in France was that of Meaux (1546) organized on the lines of the church at Strassburg of which Calvin was pastor. The Catholic Florimond de Remond paid it the beautiful tribute of saying that it seemed as though "la chrétienté fut revenue en elle à sa primitive innocence."

Persecution, however, became more rigorous. The Vaudois of Cabrières and Mérindol had in 1545 been massacred by the orders of Jean de Maynier, baron d'Oppède, lieutenant-general of Provence, and at Paris was created a special court in the parlement, for the suppression of heretics, a court which became famous in history as the *Chambre ardente* (1549). In spite of persecution the churches became more numerous; the church at Paris was founded in 1556. They realized the necessity of uniting in defence of their rights and their liberty, and in 1558 at Poitiers it was decided that all the Protestant churches in France should formulate by common accord a confession of faith and an ecclesiastical discipline. The church at Paris was commissioned to summon the first synod, which in spite of the danger of persecution met on the 25th of May 1559. The Synod of Paris derived its inspiration from the constitution introduced by Calvin at Geneva, which has since become the model for all the presbyterian churches. Ecclesiastical authority resides ultimately in the people, for the faithful select the elders who are charged with the general supervision of the church and the choice of pastors. The churches are independent units, and there can be no question of superiority among them; at the same time they have common interests and their unity must be maintained by an authority which is capable of protecting them. The association of several neighbouring churches forms a local council (*colloque*). Over these stands the provincial synod, on which each church is equally represented by lay delegates and pastors. Supreme authority resides in the National Synod composed of representatives, lay and ecclesiastic, elected by the provincial synods. The democratic character of this constitution of elders and synods is particularly remarkable in view of the early date at which it began to flourish. The striking individuality of the Huguenot character cannot be fully realized without a clear understanding of this powerful organization which contrived to reconcile individual liberty with a central authority.

The synod of 1559 was the beginning of a remarkable increase in the Reform movement; at that synod fifteen churches were represented, two years later, in 1561, the number increased to 2150. The parlements were powerless before this increase; thousands left the Catholic Church, and when it was seen that execution and popular massacre provided no solution of the difficulty the struggle was carried into the arena of national politics. On the side of the reformers were ranged some among the noblest Frenchmen of the age, Coligny, La Noue, Duplessis Mornay, Jean Cousin, Ramus, Marot, Ambroise Paré, Olivier de Serres, Bernard Palissy, the Estiennes, Hotman, Jean de Serres, with the princess Renée of France, Jeanne d'Albret, Louise de Coligny. The policy which refused liberty of conscience to the reformers and thus plunged the country into the horrors of civil war came near to causing a national catastrophe. For more than fifty years the history of the Huguenots is that of France (1560-1629). Francis II., who succeeded Henry II. at the age of sixteen, married Mary Stuart, and fell under the domination of the queen's uncles, the Guises, who were to lead the anti-Reform party. The Bourbons, the Montmorencies, the Chatillons, out of hostility to them, became the

chiefs of the Huguenots.

The conspiracy of Amboise, formed with the object of kidnapping the king (March 1560), was discovered, and resulted in the death of the plotters; it was followed by the proclamation of the Edict of Romorantin which laid an interdict upon the Protestant religion. But the reformers had become so powerful that Coligny, who was to become their most famous leader, protested in their name against this violation of liberty of conscience. The Guise party caused the prince of Condé to be arrested and condemned to death, but the sentence was not carried into effect, and at this moment Catherine de' Medici became regent on the accession of Charles IX. She introduced Italian methods of government, alternating between concessions and vigorous persecution, both alike devoid of sincerity. For a moment, at the colloquy of Poissy (Oct. 1561), at which Roman Catholic and Protestant divines were assembled together and Theodore Beza played so important a part, it seemed as though a modus vivendi would be established. The attempt failed, but by the edict of January 1562, religious liberty was assured to the Huguenots. This, however, was merely the prelude to civil war, the signal for which was given by the Guises, who slaughtered a number of Huguenots assembled for worship in a barn at Vassy (March 1, 1562). The duke of Guise, entering Paris in triumph, transferred the court to Fontainebleau by a daring *coup d'état* in defiance of the queen regent. It was then that Condé declared "qu'on ne pouvait plus rien espérer que de Dieu et ses armes," and with the Huguenot leaders signed at Orleans (April 11, 1562) the manifesto in which, having declared their loyalty to the crown, they stated that as good and loyal subjects they were driven to take up arms for liberty of conscience on behalf of the persecuted saints. The first civil war had already broken out; till the end of the century the history of France is that of the struggle between the Huguenots upholding "The Cause" (La Cause) and the Roman Catholics fighting for the Holy League (La Sainte Ligue). The leading events only will be related here (see also FRANCE: *History*). The Huguenots lost the battle of Dreux (Dec. 19, 1562), the duke of Guise was assassinated by Poltrot de Méré (Feb. 18, 1563) and finally Condé signed the Edict of Amboise which put an end to this first war. But the League gradually extended its action and Catherine de' Medici entered into negotiations with Spain. The Huguenots, seeing their danger, renewed hostilities, but after their defeat at St Denis (Nov. 10, 1567) and the revolt of La Rochelle, peace was concluded at Longjumeau (March 23, 1568). This truce lasted only a few months. Pope Pius V. did not cease to demand the extermination of the heretics, and the queen mother finally issued the edict of the 28th of September 1568, which put the Huguenots outside the protection of the law. The Huguenots once more took up arms, but were defeated at Jarnac (March 13, 1569), and Condé was taken prisoner and assassinated by Montesquiou. But Jeanne d'Albret renewed the courage of the vanquished by presenting to them her son Henri de Bourbon, the future Henry IV. Coligny, whose heroic courage rose with adversity, collected the remnants of the Protestant army and by a march as able as it was audacious moved on Paris, and the Peace of St Germain was signed on the 8th of August 1570.

For a moment it seemed reasonable to hope that the war was at an end. Coligny had said that he would prefer to be dragged through the streets of Paris than to recommence the fighting; Charles IX. had realized the nobility and the patriotism of the man who wished to drive the Spaniards from Flanders; Henri de Bourbon was to marry Marguerite of France. Peace seemed to be assured when on the night of the 24th of August, 1572, after a council at which Catherine de' Medici, Charles IX., the duke of Anjou and other leaders of the League assisted, there occurred the treacherous Massacre of St Bartholomew (*q.v.*) in which Coligny and all the leading Huguenots were slain. This date marks a disastrous epoch in the history of France, the long period of triumph of the Catholic reaction, during which the Huguenots had to fight for their very existence. The Paris massacre was repeated throughout France; few were those who were noble enough to decline to become the executioners of their friends, and the Protestants were slain in thousands. The survivors resolved upon a desperate resistance. It was at this time that the Huguenots were driven to form a political party; otherwise they must, like the Protestants of Spain, have been exterminated. This party was formed at Milhau in 1573, definitely constituted at La Rochelle in 1588, and lasted until the peace of Alais in 1629. The delegates selected by the churches bound themselves to offer a united opposition to the violence of the enemies of God, the king and the state. It is a profound mistake to attribute to them, as their enemies have done, the intention of overthrowing the monarchy and substituting a republic. They were royalists to the core, as is shown by the sacrifices they made for the sake of setting Henry IV. on the throne. It is true, however, that among themselves they formed a kind of republic which, according to the historian J. A. de Thou, had its own laws dealing with civil government, justice, war, commerce, finance. They had a president called the Protector of the Churches, an office held first by Condé and afterwards by the king of Navarre up to the day on which he became king of France as Henry IV. (1589). The fourth religious war, which had broken out immediately after the Massacre of St

Bartholomew, was brought to an end by the pacification of Boulogne (July 16, 1573), which granted a general amnesty, but the obstinate intolerance of the League resulted in the creation of a Catholic party called “les Politiques” which refused to submit to their domination and offered aid to the Huguenots against the Guises. The recollections of the horrors of St Bartholomew’s night had hastened the death of Charles IX., the last of the Valois; he had been succeeded by the most debauched and effeminate of monarchs, Henry III. Once more war broke out. Henry of Guise, “le Balafré,” nephew of the cardinal of Lorraine, became chief of the League, while the duke of Anjou, the king’s brother, made common cause with the Huguenots. The peace of Monsieur, signed on the 5th of May 1576, marked a new victory of liberty of conscience, but its effect was ephemeral; hostilities soon recommenced and lasted for many years, and only became fiercer when the duke of Anjou died on the 10th of June 1584.

The fact that on the death of Henry III. the crown would pass to Henry of Navarre, the Protector of the Churches, induced the Guise party to declare that they would never accept a heretical monarch, and, at the instigation of Henry of Guise, Cardinal de Bourbon was nominated by them to succeed. Henry of Navarre since 1575 leader of the Huguenots, had year by year seen his influence increase, and now, faced by the machinations of the Guises, who had made overtures to Spain, declared that his only object was to free the feeble Henry III. from their influence. On the 20th of October 1587 he won the battle of Coutras, but on the 28th the foreign Protestants who were coming to his aid were routed by Guise at Montargis. The new body, known as “the Sixteen of Paris,” thereupon compelled Henry III. to sign the “Edict of Union” by which the cardinal of Bourbon was declared heir presumptive. The king could not, however, endure the humiliation of hearing Henry of Guise described as “king of Paris” and on the 23rd of December 1588 had him murdered together with the cardinal of Lorraine at the château of Blois. The League, now led by the duke of Mayenne, Guise’s brother, declared war to the knife upon him and caused him to be excommunicated. In his isolation Henry III. threw himself into the arms of Henry of Navarre, who saved the royalist party by defeating Mayenne and escorted the king with his victorious army to St. Cloud, whence he proposed to enter Paris and destroy the League. But Henry III., on the 1st of August 1589, was assassinated by the monk Jacques Clement, on his deathbed appointing Henry of Navarre as his successor.

This only spurred the League to redoubled energy, and Mayenne proclaimed the cardinal of Bourbon king with the title of Charles X. But Henry IV., who had already promised to maintain the Roman Church, gained new adherents every day, defeated the Leaguers at Arques in 1589, utterly routed Mayenne at Ivry on the 14th of March 1590, and laid siege to Paris. Cardinal de Bourbon having died in the same year and France being in a state of anarchy, Philip II. of Spain, in concert with Pope Gregory XIV., who excommunicated Henry IV., supported the claims of the infanta Isabella. Mayenne, unable to continue the struggle without Spanish help, promised to assist him, but Henry neutralized this danger by declaring himself a Roman Catholic at St Denis (July 25, 1593), saying, “Paris after all is worth a mass, in spite of the advice and the prayers of my faithful Huguenots.” “It is with anguish and grief,” writes Beza, “that I think of the fall of this prince in whom so many hopes were placed.” On the 22nd of March 1594 Henry entered Paris. The League was utterly defeated. Thus the Huguenots after forty years of strife obtained by their constancy the promulgation of the Edict of Nantes (April 13, 1598), the charter of religion and political freedom (see Nantes, Edict of).

The Protestants might reasonably hope that Henry IV., in spite of his abjuration of their faith, would remember the devoted support which they had given him, and that his authority would guarantee the observance of the provisions of the Edict. Unhappily twelve years afterwards, on the 14th of May 1610, Henry was assassinated by Ravaillac, leaving the great work incomplete. Once more France was to undergo the misery of civil war. During the minority of Louis XIII. power resided in the hands of counsellors who had not inherited the wisdom of Henry IV. and were only too ready to favour the Catholic party. The Huguenots, realizing that their existence was at stake, once more took up arms in defence of their liberty under the leadership of Henri de Rohan (*q.v.*). Their watchword had always been that, so long as the state was opposed to liberty of conscience, so long there could be no end to religious and civil strife, that misfortune and disaster must attend an empire of which the sovereign identified himself with a single section of his people. Richelieu had entered the king’s council on the 4th of May 1624; the destruction of the Huguenots was his policy and he pursued it to a triumphant conclusion. On the 28th of October 1628, La Rochelle, the last stronghold of the Huguenots, was obliged to surrender after a siege rendered famous for all time by the heroism of its defenders and of its mayor. The peace of Alais, which was signed on the 28th of June 1629, marks the end of the civil wars.

The Huguenots had ceased to exist as a political party and, in the assurance that liberty of

conscience would be accorded to them, showed themselves loyal subjects. On the death of Louis XIII., the declaration of the 8th of July 1643 had guaranteed to the Protestants “free and unrestricted, exercise of their religion,” thus confirming the Edict of Nantes. The synods of Charenton (1644) and Loudun (1659) asserted their absolute loyalty to Louis XIV., a loyalty of which the Huguenots had given proof not only by their entire abstention from the troubles of the Fronde, but also by their public adherence to the king. The Roman Catholic clergy had never accepted the Edict of Nantes, and all their efforts were directed to obtaining its revocation. As long as Mazarin was alive the complaints of the clergy were in vain, but when Louis XIV. attained his majority there commenced a legal persecution which was bound in time to bring about the ruin of the reformed churches. The Edict of Nantes, which was part of the law of the land, might seem to defy all attacks, but the clergy found means to evade the law by demanding that it should be observed with literal accuracy, disregarding the changes which had been produced in France during more than half a century. The clergy in 1661 successfully demanded that commissioners should be sent to the provinces to report infractions of the Edict, and thus began a judicial war which was to last for more than twenty years. All the churches which had been built since the Edict of Nantes were condemned to be demolished. All the privileges which were not explicitly stated in the actual text of the Edict were suppressed. More than four hundred proclamations, edicts or declarations attacking the Huguenots in their households and their civil freedom, their property and their liberty of conscience were promulgated during the years which preceded the revocation of the Edict of Nantes. In spite of all sufferings which this rigorous legislation inflicted upon them they did not cease to resist, and in order to crush this resistance and to compel them to accept the “king’s religion,” there were organized the terrible *dragonnades* (1683-1686) which effected the forcible conversion of thousands of Protestants who gave way under the tortures which were inflicted upon them. It was then that Louis XIV. declared that “the best of the larger part of our subjects, who formerly held the so-called reformed religion, have embraced the Catholic religion, and therefore the Edict of Nantes has become unnecessary”; on the 18th of October 1685 he pronounced its revocation. Thus under the influence of the clergy was committed one of the most flagrant political and religious blunders in the history of France, which in the course of a few years lost more than 400,000 of its inhabitants, men who, having to choose between their conscience and their country, endowed the nations which received them with their heroism, their courage and their ability.

There is perhaps no example in history of so cruel a persecution as this, which destroyed a church of which Protestant Europe was justly proud. At no period in its career had it numbered among its adherents so many men of eminence, Abbadie, Claude, Bayle, Du Bosc, Jurieu, Élie Benoist, La Placette, Basnage, Daillé, Mestrezat, Du Quesne, Schomberg, Ruvigny. There were no Huguenots left in France; those who, conquered by persecution, remained there were described as “New Catholics.” All the pastors who refused to abjure their faith were compelled to leave the country within fifteen days. The work was complete. Protestantism, with its churches and its schools, was destroyed. As Bayle wrote, “France was Catholic to a man under the reign of Louis the Great.”

Persecution had succeeded in silencing, but it could not convert the people. The Huguenots, before the ruins of their churches, remembered the early Christians and held their services in secret. Their pastors, making light of death, returned from the lands of their exile and visited their own churches to restore their courage. If any one denied the Catholic faith on his death-bed his body was thrown into the common sewers. The galleys were full of brave Huguenots condemned for remaining constant to the Protestant faith. For fifteen years the exiles continuously besought Louis XIV. to give them back their religious liberty. For a moment they hoped that the Treaty of Ryswick (1697) would realise their hopes, but Louis XIV. steadily declined to grant their requests. Despair armed the Cévennes, and in 1702 the war of the Camisards broke out, a struggle of giants sustained by Jean Cavalier with his mountaineers against the royal troops (see Camisards and Cavalier, Jean). The Huguenots seemed to be finally conquered. On the 8th of March 1715 Louis XIV. announced that he had put an end to all exercise of the Protestant religion; but in this very year, on the 21st of August, while the king was dying at Versailles, there assembled together at Monoblet in Languedoc, under the presidency of a young man twenty years of age, Antoine Court, a number of preachers, as the pastors were then called, with the object of raising the church from its ruins. This was the first synod of the Desert. To re-establish the abandoned worship, to unite the churches in the struggle for liberty of conscience, such was the work to which Court devoted his life, and which earned for him the name of the “Restorer of Protestantism” (see Court, Antoine). In spite of persecution the Protestants continued their assemblies; the fear of death and of the galleys were alike powerless to break their resistance. On the demand of the clergy all marriages celebrated by their pastors were declared null and void, and the children born of these unions were regarded as bastards.

Protestantism, which persecution seemed to have driven from France, drew new life from this very persecution. Outlawed, exiles in their own country, deprived of all civil existence, the Huguenots showed an invincible heroism. The history of their church during the period of the Desert is the history of a church which refused to die. Amongst its famous defenders was Paul Rabaut, the successor of Antoine Court. Year by year the churches became more numerous. In 1756 there were already 40 pastors; several years later, in 1763, the date of the last synod of the Desert, their number had increased to 65. The question of Protestant marriages roused public opinion which could not tolerate the idea that Frenchmen, whose sole crime was their religious belief, should be condemned to civil death. The torture of Jean Calas, who was condemned on a false charge of having killed his son because he desired to become a Catholic, caused general indignation, of which Voltaire became the eloquent mouthpiece. Ideas of tolerance, of which Bayle had been the earliest advocate, became victorious, and owing to the devotion of Rabaut Saint-Étienne, son of Paul Rabaut, and the zeal of Lafayette, the edict of November 1787, in spite of the fierce opposition of the clergy, renewed the civil rights of the Huguenots by recognizing the validity of their marriages. Victories even greater were in store; two years later liberty of conscience was won. On the 22nd of August 1789 the pastor Rabaut Saint-Étienne, deputy for the *sénéchaussée* of Nîmes to the States General, cried out, “It is not tolerance which I demand, it is liberty, that my country should accord it equally without distinction of rank, of birth or of religion.” The Declaration of the Rights of Man affirmed the liberty of religion; the Huguenots had not suffered in vain, for the cause for which their ancestors and themselves had suffered so much was triumphant, and it was the nation itself which proclaimed the victory. But religious passions were always active, and at Montauban as at Nîmes (1790) Catholics and Protestants came to blows. The Huguenots, having endured the persecutions of successive monarchs, had to endure those of the Terror; their churches were shut, their pastors dispersed and some died upon the scaffold. On the 3rd of Ventose, year II. (February 21, 1795), the church was divorced from the state and the Protestants devoted themselves to reorganization. Some years later Bonaparte, having signed the Concordat of the 15th of July 1801, promulgated the law of the 18th of Germinal, year X., which recognized the legal standing of the Protestant church, but took from it the character of free church which it had always claimed. So great was the contrast between a past which recalled to Protestants nothing but persecution, and a present in which they enjoyed liberty of conscience, that they accepted with a profound gratitude a régime of which the ecclesiastical standpoint was so alien to their traditions. With enthusiasm they repeated the words with which Napoleon had received the pastors at the Tuileries on the 16th of Frimaire, year XII.: “The empire of the law ends where the undefined empire of conscience begins; law and prince are powerless against this liberty.”

The Protestants, on the day on which liberty of conscience was restored, could measure the full extent of the misery which they had endured. Of this people, which in the 16th century formed more than one-tenth of the population of France, there survived only a few hundred thousands; migration and persecution had more than decimated them. In 1626 there were 809 pastors in the service of 751 churches; in 1802 there were only 121 pastors and 171 churches; in Paris there was only a single church with a single pastor. The church had no faculty of theology, no schools, no Bible societies, no asylums, no orphanages, no religious literature. Everything had to be created afresh, and this work was pursued during the 19th century with the energy and the earnest faith which is characteristic of the Huguenot character.

At the fall of the Empire (1815) the reaction of the White Terror once more exposed the Protestants to outrage, and once more a number fled from persecution and sought safety in foreign countries. Peace having been established, attention was once more focussed on religious questions, and the period was marked in Protestantism by a remarkable awakening. On all sides churches were built and schools opened. It was an epoch of the greatest importance, for the church concentrated itself more and more on its real mission. During this period were founded the great religious societies:—Société biblique (1819), Société de l’instruction primaire (1829), Société des traités (1821), Société des missions (1822). The influence of English thought on the development of religious life was remarkable, and theology drew its inspiration from the writings of Paley, David Bogue, Chalmers, Ebenezer Erskine, Robert and James Alexander Haldane, which were translated into French. Later on German theology and the works of Kant, Neander and Schleiermacher produced a far-reaching effect. This was due to the period of persecution which had checked that development of religious thought which had been so remarkable a feature of French Protestantism of the 16th and 17th centuries.

Slowly Protestantism once more took its place in the national life. The greatest names in its history are those of Guizot and Cuvier; Adolf Monod, with Athanase Coquerel, stand in the front rank of pulpit orators. The Protestants associated themselves with all the great

philanthropic works—Baron Jules Delessert founded savings banks, Baron de Staël condemned slavery, and all France united to honour the pastor, Jean Frédéric Oberlin. But the reformers, if they had no longer to fear persecution, had still to fight in order to win respect for religious liberty, which was unceasingly threatened by their adversaries. Numerous were the cases tried at this epoch in order to obtain justice. On the other hand the old union of the reformed churches had ceased to exist since the revolution of July. Ecclesiastical strife broke out and has never entirely ceased. A schism occurred first in 1848, owing to the refusal of the synod to draw up a profession of faith, the comte de Gasparin and the pastor Frédéric Monod seceding and founding the Union des Églises Évangéliques de France, separated from the state, of which later on E. de Pressensé was to become the most famous pastor. Under the Second Empire (1852-1870) the divisions between the orthodox and the liberal thinkers were accentuated; they resulted in a separation which followed on the reassembly of the national synod, authorized in 1872 by the government of the Third Republic. The old Huguenot church was thus separated into two parts, having no other link than that of the Concordat of 1802 and each possessing its own peculiar organization.

The descendants of the Huguenots, however, remained faithful to the traditions of their ancestors, and extolled the great past of the French reform movement. Moreover, in 1859 were held the magnificent religious festivals to celebrate the third centenary of the convocation of their first national synod; and when on the 18th of October 1885 they recalled the 200th anniversary of the Revocation of the Edict of Nantes, they were able to assert that the Huguenots had been the first defenders of religious liberties in France. In the early days of the 20th century the work of restoring French Protestantism, which had been pursued with steady perseverance for more than one hundred years, showed great results. This church, which in 1802 had scarcely 100 pastors has seen this number increased to 1000; it possesses more than 900 churches or chapels and 180 presbyteries. In contrast with the poverty of religious life under the First Empire it presented a striking array of Bible societies, missionary societies, and others for evangelical, educational, pastoral and charitable work, which bear witness to a church risen from its ruins. French Protestantism in the course of the 19th century reckoned among its members such eminent theologians as Timothée Colani (1824-1888), who together with Edmond Scherer founded the celebrated *Revue de théologie de Strasbourg* (1850); Edmond de Pressensé, editor of the *Revue chrétienne*, Charles Bois and Michel Nicolas, professors of theology at Montauban, Auguste Sabatier, professor of theology at the university of Paris, Albert Réville, professor at the Collège de France, Félix Pécaut, &c.; well-known preachers such as Eugène Bersier, Ernest Dhornbres, Ariste Viguré, Numa Recolin, Auguste de Coppet, and missionaries, for example Eugène Casalis and Coillard; Jean Bost, who founded the hospitals at Laforce; historians like Napoléon Peyrat, the brothers Haag, who wrote *La France protestante*, François Puaux, Charles Coquerel, Onesime Douen, Henri Bordier, Edouard Sayous, de Félice, Théophile Rollez; Jean Pédézert, Léon Pilatte and others, who were journalists; such statesmen as Guizot, Léon Say, Waddington; such scholars as Cuvier, Broca, Wurtz, Friedel de Quatrefages; such illustrious soldiers and sailors as Rapp, Admirals Baudin, Jauréguiberry, Colonel Denfert-Rochereau. But the population of Protestant France does not exceed 750,000 souls, without counting the Lutherans, who are attached to the Confession of Augsburg, numbering about 75,000. Their chief centres are in the departments of Gard, Ardèche, Drôme, Lozère, the Deux Sèvres and the Seine.

The law of the 9th of December 1905, which separated the church from the state, has been accepted by the great majority of Protestants as a legitimate consequence of the reform principles. Nor has its application given rise to any difficulty with the state. They used their influence only in the direction of rendering the law more liberal and immediately devoted themselves to the organization of their churches under the new régime. If the two great parties, orthodox and liberal, have each their particular constitution, nevertheless a third party has been formed with the object of effecting a reconciliation of all the Protestant churches and of thus reconstituting the old Huguenot church.

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(F. Px.)

HUGUES, CLOVIS (1851-1907), French poet and socialist, was born at Menerbes in Vaucluse on the 3rd of November 1851. He studied for the priesthood, but did not take orders. For some revolutionary articles in the local papers of Marseilles he was condemned in 1871 to three years' imprisonment and a fine of 6000 francs. In 1877 he fought a duel in which he killed his adversary, a rival journalist. Elected deputy by Marseilles in the general elections of 1881, he was at that time the sole representative of the Socialist party in the chambers. He was re-elected in 1885, and in 1893 became one of the deputies for Paris, retaining his seat until 1906. He died on the 11th of June 1907.

His poems, novels and comedies are full of wit and exuberant vitality.

His principal works are: *Poèmes de prison* (1875), written during his detention, *Soirs de bataille* (1883); *Jours de combat* (1883); and *Le Travail* (1889); the novels, *Madame Phaéton* (1885) and *Monsieur le gendarme* (1891); and the dramas, *Une étoile* (1888) and *Le sommeil de Danton* (1888).

HUICHOL (pronounced Veetchol—a corruption of the native name *Vishalika* or *Virarika*,

doctors or healers), a tribe of Mexican Indians living in a mountainous region on the eastern side of the Chapalagana river, Jalisco. Huichol tradition assigns the south as their place of origin. Their name of “healers” is deserved, for about one-fourth of the men are Shamans. The Huichols are in much the same social condition as at the time of the Aztec empire. They were conquered by the Spaniards in 1722.

For full description of the people and their habits see Carl Lumholtz, *Unknown Mexico* (1903).

HUITZILOPOCHTLI, the supreme being in the religions of ancient Mexico, and as a specialized deity, the god of war. He was the mythic leader and chief divinity of the Aztecs, dominant tribe of the Nahua nation. As a humming-bird Huitzilopochtli was alleged to have led the Aztecs to a new home. E. B. Tylor (*Primitive Culture*, 4th ed., vol. ii. p. 307) calls him an “inextricable compound parthenogenetic deity”; and finds, in the fact that his chief festival (when his paste idol was shot through with an arrow, and afterwards eaten) was at the winter solstice, ground for believing that he was at first a nature-god, whose life and death were connected with the year’s. His idol was a huge block of basalt (still thought to be preserved in Mexico), on one side of which he is sculptured in hideous form, adorned with the feathers of the humming-bird. The ceremonies of his worship were of the most bloodthirsty character, and hundreds of human beings were murdered annually before his shrine, their limbs being eaten by his worshippers. When his temple was dedicated in 1486 it is traditionally reported that 70,000 people were killed. See Mexico.

HULDA, in Teutonic mythology, goddess of marriage. She was a beneficent deity, the patroness and guardian of all maidens (see Berchta).

HULKE, JOHN WHITAKER (1830-1895), British surgeon and geologist, was born on the 6th of November 1830, being the son of a well-known medical practitioner at Deal. He was educated partly at a boarding-school in this country, partly at the Moravian College at Neuwied (1843-1845), where he gained an intimate knowledge of German and an interest in geology through visits to the Eifel district. He then entered King’s College school, and three years later commenced work at the hospital, becoming M.R.C.S. in 1852. In the Crimean War he volunteered, and was appointed (1855) assistant-surgeon at Smyrna and subsequently at Sebastopol. On returning home he became medical tutor at his old hospital, was elected F.R.C.S. in 1857, and afterwards assistant-surgeon to the Royal Ophthalmic Hospital, Moorfields (1857), and surgeon (1868-1890). In 1870 he became surgeon at the Middlesex hospital, and here much of his more important surgical work was accomplished. His skill as an operator was widely known: he was an excellent general surgeon, but made his special mark as an ophthalmologist, while as a geologist he attained a European reputation. He was elected F.R.S. in 1867 for his researches on the anatomy and physiology of the retina in man and the lower animals, particularly the reptiles. He subsequently devoted all his spare time to geology and especially to the fossile reptilia, describing many remains of Dinosaurs, to our knowledge of which as well as of other Saurians he largely contributed. In 1887 the Wollaston medal was awarded to him by the Geological Society of London. He was president of both the Geological and Pathological Societies in 1883, and president of the Royal College of Surgeons from 1893 until his death. He was a man with a wide range of knowledge not only of science but of literature and art. He died in London on the 19th of February 1895.

HULL, ISAAC (1775-1843), commodore in the U.S. navy, was born at Derby in Connecticut on the 9th of March 1775. He went to sea young in the merchant service and was in command of a vessel at the age of nineteen. In 1798 he was appointed lieutenant in the newly organized U.S. navy. From 1803 to 1805 he served in the squadron sent to chastise the Barbary pirates as commander of the “Enterprise,” but was transferred to the “Argus” in November of 1803. When the War of 1812 broke out he was captain of the U.S. frigate “Constitution” (44), and was on a mission to Europe carrying specie for the payment of a debt in Holland. The “Constitution” was shadowed by British men-of-war, but was not attacked. In July of that year, however, he was pursued by a squadron of British vessels, and escaped by good seamanship and the fine sailing qualities of the “Constitution.” He was to have been superseded, but put to sea before the officer who was to have relieved him arrived—an action which might have been his ruin if he had not signalized his cruise by the capture of the British frigate “Guerrière” (38). Captain Hull had been cruising off the Gulf of St Lawrence, and the engagement, which took place on the 19th of August, was fought south of the Grand Bank. The “Constitution” was a fine ship of 1533 tons, originally designed for a two-decker, but cut down to a frigate. The “Guerrière” was of 1092 tons and very ill-manned, while the “Constitution” had a choice crew. The British ship was easily overpowered. Hull received a gold medal for the capture of the “Guerrière,” but had no further opportunity of distinction in the war. After the peace he held a variety of commands at sea, and was a naval commissioner from 1815 to 1817. He had a high reputation in the United States navy for practical seamanship. He died at Philadelphia on the 13th of February 1843.

HULL, a city (1875) and railway junction of the province of Quebec, Canada, and the capital of Wright county, opposite the city of Ottawa. Pop. (1901) 13,988. The magnificent water-power of the Chaudière Falls of the Ottawa is utilized for the lighting of the city, the operation of a system of electric railways connecting Hull with Ottawa and Aylmer, and a number of large saw-mills, pulp, paper and match manufactories. Hull has gone through several disastrous fires, but since that of 1900, which swept out most of the town, an efficient system of fire protection has been established. Three bridges unite Ottawa and Hull. The city is governed by a council composed of a mayor and twelve aldermen elected annually. Champlain was the first white man to set foot on the site of Hull, but long before he came it was a favourite meeting-place for the Indians. Later it became familiar to explorers and fur-traders as the foot of the Chaudière portage, and many a canoe has been carried shoulder high over the site of future busy streets. Philemon Wright, of Woburn, Massachusetts, was the first man to settle here in 1800. The report he sent back was so favourable that a number of other families followed from the same place and laid the foundations of the future city. His descendants have remained among the substantial men of the town.

HULL (officially Kingston-upon-Hull), a city and county of a city, municipal, county and parliamentary borough, and seaport in the East Riding of Yorkshire, England, at the junction of the river Hull with the Humber, 22 m. from the open sea, and 181 m. N. of London. Pop. (1891) 200,472; (1901) 240,259. Its full name, not in general use, is Kingston-upon-Hull. It is served by the North Eastern, Great Central and Hull & Barnsley railways, the principal station being Paragon Street. The town stands on a level plain so low as to render embankments necessary to prevent inundation. The older portion is completely enclosed by the Hull and Humber on the E. and S. and by docks on the N. and W. Here are narrow streets typical of the medieval mercantile town, though modern improvements have destroyed some of them; and there are a few ancient houses. In Holy Trinity church Hull possesses one of the largest English parish churches, having an extreme length of 272 ft. It is cruciform and has a massive central tower. This and the transepts and choir are of Decorated work of various dates. The choir is largely constructed of brick, and thus affords an unusually early example of the use of this material in English ecclesiastical architecture. The nave is Perpendicular, a fine example of the style. William Mason the poet (1725-1797) was the son of a rector of the parish. The church of St Mary, Lowgate, was founded in the 14th century, but is almost wholly a reconstruction. Modern churches are numerous, but of no remarkable architectural

merit. Among public buildings the town-hall, in Lowgate, ranks first. It was completed in 1866, but was subsequently extended and in great part rebuilt; it is in Italian renaissance style, having a richly adorned façade. The exchange, in the same street, was also completed in 1866, in a less ornate Italian style. There are also theatres, a chamber of commerce, corn exchange, market-hall, custom-house, and the dock offices, a handsome Italian building. The principal intellectual institution is the Royal Institution, a fine classical building opened by Albert, prince consort, in 1854, and containing a museum and large library. It accommodates the Literary and Philosophical Society. The grammar school was founded in 1486. One of its masters was Joseph Milner (1744-1797), author of a history of the Church; and among its students were Andrew Marvell the poet (1621-1678) and William Wilberforce the philanthropist (1759-1833), who is commemorated by a column and statue near the dock offices, and by the preservation of the house of his birth in High Street. This house belongs to the corporation and was opened in 1906 as the Wilberforce and Historical Museum. There are also to be mentioned the Hull and East Riding College, Hymer's College, comprising classical, modern and junior departments, the Trinity House marine school (1716), the Humber industrial school ship "Southampton," and technical and art schools. Charities and benevolent foundations are numerous. Trinity House is a charity for seamen of the merchant service; the building (1753) was founded by the Trinity House Gild instituted in 1369, and contains a noteworthy collection of paintings and a museum. The Charterhouse belongs to a foundation for the support of the old and feeble, established by Sir Michael de la Pole, afterwards earl of Suffolk, in 1384. The infirmary was founded in 1782. Of the three parks, Pearson Park was presented by a mayor of that name in 1860, and contains statues of Queen Victoria and the Prince Consort. A botanic garden was opened in 1880.

The original harbour occupied that part of the river Hull which faced the old town, but in 1774 an act was passed for forming a dock on the site of the old fortifications on the right bank of the Hull. This afterwards became known as Queen's dock, and with Prince's and Humber docks completes the circle round the old town. The small railway dock opens from Humber dock. East of the Hull lie the Victoria dock and extensive timber ponds, and west of the Humber dock basin, parallel to the Humber, is Albert dock. Others are the Alexandra, St Andrew's and fish docks. The total area of the docks is about 186 acres, and the owning companies are the North Eastern and the Hull & Barnsley railways. The ports of Hull and Goole (*q.v.*) have been administratively combined since 1888, the conservancy of the river being under the Humber Conservancy Board. Hull is one of the principal shipping ports for the manufactures of Yorkshire and Lancashire, and has direct communication with the coal-fields of the West Riding. Large quantities of grain are imported from Russia, America, &c., and of timber from Norway and Sweden. Iron, fish, butter and fruit are among other principal imports. The port was an early seat of the whale fisheries. Of passenger steamship services from Hull the principal are those to the Norwegian ports, which are greatly frequented during the summer; these, with others to the ports of Sweden, &c., are in the hands of the large shipping firm of Thomas Wilson & Co. A ferry serves New Holland, on the Lincolnshire shore (Great Central railway). The principal industries of Hull are iron-founding, shipbuilding and engineering, and the manufacture of chemicals, oil-cake, colours, cement, paper, starch, soap and cotton goods; and there are tanneries and breweries.

The parliamentary borough returns three members, an increase from two members in 1885. Hull became the seat of a suffragan bishop in the diocese of York in 1891. This was a revival, as the office was in existence from 1534 till the death of Edward VI. The county borough was created in 1888. The city is governed by a mayor, 16 aldermen and 48 councillors. Area, 8989 acres.

The first mention of Hull occurs under the name of Wyke-upon-Hull in a charter of 1160 by which Maud, daughter of Hugh Camin, granted it to the monks of Meaux, who in 1278 received licence to hold a market here every Thursday and a fair on the vigil, day and morrow of Holy Trinity and twelve following days. Shortly afterwards Edward I., seeing its value as a port, obtained the town from the monks in exchange for other lands in Lincolnshire and changed its name to Kingston-upon-Hull. To induce people to settle here he gave the town a charter in 1299. This granted two weekly markets on Tuesday and Friday and a fair on the eve of St Augustine lasting thirty days; it made the town a free borough and provided that the king would send his justices to deliver the prison when necessary. He sent commissioners in 1303 to inquire how and where the roads to the "new town of Kingston-upon-Hull" could best be made, and in 1321 Edward II. granted the burgesses licence to enclose the town with a ditch and "a wall of stone and lime." In the 14th century the burgesses of Hull disputed the right of the archbishop of York to prisage of wine and other liberties in Hull, which they said belonged to the king. The archbishop claimed under charters of King Æthelstand and Henry III. The dispute, after lasting several years, was at length decided in favour of the king. In 1381 Edward III., while inspecting former charters, granted that the burgesses might hold the

borough with fairs, markets and free customs at a fee-farm of £70, and that every year they might choose a mayor and four bailiffs. The king in 1440 granted the burgesses Hessle, North Ferriby and other places in order that they might obtain a supply of fresh water. The charter also granted that the above places with the town itself should become the county of the town of Kingston-upon-Hull. Henry VIII. visited the town in 1541, and ordered that a castle and other places of defence should be built, and Edward VI. in 1552 granted the manor to the burgesses. The town was incorporated by Queen Elizabeth in 1576 and a new charter was granted by James II. in 1688. During the civil wars Hull, although the majority of the inhabitants were royalists, was garrisoned by the parliamentarians, and Charles I. was refused admission by the governor Sir John Hotham. In 1643 it stood a siege of six weeks, but the new governor Ferdinando Fairfax, 2nd Baron Fairfax, obliged the Royalist army to retreat by opening the sluices and placing the surrounding country under water. Hull was represented in the parliament of 1295 and has sent members ever since, save that in 1384 the burgesses were exempted from returning any member on account of the expenses which they were incurring through fortifying their town. Besides the fairs granted to the burgesses by Edward I., two others were granted by Charles II. in 1664 to Henry Hildiard who owned property in the town.

See T. Gent, *Annales Regioduni Hullini* (York, 1735, reprinted 1869); G. Hadley, *History of the Town and County of Kingston-upon-Hull* (Hull, 1788); C. Frost, *Notices relative to the Early History of the Town and Port of Hull* (London, 1827); J. J. Sheaham, *General and Concise History of Kingston-upon-Hull* (London and Beverley, 1864).

HULL (in O. Eng. *hulu*, from *helan*, to cover, cf. Ger. *Hülle*, covering), the outer covering, pod, or shell of beans, peas, &c., also the enclosing envelope of a chrysalis. The word may be the same as “hull,” meaning the body of a ship without its masts or superstructure, &c., but in this sense the word is more usually connected with “hold,” the interior cargo-carrying part of a vessel. This word was borrowed, as a nautical term, from the Dutch, *hol* (cognate with “hole”), the *d* being due to confusion with “to hold,” “grasp” (O. Eng. *healdan*). The meanings of “hull” and “hold” are somewhat far apart, and the closest sense resemblance is to the word “hulk,” which is not known till about a century later.

HULLAH, JOHN PYKE (1812-1884), English composer and teacher of music, was born at Worcester on the 27th June 1812. He was a pupil of William Horsley from 1829, and entered the Royal Academy of Music in 1833. He wrote an opera to words by Dickens, *The Village Coquettes*, produced in 1836; *The Barbers of Bassora* in 1837, and *The Outpost* in 1838, the last two at Covent Garden. From 1839, when he went to Paris to investigate various systems of teaching music to large masses of people, he identified himself with Wilhem’s system of the “fixed Do,” and his adaptation of that system was taught with enormous success from 1840 to 1860. In 1847 a large building in Long Acre, called St Martin’s Hall, was built by subscription and presented to Hullah. It was inaugurated in 1850 and burnt to the ground in 1860, a blow from which Hullah was long in recovering. He had risked his all in the maintenance of the building, and had to begin the world again. A series of lectures was given at the Royal Institution in 1861, and in 1864 he lectured in Edinburgh, but in the following year was unsuccessful in his application for the Reid professorship. He conducted concerts in Edinburgh in 1866 and 1867, and the concerts of the Royal Academy of Music from 1870 to 1873; he had been elected to the committee of management in 1869. In 1872 he was appointed by the Council of Education musical inspector of training schools for the United Kingdom. In 1878 he went abroad to report on the condition of musical education in schools, and wrote a very valuable report, quoted in the memoir of him published by his wife in 1886. He was attacked by paralysis in 1880, and again in 1883. His compositions, which remained popular for some years after his death in 1884, consisted mainly of ballads; but his importance in the history of music is owing to his exertions in popularizing musical education, and his persistent opposition to the Tonic Sol-Fa system, which had a success he could not foresee. His objections to it were partly grounded on the character of the music which was in common use among the early teachers of the system. While it cannot be doubted that Hullah

would have won more success if he had not opposed the Tonic Sol-Fa movement so strenuously, it must be confessed that his work was of great value, for he kept constantly in view and impressed upon all who followed him or learnt from him the supreme necessity of maintaining the artistic standard of the music taught and studied, and of not allowing trumpery compositions to usurp the place of good music on account of the greater ease with which they could be read.

HULME, WILLIAM (1631-1691), English philanthropist, was born in the neighbourhood of Manchester, and died on the 29th of October 1691. Having lost his only son Banastre, Hulme left his property in trust to maintain “four exhibitioners of the poorest sort of bachelors for the space of four years” at Brasenose College, Oxford. This was the beginning of the Hulme Trust. Its property was in Manchester, and owing to its favourable situation its value increased rapidly. Eventually in 1881 a scheme was drawn up by the charity commissioners, by which (as amended in 1907) the trust is now governed. Its income of about £10,000 a year is devoted to maintaining the Hulme Grammar School in Manchester and to assisting other schools, to supporting a theological college, Hulme Hall, attached to the university of Manchester, and to providing a number of scholarships and exhibitions at Brasenose College.

See J. Croston, *Hulme’s Charity* (1877).

HÜLS, a town of Germany, in the Prussian Rhine province, 4 m. N. of Crefeld and 17 N.W. of Düsseldorf by rail. Pop. (1905) 6510. It has two Roman Catholic churches, a synagogue and manufactures of damask and velvet. In the neighbourhood ironstone is obtained.

HULSE, JOHN (1708-1790), English divine, was born—the eldest of a family of nineteen—at Middlewich, in Cheshire, in 1708. Entering St John’s College, Cambridge, in 1724, he graduated in 1728; and on taking orders (in 1732) was presented to a small country curacy. His father having died in 1753, Hulse succeeded to his estates in Cheshire, where, owing to feeble health, he lived in retirement till his death in December 1790. He bequeathed his estates to Cambridge University for the purpose of maintaining two divinity scholars (£30 a year each) at St John’s College, of founding a prize for a dissertation, and of instituting the offices of Christian advocate and of Christian preacher or Hulsean lecturer. By a statute in 1860 the Hulsean professorship of divinity was substituted for the office of Christian advocate, and the lectureship was considerably modified. The first course of lectures under the benefaction was delivered in 1820. In 1830 the number of annual lectures or sermons was reduced from twenty to eight; after 1861 they were further reduced to a minimum of four. The annual value of the Hulse endowment is between £800 and £900, of which eight-tenths go to the professor of divinity and one-tenth to the prize and lectureship respectively.

An account of the Hulsean lectures from 1820 to 1894 is given in J. Hunt’s *Religious Thought in the 19th Century*, 332-338; among the lecturers have been Henry Alford (1841), R. C. Trench (1845), Christopher Wordsworth (1847), Charles Merivale (1861), James Moorhouse (1865), F. W. Farrar (1870), F. J. A. Hort (1871), W. Boyd Carpenter (1878), W. Cunningham (1885), M. Creighton (1893).

HUMACAO, a small city and the capital of a municipal district and department of the same

name, in Porto Rico, 46 m. S.E. of San Juan. Pop. (1899) of the city, 4428; and of the municipal district, 14,313. Humacao is attractively situated near the E. coast, 9 m. from the port of Naguabo and a little over 6 m. from its own port of Punta Santiago, with which it is connected by a good road; a railway was under construction in 1908, and some of the sugar factories of the department are now connected by rail with the port. The department covers the eastern end of the island and includes all the islands off its coast, among which are Culebra and Vieques; the former (pop. in 1899, 704) has two excellent harbours and is used as a U.S. naval station; the latter is 21 m. long by 6 m. wide and in 1899 had a population of nearly 6000. Grazing is the principal industry, but sugar-cane, tobacco and fruit are cultivated. There are valuable forests in the mountainous districts, a part of which has been set aside for preservation under the name of the Luquillo forest reserve. Humacao was incorporated as a city in 1899. It suffered severely in the hurricane of 1898, the damage not having been fully repaired as late as 1906.

HUMANE SOCIETY, ROYAL. This society was founded in England in 1774 for the purpose of rendering “first aid” in cases of drowning and for restoring life by artificial means to those apparently drowned. Dr William Hawes (1736-1808), an English physician, became known in 1773 for his efforts to convince the public that persons apparently dead from drowning might in many cases be resuscitated by artificial means. For a year he paid a reward out of his own pocket to any one bringing him a body rescued from the water within a reasonable time of immersion. Dr Thomas Cogan (1736-1818), another English physician, who had become interested in the same subject during a stay at Amsterdam, where was instituted in 1767 a society for preservation of life from accidents in water, joined Hawes in his crusade. In the summer of 1774 each of them brought fifteen friends to a meeting at the Chapter Coffee-house, St Paul’s Churchyard, when the Royal Humane Society was founded. The society, the chief offices of which are at 4 Trafalgar Square, London, has upwards of 280 depôts throughout the kingdom, supplied with life-saving apparatus. The chief and earliest of these depôts is the Receiving House in Hyde Park, on the north bank of the Serpentine, which was built in 1794 on a site granted by George III. Boats and boatmen are kept to render aid to bathers, and in the winter ice-men are sent round to the different skating grounds in and around London. The society distributes money-rewards, medals, clasps and testimonials, to those who save or attempt to save drowning people. It further recognizes “all cases of exceptional bravery in rescuing or attempting to rescue persons from asphyxia in mines, wells, blasting furnaces, or in sewers where foul gas may endanger life.” It further awards prizes for swimming to public schools and training ships. Since 1873 the Stanhope gold medal has been awarded “to the case exhibiting the greatest gallantry during the year.” During the year 1905 873 persons were rewarded for saving or attempting to save 947 lives from drowning. The society is maintained by private subscriptions and bequests. Its motto is *Lateat scintillula forsan*, “a small spark may perhaps lie hid.” (See also Drowning and Life-Saving.)

HUMANISM (from Lat. *humanus*, human, connected with *homo*, mankind), in general any system of thought or action which assigns a predominant interest to the affairs of men as compared with the supernatural or the abstract. The term is specially applied to that movement of thought which in western Europe in the 15th century broke through the medieval traditions of scholastic theology and philosophy, and devoted itself to the rediscovery and direct study of the ancient classics. This movement was essentially a revolt against intellectual, and especially ecclesiastical authority, and is the parent of all modern developments whether intellectual, scientific or social (see Renaissance). The term has also been applied to the philosophy of Comte in virtue of its insistence on the dignity of humanity and its refusal to find in the divine anything external or superior to mankind, and the same tendency has had marked influence over the development of modern Christian theology which inclines to obliterate the old orthodox conception of the separate existence and overlordship of God. The narrow sense of the term survives in modern university terminology. Thus in the University of Oxford the curriculum known as *Litterae Humaniores* (“Humane Literature”) consists of Latin and Greek literature and philosophy, *i.e.* of the “arts,” often described in

former times as the “polite letters.” In the Scottish universities the professor of Latin is called the professor of “humanity.” The plural “humanities” is a generic term for the classics. In ordinary language the adjective “humane” is restricted to the sense of “kind-hearted,” “unselfish”: the abstract “humanity” has this sense and also the sense of “that which pertains to mankind” derived in this case with the companion adjective “human.”

HUMANITARIANS, a term applied (1) to a school of theologians who repudiate the doctrine of the Trinity and hold an extreme view of the person of Christ as simply human. The adoption of this position by men like Nathaniel Lardner, Joseph Priestley and Theophilus Lindsey in the middle of the 18th century led to the establishment of the first definitely organized Unitarian churches in England. (2) It is also applied to those who believe in the perfectibility of man apart from superhuman aid, especially those who follow the teaching of Pierre Leroux (*q.v.*). The name is also sometimes given to the Positivists, and in a more general sense, to persons whose chief principle of action is the desire to preserve others from pain and discomfort.

HUMAYUN (1508-1556), Mogul emperor of Delhi, succeeded his father Baber in India in 1530, while his brother Kamran obtained the sovereignty of Kabul and Lahore. Humayun was thus left in possession of his father’s recent conquests, which were in dispute with the Indian Afghans under Sher Shah, governor of Bengal. After ten years of fighting, Humayun was driven out of India and compelled to flee to Persia through the desert of Sind, where his famous son, Akbar the Great, was born in the petty fort of Umarkot (1542). Sher Shah was killed at the storming of Kalinjar (1545), and Humayun, returning to India with Akbar, then only thirteen years of age, defeated the Indo-Afghan army and reoccupied Delhi (1555). India thus passed again from the Afghanis to the Moguls, but six months afterwards Humayun was killed by a fall from the parapet of his palace (1556), leaving his kingdom to Akbar. The tomb of Humayun is one of the finest Mogul monuments in the neighbourhood of Delhi, and it was here that the last of the Moguls, Bahadur Shah, was captured by Major Hodson in 1857.

HUMBER, an estuary on the east coast of England formed by the rivers Trent and Ouse, the northern shore belonging to Yorkshire and the southern to Lincolnshire. The junction of these two important rivers is near the village of Faxfleet, from which point the course of the Humber runs E. for 18 m., and then S.E. for 19 m. to the North Sea. The total area draining to the Humber is 9293 sq. m. The width of the estuary is 1 m. at the head, gradually widening to 3½ m. at 8 m. above the mouth, but here, with a great shallow bay on the Yorkshire side, it increases to 8 m. in width. The seaward horn of this bay, however, is formed by a narrow protruding bank of sand and stones, thrown up by a southward current along the Yorkshire coast, and known as Spurn Head. This reduces the width of the Humber mouth to 5½ m. Except where the Humber cuts through a low chalk ridge, between north and south Ferriby, dividing it into the Wolds of Yorkshire and of Lincolnshire, the shores and adjacent lands are nearly flat. The water is muddy; and the course for shipping considerably exceeds in length the distances given above, by reason of the numerous shoals it is necessary to avoid. The course is carefully buoyed and lighted, for the Humber is an important highway of commerce, having on the Yorkshire bank the great port of Hull, and on the Lincolnshire bank that of Grimsby, while Goole lies on the Ouse a little above the junction with the Trent. Canals connect with the great manufacturing district of South Yorkshire, and the Trent opens up wide communications with the Midlands. The phenomenon of the tidal bore is sometimes seen on the Humber. The action of the river upon the flat Yorkshire shore towards the mouth alters the shore-line constantly. Many ancient villages have disappeared entirely, notably Ravenspur or Ravenser, once a port, represented in parliament under Edward I., and the scene of the

landing of Bolingbroke, afterwards Henry IV., in 1399. Soon after this the town, which lay immediately inside Spurn Point, must have been destroyed.

HUMBERT, RANIERI CARLO EMANUELE GIOVANNI MARIA FERDINANDO EUGENIO, King of Italy (1844-1900), son of Victor Emmanuel II. and of Adelaide, archduchess of Austria, was born at Turin, capital of the kingdom of Sardinia, on the 14th of March 1844. His education was entrusted to the most eminent men of his time, amongst others to Massimo d'Azeglio and Pasquale Stanislao Mancini. Entering the army on the 14th of March 1858 with the rank of captain, he was present at the battle of Solferino in 1859, and in 1866 commanded a division at Custozza. Attacked by the Austrian cavalry near Villafranca, he formed his troops into squares and drove the assailants towards Sommacampagna, remaining himself throughout the action in the square most exposed to attack. With Bixio he covered the retreat of the Italian army, receiving the gold medal for valour. On the 21st of April 1868 he married his cousin, Margherita Teresa Giovanna, princess of Savoy, daughter of the duke of Genoa (born at Turin on the 20th of November 1851). On the 11th of November 1869 Margherita gave birth to Victor Emmanuel, prince of Naples, afterwards Victor Emmanuel III. of Italy. Ascending the throne on the death of his father (9th January 1878), Humbert adopted the style "Humbert I. of Italy" instead of Humbert IV., and consented that the remains of his father should be interred at Rome in the Pantheon, and not in the royal mausoleum of Superga (see Crispi). Accompanied by the premier, Cairoli, he began a tour of the provinces of his kingdom, but on entering Naples (November 17, 1878), amid the acclamations of an immense crowd, was attacked by a fanatic named Passanante. The king warded off the blow with his sabre, but Cairoli, in attempting to defend him, was severely wounded in the thigh. The would-be assassin was condemned to death, but the sentence was by the king commuted to one of penal servitude for life. The occurrence upset for several years the health of Queen Margherita. In 1881 King Humbert, again accompanied by Cairoli, resumed his interrupted tour, and visited Sicily and the southern Italian provinces. In 1882 he took a prominent part in the national mourning for Garibaldi, whose tomb at Caprera he repeatedly visited. When, in the autumn of 1882, Verona and Venetia were inundated, he hastened to the spot, directed salvage operations, and provided large sums of money for the destitute. Similarly, on the 28th of July 1883, he hurried to Ischia, where an earthquake had engulfed some 5000 persons. Countermanding the order of the minister of public works to cover the ruins with quicklime, the king prosecuted salvage operations for five days longer, and personally saved many victims at the risk of his own life. In 1884 he visited Busca and Naples, where cholera was raging, helping with money and advice the numerous sufferers, and raising the spirit of the population. Compared with the reigns of his grandfather, Charles Albert, and of his father, Victor Emmanuel, the reign of Humbert was tranquil. Scrupulously observant of constitutional principles, he followed, as far as practicable, parliamentary indications in his choice of premiers, only one of whom—Rudini—was drawn from the Conservative ranks. In foreign policy he approved of the conclusion of the Triple Alliance, and, in repeated visits to Vienna and Berlin, established and consolidated the pact. Towards Great Britain his attitude was invariably cordial, and he considered the Triple Alliance imperfect unless supplemented by an Anglo-Italian naval *entente*. Favourably disposed towards the policy of colonial expansion inaugurated in 1885 by the occupation of Massawa, he was suspected of aspiring to a vast empire in north-east Africa, a suspicion which tended somewhat to diminish his popularity after the disaster of Adowa on the 1st of March 1896. On the other hand, his popularity was enhanced by the firmness of his attitude towards the Vatican, as exemplified in his telegram declaring Rome "intangible" (September 20, 1886), and affirming the permanence of the Italian possession of the Eternal City. Above all King Humbert was a soldier, jealous of the honour and prestige of the army to such a degree that he promoted a duel between his nephew, the count of Turin, and Prince Henry of Orleans (August 15, 1897) on account of the aspersions cast by the latter upon Italian arms. The claims of King Humbert upon popular gratitude and affection were enhanced by his extraordinary munificence, which was not merely displayed on public occasions, but directed to the relief of innumerable private wants into which he had made personal inquiry. It has been calculated that at least £100,000 per annum was expended by the king in this way. The regard in which he was universally held was abundantly demonstrated on the occasion of the unsuccessful attempt upon his life made by the anarchist Acciarito near Rome on the 22nd of April 1897, and still more after his tragic assassination at Monza by the anarchist Bresci on the evening of the 29th of July 1900. Good-humoured, active, tender-hearted, somewhat

fatalistic, but, above all, generous, he was spontaneously called “Humbert the Good.” He was buried in the Pantheon in Rome, by the side of Victor Emmanuel II., on the 9th of August 1900.

(H. W. S.)

HUMBOLDT, FRIEDRICH HEINRICH ALEXANDER, Baron von (1769-1859), German naturalist and traveller, was born at Berlin, on the 14th of September 1769. His father, who was a major in the Prussian army, belonged to a Pomeranian family of consideration, and was rewarded for his services during the Seven Years’ War with the post of royal chamberlain. He married in 1766 Maria Elizabeth von Colomb, widow of Baron von Hollwede, and had by her two sons, of whom the younger is the subject of this article. The childhood of Alexander von Humboldt was not a promising one as regards either health or intellect. His characteristic tastes, however, soon displayed themselves; and from his fancy for collecting and labelling plants, shells and insects he received the playful title of “the little apothecary.” The care of his education, on the unexpected death of his father in 1779, devolved upon his mother, who discharged the trust with constancy and judgment. Destined for a political career, he studied finance during six months at the university of Frankfort-on-the-Oder; and a year later, April 25, 1789, he matriculated at Göttingen, then eminent for the lectures of C. G. Heyne and J. F. Blumenbach. His vast and varied powers were by this time fully developed; and during the vacation of 1789 he gave a fair earnest of his future performances in a scientific excursion up the Rhine, and in the treatise thence issuing, *Mineralogische Beobachtungen über einige Basalte am Rhein* (Brunswick, 1790). His native passion for distant travel was confirmed by the friendship formed by him at Göttingen with George Forster, Heyne’s son-in-law, the distinguished companion of Captain Cook’s second voyage. Henceforth his studies, which his rare combination of parts enabled him to render at once multifarious, rapid and profound, were directed with extraordinary insight and perseverance to the purpose of preparing himself for his distinctive calling as a scientific explorer. With this view he studied commerce and foreign languages at Hamburg, geology at Freiberg under A. G. Werner, anatomy at Jena under J. C. Loder, astronomy and the use of scientific instruments under F. X. von Zach and J. G. Köhler. His researches into the vegetation of the mines of Freiberg led to the publication in 1793 of his *Florae Fribergensis Specimen*; and the results of a prolonged course of experiments on the phenomena of muscular irritability, then recently discovered by L. Galvani, were contained in his *Versuche über die gereizte Muskel- und Nervenfaser* (Berlin, 1797), enriched in the French translation with notes by Blumenbach.

In 1794 he was admitted to the intimacy of the famous Weimar coterie, and contributed (June 1795) to Schiller’s new periodical, *Die Horen*, a philosophical allegory entitled *Die Lebenskraft, oder der rhodische Genius*. In the summer of 1790 he paid a flying visit to England in company with Forster. In 1792 and 1797 he was in Vienna; in 1795 he made a geological and botanical tour through Switzerland and Italy. He had obtained in the meantime official employment, having been appointed assessor of mines at Berlin, February 29, 1792. Although the service of the state was consistently regarded by him but as an apprenticeship to the service of science, he fulfilled its duties with such conspicuous ability that he not only rapidly rose to the highest post in his department, but was besides entrusted with several important diplomatic missions. The death of his mother, on the 19th of November 1796, set him free to follow the bent of his genius, and, finally severing his official connexions, he waited for an opportunity of executing his long-cherished schemes of travel. On the postponement of Captain Baudin’s proposed voyage of circumnavigation, which he had been officially invited to accompany, he left Paris for Marseilles with Aimé Bonpland, the designated botanist of the frustrated expedition, hoping to join Bonaparte in Egypt. Means of transport, however, were not forthcoming, and the two travellers eventually found their way to Madrid, where the unexpected patronage of the minister d’Urquijo determined them to make Spanish America the scene of their explorations.

Armed with powerful recommendations, they sailed in the “Pizarro” from Corunna, on the 5th of June 1799, stopped six days at Teneriffe for the ascent of the Peak, and landed, on the 16th of July, at Cumana. There Humboldt observed, on the night of the 12-13th of November, that remarkable meteor-shower which forms the starting-point of our acquaintance with the periodicity of the phenomenon; thence he proceeded with Bonpland to Caracas; and in February 1800 he left the coast for the purpose of exploring the course of the Orinoco. This trip, which lasted four months, and covered 1725 m. of wild and uninhabited country, had the important result of establishing the existence of a communication between the water-systems

of the Orinoco and Amazon, and of determining the exact position of the bifurcation. On the 24th of November the two friends set sail for Cuba, and after a stay of some months regained the mainland at Cartagena. Ascending the swollen stream of the Magdalena, and crossing the frozen ridges of the Cordilleras, they reached Quito after a tedious and difficult journey on the 6th of January 1802. Their stay there was signalized by the ascent of Pichincha and Chimborazo, and terminated in an expedition to the sources of the Amazon *en route* for Lima. At Callao Humboldt observed the transit of Mercury on the 9th of November, and studied the fertilizing properties of guano, the introduction of which into Europe was mainly due to his writings. A tempestuous sea-voyage brought them to the shores of Mexico, and after a year's residence in that province, followed by a short visit to the United States, they set sail for Europe from the mouth of the Delaware, and landed at Bordeaux on the 3rd of August 1804.

Humboldt may justly be regarded as having in this memorable expedition laid the foundation in their larger bearings of the sciences of physical geography and meteorology. By his delineation (in 1817) of "isothermal lines," he at once suggested the idea and devised the means of comparing the climatic conditions of various countries. He first investigated the rate of decrease in mean temperature with increase of elevation above the sea-level, and afforded, by his inquiries into the origin of tropical storms, the earliest clue to the detection of the more complicated law governing atmospheric disturbances in higher latitudes; while his essay on the geography of plants was based on the then novel idea of studying the distribution of organic life as affected by varying physical conditions. His discovery of the decrease in intensity of the earth's magnetic force from the poles to the equator was communicated to the Paris Institute in a memoir read by him on the 7th of December 1804, and its importance was attested by the speedy emergence of rival claims. His services to geology were mainly based on his attentive study of the volcanoes of the New World. He showed that they fell naturally into linear groups, presumably corresponding with vast subterranean fissures; and by his demonstration of the igneous origin of rocks previously held to be of aqueous formation, he contributed largely to the elimination of erroneous views.

The reduction into form and publication of the encyclopaedic mass of materials—scientific, political and archaeological—collected by him during his absence from Europe was now Humboldt's most urgent desire. After a short trip to Italy with Gay-Lussac for the purpose of investigating the law of magnetic declination, and a sojourn of two years and a half in his native city, he finally, in the spring of 1808, settled in Paris with the purpose of securing the scientific co-operation required for bringing his great work through the press. This colossal task, which he at first hoped would have occupied but two years, eventually cost him twenty-one, and even then remained incomplete. With the exception of Napoleon Bonaparte, he was the most famous man in Europe. A chorus of applause greeted him from every side. Academies, both native and foreign, were eager to enrol him among their members. Frederick William III. of Prussia conferred upon him the honour, without exacting the duties, attached to the post of royal chamberlain, together with a pension of 2500 thalers, afterwards doubled. He refused the appointment of Prussian minister of public instruction in 1810. In 1814 he accompanied the allied sovereigns to London. Three years later he was summoned by the king of Prussia to attend him at the congress of Aix-la-Chapelle. Again in the autumn of 1822 he accompanied the same monarch to the congress of Verona, proceeded thence with the royal party to Rome and Naples, and returned to Paris in the spring of 1823.

The French capital he had long regarded as his true home. There he found, not only scientific sympathy, but the social stimulus which his vigorous and healthy mind eagerly craved. He was equally in his element as the lion of the *salons* and as the *savant* of the institute and the observatory. Thus, when at last he received from his sovereign a summons to join his court at Berlin, he obeyed indeed, but with deep and lasting regret. The provincialism of his native city was odious to him. He never ceased to rail against the bigotry without religion, aestheticism without culture, and philosophy without common sense, which he found dominant on the banks of the Spree. The unremitting benefits and sincere attachment of two well-meaning princes secured his gratitude, but could not appease his discontent. At first he sought relief from the "nebulous atmosphere" of his new abode by frequent visits to Paris; but as years advanced his excursions were reduced to accompanying the monotonous "oscillations" of the court between Potsdam and Berlin. On the 12th of May 1827 he settled permanently in the Prussian capital, where his first efforts were directed towards the furtherance of the science of terrestrial magnetism. For many years it had been one of his favourite schemes to secure, by means of simultaneous observations at distant points, a thorough investigation of the nature and law of "magnetic storms"—a term invented by him to designate abnormal disturbances of the earth's magnetism. The meeting at Berlin, on the 18th of September 1828, of a newly-formed scientific association, of which he was elected president, gave him the opportunity of setting on foot an extensive system of research in combination with his diligent personal observations. His appeal to the Russian government in

1829 led to the establishment of a line of magnetic and meteorological stations across northern Asia; while his letter to the duke of Sussex, then (April 1836) president of the Royal Society, secured for the undertaking the wide basis of the British dominions. Thus that scientific conspiracy of nations which is one of the noblest fruits of modern civilization was by his exertions first successfully organized.

In 1811, and again in 1818, projects of Asiatic exploration were proposed to Humboldt, first by the Russian, and afterwards by the Prussian government; but on each occasion untoward circumstances interposed, and it was not until he had entered upon his sixtieth year that he resumed his early *rôle* of a traveller in the interests of science. Between May and November 1829 he, together with his chosen associates Gustav Rose and C. G. Ehrenberg, traversed the wide expanse of the Russian empire from the Neva to the Yenesei, accomplishing in twenty-five weeks a distance of 9614 m. The journey, however, though carried out with all the advantages afforded by the immediate patronage of the Russian government, was too rapid to be profitable. Its most important fruits were the correction of the prevalent exaggerated estimate of the height of the Central-Asian plateau, and the discovery of diamonds in the gold-washings of the Ural—a result which Humboldt's Brazilian experiences enabled him to predict, and by predicting to secure.

Between 1830 and 1848 Humboldt was frequently employed in diplomatic missions to the court of Louis Philippe, with whom he always maintained the most cordial personal relations. The death of his brother, Wilhelm von Humboldt, who expired in his arms, on the 8th of April 1836, saddened the later years of his life. In losing him, Alexander lamented that he had "lost half himself." The accession of the crown prince, as Frederick William IV., on the death of his father, in June 1840, added to rather than detracted from his court favour. Indeed, the new king's craving for his society became at times so importunate as to leave him only some hours snatched from sleep for the prosecution of his literary labours.

It is not often that a man postpones to his seventy-sixth year, and then successfully executes, the crowning task of his life. Yet this was Humboldt's case. The first two volumes of the *Kosmos* were published, and in the main composed, between the years 1845 and 1847. The idea of a work which should convey, not only a graphic description, but an imaginative conception of the physical world—which should support generalization by details, and dignify details by generalization, had floated before his mind for upwards of half a century. It first took definite shape in a set of lectures delivered by him before the university of Berlin in the winter of 1827-1828. These lectures formed, as his latest biographer expresses it, "the cartoon for the great fresco of the *Kosmos*." The scope of this remarkable work may be briefly described as the representation of the unity amid the complexity of nature. In it the large and vague ideals of the 18th are sought to be combined with the exact scientific requirements of the 19th century. And, in spite of inevitable shortcomings, the attempt was in an eminent degree successful. Nevertheless, the general effect of the book is rendered to some extent unsatisfactory by its tendency to substitute the indefinite for the infinite, and thus to ignore, while it does not deny, the existence of a power outside and beyond nature. A certain heaviness of style, too, and laborious picturesqueness of treatment make it more imposing than attractive to the general reader. But its supreme and abiding value consists in its faithful reflection of the mind of a great man. No higher eulogium can be passed on Alexander von Humboldt than that, in attempting, and not unworthily attempting, to portray the universe, he succeeded still more perfectly in portraying his own comprehensive intelligence.

The last decade of his long life—his "improbable" years, as he was accustomed to call them—was devoted to the continuation of this work, of which the third and fourth volumes were published in 1850-1858, while a fragment of a fifth appeared posthumously in 1862. In these he sought to fill up what was wanting of detail as to individual branches of science in the sweeping survey contained in the first volume. Notwithstanding their high separate value, it must be admitted that, from an artistic point of view, these additions were deformities. The characteristic idea of the work, so far as such a gigantic idea admitted of literary incorporation, was completely developed in its opening portions, and the attempt to convert it into a scientific encyclopaedia was in truth to nullify its generating motive. Humboldt's remarkable industry and accuracy were never more conspicuous than in the erection of this latest trophy to his genius. Nor did he rely entirely on his own labours. He owed much of what he accomplished to his rare power of assimilating the thoughts and availing himself of the co-operation of others. He was not more ready to incur than to acknowledge obligations. The notes to *Kosmos* overflow with laudatory citations, the current coin in which he discharged his intellectual debts.

On the 24th of February 1857 Humboldt was attacked with a slight apoplectic stroke, which passed away without leaving any perceptible trace. It was not until the winter of 1858-1859 that his strength began to decline, and on the ensuing 6th of May he tranquilly expired,

wanting but six months of completing his ninetieth year. The honours which had been showered on him during life followed him after death. His remains, previously to being interred in the family resting-place at Tegel, were conveyed in state through the streets of Berlin, and received by the prince-regent with uncovered head at the door of the cathedral. The first centenary of his birth was celebrated on the 14th of September 1869, with equal enthusiasm in the New and Old Worlds; and the numerous monuments erected in his honour, and newly explored regions called by his name, bear witness to the universal diffusion of his fame and popularity.

Humboldt never married, and seems to have been at all times more social than domestic in his tastes. To his brother's family he was, however, much attached; and in his later years the somewhat arbitrary sway of an old and faithful servant held him in more than matrimonial bondage. By a singular example of weakness, he executed, four years before his death, a deed of gift transferring to this man Seifert the absolute possession of his entire property. It is right to add that no undue advantage appears to have been taken of this extraordinary concession. Of the qualities of his heart it is less easy to speak than of those of his head. The clue to his inner life might probably be found in a certain egotism of self-culture scarcely separable from the promptings of genius. Yet his attachments, once formed, were sincere and lasting. He made innumerable friends; and it does not stand on record that he ever lost one. His benevolence was throughout his life active and disinterested. His early zeal for the improvement of the condition of the miners in Galicia and Franconia, his consistent detestation of slavery, his earnest patronage of rising men of science, bear witness to the large humanity which formed the ground-work of his character. The faults of his old age have been brought into undue prominence by the injudicious publication of his letters to Varnhagen von Ense. The chief of these was his habit of smooth speaking, almost amounting to flattery, which formed a painful contrast with the caustic sarcasm of his confidential utterances. His vanity, at all times conspicuous, was tempered by his sense of humour, and was so frankly avowed as to invite sympathy rather than provoke ridicule. After every deduction has been made, he yet stands before us as a colossal figure, not unworthy to take his place beside Goethe as the representative of the scientific side of the culture of his country.

The best biography of Humboldt is that of Professor Karl Bruhns (3 vols., 8vo, Leipzig, 1872), translated into English by the Misses Lassell in 1873. Brief accounts of his career are given by A. Dove in *Allgemeine deutsche Biographie*, and by S. Günther in *Alexander von Humboldt* (Berlin, 1900). The *Voyage aux régions équinoxiales du Nouveau Continent, fait en 1799-1804, par Alexandre de Humboldt et Aimé Bonpland* (Paris, 1807, &c.), consisted of thirty folio and quarto volumes, and comprised a considerable number of subordinate but important works. Among these may be enumerated *Vue des Cordillères et monuments des peuples indigènes de l'Amérique* (2 vols. folio, 1810); *Examen critique de l'histoire de la géographie du Nouveau Continent* (1814-1834); *Atlas géographique et physique du royaume de la Nouvelle Espagne* (1811); *Essai politique sur le royaume de la Nouvelle Espagne* (1811); *Essai sur la géographie des plantes* (1805, now very rare); and *Relation historique* (1814-1825), an unfinished narrative of his travels, including the *Essai politique sur l'île de Cuba*. The *Nova genera et species plantarum* (7 vols. folio, 1815-1825), containing descriptions of above 4500 species of plants collected by Humboldt and Bonpland, was mainly compiled by C. S. Kunth; J. Oltmanns assisted in preparing the *Recueil d'observations astronomiques* (1808); Cuvier, Latreille, Valenciennes and Gay-Lussac cooperated in the *Recueil d'observations de zoologie et d'anatomie comparée* (1805-1833), Humboldt's *Ansichten der Natur* (Stuttgart and Tübingen, 1808) went through three editions in his lifetime, and was translated into nearly every European language. The results of his Asiatic journey were published in *Fragments de géologie et de climatologie asiatiques* (2 vols. 8vo, 1831), and in *Asie centrale* (3 vols. 8vo, 1843)—an enlargement of the earlier work. The memoirs and papers read by him before scientific societies, or contributed by him to scientific periodicals, are too numerous for specification.

Since his death considerable portions of his correspondence have been made public. The first of these, in order both of time and of importance, is his *Briefe an Varnhagen von Ense* (Leipzig, 1860). This was followed in rapid succession by *Briefwechsel mit einem jungen Freunde* (Friedrich Althaus, Berlin, 1861); *Briefwechsel mit Heinrich Berghaus* (3 vols., Jena, 1863); *Correspondance scientifique et littéraire* (2 vols., Paris, 1865-1869); "Lettres à Marc-Aug. Pictet," published in *Le Globe*, tome vii. (Geneva, 1868); *Briefe an Bunsen* (Leipzig, 1869); *Briefe zwischen Humboldt und Gauss* (1877); *Briefe an seinen Bruder Wilhelm* (Stuttgart, 1880); *Jugendbriefe an W. G. Wegener* (Leipzig, 1896); besides some other collections of less note. An octavio edition of Humboldt's principal works was published in Paris by Th. Morgand (1864-1866). See also Karl von Baer, *Bulletin de l'acad. des sciences de St-Pétersbourg*, xvii. 529 (1859); R. Murchison, *Proceedings, Geog. Society of London*, vi. (1859); L. Agassiz, *American Jour. of Science*, xxviii. 96 (1859); *Proc. Roy. Society*, X. xxxix.; A. Quetelet, *Annuaire de l'acad. des sciences* (Brussels, 1860), p. 97; J. Mädler, *Geschichte der*

Himmelskunde, ii. 113; J. C. Houzeau, *Bibl. astronomique*, ii. 168.

(A. M. C.)

HUMBOLDT, KARL WILHELM VON (1767-1835), German philologist and man of letters, the elder brother of the more celebrated Alexander von Humboldt, was born at Potsdam, on the 22nd of June 1767. After being educated at Berlin, Göttingen and Jena, in the last of which places he formed a close and lifelong friendship with Schiller, he married Fräulein von Dacherode, a lady of birth and fortune, and in 1802 was appointed by the Prussian government first resident and then minister plenipotentiary at Rome. While there he published a poem entitled *Rom*, which was reprinted in 1824. This was not, however, the first of his literary productions; his critical essay on Goethe's *Hermann und Dorothea*, published in 1800, had already placed him in the first rank of authorities on aesthetics, and, together with his family connexions, had much to do with his appointment at Rome; while in the years 1795 and 1797 he had brought out translations of several of the odes of Pindar, which were held in high esteem. On quitting his post at Rome he was made councillor of state and minister of public instruction. He soon, however, retired to his estate at Tegel, near Berlin, but was recalled and sent as ambassador to Vienna in 1812 during the exciting period which witnessed the closing struggles of the French empire. In the following year, as Prussian plenipotentiary at the congress of Prague, he was mainly instrumental in inducing Austria to unite with Prussia and Russia against France; in 1815 he was one of the signatories of the capitulation of Paris, and the same year was occupied in drawing up the treaty between Prussia and Saxony, by which the territory of the former was largely increased at the expense of the latter. The next year he was at Frankfort settling the future condition of Germany, but was summoned to London in the midst of his work, and in 1818 had to attend the congress at Aix-la-Chapelle. The reactionary policy of the Prussian government made him resign his office of privy councillor and give up political life in 1819; and from that time forward he devoted himself solely to literature and study.

During the busiest portion of his political career, however, he had found time for literary work. Thus in 1816 he had published a translation of the *Agamemnon* of Aeschylus, and in 1817 corrections and additions to Adelung's *Mithridates*, that famous collection of specimens of the various languages and dialects of the world. Among these additions that on the Basque language is the longest and most important, Basque having for some time specially attracted his attention. In fact, Wilhelm von Humboldt may be said to have been the first who brought Basque before the notice of European philologists, and made a scientific study of it possible. In order to gain a practical knowledge of the language and complete his investigations into it, he visited the Basque country itself, the result of his visit being the valuable "Researches into the Early Inhabitants of Spain by the help of the Basque language" (*Prüfung der Untersuchungen über die Urbewohner Hispaniens vermittelst der vaskischen Sprache*), published in 1821. In this work he endeavoured to show, by an examination of geographical names, that a race or races speaking dialects allied to modern Basque once extended through the whole of Spain, the southern coast of France and the Balearic Islands, and suggested that these people, whom he identified with the Iberians of classical writers, had come from northern Africa, where the name of Berber still perhaps perpetuates their old designation. Another work on what has sometimes been termed the metaphysics of language appeared from his pen in 1828, under the title of *Über den Dualis*; but the great work of his life, on the ancient Kawi language of Java, was unfortunately interrupted by his death on the 8th of April 1835. The imperfect fragment was edited by his brother and Dr Buschmann in 1836, and contains the remarkable introduction on "The Heterogeneity of Language and its Influence on the Intellectual Development of Mankind" (*Über die Verschiedenheit des menschlichen Sprachbaues und ihren Einfluss auf die geistige Entwickelung des Menschengeschlechts*), which was afterwards edited and defended against Steinthal's criticisms by Pott (2 vols., 1876). This essay, which has been called the text-book of the philosophy of speech, first clearly laid down that the character and structure of a language expresses the inner life and knowledge of its speakers, and that languages must differ from one another in the same way and to the same degree as those who use them. Sounds do not become words until a meaning has been put into them, and this meaning embodies the thought of a community. What Humboldt terms the inner form of a language is just that mode of denoting the relations between the parts of a sentence which reflects the manner in which a particular body of men regards the world about them. It is the task of the morphology of speech to distinguish the various ways in which languages differ from each other as regards their inner form, and to

classify and arrange them accordingly. Other linguistic publications of Humboldt, which had appeared in the *Transactions* of the Berlin Academy, the *Journal* of the Royal Asiatic Society, or elsewhere, were republished by his brother in the seven volumes of Wilhelm von Humboldt's *Gesammelte Werke* (1841-1852). These volumes also contain poems, essays on aesthetical subjects and other creations of his prolific mind. Perhaps, however, the most generally interesting of his works, outside those which deal with language, is his correspondence with Schiller, published in 1830. Both poet and philosopher come before us in it in their most genial mood. For, though Humboldt was primarily a philosopher, he was a philosopher rendered practical by his knowledge of statesmanship and wide experience of life, and endowed with keen sympathies, warm imagination and active interest in the method of scientific inquiry.

(A. H. S.)

HUMBUG, an imposture, sham, fraud. The word seems to have been originally applied to a trick or hoax, and appears as a slang term about 1750. According to the *New English Dictionary*, Ferdinando Killigrew's *The Universal Jester*, which contains the word in its sub-title "a choice collection of many conceits ... bonmots and humbugs," was published in 1754, not, as is often stated, in 1735-1740. The principal passage in reference to the introduction of the word occurs in *The Student*, 1750-1751, ii. 41, where it is called "a word very much in vogue with the people of taste and fashion." The origin appears to have been unknown at that date. Skeat connects it (*Etym. Dict.* 1898) with "hum," to murmur applause, hence flatter, trick, cajole, and "bug," bogey, spectre, the word thus meaning a false alarm. Many fanciful conjectures have been made, *e.g.* from Irish *uim-bog*, soft copper, worthless as opposed to sterling money; from "Hamburg," as the centre from which false coins came into England during the Napoleonic wars; and from the Italian *uomo bugiardo*, lying man.

HUME, ALEXANDER (*c.* 1557-1609), Scottish poet, second son of Patrick Hume of Polwarth, Berwickshire, was born, probably at Reidbrais, one of his family's houses, about 1557. It has been generally assumed that he is the Alexander Hume who matriculated at St Mary's college, St Andrews, in 1571, and graduated in 1574. In *Ane Epistle to Maister Gilbert Montcreif* (Moncrieff), *mediciner to the Kings Majestie, wherein is set downe the Experience of the Authours youth*, he relates the course of his disillusionment. He says he spent four years in France before beginning to study law in the courts at Edinburgh (l. 136). After three years' experience there he abandoned law in disgust and sought a post at court (*ib.* l. 241). Still dissatisfied, he took orders, and became in 1597 minister of Logic, near Stirling, where he lived until his death on the 4th of December 1609. His best-known work is his *Hymns, or Sacred Songs* (printed by Robert Waldegrave at Edinburgh in 1599, and dedicated to Elizabeth Melvill, Lady Comrie) containing an epistle to the Scottish youth, urging them to abandon vanity for religion. One poem of the collection, entitled "A description of the day Estivall," a sketch of a summer's day and its occupations, has found its way into several anthologies. "The Triumph of the Lord after the Manner of Men" is a song of victory of some merit, celebrating the defeat of the Armada in 1588. His prose works include *Ane Treatise of Conscience* (Edinburgh, 1594), *A Treatise of the Felicitie of the Life to come* (Edinburgh, 1594), and *Ane Afold Admonitioun to the Ministerie of Scotland*. The last is an argument against prelacy. Hume's elder brother, Lord Polwarth, was probably one of the combatants in the famous "Flyting betwixt Montgomerie and Polwart."

The editions of Hume's verse are: (*a*) by Robert Waldegrave (1599); (*b*) a reprint of (*a*) by the Bannatyne Club (1832); and (*c*) by the Scottish Text Society (ed. A. Lawson) (1902). The last includes the prose tracts.

HUME, DAVID (1711-1776), English philosopher, historian and political economist, was born at Edinburgh, on the 26th of April (O.S.) 1711. His father, Joseph Hume or Home, a scion of the noble house of Home of Douglas (but see *Notes and Queries*, 4th ser. iv. 72), was owner of a small estate in Berwickshire, on the banks of the Whiteadder, called, from the spring rising in front of the dwelling-house, Ninewells. David was the youngest of a family of three, two sons and a daughter, who after the early death of the father were brought up with great care and devotion by their mother, the daughter of Sir David Falconer, president of the college of justice.

Of Hume's early education little is known beyond what he has himself stated in his *Life*. He appears to have entered the Greek classes of the university of Edinburgh in 1723, and, he tells us, "passed through the ordinary course of education with success." From a letter printed in Burton's *Life* (i. 30-39), it appears that about 1726 Hume returned to Ninewells with a fair knowledge of Latin, slight acquaintance with Greek and literary tastes decidedly inclining to "books of reasoning and philosophy, and to poetry and the polite authors." We do not know, except by inference, to what studies he especially devoted himself. It is, however, clear that from his earliest years he began to speculate upon the nature of knowledge in the abstract, and its concrete applications, as in theology, and that with this object he studied largely the writings of Cicero and Seneca and recent English philosophers (especially Locke, Berkeley and Butler). His acquaintance with Cicero is clearly proved by the form in which he cast some of the most important of his speculations. From his boyhood he devoted himself to acquiring a literary reputation, and throughout his life, in spite of financial and other difficulties, he adhered to his original intention. A man of placid and even phlegmatic temperament, he lived moderately in all things, and sought worldly prosperity only so far as was necessary to give him leisure for his literary work. At first he tried law, but was unable to give his mind to a study which appeared to him to be merely a barren waste of technical jargon. At this time the intensity of his intellectual activity in the area opened up to him by Locke and Berkeley reduced him to a state of physical exhaustion. In these circumstances he determined to try the effect of complete change of scene and occupation, and in 1734 entered a business house in Bristol. In a few months he found "the scene wholly unsuitable" to him, and about the middle of 1734 set out for France, resolved to spend some years in quiet study. He visited Paris, resided for a time at Rheims and then settled at La Flèche, famous in the history of philosophy as the school of Descartes. His health seems to have been perfectly restored, and during the three years of his stay in France his speculations were worked into systematic form in the *Treatise of Human Nature*. In the autumn of 1737 he was in London arranging for its publication and polishing it in preparation for the judgments of the learned. In January 1739 appeared the first and second volumes of the *Treatise of Human Nature, being an Attempt to Introduce the Experimental Method of Reasoning into Moral Subjects*, containing book i., *Of the Understanding*, and book ii., *Of the Passions*. The third volume, containing book iii., *Of Morals*, was published in the following year. The publisher of the first two volumes, John Noone, gave him £50 and twelve bound copies for a first edition of one thousand copies. Hume's own words best describe its reception. "Never literary attempt was more unfortunate; it fell *dead-born from the press*, without reaching such distinction as even to excite a murmur among the zealots." "But," he adds, "being naturally of a cheerful and sanguine temper, I very soon recovered the blow, and prosecuted with great ardour my studies in the country." This brief notice, however, is not sufficient to explain the full significance of the event for Hume's own life. The work undoubtedly failed to do what its author expected from it; even the notice, otherwise not unsatisfactory, which it obtained in the *History of the Works of the Learned*, then the principal critical journal, did not in the least appreciate the true bearing of the *Treatise* on current discussions. Hume naturally expected that the world would see as clearly as he did the connexion between the concrete problems agitating contemporary thought and the abstract principles on which their solution depended. Accordingly he looked for opposition, and expected that, if his principles were received, a change in general conceptions of things would ensue. His disappointment at its reception was great; and though he never entirely relinquished his metaphysical speculations, though all that is of value in his later writings depends on the acute analysis of human nature to which he was from the first attracted, one cannot but regret that his high powers were henceforth withdrawn for the most part from the consideration of the foundations of belief, and expended on its practical applications. In later years he attributed his want of success to the immature style of his early exposition, to the rashness of a young innovator in an old and well-established province of literature. But this has little foundation beyond the irritation of an author at his own failure to attract such attention as he deems his due. None of the principles of the *Treatise* is given up in the later writings, and no addition is made to them. Nor can the superior polish of the more mature productions counterbalance the concentrated vigour of the more youthful work.

After the publication of the *Treatise* Hume retired to his brother's house at Ninewells and carried on his studies, mainly in the direction of politics and political economy. In 1741 he published the first volume of his *Essays*, which had a considerable and immediate success. A second edition was called for in the following year, in which also a second volume was published. These essays Butler, to whom he had sent a copy of his *Treatise*, but with whom he had failed to make personal acquaintance, warmly commended. The philosophical relation between Butler and Hume is curious. So far as analysis of knowledge is concerned they are in harmony, and Hume's sceptical conclusions regarding belief in matters of fact are the foundations on which Butler's defence of religion rests. Butler, however, retained, in spite of his destructive theory of knowledge, confidence in the rational proofs for the existence of God, and certainly maintains what may be vaguely described as an a priori view of conscience. Hume had the greatest respect for the author of the *Analogy*, ranks him with Locke and Berkeley as an originator of the experimental method in moral science, and in his specially theological essays, such as that on *Particular Providence and a Future State*, has Butler's views specifically in mind. (See Butler.)

The success of the *Essays*, though hardly great enough to satisfy his somewhat exorbitant cravings, was a great encouragement to him. He began to hope that his earlier work, if recast and lightened, might share the fortunes of its successor; and at intervals throughout the next four years he occupied himself in rewriting it in a more succinct form with all the literary grace at his command. Meantime he continued to look about for some post which might secure him the modest independence he desired. In 1744 we find him, in anticipation of a vacancy in the chair of moral philosophy at Edinburgh university, moving his friends to advance his cause with the electors; and though, as he tells us, "the accusation of heresy, deism, scepticism or theism, &c., &c., was started" against him, it had no effect, "being bore down by the contrary authority of all the good people in town." To his great mortification, however, he found out, as he thought, that Hutcheson and Leechman, with whom he had been on terms of friendly correspondence, were giving the weight of their opinion against his election. The after history of these negotiations is obscure. Failing in this attempt, he was induced to become tutor, or keeper, to the marquis of Annandale, a harmless literary lunatic. This position, financially advantageous, was absurdly false (see letters in Burton's *Life*, i. ch. v.), and when the matter ended Hume had to sue for arrears of salary.

In 1746 Hume accepted the office of secretary to General St Clair, and was a spectator of the ill-fated expedition to France in the autumn of that year. His admirable account of the transaction has been printed by Burton. After a brief sojourn at Ninewells, doubtless occupied in preparing for publication his *Philosophical Essays* (afterwards entitled *An Inquiry concerning Human Understanding*), Hume was again associated with General St Clair as secretary in the embassy to Vienna and Turin (1748). The notes of this journey are written in a light and amusing style, showing Hume's usual keenness of sight in some directions and his almost equal blindness in others. During his absence from England, early in the year 1748, 878
the *Philosophical Essays* were published; but the first reception of the work was little more favourable than that accorded to the *Treatise*. To the later editions of the work Hume prepared an "Advertisement" referring to the *Treatise*, and desiring that the *Essays* "may alone be regarded as containing his philosophical sentiments and principles." Some modern critics have accepted this disclaimer as of real value, but in fact it has no significance; and Hume himself in a striking letter to Gilbert Elliott indicated the true relation of the two works. "I believe the *Philosophical Essays* contain everything of consequence relating to the understanding which you would meet with in the *Treatise*, and I give you my advice against reading the latter. By shortening and simplifying the questions, I really render them much more complete. *Addo dum minuo*. The philosophical principles are the same in both." The Essays are undoubtedly written with more maturity and skill than the *Treatise*; they contain in more detail application of the principles to concrete problems, such as miracles, providence, immortality; but the entire omission of the discussion forming part ii. of the first book of the *Treatise*, and the great compression of part iv., are real defects which must always render the *Treatise* the more important work.

In 1749 Hume returned to Ninewells, enriched with "near a thousand pounds." In 1751 he removed to Edinburgh, where for the most part he resided during the next twelve years of his life. These years are the richest so far as literary production is concerned. In 1751 he published his *Political Discourses*, which had a great and well-deserved success both in England and abroad. It was translated into French by Mauvillon (1753) and by the Abbé le Blanc (1754). In the same year appeared the recast of the third book of the *Treatise*, called *Inquiry concerning the Principles of Morals*, of which he says that "of all his writings, philosophical, literary or historical, it is incomparably the best." At this time also we hear of the *Dialogues concerning Natural Religion*, a work which Hume was prevailed on not to publish, but which he revised with great care, and evidently regarded with the greatest

favour. The work itself, left by Hume with instructions that it should be published, did not appear till 1779.

In 1751 Hume was again unsuccessful in the attempt to gain a professor's chair. In the following year he received, in spite of the usual accusations of heresy, the librarianship of the Advocates' Library in Edinburgh, small in emoluments (£40 a year) but rich in opportunity for literary work. In a playful letter to Dr Clephane, he describes his satisfaction at his appointment, and attributes it in some measure to the support of "the ladies."

In 1753 Hume was fairly settled in Edinburgh, preparing for his *History of England*. He had decided to begin the *History*, not with Henry VII., as Adam Smith recommended, but with James I., considering that the political differences of his time took their origin from that period. On the whole his attitude in respect to disputed political principles seems not to have been at first consciously unfair. As for the qualities necessary to secure success as a *writer* on history, he felt that he possessed them in a high degree; and, though neither his ideal of an historian nor his equipment for the task of historical research would now appear adequate, in both he was much in advance of his time. "But," he writes in the well-known passage of his *Life*, "miserable was my disappointment. I was assailed by one cry of reproach, disapprobation, and even detestation; ... what was still more mortifying, the book seemed to sink into oblivion. Mr Millar told me that in a twelvemonth he sold only forty-five copies of it." This account must be accepted with reservations. It expresses Hume's feelings rather than the real facts. In Edinburgh, as we learn from one of his letters, the book succeeded well, no fewer than 450 copies being disposed of in five weeks. Nor is there anything in Hume's correspondence to show that the failure of the book was so complete as he declared. Within a very few years the sale of the *History* was sufficient to gain for the author a larger revenue than had ever before been known in his country to flow from literature, and to place him in comparative affluence. He seems to have received £400 for the first edition of the first volume, £700 for the first edition of the second and £840 for the copyright of the two together. At the same time the bitterness of Hume's feelings and their effect are of importance in his life. It is from the publication of the *History* that we date his virulent hatred of everything English, towards society in London, Whig principles, Whig ministers and the public generally (see Burton's *Life*, ii. 268, 417, 434). He was convinced that there was a conspiracy to suppress and destroy everything Scottish.[1] The remainder of the *History* became little better than a party pamphlet. The second volume, published in 1756, carrying on the narrative to the Revolution, was better received than the first; but Hume then resolved to work backwards, and to show from a survey of the Tudor period that his Tory notions were grounded upon the history of the constitution. In 1759 this portion of the work appeared, and in 1761 the work was completed by the history of the pre-Tudor periods. The numerous editions of the various portions—for, despite Hume's wrath and grumblings, the book was a great literary success—gave him an opportunity of careful revision, which he employed to remove from it all the "villainous seditious Whig strokes," and "plaguy prejudices of Whiggism" that he could detect. In other words, he bent all his efforts toward making his *History* more of a party work than it had been, and in his effort he was entirely successful. The early portion of his *History* may be regarded as now of little or no value. The sources at Hume's command were few, and he did not use them all. None the less, the *History* has a distinct place in the literature of England. It was the first attempt at a comprehensive treatment of historic facts, the first to introduce the social and literary aspects of a nation's life as only second in importance to its political fortunes, and the first historical writing in an animated yet refined and polished style.[2]

While the *History* was in process of publication, Hume did not entirely neglect his other lines of activity. In 1757 appeared *Four Dissertations: The Natural History of Religion, Of the Passions, Of Tragedy, Of the Standard of Taste*. Of these the dissertation on the passions is a very subtle piece of psychology, containing the essence of the second book of the *Treatise*. It is remarkable that Hume does not appear to have been acquainted with Spinoza's analysis of the affections. The last two essays are contributions of no great importance to aesthetics, a department of philosophy in which Hume was not strong. The *Natural History of Religion* is a powerful contribution to the deistic controversy; but, as in the case of Hume's earlier work, its significance was at the time overlooked. It is an attempt to carry the war into a province hitherto allowed to remain at peace, the theory of the general development of religious ideas. Deists, though raising doubts regarding the historic narratives of the Christian faith, had never disputed the general fact that belief in one God was natural and primitive. Hume endeavours to show that polytheism was the earliest as well as the most natural form of religious belief, and that theism or deism is the product of reflection upon experience, thus reducing the validity of the historical argument to that of the theoretical proofs.

In 1763 he accompanied Lord Hertford to Paris, doing the duties of secretary to the

embassy, with the prospect of the appointment to that post. He was everywhere received "with the most extraordinary honours." The society of Paris was peculiarly ready to receive a great philosopher and historian, especially if he were known to be an avowed antagonist of religion, and Hume made valuable friendships, especially with D'Alembert and Turgot, the latter of whom profited much by Hume's economical essays. In 1766 he left Paris and returned to Edinburgh. In 1767 he accepted the post of under-secretary to General Conway and spent two years in London.

He settled finally in Edinburgh in 1769, having now through his pension and otherwise an income of £1000 a year. The solitary incident of note in this period of his life is the ridiculous quarrel with Rousseau, which throws much light upon the character of the great sentimentalist. Hume certainly did his utmost to secure for Rousseau a comfortable retreat in England, but his usually sound judgment seems at first to have been quite at fault with regard to his protégé. The quarrel which all the acquaintances of the two philosophers had predicted soon came, and no language had expressions strong enough for Rousseau's anger. Hume came well out of the business, and had the sagacity to conclude that his admired friend was little better than a madman. In one of his most charming letters he describes his life in Edinburgh. The new house to which he alludes was built under his own directions at the corner of what is now called St David Street after him; it became the centre of the most cultivated society of Edinburgh. Hume's cheerful temper, his equanimity, his kindness to literary aspirants and to those whose views differed from his own won him universal respect and affection. He welcomed the work of his friends (*e.g.* Robertson and Adam Smith), and warmly recognized the worth of his opponents (*e.g.* George Campbell and Reid). He assisted Blackwell and Smollett in their difficulties and became the acknowledged patriarch of literature.

In the spring of 1775 Hume was struck with a tedious and harassing though not painful illness. A visit to Bath seemed at first to have produced good effects, but on the return journey more alarming symptoms developed themselves, his strength rapidly sank, and, little more than a month later, he died in Edinburgh on the 25th of August 1776.

> No notice of Hume would be complete without the sketch of his character drawn by his own hand:—"To conclude historically with my own character, I am, or rather was (for that is the style I must now use in speaking of myself, which emboldens me the more to speak my sentiments),—I was, I say, a man of mild dispositions, of command of temper, of an open, social and cheerful humour, capable of attachment, but little susceptible of enmity, and of great moderation in all my passions. Even my love of literary fame, my ruling passion, never soured my temper, notwithstanding my frequent disappointments. My company was not unacceptable to the young and careless, as well as to the studious and literary; and as I took a particular pleasure in the company of modest women, I had no reason to be displeased with the reception I met with from them. In a word, though most men anywise eminent have found reason to complain of calumny, I never was touched, or even attacked, by her baleful tooth; and, though I wantonly exposed myself to the rage of both civil and religious factions, they seem to be disarmed on my behalf of their wonted fury. My friends never had occasion to vindicate any one circumstance of my character and conduct; not but that the zealots, we may well suppose, would have been glad to invent and propagate any story to my disadvantage, but they could never find any which they thought would wear the face of probability. I cannot say there is no vanity in making this funeral oration of myself, but I hope it is not a misplaced one; and this is a matter of fact which is easily cleansed and ascertained." The more his life has become known, the more confidence we place in this admirable estimate.

The results of Hume's speculations may be discussed under two heads:—(1) philosophical, (2) economical.

Philosophy.

1. The philosophical writings, which mark a distinct epoch in the development of modern thought, can here be considered in two only of the many aspects in which they present themselves as of the highest interest to the historian of philosophy. In the *Treatise of Human Nature*, which is in every respect the most complete exposition of Hume's philosophical conception, we have the first thorough-going attempt to apply the fundamental principles of Locke's empirical psychology to the construction of a theory of knowledge, and, as a natural consequence, the first systematic criticism of the chief metaphysical notions from this point of view. Hume, in that work, holds the same relation to Locke and Berkeley as the late J. S. Mill held with his *System of Logic* to Hartley and James Mill. In certain of the later writings, pre-eminently in the *Dialogues on Natural Religion*, Hume brings the result of his speculative criticism to bear upon the problems of current theological discussion, and gives in their regard, as previously with respect to general philosophy, the final word of the empirical theory in its earlier form. The interesting parallel between Hume and J. S. Mill in this second feature will not be overlooked.

In the first instance, then, Hume's philosophical work is to be regarded as the attempt to

supply for empiricism in psychology a consistent, that is, a logically developed theory of knowledge. In Locke, indeed, such theory is not wanting, but, of all the many inconsistencies in the *Essay on the Human Understanding*, none is more apparent or more significant than the complete want of harmony between the view of knowledge developed in the fourth book and the psychological principles laid down in the earlier part of the work. Though Locke, doubtless, drew no distinction between the problems of psychology and of theory of knowledge, yet the discussion of the various forms of cognition given in the fourth book of the *Essay* seems to be based on grounds quite distinct from and in many respects inconsistent with the fundamental psychological principle of his work. The perception of relations, which, according to him, is the essence of cognition, the demonstrative character which he thinks attaches to our inference of God's existence, the intuitive knowledge of self, are doctrines incapable of being brought into harmony with the view of mind and its development which is the keynote of his general theory. To some extent Berkeley removed this radical inconsistency, but in his philosophical work it may be said with safety there are two distinct aspects, and while it holds of Locke on the one hand, it stretches forward to Kantianism on the other. Nor in Berkeley are these divergent features ever united into one harmonious whole. It was left for Hume to approach the theory of knowledge with full consciousness from the psychological point of view, and to work out the final consequences of that view so far as cognition is concerned. The terms which he employs in describing the aim and scope of his work are not those which we should now employ, but the declaration, in the introduction to the *Treatise*, that the science of human nature must be treated according to the experimental method, is in fact equivalent to the statement of the principle implied in Locke's *Essay*, that the problems of psychology and of theory of knowledge are identical. This view is the characteristic of what we may call the English school of philosophy.

Theory of knowledge.

In order to make perfectly clear the full significance of the principle which Hume applied to the solution of the chief philosophical questions, it is necessary to render somewhat more precise and complete the statement of the psychological view which lies at the foundation of the empirical theory, and to distinguish from it the problem of the theory of knowledge upon which it was brought to bear. Without entering into details, which it is the less necessary to do because the subject has been recently discussed with great fulness in works readily accessible, it may be said that for Locke as for Hume the problem of psychology was the exact description of the contents of the individual mind, and the determination of the conditions of the origin and development of conscious experience in the individual mind. And the answer to the problem which was furnished by Locke is in effect that with which Hume started. The conscious experience of the individual is the result of interaction between the individual mind and the universe of things. This solution presupposes a peculiar conception of the general relation between the mind and things which in itself requires justification, and which, so far at least as the empirical theory was developed by Locke and his successors, could not be obtained from psychological analysis. Either we have a right to the assumption contained in the conception of the individual mind as standing in relation to things, in which case the grounds of the assumption must be sought elsewhere than in the results of this reciprocal relation, or we have no right to the assumption, in which case reference to the reciprocal relation can hardly be accepted as yielding any solution of the psychological problem. But in any case,—and, as we shall see, Hume endeavours so to state his psychological premises as to conceal the assumption made openly by Locke,—it is apparent that this psychological solution does not contain the answer to the wider and radically distinct problem of the theory of knowledge. For here we have to consider how the individual intelligence comes to know any fact whatsoever, and what is meant by the cognition of a fact. With Locke, Hume professes to regard this problem as virtually covered or answered by the fundamental psychological theorem; but the superior clearness of his reply enables us to mark with perfect precision the nature of the difficulty inherent in the attempt to regard the two as identical. For purposes of psychological analysis the conscious experience of the individual mind is taken as given fact, to be known, *i.e.* observed, discriminated, classified and explained in the same way in which any one special portion of experience is treated. Now if this mode of treatment be accepted as the only possible method, and its results assumed to be conclusive as regards the problem of knowledge, the fundamental peculiarity of cognition is overlooked. In all cognition, strictly so-called, there is involved a certain synthesis or relation of parts of a characteristic nature, and if we attempt to discuss this synthesis as though it were in itself but one of the facts forming the *matter* of knowledge, we are driven to regard this relation as being of the quite external kind discovered by observation among matters of knowledge. The difficulty of reconciling the two views is that which gives rise to much of the obscurity in Locke's treatment of the theory of knowledge; in Hume the effort to identify them, and to explain the synthesis which is essential to cognition as merely the accidental result of external relations among the elements of conscious experience, appears with the utmost clearness, and gives the keynote of all his philosophical work. The final perplexity, concealed by various forms of expression, comes forward at the close of the *Treatise* as absolutely unsolved, and leads Hume, as will be pointed out, to a truly remarkable confession of the weakness of his own system.

While, then, the general idea of a theory of knowledge as based upon psychological analysis is the groundwork of the *Treatise*, it is a particular consequence of this idea that furnishes to Hume the characteristic criterion applied by him to all philosophical questions. If the relations involved in the fact of cognition are only those discoverable by observation of any particular portion of known experience, then such relations are quite external and contingent. The only necessary relation which can be discovered in a given fact of experience is that of non-contradiction (*i.e.* purely formal); the thing must be what it is, and cannot be conceived as having qualities contradictory of its nature. The universal test, therefore, of any supposed philosophical principle is the possibility or impossibility of imagining its contradictory. All our knowledge is but the sum of our conscious experience, and is consequently material for imagination. "Let us fix our attention out of ourselves as much as possible; let us chase our imagination to the heavens or to the utmost limits of the universe; we never really advance a step beyond ourselves, nor can conceive any kind of existence, but those perceptions which have appeared in that narrow compass. This is the universe of the imagination, nor have we any idea but what is there produced." (*Works*, ed. of 1854, i. 93, cf. i. 107.)

The course of Hume's work follows immediately from his fundamental principle, and the several divisions of the treatise, so far as the theoretical portions are concerned, are but its logical consequences. The first part of the first book contains a brief statement of the contents of mind, a description of all that observation can discover in conscious experience. The second part deals with those judgments which rest upon the formal elements of experience, space and time. The third part discusses the principle of real connexion among the elements of experience, the relation of cause and effect. The fourth part is virtually a consideration of the ultimate significance of this conscious experience, of the place it is supposed to occupy in the universe of existence, in other words, of the relations between the conscious experience of an individual mind as disclosed to observation and the supposed realities of self and external things.

Ideas and impressions.

In the first part Hume gives his own statement of the psychological foundations of his theory. Viewing the contents of mind as matter of experience, he can discover among them only one distinction, a distinction expressed by the terms *impressions* and *ideas*. Ideas are secondary in nature, copies of data supplied we know not whence. All that appears in conscious experience as primary, as arising from some unknown cause, and therefore relatively as original, Hume designates by the term *impression*, and claims to imply by such term no theory whatsoever as to the origin of this portion of experience. There is simply the fact of conscious experience, ultimate and inexplicable. Moreover, if we remain faithful to the fundamental conception that the contents of the mind are merely matters of experience, it is evident in the first place that as impressions are strictly individual, ideas also must be strictly particular, and in the second place that the faculties of combining, discriminating, abstracting and judging, which Locke had admitted, are merely expressions for particular modes of having mental experience, *i.e.* are modifications of *conceiving* (cf. i. 128 n., 137, 192). By this theory, Hume is freed from all the problems of abstraction and judgment. A comparative judgment is simplified into an isolated perception of a peculiar form, and a series of similar facts are grouped under a single symbol, representing a particular perception, and only by the accident of custom treated as universal (see i. 37, 38, 100).

Such, in substance, is Hume's restatement of Locke's empirical view. Conscious experience consists of isolated states, each of which is to be regarded as a fact and is related to others in a quite external fashion. It remains to be seen how knowledge can be explained on such a basis; but, before proceeding to sketch Hume's answer to this question, it is necessary to draw attention, first, to the peculiar device invariably resorted to by him when any exception to his general principle that ideas are secondary copies of impressions presents itself, and, secondly, to the nature of the substitute offered by him for that perception of relations or synthesis which even in Locke's confused statements had appeared as the essence of cognition. Whenever Hume finds it impossible to recognize in an idea the mere copy of a particular impression, he introduces the phrase "manner of conceiving." Thus general or abstract ideas arc merely copies of a particular impression conceived in a particular manner. The ideas of space and time, as will presently be pointed out, are copies of impressions conceived in a particular manner. The idea of necessary connexion is merely the reproduction of an impression which the mind *feels* itself compelled to conceive in a particular manner. Such a fashion of disguising difficulties points, not only to an inconsistency in Hume's theory as stated by himself, but to the initial error upon which it proceeds; for these perplexities are but the consequences of the doctrine that cognition is to be explained on the basis of particular perceptions. These external relations are, in fact, what Hume describes as the natural bonds of connexion among ideas, and, regarded subjectively as principles of association among the facts of mental experience, they form the substitute he offers for the synthesis implied in knowledge. These principles of association determine the imagination to combine ideas in various modes, and by this mechanical combination Hume, for a time, endeavoured to explain what are otherwise called judgments of relation. It was impossible,

however, for him to carry out this view consistently. The only combination which, even in appearance, could be explained satisfactorily by its means was the formation of a complex idea out of simpler parts, but the idea of a relation among facts is not accurately described as a complex idea; and, as such relations have no basis in impressions, Hume is finally driven to a confession of the absolute impossibility of explaining them. Such confession, however, is only reached after a vigorous effort had been made to render some account of knowledge by the experimental method.

The psychological conception, then, on the basis of which Hume proceeds to discuss the theory of knowledge, is that of conscious experience as containing merely the succession of isolated impressions and their fainter copies, ideas, and as bound together by merely natural or external links of connexion, the principles of association among ideas. The foundations of cognition must be discovered by observation or analysis of experience so conceived. Hume wavers somewhat in his division of the various kinds of cognition, laying stress now upon one now upon another of the points in which mainly they differ from one another. Nor is it of the first importance, save with the view of criticizing his own consistency, that we should adopt any of the divisions implied in his exposition. For practical purposes we may regard the most important discussions in the *Treatise* as falling under two heads. In the first place there are certain principles of cognition which appear to rest upon and to express relations of the universal elements in conscious experience, viz. space and time. The propositions of mathematics seem to be independent of this or that special fact of experience, and to remain unchanged even when the concrete matter of experience varies. They are formal. In the second place, cognition, in any real sense of that term, implies connexion for the individual mind between the present fact of experience and other facts, whether past or future. It appears to involve, therefore, some real relation among the portions of experience, on the basis of which relation judgments and inferences as to matters of fact can be shown to rest. The theoretical question is consequently that of the nature of the supposed relation, and of the certainty of judgments and inferences resting on it.

Association.

Hume's well-known distinction between relations of ideas and matters of fact corresponds fairly to this separation of the formal and real problems in the theory of cognition, although that distinction is in itself inadequate and not fully representative of Hume's own conclusions.

With regard, then, to the first problem, the formal element in knowledge, Hume has to consider several questions, distinct in nature and hardly discriminated by him with sufficient precision. For a complete treatment of this portion of the theory of knowledge, there require to be taken into consideration at least the following points: (*a*) the exact nature and significance of the space and time relations in our experience, (*b*) the mode in which the primary data, facts or principles, of mathematical cognition are obtained, (*c*) the nature, extent and certainty of such data, in themselves and with reference to the concrete material of experience, (*d*) the principle of inference from the data, however obtained. Not all of these points are discussed by Hume with the same fulness, and with regard to some of them it is difficult to state his conclusions. It will be of service, however, to attempt a summary of his treatment under these several heads,—the more so as almost all expositions of his philosophy are entirely defective in the account given of this essential portion. The brief statement in the *Inquiry*, § iv., is of no value, and indeed is almost unintelligible unless taken in reference to the full discussion contained in part ii. of the *Treatise*.

(*a*) The nature of space and time as elements in conscious experience is considered by Hume in relation to a special problem, that of their supposed infinite divisibility. Evidently upon his view of conscious experience, of the world of imagination, such infinite divisibility must be a fiction. The ultimate elements of experience must be real units, capable of being represented or imagined in isolation. Whence then do these units arise? or, if we put the problem as it was necessary Hume should put it to himself, in what orders or classes of impressions do we find the elements of space and time? Beyond all question Hume, in endeavouring to answer this problem, is brought face to face with one of the difficulties inherent in his conception of conscious experience. For he has to give some explanation of the nature of space and time which shall identify these with impressions, and at the same time is compelled to recognize the fact that they are not identical with any single impression or set of impressions. Putting aside, then, the various obscurities of terminology, such as the distinction between the objects known, viz. "points" or several mental states, and the impressions themselves, which disguise the full significance of his conclusion, we find Hume reduced to the following as his theory of space and time. Certain impressions, the sensations of sight and touch, have in themselves the element of space, for these impressions (Hume skilfully transfers his statement to the *points*) have a certain order or mode of arrangement. This mode of arrangement or manner of disposition is common to coloured points and tangible points, and, considered separately, is the impression from which our idea of space is taken. All impressions and all ideas are received, or form parts of a mental experience only when received, in a certain order, the order of succession. This manner of presenting themselves is the impression from which the

Space and time.

idea of time takes its rise.

It is almost superfluous to remark, first, that Hume here deliberately gives up his fundamental principle that ideas are but the fainter copies of impressions, for it can never be maintained that order of disposition is an impression, and, secondly, that he fails to offer any explanation of the mode in which *coexistence* and *succession* are possible elements of cognition in a conscious experience made up of isolated presentations and representations. For the consistency of his theory, however, it was indispensable that he should insist upon the real, *i.e.* presentative character of the ultimate units of space and time.

(*b*) How then are the primary data of mathematical cognition to be derived from an experience containing space and time relations in the manner just stated? It is important to notice that Hume, in regard to this problem, distinctly separates geometry from algebra and arithmetic, *i.e.* he views extensive quantity as being cognized differently from number. With regard to geometry, he holds emphatically that it is an empirical doctrine, a science founded on observation of concrete facts. The rough appearances of physical facts, their outlines, surfaces and so on, are the data of observation, and only by a method of approximation do we gradually come near to such propositions as are laid down in pure geometry. He definitely repudiates a view often ascribed to him, and certainly advanced by many later empiricists, that the data of geometry are hypothetical. The ideas of perfect lines, figures and surfaces have not, according to him, any existence. (See *Works*, i. 66, 69, 73, 97 and iv. 180.) It is impossible to give any consistent account of his doctrine regarding number. He holds, apparently, that the foundation of all the science of number is the fact that each element of conscious experience is presented as a unit, and adds that we are capable of considering any fact or collection of facts as a unit. This *manner of conceiving* is absolutely general and distinct, and accordingly affords the possibility of an all-comprehensive and perfect science, the science of discrete quantity. (See *Works*, i. 97.)

Mathematics.

(*c*) In respect to the third point, the nature, extent and certainty of the elementary propositions of mathematical science, Hume's utterances are far from clear. The principle with which he starts and from which follows his well-known distinction between relations of ideas and matters of fact, a distinction which Kant appears to have thought identical with his distinction between analytical and synthetical judgments, is comparatively simple. The *ideas* of the quantitative aspects of phenomena are exact representations of these aspects or quantitative impressions; consequently, whatever is found true by consideration of the ideas may be asserted regarding the real impressions. No question arises regarding the *existence* of the fact represented by the idea, and in so far, at least, mathematical judgments may be described as hypothetical. For they simply assert what will be found true in any conscious experience containing coexisting impressions of sense (specifically, of sight and touch), and in its nature successive. That the propositions are hypothetical in this fashion does not imply any distinction between the abstract truth of the ideal judgments and the imperfect correspondence of concrete material with these abstract relations. Such distinction is quite foreign to Hume, and can only be ascribed to him from an entire misconception of his view regarding the ideas of space and time. (For an example of such misconception, which is almost universal, see Riehl, *Der philosophische Kriticismus*, i. 96, 97.)

(*d*) From this point onwards Hume's treatment becomes exceedingly confused. The identical relation between the ideas of space and time and the impressions corresponding to them apparently leads him to regard judgments of continuous and discrete quantity as standing on the same footing, while the ideal character of the data gives a certain colour to his inexact statements regarding the extent and truth of the judgments founded on them. The emphatic utterances in the *Inquiry* (iv. 30, 186), and even at the beginning of the relative section in the *Treatise* (i. 95) may be cited in illustration. But in both works these utterances are qualified in such a manner as to enable us to perceive the real bearings of his doctrine, and to pronounce at once that it differs widely from that commonly ascribed to him. "It is from the idea of a triangle that we discover the relation of equality which its three angles bear to two right ones; and this relation is invariable, so long as our idea remains the same" (i. 95). If taken in isolation this passage might appear sufficient justification for Kant's view that, according to Hume, geometrical judgments are analytical and therefore perfect. But it is to be recollected that, according to Hume, an idea is actually a *representation* or individual picture, not a notion or even a *schema*, and that he never claims to be able to extract the predicate of a geometrical judgment by analysis of the subject. The properties of this individual subject, the idea of the triangle, are, according to him, discovered by observation, and as observation, whether actual or ideal, never presents us with more than the rough or general appearances of geometrical quantities, the relations so discovered have only approximate exactness. "Ask a mathematician what he means when he pronounces two quantities to be equal, and he must say that the idea of *equality* is one of those which cannot be defined, and that it is sufficient to place two equal quantities before any one in order to suggest it. Now this is an appeal to the general appearances of objects to the imagination or senses" (iv. 180). "Though it (*i.e.*

geometry) much excels, both in universality and exactness, the loose judgments of the senses and imagination, yet [it] never attains a perfect precision and exactness" (i. 97). Any exactitude attaching to the conclusions of geometrical reasoning arises from the comparative simplicity of the data for the primary judgments.

So far, then, as geometry is concerned, Hume's opinion is perfectly definite. It is an experimental or observational science, founded on primary or immediate judgments (in his phraseology, *perceptions*), of relation between facts of intuition; its conclusions are hypothetical only in so far as they do not imply the existence at the moment of corresponding real experience; and its propositions have no exact truth. With respect to arithmetic and algebra, the science of numbers, he expresses an equally definite opinion, but unfortunately it is quite impossible to state in any satisfactory fashion the grounds for it or even its full bearing. He nowhere explains the origin of the notions of unity and number, but merely asserts that through their means we can have absolutely exact arithmetical propositions (*Works*, i. 97, 98). Upon the nature of the reasoning by which in mathematical science we pass from data to conclusions, Hume gives no explicit statement. If we were to say that on his view the essential step must be the establishment of identities or equivalences, we should probably be doing justice to his doctrine of numerical reasoning, but should have some difficulty in showing the application of the method to geometrical reasoning. For in the latter case we possess, according to Hume, no standard of equivalence other than that supplied by immediate observation, and consequently transition from one premise to another by way of reasoning must be, in geometrical matters, a purely verbal process.

Hume's theory of mathematics—the only one, perhaps, which is compatible with his fundamental principle of psychology—is a practical condemnation of his empirical theory of perception. He has not offered even a plausible explanation of the mode by which a consciousness made up of isolated momentary impressions and ideas can be aware of coexistence and number, or succession. The relations of ideas are accepted as facts of immediate observation, as being themselves perceptions or individual elements of conscious experience, and to all appearance they are regarded by Hume as being in a sense analytical, because the formal criterion of identity is applicable to them. It is applicable, however, not because the predicate is contained in the subject, but on the principle of contradiction. If these judgments are admitted to be facts of immediate perception, the supposition of their non-existence is impossible. The ambiguity in his criterion, however, seems entirely to have escaped Hume's attention.

A somewhat detailed consideration of Hume's doctrine with regard to mathematical science has been given for the reason that this portion of his theory has been very generally overlooked or misinterpreted. It does not seem necessary to endeavour to follow his minute examination of the principle of real cognition with the same fulness. It will probably be sufficient to indicate the problem as conceived by Hume, and the relation of the method he adopts for solving it to the fundamental doctrine of his theory of knowledge.

Real cognition and causation.

Real cognition, as Hume points out, implies transition from the present impression or feeling to something connected with it. As this thing can only be an impression or perception, and is not itself present, it is represented by its copy or idea. Now the supreme, all-comprehensive link of connexion between present feeling or impression and either past or future experience is that of causation. The idea in question is, therefore, the idea of something connected with the present impression as its cause or effect. But this is explicitly the idea of the said thing as having had or as about to have existence,—in other words, belief in the existence of some matter of fact. What, for a conscious experience so constituted as Hume will admit, is the precise significance of such belief in real existence?

Clearly the real existence of a fact is not demonstrable. For whatever is may be conceived not to be. "No negation of a fact can involve a contradiction." Existence of any fact, not present as a perception, can only be proved by arguments from cause or effect. But as each perception is in consciousness only as a contingent fact, which might not be or might be other than it is, we must admit that the mind can conceive no necessary relations or connexions among the several portions of its experience.

If, therefore, a present perception leads us to assert the existence of some other, this can only be interpreted as meaning that in some natural, *i.e.* psychological, manner the idea of this other perception is excited, and that the idea is viewed by the mind in some peculiar fashion. The natural link of connexion Hume finds in the similarities presented by experience. One fact or perception is discovered by experience to be uniformly or generally accompanied by another, and its occurrence therefore naturally excites the idea of that other. But when an idea is so roused up by a present impression, and when this idea, being a consequence of memory, has in itself a certain vivacity or liveliness, we regard it with a peculiar indefinable feeling, and in this feeling consists the immense difference between mere imagination and belief. The mind is led easily and rapidly from the present impression to the ideas of

impressions found by experience to be the usual accompaniments of the present fact. The ease and rapidity of the mental transition is the sole ground for the supposed necessity of the causal connexion between portions of experience. The idea of necessity is not intuitively obvious; the ideas of cause and effect are correlative in our minds, but only as a result of experience. Hobbes and Locke were wrong in saying that the mind must find in the relation the idea of Power. We mistake the subjective transition resting upon custom or past experience for an objective connexion independent of special feelings. All reasoning about matters of fact is therefore a species of feeling, and belongs to the sensitive rather than to the cogitative side of our nature. It should be noted that this theory of Causation entirely denies the doctrine of Uniformity in Nature, so far as the human mind is concerned. All alleged uniformity is reduced to observed similarity of process. The idea is a mere convention, product of inaccurate thinking and custom.

While it is evident that some such conclusion must follow from the attempt to regard the cognitive consciousness as made up of disconnected feelings, it is equally clear, not only that the result is self-contradictory, but that it involves certain assumptions not in any way deducible from the fundamental view with which Hume starts. For in the problem of real cognition he is brought face to face with the characteristic feature of knowledge, distinction of self from matters known, and reference of transitory states to permanent objects or relations. Deferring his criticism of the significance of self and object, Hume yet makes use of both to aid his explanation of the belief attaching to reality. The reference of an idea to past experience has no meaning, unless we assume an identity in the object referred to. For a past impression is purely transitory, and, as Hume occasionally points out, can have no connexion of fact with the present consciousness. His exposition has thus a certain plausibility, which would not belong to it had the final view of the permanent object been already given.

The final problem of Hume's theory of knowledge, the discussion of the real significance of the two factors of cognition, self and external things, is handled in the *Treatise* with great fulness and dialectical subtlety.

The self in cognition.

As in the case of the previous problem, it is unnecessary to follow the steps of his analysis, which are, for the most part, attempts to substitute qualities of feeling for the relations of thought which appear to be involved. The results follow with the utmost ease from his original postulate. If there is nothing in conscious experience save what observation can disclose, while each act of observation is itself an isolated feeling (an impression or idea), it is manifest that a permanent identical thing can never be an object of experience. Whatever permanence or identity is ascribed to an impression or idea is the result of association, is one of those "propensities to feign" which are due to natural connexions among ideas. We regard as successive presentations of one thing the resembling feelings which are experienced in succession. Identity, then, whether of self or object, there is none, and the supposition of *objects*, distinct from impressions, is but a further consequence of our "propensity to feign." Hume's explanation of the belief in external things by reference to association is well deserving of careful study and of comparison with the more recent analysis of the same problem by J. S. Mill.

Negative result of Hume's treatise.

The weak points in Hume's empiricism are so admirably realized by the author himself that it is only fair to quote his own summary in the *Appendix* to the *Treatise*. He confesses that, in confining all cognition to single perceptions and supplying no purely intellectual faculty for modifying, recording and classifying their results, he has destroyed real knowledge altogether:

"If perceptions are distinct existences, they form a whole only by being connected together. But no connexions among distinct existences are ever discoverable by human understanding. We only *feel* a connexion or determination of the thought to pass from one object to another. It follows, therefore, that the thought alone feels personal identity, when, reflecting on the train of past perceptions that compose a mind, the ideas of them are felt to be connected together and naturally introduce each other.

"However extraordinary this conclusion may seem, it need not surprise us. Modern philosophers seem inclined to think that personal identity *arises* from consciousness, and consciousness is nothing but a reflected thought or perception. The present philosophy, therefore, has a promising aspect. But all my hopes vanish when I come to explain the principles that unite our successive perceptions in our thought or consciousness. I cannot discover any theory which gives me satisfaction on this head....

"In short, there are two principles which I cannot render consistent, nor is it in my power to renounce either of them; viz. *that all our distinct perceptions are distinct existences, and that the mind never perceives any real connexion among distinct existences*. Did our perceptions either inhere in something simple or individual, or did the mind perceive some real connexion among them, there would be no difficulty in the case" (ii. 551).

The closing sentences of this passage may be regarded as pointing to the very essence of the Kantian attempt at solution of the problem of knowledge. Hume sees distinctly that if conscious experience be taken as containing only isolated states, no progress in explanation of cognition is possible, and that the only hope of further development is to be looked for in a radical change in our mode of conceiving experience. The work of the critical philosophy is the introduction of this new mode of regarding experience, a mode which, in the technical language of philosophers, has received the title of *transcendental* as opposed to the psychological method followed by Locke and Hume. It is because Kant alone perceived the full significance of the change required in order to meet the difficulties of the empirical theory that we regard his system as the only sequel to that of Hume. The writers of the Scottish school, Reid in particular, did undoubtedly indicate some of the weaknesses in Hume's fundamental conception, and their attempts to show that the isolated feeling cannot be taken as the ultimate and primary unit of cognitive experience are efforts in the right direction. But the question of knowledge was never generalized by them, and their reply to Hume, therefore, remains partial and inadequate, while its effect is weakened by the uncritical assumption of principles which is a characteristic feature of their writings.

Theology and ethics.

The results of Hume's theoretical analysis are applied by him to the problems of practical philosophy and religion. For the first of these the reader is referred to the article Ethics, where Hume's views are placed in relation to those of his predecessors in the same field of inquiry. His position, as regards the second, is very noteworthy. As before said, his metaphysic contains *in abstracto* the principles which were at that time being employed, uncritically, alike by the deists and by their antagonists. There can be no doubt that Hume has continually in mind the theological questions then current, and that he was fully aware of the mode in which his analysis of knowledge might be applied to them. A few of the less important of his criticisms, such as the argument on miracles, became then and have since remained public property and matter of general discussion. But the full significance of his work on the theological side was not at the time perceived, and justice has barely been done to the admirable manner in which he reduced the theological disputes of the century to their ultimate elements. The importance of the *Dialogues on Natural Religion*, as a contribution to the criticism of theological ideas and methods, can hardly be over-estimated. A brief survey of its contents will be sufficient to show its general nature and its relations to such works as Clarke's *Demonstration* and Butler's *Analogy*. The *Dialogues* introduce three interlocutors, Demea, Cleanthes and Philo, who represent three distinct orders of theological opinion. The first is the type of a certain a priori view, then regarded as the safest bulwark against infidelity, of which the main tenets were that the being of God was capable of a priori proof, and that, owing to the finitude of our faculties, the attributes and modes of operation of deity were absolutely incomprehensible. The second is the typical deist of Locke's school, improved as regards his philosophy, and holding that the only possible proof of God's existence was a posteriori, from design, and that such proof was, on the whole, sufficient. The third is the type of completed empiricism or scepticism, holding that no argument, either from reason or experience, can transcend experience, and consequently that no proof of God's existence is at all possible. The views of the first and second are played off against one another, and criticized by the third with great literary skill and effect. Cleanthes, who maintains that the doctrine of the incomprehensibility of God is hardly distinguishable from atheism, is compelled by the arguments of Philo to reduce to a minimum the conclusion capable of being inferred from experience as regards the existence of God. For Philo lays stress upon the weakness of the analogical argument, points out that the demand for an ultimate cause is no more satisfied by thought than by nature itself, shows that the argument from design cannot warrant the inference of a perfect or infinite or even of a single deity, and finally, carrying out his principles to the full extent, maintains that, as we have no experience of the origin of the world, no argument from experience can carry us to its origin, and that the apparent marks of design in the structure of animals are only results from the conditions of their actual existence. So far as argument from nature is concerned, a total suspension of judgment is our only reasonable resource. Nor does the a priori argument in any of its forms fare better, for reason can never demonstrate a matter of fact, and, unless we know that the world had a beginning in time, we cannot insist that it must have had a cause. Demea, who is willing to give up his abstract proof, brings forward the ordinary theological topic, man's consciousness of his own imperfection, misery and dependent condition. Nature is throughout corrupt and polluted, but "the present evil phenomena are rectified in other regions and in some future period of existence." Such a view satisfies neither of his interlocutors. Cleanthes, pointing out that from a nature thoroughly evil we can never prove the existence of an infinitely powerful and benevolent Creator, hazards the conjecture that the deity, though all-benevolent, is not all-powerful. Philo, however, pushing his principles to their full consequences, shows that unless we assumed (or knew) beforehand that the system of nature was the work of a benevolent but limited deity, we certainly could not, from the facts of nature, infer the benevolence of its creator. Cleanthes's view is, therefore, an hypothesis, and in no sense an inference.

The *Dialogues* ought here to conclude. There is, however, appended one of those perplexing statements of personal opinion (for Hume declares Cleanthes to be his mouthpiece) not uncommon among writers of this period. Cleanthes and Philo come to an agreement, in admitting a certain illogical force in the a posteriori argument, or, at least, in expressing a conviction as to God's existence, which may not perhaps be altogether devoid of foundation. The precise value of such a declaration must be matter of conjecture. Probably the true statement of Hume's attitude regarding the problem is the somewhat melancholy utterance with which the *Dialogues* close.

It is apparent, even from the brief summary just given, that the importance of Hume in the history of philosophy consists in the vigour and logical exactness with which he develops a particular metaphysical view. Inconsistencies, no doubt, are to be detected in his system, but they arise from the limitations of the view itself, and not, as in the case of Locke and Berkeley, from imperfect grasp of the principle, and endeavour to unite with it others radically incompatible. In Hume's theory of knowledge we have the final expression of what may be called psychological individualism or atomism, while his ethics and doctrine of religion are but the logical consequences of this theory. So far as metaphysic is concerned, Hume has given the final word of the empirical school, and all additions, whether from the specifically psychological side or from the general history of human culture, are subordinate in character, and affect in no way the nature of his results. It is no exaggeration to say that the later English school of philosophy represented by J. S. Mill made in theory no advance beyond Hume. In the *logic* of Mill, *e.g.*, we find much of a special character that has no counterpart in Hume, much that is introduced *ab extra*, from general considerations of scientific procedure, but, so far as the groundwork is concerned, the *System of Logic* is a mere reproduction of Hume's doctrine of knowledge. It is impossible for any reader of Mill's remarkable posthumous essay on theism to avoid the reflection that in substance the treatment is identical with that of the *Dialogues on Natural Religion*, while on the whole the superiority in critical force must be assigned to the earlier work.

2. Hume's eminence in the fields of philosophy and history must not be allowed to obscure his importance as a political economist. Berkeley had already, in the *Querist*, attacked the mercantile theory of the nature of national wealth and the functions of money, and Locke had, in a partial manner, shown that political economy could with advantage be viewed in relation to the modern system of critical philosophy. But Hume was the first to apply to economics the scientific methods of his philosophy. His services to economics may be summed up in two heads: (1) he established the relation between economic facts and the fundamental phenomena of social life, and (2) he introduced into the study of these facts the new historical method. Thus, though he gave no special name to it, he yet describes the subject-matter, and indicates the true method, of economic science. His economic essays were published in the volumes entitled *Political Discourses* (1752) and *Essays and Treatises on Several Subjects* (1753); the most important are those on Commerce, on Money, on Interest and on the Balance of Trade, but, notwithstanding the disconnected form of the essays in general, the other less important essays combine to make a complete economic system. We have said that Berkeley and Locke had already begun the general work for which Hume is most important; in details also Hume had been anticipated to some extent. Nicholas Barbon and Sir Dudley North had already attacked the mercantile theory as to the precious metals and the balance of trade; Joseph Massie and Barbon had anticipated his theory of interest. Yet when we compare Hume with Adam Smith, the advance which Hume had made on his predecessors in lucidity of exposition and subtlety of intellect becomes clear, and modern criticism is agreed that the main errors of Adam Smith are to be found in those deductions which deviate from the results of the *Political Discourses*. A very few examples must suffice to illustrate his services to economics.

Economics.

In dealing with money, he refutes the Mercantile School, which had tended to confound it with wealth. "Money," said Hume, "is none of the wheels of trade; it is the oil which renders the motion of the wheels more smooth and easy." "Money and commodities are the real strength of any community." From the internal, as distinct from the international, aspect, the absolute quantity of money, supposed as of fixed amount, in a country, is of no consequence, while a quantity larger than is required for the interchange of commodities is injurious, as tending to raise prices and to drive foreigners from the home markets. It is only *during the period of acquisition* of money, and before the rise in prices, that the accumulation of precious metals is advantageous. This principle is perhaps Hume's most important economic discovery (cf. F. A. Walker's *Money in its Relations to Trade and Industry*, London, 1880, p. 84 sqq.). He goes on to show that the variations of prices are due solely to money and commodities in circulation. Further, it is a misconception to regard as injurious the passage of money into foreign countries. "A government," he says, "has great reason to preserve with care its *people* and its *manufactures*; its *money* it may safely trust to the course of human affairs without fear or jealousy." Dealing with the phenomena of interest, he exposes the old fallacy that the rate depends upon the amount of money in a country; low interest does not

Money.

Interest.

follow on abundance of money. The reduction in the rate of interest must, in general, result from "the increase of industry and frugality, of arts and commerce." In connexion with this he emphasizes a too generally neglected factor in economic phenomena, "the constant and insatiable desire of the mind for exercise and employment." "Interest," he says in general, "is the barometer of the state, and its lowness an almost infallible sign of prosperity," arising, as it does, from increased trade, frugality in the merchant class, and the consequent rise of new lenders: low interest and low profits mutually forward each other. In the matter of free trade and protection he compromises. He says on the one hand, "not only as a man, but as a British subject I pray for the flourishing commerce of Germany, Spain, Italy and even France itself," and condemns "the numerous bars, obstructions and imposts which all nations of Europe, and none more than England, have put upon trade." On the other hand, he approves of a protective tax on German linen in favour of home manufactures, and of a tax on brandy as encouraging the sale of rum and so supporting our southern colonies. Indeed it has been fairly observed that Hume retains an attitude of refined mercantilism. With regard to taxation he takes very definite views. The best taxes, he says, are those levied on consumption, especially on luxuries, for these are least heavily felt. He denies that all taxes fall finally on the land. Superior frugality and industry on the part of the artisan will enable him to pay taxes without mechanically raising the price of labour. Here, as in other points, he differs entirely from the physiocrats, and his criticism of contemporary French views are, as a whole, in accordance with received modern opinion. For the modern expedient of raising money for national emergencies by way of loan he has a profound distrust. He was convinced that what is bad for the individual credit must be bad for the state also. A national debt, he maintains, enriches the capital at the expense of the provinces; further, it creates a leisured class of stockholders, and possesses all the disadvantages of paper credit. "Either the nation must destroy public credit, or public credit will destroy the nation." To sum up, it may be said that Hume enunciated the principle that "everything in the world is purchased by labour, and our passions are the only causes of labour"; and further, that, in analysing the complex phenomena of commerce, he is superior sometimes to Adam Smith in that he never forgets that the ultimate causes of economic change are the "customs and manners" of the people, and that the solution of problems is to be sought in the elementary factors of industry.

Free trade.

Taxation and national debt.

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(R. AD.; J. M. M.)

1 See Burton, ii. 265, 148 and 238. Perhaps our knowledge of Johnson's sentiments regarding the Scots in general, and of his expressions regarding Hume and Smith in particular, may lessen our surprise at this vehemence.

2 Macaulay describes Hume's characteristic fault as an historian: "Hume is an accomplished advocate. Without positively asserting much more than he can prove, he gives prominence to all the circumstances which support his case; he glides lightly over those which are unfavourable to it; his own witnesses are applauded and encouraged; the statements which seem to throw discredit on them are controverted; the contradictions into which they fall are explained away; a clear and connected abstract of their evidence is given. Everything that is offered on the other side is scrutinized with the utmost severity; every suspicious circumstance is a ground for argument and invective; what cannot be denied is extenuated, or passed by without notice; concessions even are sometimes made; but this insidious candour only increases the effect of the vast mass of sophistry."—*Miscell. Writings*, "History." With this may be compared the more favourable verdict by J. S. Brewer, in the preface to his edition of the *Student's Hume*.

HUME, JOSEPH (1777-1855), British politician, was born on the 22nd of January 1777, of humble parents, at Montrose, Scotland. After completing his course of medical study at the university of Edinburgh he sailed in 1797 for India, where he was attached as surgeon to a regiment; and his knowledge of the native tongues and his capacity for business threw open to him the lucrative offices of interpreter and commissary-general. In 1802, on the eve of Lord Lake's Mahratta war, his chemical knowledge enabled him to render a signal service to the administration by making available a large quantity of gunpowder which damp had spoiled. In 1808, on the restoration of peace, he resigned all his civil appointments, and returned home in the possession of a fortune of £40,000. Between 1808 and 1811 he travelled much both in England and the south of Europe, and in 1812 published a blank verse translation of the *Inferno*. In 1812 he purchased a seat in parliament for Weymouth and voted as a Tory. When upon the dissolution of parliament the patron refused to return him he brought an action and recovered part of his money. Six years elapsed before he again entered the House, and during that interval he had made the acquaintance and imbibed the doctrines of James Mill and the philosophical reformers of the school of Bentham. He had joined his efforts to those of Francis Place, of Westminster, and other philanthropists, to relieve and improve the condition of the working classes, labouring especially to establish schools for them on the Lancasterian system, and promoting the formation of savings banks. In 1818, soon after his marriage with Miss Burnley, the daughter of an East India director, he was returned to parliament as member for the Border burghs. He was afterwards successively elected for Middlesex (1830), Kilkenny (1837) and for the Montrose burghs (1842), in the service of which constituency he died. From the date of his re-entering the House Hume became the self-elected guardian of the public purse, by challenging and bringing to a direct vote every single item of public expenditure. In 1820 he secured the appointment of a committee to report on the expense of collecting the revenue. He was incessantly on his legs in committee, and became a name for an opposition bandog who gave chancellors of the exchequer no peace. He undoubtedly exercised a check on extravagance, and he did real service by helping to abolish the sinking fund. It was he who caused the word "retrenchment" to be added to the Radical programme "peace and reform." He carried on a successful warfare against the old combination laws that hampered workmen and favoured masters; he brought about the repeal of the laws prohibiting the export of machinery and of the act preventing workmen from going abroad. He constantly protested against flogging in the army, the impressment of sailors and imprisonment for debt. He took up the question of lighthouses and harbours; in the former he secured greater efficiency, in the latter he prevented useless expenditure. Apart from his pertinacious fight for economy Hume was not always fortunate in his political activity. He was conspicuous in the agitation raised by the so-called Orange plot to set aside King William IV. in favour of the duke of Cumberland (1835 and 1836). His action as trustee for the notorious Greek Loan in 1824 was at least not delicate, and was the ground of charges of downright dishonesty. He died on the 20th of February 1855.

A *Memorial* of Hume was published by his son Joseph Burnley Hume (London, 1855).

HUMILIATI, the name of an Italian monastic order created in the 12th century. Its origin is obscure. According to some chroniclers, certain noblemen of Lombardy, who had offended the emperor (either Conrad III. or Frederick Barbarossa), were carried captive into Germany and after suffering the miseries of exile for some time, "humiliated" themselves before the emperor. Returning to their own country, they did penance and took the name of Humiliati. They do not seem to have had any fixed rule, nor did St Bernard succeed in inducing them to submit to one. The traditions relating to a reform of this order by St John of Meda are ill authenticated, his *Acta* (*Acta sanctorum Boll.*, Sept., vii. 320) being almost entirely unsupported by contemporary evidence. The "Chronicon anonymi Laudunensis canonici" (*Mon. Germ. hist. Scriptores*, xxvi. 449), at date 1178, states that a group of Lombards came to Rome with the intention of obtaining the pope's approval of the rule of life which they had spontaneously chosen; while continuing to live in their houses in the midst of their families, they wished to lead a more pious existence than of old, to abandon oaths and litigation, to content themselves with a modest dress, and all in a spirit of Catholic piety. The pope approved their resolve to live in humility and purity, but forbade them to hold assemblies and to preach in public; the chronicler adding that they infringed the pope's wish and thus drew upon themselves his excommunication. Their name, Humiliati ("Humiles" would have been more appropriate), arose from the fact that the clothes they wore were very simple and of one colour. This lay fraternity spread rapidly and soon put forth two new branches, a second order composed of women, and a third composed of priests. No sooner, however, had this order of priests been formed, than it claimed precedence of the others, and, though chronologically last, was called *primus ordo* by hierarchical right—*propter tonsuram* (see P. Sabatier, "Regula antiqua Fr. et Sor. de poenitentia" in *Opuscules de critique historique*, part i. p. 15). In 1201 Pope Innocent III. granted a rule to this third order. Sabatier has drawn attention to the resemblances between this rule and the *Regula de poenitentia* granted to Franciscanism in the course of its development; on the other hand, it is incontestable that Innocent III. wished to reconcile the order with the Waldenses, and, indeed, its rule reproduces several of the Waldensian propositions, ingeniously modified in the orthodox sense, but still very easily recognizable. It forbade useless oaths and the taking of God's name in vain; allowed voluntary poverty and marriage; regulated pious exercises; and approved the solidarity which already existed among the members of the association. Finally, by a singular concession, it authorized them to meet on Sunday to listen to the words of a brother "of proved faith and prudent piety," on condition that the hearers should not discuss among themselves either the articles of faith or the sacraments of the church. The bishops were forbidden to oppose any of the utterances of the Humiliati brethren, "for the spirit must not be stifled." James of Vitry, without being unfavourable to their tendencies, represents their association as one of the peculiarities of the church of his time (*Historia orientalis*, Douai, 1597). So broad a discipline must of necessity have led back some waverers into the pale of the church, but the Waldenses of Lombardy, in their *congregationes laborantium*, preserved the tradition of the independent Humiliati. Indeed, this tradition is confounded throughout the later 12th century with the history of the Waldenses. The "Chronicon Urspergense" (*Mon. Germ. hist. Scriptores*, xxiii. 376-377) mentions the Humiliati as one of the two Waldensian sects. The celebrated decretal promulgated in 1184 by Pope Lucius III. at the council of Verona against all heretics condemns at the same time as the "Poor Men of Lyons" "those who attribute to themselves falsely the name of Humiliati," at the very time when this name denoted an order recognized by the papacy. This order, though orthodox, was always held in tacit and ever-increasing suspicion, and, in consequence of grave disorders, Pius V. suppressed the entire congregation in February 1570-71.

See Tiraboschi, *Vetera humiliatorum monumenta* (Milan, 1766); K. Müller, *Die Waldenser* (Gotha, 1886); W. Preger, *Beiträge zur Geschichte der Waldensier* (Munich, 1875).

(P. A.)

HUMITE, a group of minerals consisting of basic magnesium fluo-silicates, with the following formulae:—Chondrodite, $Mg_3[Mg(F, OH)]_2[SiO_4]_2$; Humite, $Mg_5[Mg(F, OH)]_2[SiO_4]_3$; Clinohumite, $Mg_7[Mg(F, OH)]_2[SiO_4]_4$. Humite crystallizes in the orthorhombic and the two others in the monoclinic system, but between them there is a close crystallographic relation: the lengths of the vertical axes are in the ratio 5:7:9, and this is also the ratio of the number of magnesium atoms present in each of the three minerals. These minerals are strikingly similar in appearance, and can only be distinguished by the goniometric measurement of the complex crystals. They are honey-yellow to brown or red in colour, and have a vitreous to

resinous lustre; the hardness is 6-6½, and the specific gravity 3.1-3.2. Further, they often occur associated together, and it is only comparatively recently that the three species have been properly discriminated. The name humite, after Sir Abraham Hume, Bart. (1749-1839), whose collection of diamond crystals is preserved at Cambridge in the University museum, was given by the comte de Bournon in 1813 to the small and brilliant honey-yellow crystals found in the blocks of crystalline limestone ejected from Monte Somma, Vesuvius; all three species have since been recognized at this locality. Chondrodite (from χόνδρος, "a grain") was a name early (1817) in use for granular forms of these minerals found embedded in crystalline limestones in Sweden, Finland and at several place in New York and New Jersey. Large hyacinth-red crystals of all three species are associated with magnetite in the Tilly Foster iron-mine at Brewster, New York; and at Kafveltorp in Örebro, Sweden, similar crystals (of chondrodite) occur embedded in galena and chalcopyrite.

The relation mentioned above between the crystallographic constants and the chemical composition is unique amongst minerals, and is known as a morphotropic relation. S. L. Penfield and W. T. H. Howe, who in 1894 noticed this relation, predicted the existence of another member of the series, the crystals of which would have a still shorter vertical axis and contain less magnesium, the formula being $Mg[Mg(F, OH)]_2SiO_4$; this has since been discovered and named prolectite (from προλέγειν, "to foretell").

(L. J. S.)

HUMMEL, JOHANN NEPOMUK (1778-1837), German composer and pianist, was born on the 14th of November 1778, at Pressburg, in Hungary, and received his first artistic training from his father, himself a musician. In 1785 the latter received an appointment as conductor of the orchestra at the theatre of Schikaneder, the friend of Mozart and the librettist of the *Magic Flute*. It was in this way that Hummel became acquainted with the composer, who took a great fancy to him, and even invited him to his house for a considerable period. During two years, from the age of seven to nine, Hummel received the invaluable instruction of Mozart, after which he set out with his father on an artistic tour through Germany, England and other countries, his clever playing winning the admiration of amateurs. He began to compose in his eleventh year. After his return to Vienna he completed his studies under Albrechtsberger and Haydn, and for a number of years devoted himself exclusively to composition. At a later period he learned song-writing from Salieri. For some years he held the appointment of orchestral conductor to Prince Eszterhazy, probably entering upon this office in 1807. From 1811 to 1815 he lived in Vienna. On the 18th of May 1813 he married Elisabeth Röckl, a singer, and the sister of one of Beethoven's friends. It was not till 1816 that he again appeared in public as a pianist, his success being quite extraordinary. His gift of improvisation at the piano was especially admired, but his larger compositions also were highly appreciated, and for a time Hummel was considered one of the leading musicians of an age in which Beethoven was in the zenith of his power. In Prussia, which he visited in 1822, the ovations offered to him were unprecedented, and other countries—France in 1825 and 1829, Belgium in 1826 and England in 1830 and 1833—added further laurels to his crown. He died in 1837 at Weimar, where for a long time he had been the musical conductor of the court theatre. His compositions are very numerous, and comprise almost every branch of music. He wrote, amongst other things, several operas, both tragic and comic, and two grand masses (*Op.* 80 and 111). Infinitely more important are his compositions for the pianoforte (his two concerti in A minor and B minor, and the sonata in F sharp minor), and his chamber music (the celebrated septet, and several trios, &c.). His experience as a player and teacher of the pianoforte was embodied in his *Great Pianoforte School* (Vienna), and the excellence of his method is further proved by such pupils as Henselt and Ferdinand Hiller. Both as a composer and as a pianist Hummel continued the traditions of the earlier Viennese school of Mozart and Haydn; his style in both capacities was marked by purity and correctness rather than by passion and imagination.

HUMMING-BIRD, a name in use, possibly ever since English explorers first knew of them, for the beautiful little creatures to which, from the sound occasionally made by the rapid vibrations of their wings, it is applied. Among books that are ordinarily in naturalists' hands,

the name seems to be first found in the *Musaeum Tradescantianum*, published in 1656, but it therein occurs (p. 3) so as to suggest its having already been accepted and commonly understood; and its earliest use, as yet traced, is by Thomas Morton (d. 1646), a disreputable lawyer who had a curiously adventurous career in New England, in the *New English Canaan*, printed in 1637—a rare work giving an interesting description of the natural scenery and social life in New England in the 17th century, and reproduced by Peter Force in his *Historical Tracts* (vol. ii., Washington, 1838). André Thevet, in his *Singularitez de la France antarctique* (Antwerp, 1558, fol. 92), has been more than once cited as the earliest author to mention humming-birds, which he did under the name of *Gouambuch*; but it is quite certain that Oviedo, whose *Hystoria general de las Indias* was published at Toledo in 1525, preceded him by more than thirty years, with an account of the "paxaro mosquito" of Hispaniola, of which island "the first chronicler of the Indies" was governor.[1] This name, though now apparently disused in Spanish, must have been current about that time, for we find Gesner in 1555 (*De avium natura*, iii. 629) translating it literally into Latin as *Passer muscatus*, owing, as he says, his knowledge of the bird to Cardan, the celebrated mathematician, astrologer and physician, from whom we learn (*Comment. in Ptolem. de astr. judiciis*, Basel, 1554, p. 472) that, on his return to Milan from professionally attending Archbishop Hamilton at Edinburgh, he visited Gesner at Zürich, about the end of the year 1552.[2] The name still survives in the French *oiseau-mouche*; but the ordinary Spanish appellation is, and long has been, *Tominejo*, from *tomin*, signifying a weight equal to the third part of an *adarme* or drachm, and used metaphorically for anything very small. Humming-birds, however, are called by a variety of other names, many of them derived from American languages, such as *Guainumbi*, *Ourissia* and *Colibri*, to say nothing of others bestowed upon them (chiefly from some peculiarity of habit) by Europeans, like *Picaflores*, *Chuparosa* and *Froufrou*. Barrère, in 1745, conceiving that humming-birds were allied to the wren, the *Trochilus*,[3] in part, of Pliny, applied that name in a generic sense (*Ornith. spec. novum*, pp. 47, 48) to both. Taking the hint thus afforded, Linnaeus very soon after went farther, and, excluding the wrens, founded his genus *Trochilus* for the reception of such humming-birds as were known to him. The unfortunate act of the great nomenclator cannot be set aside; and, since his time, ornithologists, with but few exceptions, have followed his example, so that nowadays humming-birds are universally recognized as forming the family *Trochilidae*.

The relations of the *Trochilidae* to other birds were for a long while very imperfectly understood. Nitzsch first drew attention to their agreement in many essential characters with the swifts, *Cypselidae*, and placed the two families in one group, which he called *Macrochires*, from the great length of their manual bones, or those forming the extremity of the wing. The name was perhaps not very happily chosen, for it is not the distal portion that is so much out of ordinary proportion to the size of the bird, but the proximal and median portions, which in both families are curiously dwarfed. Still the *manus*, in comparison with the other parts of the wing, is so long that the term *Macrochires* is not wholly inaccurate. The affinity of the *Trochilidae* and *Cypselidae* once pointed out, became obvious to every careful and unprejudiced investigator, and there are probably few systematists now living who refuse to admit its validity. More than this, it is confirmed by an examination of other osteological characters. The "lines," as a boat-builder would say, upon which the skeleton of each form is constructed are precisely similar, only that whereas the bill is very short and the head wide in the swifts, in the humming-birds the head is narrow and the bill long—the latter developed to an extraordinary degree in some of the *Trochilidae*, rendering them the longest-billed birds known.[4] Huxley takes these two families, together with the goatsuckers (*Caprimulgidae*), to form the division *Cypselomorphae*—one of the two into which he separated his larger group *Aegithognathae*. However, the most noticeable portion of the humming-bird's skeleton is the *sternum*, which in proportion to the size of the bird is enormously developed both longitudinally and vertically, its deep keel and posterior protraction affording abundant space for the powerful muscles which drive the wings in their rapid vibrations as the little creature poises itself over the flowers where it finds its food.[5]

So far as is known, all humming-birds possess a protrusible tongue, in conformation peculiar among the class *Aves*, though to some extent similar to that member in the woodpeckers (*Picidae*)[6]—the "horns" of the hyoid apparatus upon which it is seated being greatly elongated, passing round and over the back part of the head, near the top of which they meet, and thence proceed forward, lodged in a broad and deep groove, till they terminate in front of the eyes. But, unlike the tongue of the woodpeckers, that of the humming-birds consists of two cylindrical tubes, tapering towards the point, and forming two sheaths which contain the extensile portion, and are capable of separation, thereby facilitating the extraction of honey from the nectaries of flowers, and with it, what is of far greater importance for the bird's sustenance, the small insects that have been attracted to feed upon the honey.[7] These, on the tongue being withdrawn into the bill, are caught by the

mandibles (furnished in the males of many species with fine, horny, saw like teeth[8]), and swallowed in the usual way. The stomach is small, moderately muscular, and with the inner coat slightly hardened. There seem to be no caeca. The trachea is remarkably short, the bronchi beginning high up on the throat, and song-muscles are wholly wanting, as in all other *Cypselomorphae*.[9]

Humming-birds comprehend the smallest members of the class Aves. The largest among them measures no more than 8½ and the least 2⅜ in. in length, for it is now admitted generally that Sloane must have been in error when he described (*Voyage*, ii. 308) the "least humming-bird of Jamaica" as "about 1¼ in. long from the end of the bill to that of the tail"—unless, indeed, he meant the proximal end of each. There are, however, several species in which the tail is very much elongated, such as the *Aithurus polytmus* (fig. 1) of Jamaica, and the remarkable *Loddigesia mirabilis* of Chachapoyas in Peru, which last was for some time only known from a unique specimen (*Ibis*, 1880, p. 152); but "trochilidists" in giving their measurements do not take these extraordinary developments into account. Next to their generally small size, the best-known characteristic of the *Trochilidae* is the wonderful brilliancy of the plumage of nearly all their forms, in which respect they are surpassed by no other birds, and are only equalled by a few, as, for instance, by the *Nectariniidae*, or sun-birds of the tropical parts of the Old World, in popular estimation so often confounded with them.

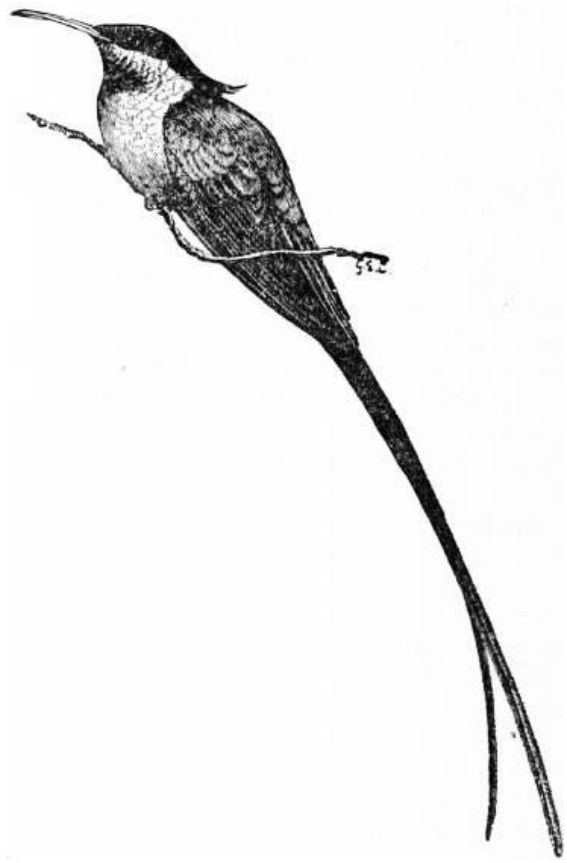

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FIG. 1.—*Aithurus polytmus.*

The number of species of humming-birds now known to exist considerably exceeds 400; and, though none departs very widely from what a morphologist would deem the typical structure of the family, the amount of modification, within certain limits, presented by the various forms is surprising and even bewildering to the uninitiated. But the features that are ordinarily chosen by systematic ornithologists in drawing up their schemes of classification are found by the "trochilidists," or special students of the *Trochilidae*, insufficient for the purpose of arranging these birds in groups, and characters on which genera can be founded have to be sought in the style and coloration of plumage, as well as in the form and proportions of those parts which are most generally deemed sufficient to furnish them. Looking to the large number of species to be taken into account, convenience has demanded what science would withhold, and the genera established by the ornithologists of a preceding generation nave been broken up by their successors into multitudinous sections—the more adventurous making from 150 to 180 of such groups, the modest being content with 120 or thereabouts, but the last dignifying each of them by the title of genus. It is of course obvious that these small divisions cannot be here considered in detail, nor would much advantage accrue by giving statistics from the works of recent trochilidists, such as Gould,[10] Mulsant[11] and Elliot.[12] It would be as unprofitable here to trace the successive steps by which the original genus *Trochilus* of Linnaeus, or the two genera *Polytmus* and *Mellisuga* of Brisson, have been split into others, or have been added to, by modern writers, for not one of these professes to have arrived at any final, but only a provisional, arrangement; it seems, however, expedient to notice the fact that some of the authors of the 18th century[13] supposed themselves to have seen the way to dividing what we now know as the family *Trochilidae* into two groups, the distinction between which was that in the one the bill was arched and in the other straight, since that difference has been insisted on in many works. This was especially the view taken by Brisson and Buffon, who termed the birds having the arched bill "colibris," and those having it straight "oiseaux-mouches." The distinction wholly breaks down, not merely because there are *Trochilidae* which possess almost every gradation of decurvation of the bill, but some which have the bill upturned after the manner of that strange bird the avocet,[14] while it may be remarked that several of the species placed by those authorities among the "colibris"

are not humming-birds at all.

In describing the extraordinary brilliant plumage which most of the *Trochilidae* exhibit, ornithologists have been compelled to adopt the vocabulary of the jeweller in order to give an idea of the indescribable radiance that so often breaks forth from some part or other of the investments of these feathered gems. In all, save a few other birds, the most imaginative writer sees gleams which he may adequately designate metallic, from their resemblance to burnished gold, bronze, copper or steel, but such similitudes wholly fail when he has to do with the *Trochilidae*, and there is hardly a precious stone—ruby, amethyst, sapphire, emerald or topaz—the name of which may not fitly, and without any exaggeration, be employed in regard to humming-birds. In some cases this radiance beams from the brow, in some it glows from the throat, in others it shines from the tail-coverts, in others it sparkles from the tip only of elongated feathers that crest the head or surround the neck as with a frill, while again in others it may appear as a luminous streak across the cheek or auriculars. The feathers that cover the upper parts of the body very frequently have a metallic lustre of golden-green, which in other birds would be thought sufficiently beautiful, but in the *Trochilidae* its sheen is overpowered by the almost dazzling splendour that radiates from the spots where Nature's lapidary has set her jewels. The flight feathers are almost invariably dusky—the rapidity of their movement would, perhaps, render any display of colour ineffective: while, on the contrary, the feathers of the tail, which, as the bird hovers over its food-bearing flowers, is almost always expanded, and is therefore comparatively motionless, often exhibit a rich translucency, as of stained glass, but iridescent in a manner that no stained glass ever is—cinnamon merging into crimson, crimson changing to purple, purple to violet, and so to indigo and bottle-green. But this part of the humming-bird is subject to quite as much modification in form as in colour, though always consisting of ten *rectrices*. It may be nearly square, or at least but slightly rounded, or wedge-shaped with the middle quills prolonged beyond the rest; or, again, it may be deeply forked, sometimes by the overgrowth of one or more of the intermediate pairs, but most generally by the development of the outer pair. In the last case the lateral feathers may be either broadly webbed to their tip or acuminate, or again, in some forms, may lessen to the filiform shaft, and suddenly enlarge into a terminal spatulation as in the forms known as "racquet tails." The wings do not offer so much variation; still there are a few groups in which diversities occur that require notice. The primaries are invariably ten in number, the outermost being the longest, except in the single instance of *Aithurus*, where it is shorter than the next. The group known as "sabre-wings," comprising the genera *Campylopterus*, *Eupetomena* and *Sphenoproctus*, present a most curious sexual peculiarity, for while the female has nothing remarkable in the form of the wing, in the male the shaft of two or three of the outer primaries is dilated proximally, and bowed near the middle in a manner almost unique among birds. The feet again, diminutive as they are, are very diversified in form. In most the tarsus is bare, but in some groups, as *Eriocnemis*, it is clothed with tufts of the most delicate down, sometimes black, sometimes buff, but more often of a snowy whiteness. In some the toes are weak, nearly equal in length, and furnished with small rounded nails; in others they are largely developed, and armed with long and sharp claws.

Apart from the well-known brilliancy of plumage, of which enough has been here said, many humming-birds display a large amount of ornamentation in the addition to their attire of crests of various shape and size, elongated ear-tufts, projecting neck-frills, and pendant beards—forked or forming a single point. But it would be impossible here to dwell on a tenth of these beautiful modifications, each of which as it comes to our knowledge excites fresh surprise and exemplifies the ancient adage—*maxime miranda in minimis Natura*. It must be remarked, however, that there are certain forms which possess little or no brilliant colouring at all, but, as most tropical birds go, are very soberly clad. These are known to trochilidists as "hermits," and by Gould have been separated as a subfamily under the name of *Phaethornithinae*, though Elliot says he cannot find any characters to distinguish it from the *Trochilidae* proper. But sight is not the only sense that is affected by humming-birds. The large species known as *Pterophanes temmincki* has a strong musky odour, very similar to that given off by the petrels, though, so far as appears to be known, that is the only one of them that possesses this property.[15]

All well-informed people are aware that the *Trochilidae* are a family peculiar to America and its islands, but one of the commonest of common errors is the belief that humming-birds are found in Africa and India—to say nothing even of England. In the first two cases the mistake arises from confounding them with some of the brightly-coloured sun-birds (*Nectariniidae*), to which British colonists or residents are apt to apply the better-known name; but in the last it can be only due to the want of perception which disables the observer from distinguishing between a bird and an insect—the

object seen being a hawk-moth (*Macroglossa*), whose mode of feeding and rapid flight certainly bears some resemblance to that of the Trochilidae, and hence one of the species (*M. stellarum*) is very generally called the “humming-bird hawk-moth.” But though confined to the New World the *Trochilidae* pervade almost every part of it. In the south *Eustephanus galeritus* has been seen flitting about the fuchsias of Tierra del Fuego in a snow-storm, and in the north-west *Selatophorus rufus* in summer visits the ribes-blossoms of Sitka, while in the north-east *Trochilus colubris* charms the vision of Canadians as it poises itself over the althaea-bushes in their gardens, and extends its range at least so far as lat. 57° N. Nor is the distribution of humming-birds limited to a horizontal direction only, it rises also vertically. *Oreotrochilus chimborazo* and *O. pichincha* live on the lofty mountains whence each takes its specific name, but just beneath the line of perpetual snow, at an elevation of some 16,000 ft., dwelling in a world of almost constant hall, sleet and rain, and-feeding on the insects which resort to the indigenous flowering plants, while other peaks, only inferior to these in height, are no less frequented by one or more species. Peru and Bolivia produce some of the most splendid of the family—the genera *Cometes*, *Diphlogaena* and *Thaumastura*, whose very names indicate the glories of their bearers. The comparatively gigantic *Patagona* inhabits the west coast of South America, while the isolated rocks of Juan Fernandez not only afford a home to the *Eustephanus* but also to two other species of the same genus which are not found elsewhere. The slopes of the Northern Andes and the hill country of Colombia furnish perhaps the greatest number of forms, and some of the most beautiful, but leaving that great range, we part company with the largest and most gorgeously arrayed species, and their number dwindles as we approach the eastern coast. Still there are many brilliant humming-birds common enough in the Brazils, Guiana and Venezuela. The *Chrysolampis mosquitus* is perhaps the most plentiful. Thousands of its skins are annually sent to Europe to be used in the manufacture of ornaments, its rich ruby-and-topaz glow rendering it one of the most beautiful objects imaginable. In the darkest depths of the Brazilian forests dwell the russet-clothed brotherhood of the genus *Phaethornis* —the “hermits”; but the great wooded basin of the Amazons seems to be particularly unfavourable to the *Trochilidae*, and from Pará to Ega there are scarcely a dozen species to be met with. There is no island of the Antilles but is inhabited by one or more humming-birds, and there are some very remarkable singularities of geographical distribution to be found. Northwards from Panama the highlands present many genera whose names it would be useless here to insert, few or none of which are found in South America—though that must unquestionably be deemed the metropolis of the family—and advancing towards Mexico the numbers gradually fall off. Eleven species have been enrolled among the fauna of the United States, but some on slender evidence, while others only just cross the frontier line.

From *The Cambridge National History*, vol. ix., “Birds,” by permission of Macmillan & Co. Ltd.

Fig. 2.—*Eulampis jugularus.*

The habits of humming-birds have been ably treated by writers like Waterton, Wilson and Audubon, to say nothing of P. H. Gosse, A. R. Wallace, H. W. Bates and others. But there is no one appreciative of the beauties of nature who will not recall to memory with delight the time when a live humming-bird first met his gaze. The suddenness of the apparition, even when expected, and its brief duration, are alone enough to fix the fluttering vision on the mind’s eye. The wings of the bird, if flying, are only visible as a thin grey film, bounded above and below by fine black threads, in form of a St Andrew’s cross,—the effect on the observer’s retina of the instantaneous reversal of the motion of the wing at each beat—the strokes being so rapid as to leave no more distinct image. Consequently an adequate representation of the bird on the wing cannot be produced by the draughtsman. Humming-birds show to the greatest advantage when engaged in contest with another, for rival cocks fight fiercely, and, as may be expected, it is then that their plumage flashes with the most glowing tints. But these are quite invisible to the ordinary spectator except when very near at hand, though doubtless efficient enough for their object, whether that be to inflame their mate or to irritate or daunt their opponent, or something that we cannot compass. Humming-birds, however, will also often sit still for a while, chiefly in an exposed position, on a dead twig, occasionally darting into the air, either to catch a passing insect or to encounter an adversary; and so pugnacious are they that they will frequently attack birds many times bigger than themselves, without, as would seem, any provocation.

The food of humming-birds consists mainly of insects, mostly gathered in the manner already described from the flowers they visit; but, according to Wallace, there are many species which he has never seen so occupied, and the “hermits” especially seem to live almost

entirely upon the insects which are found on the lower surface of leaves, over which they will closely pass their bill, balancing themselves the while vertically in the air. The same excellent observer also remarks that even among the common flower-frequenting species he has found the alimentary canal entirely filled with insects, and very rarely a trace of honey. It is this fact doubtless that has hindered almost all attempts at keeping them in confinement for any length of time—nearly every one making the experiment having fed his captives only with syrup, which, without the addition of some animal food, is insufficient as sustenance, and seeing therefore the wretched creatures gradually sink into inanition and die of hunger. With better management, however, several species have been brought on different occasions to Europe, some of them to England.

The beautiful nests of humming-birds, than which the work of fairies could not be conceived more delicate, are to be seen in most museums, and will be found on examination to be very solidly and tenaciously built, though the materials are generally of the slightest—cotton-wool or some vegetable down and spiders' webs. They vary greatly in form and ornamentation—for it would seem that the portions of lichen which frequently bestud them are affixed to their exterior with that object, though probably concealment was the original intention. They are mostly cup-shaped, and the singular fact is on record (*Zool. Journal*, v. p. 1) that in one instance as the young grew in size the walls were heightened by the parents, until at last the nest was more than twice as big as when the eggs were laid and hatched. Some species, however, suspend their nests from the stem or tendril of a climbing plant, and more than one case has been known in which it has been attached to a hanging rope. These pensile nests are said to have been found loaded on one side with a small stone or bits of earth to ensure their safe balance, though how the compensatory process is applied no one can say. Other species, and especially those belonging to the "hermit" group, weave a frail structure round the side of a drooping palm-leaf. The eggs are never more than two in number, quite white, and having both ends nearly equal. The solicitude for her offspring displayed by the mother is not exceeded by that of any other birds, but it seems doubtful whether the male takes any interest in the brood.

(A. N.)

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1 In the edition of Oviedo's work published at Salamanca in 1547, the account (*lib.* xiv. cap. 4) runs thus: "Ay assi mismo enesta ysla vnos paxaricos tan negros como vn terciopelo negro muy bueno & son tan pequeños que ningunos he yo visto en Indias menores excepto el que aca se llama paxaro mosquito. El qual es tan pequeño que el bulto del es menor harto o assaz que le cabeça del dedo pulgar de la mano. Este no le he visto enesta Ysla pero dizen me que aqui los ay: & por esso dexo de hablar enel pa lo dezir dode los he visto que es en la tierra firme quãdo della se trate." A modern Spanish version of this passage will be found in the beautiful edition of Oviedo's works published by the Academy of Madrid in 1851 (i. 444).

2 See also Morley's *Life of Girolamo Cardano* (ii. 152, 153).

3 Under this name Pliny perpetuated (*Hist. naturalis*, viii. 25) the confusion that had doubtless arisen before his time of two very distinct birds. As Sundevall remarks (*Tentamen*, p. 87, note), τροχίλος was evidently the name commonly given by the ancient Greeks to the smaller plovers, and was not improperly applied by Herodotus (ii. 68) to the species that feeds in the open mouth of the crocodile—the *Pluvianus aegyptius* of modern ornithologists—in which sense Aristotle (*Hist. animalium*, ix. 6) also uses it. But the received text of Aristotle has two other passages (ix. 1 and 11) wherein the word appears in a wholly different connexion, and can there be only taken to mean the wren—the usual Greek name of which would seem to be ὄρχιλος (Sundevall, *Om Aristotl. Djurarter*, No. 54). Though none of his editors or commentators has suggested the possibility of such a thing, one can hardly help suspecting that in these passages some early copyist has substituted τροχίλος for ὄρχιλος, and so laid the foundation of a curious error. It may be remarked that the crocodile of Santo Domingo is said to have the like office done for it by some kind of bird, which is called by Descourtilz (*Voyage*, iii. 26), a "Todier," but, as Geoffr. St Hilaire observes (*Descr. de l'Égypte*, ed. 2, xxiv. 440), is more probably a plover. Unfortunately the fauna of Hispaniola is not much better known now than in Oviedo's days.

4 Thus *Docimastes ensifer*, in which the bill is longer than both head and body together.

5 This is especially the case with the smaller species of the group, for the larger, though shooting with equal celerity from place to place, seem to flap their wings with comparatively slow but not less powerful strokes. The difference was especially observed with respect to the largest of all humming-birds, *Patagona gigas*, by Darwin.

6 The resemblance, so far as it exists, must be merely the result of analogical function, and certainly indicates no affinity between the families.

7 It is probable that in various members of the *Trochilidae* the structure of the tongue, and other parts correlated therewith, will be found subject to several and perhaps considerable modifications, as is the case in various members of the *Picidae*.

8 These are especially observable in *Rhamphodon naevius* and *Androdon aequatorialis*.

9 P. H. Gosse (*Birds of Jamaica*, p. 130) says that *Mellisuga minima*, the smallest species of the

family, has “a real song”—but the like is not recorded of any other.

10 *A Monograph of the Trochilidae or Humming-birds*, 5 vols. imp. fol. (London, 1861, with Introduction in 8vo).

11 *Histoire naturelle des oiseaux-mouches, ou colibris*, 4 vols., with supplement, imp. 4to (Lyon-Genève-Bale, 1874-1877).

12 *Smithsonian Contributions to Knowledge*, No. 317, *A Classification and Synopsis of the Trochilidae*, 1 vol. imp. 4to (Washington, 1879).

13 Salerne must be excepted, especially as he was rebuked by Buffon for doing what we now deem right.

14 For example *Avocettula recurvirostris* of Guiana and *A. euryptera* of Colombia.

15 The specific name of a species of Chrysolampis, commonly written by many writers *moschitus*, would lead to the belief that it was a mistake for *moschatus*, *i.e.* “musky,” but in truth it originates with their carelessness, for though they quote Linnaeus as their authority they can never have referred to his works, or they would have found the word to be *mosquitus*, the “mosquito” of Oviedo, awkwardly, it is true, Latinized. If emendation be needed, *muscatus*, after Gesner’s example, is undoubtedly, preferable.

HUMMOCK (of uncertain derivation; cf. hump or hillock), a boss or rounded knoll of ice rising above the general level of an ice-field, making sledge travelling in the Arctic and Antarctic region extremely difficult and unpleasant. Hummocky ice is caused by slow and unequal pressure in the main body of the packed ice, and by unequal structure and temperature at a later period.

HUMOUR (Latin *humor*), a word of many meanings and of strange fortune in their evolution. It began by meaning simply “liquid.” It passed through the stage of being a term of art used by the old physicians—whom we should now call physiologists—and by degrees has come to be generally understood to signify a certain “habit of the mind,” shown in speech, in literature and in action, or a quality in things and events observed by the human intelligence. The word reached its full development by slow degrees. When Dr Johnson compiled his dictionary, he gave nine definitions of, or equivalents for, “humour.” They may be conveniently quoted: “(1) Moisture. (2) The different kinds of moisture in man’s body, reckoned by the old physicians to be phlegm, blood, choler and melancholy, which as they predominate are supposed to determine the temper of mind. (3) General turn or temper of mind. (4) Present disposition. (5) Grotesque imagery, jocularity, merriment. (6) Tendency to disease, morbid disposition. (7) Petulance, peevishness. (8) A trick, a practice. (9) Caprice, whim, predominant inclination.” The list was not quite complete, even in Dr Johnson’s own time. Humour was then, as it is now, the name of the semi-fluid parts of the eye. Yet no dictionary-maker has been more successful than Johnson in giving the literary and conversational meaning of an English word, or the main lines of its history. It is therefore instructive to note that in no one of his nine clauses does humour bear the meaning it has for Thackeray or for George Meredith. “General turn or temper of mind” is at the best too vague, and has moreover another application. His list of equivalents only carries the history of the word up to the beginning of the last stage of its growth.

The limited original sense of liquid, moisture, mere wet, in which “humour” is used in Wycliffe’s translation of the Bible, continued to attach to it until the 17th century. Thus Shakespeare, in the first scene of the second act of *Julius Caesar*, makes Portia say to her husband:—

> “Is Brutus sick? and is it physical
> To walk unbraced and suck up the humours
> Of the dank morning?”

In the same scene Decius employs the word in the wide metaphorical sense in which it was

used, and abused, then and afterwards. “Let me work,” he says, referring to Caesar—

> “For I can give his humour the true bent,
> And I will bring him to the Capitol.”

Here we have “the general turn or temper of mind,” which can be flattered, or otherwise directed to “present disposition.” We have travelled far from mere fluid, and have been led on the road by the old physiologists. We are not concerned with their science, but it is necessary to see what they mean by “primary humours,” and “second or third concoctions,” if we are to understand how it was that a name for liquid could come to mean “general turn” or “present disposition,” or “whim” or “jocularity.” Part I., Section 1, Member 2, Subsection 2, of Burton’s *Anatomy of Melancholy* will supply all that is necessary for literary purposes. “A humour is a liquid or fluent part of the body comprehended in it, and is either born with us, or is adventitious and acquisite.” The first four primary humours are—“Blood, a hot, sweet, tempered, red humour, prepared in the meseraic veins, and made of the most temperate parts of the chylus (chyle) in the liver, whose office it is to nourish the whole body, to give it strength and colour, being dispersed through every part of it. And from it spirits are first begotten in the heart, which afterwards in the arteries are communicated to the other parts. Pituita or phlegm is a cold and moist humour, begotten of the colder parts of the chylus (or white juice coming out of the meat digested in the stomach) in the liver. His office is to nourish and moisten the members of the body,” &c. “Choler is hot and dry, begotten of the hotter parts of the chylus, and gathered to the gall. It helps the natural heat and senses. Melancholy, cold and dry, thick, black and sour, begotten of the more feculent part of nourishment, and purged from the spleen, is a bridle to the other two hot humours, blood and choler, preserving them in the blood, and nourishing the bones.” Mention must also be made of serum, and of “those excrementitious humours of the third concoction, sweat and tears.” An exact balance of the four primary humours makes the justly constituted man, and allows for the undisturbed production of the “concoctions”—or processes of digestion and assimilation. Literature seized upon these terms and definitions. Sometimes it applied them gravely in the moral and intellectual sphere. Thus the Jesuit Bouhours, a French critic of the 17th century, in his *Entretiens d’Ariste et d’Eugène*, says that in the formation of a *bel esprit*, “La bile donne le brillant et la pénétration, la mélancolie donne le bon sens et la solidité; le sang donne l’agrément et la délicatesse.” It was, in fact, taken for granted that the character and intellect of men were produced by—were, so to speak, concoctions dependent on—the “humours.” In the fallen state of mankind it rarely happens that an exact balance is maintained. One or other humour predominates, and thus we have the long-established doctrine of the existence of the sanguine, the phlegmatic, the choleric, or the melancholy *temperaments*. Things being so, nothing was more natural than the passage of these terms of art into common speech, and their application in a metaphorical sense, when once they had been adopted by the literary class. The process is admirably described by Asper in the introduction to Ben Jonson’s play—*Every Man out of his Humour*:—

> “Why humour, as it is ‘ens,’ we thus define it,
> To be a quality of air or water;
> And in itself holds these two properties
> Moisture and fluxure: as, for demonstration
> Pour water on this floor. ’Twill wet and run.
> Likewise the air forced through a horn or trumpet
> Flows instantly away, and leaves behind
> A kind of dew; and hence we do conclude
> That whatsoe’er hath fluxure and humidity
> As wanting power to contain itself
> Is humour. So in every human body
> The choler, melancholy, phlegm and blood
> By reason that they flow continually
> In some one part and are not continent
> Receive the name of humours. Now thus far
> It may, by metaphor, apply itself
> Unto the general disposition;
> As when some one peculiar quality
> Doth so possess a man that it doth draw
> All his effects, his spirits and his powers,
> In their confluxion all to run one way,—
> This may be truly said to be a humour.”

A humour in this sense is a “ruling passion,” and has done excellent service to English authors of “comedies of humours,” to the Spanish authors of *comedias de figuron*, and to the

French followers of Molière. Nor is the metaphor racked out of its fair proportions if we suppose that there may be a temporary, or even an "adventitious and acquisite" "predominance of a humour," and that "deliveries of a man's self" to passing passion, or to imitation, are also "humours," though not primary, but only second or third concoctions. By a natural extension, therefore, "humours" might come to mean oddities, tricks, practices, mere whims, and the aping of some model admired for the time being. "But," as Falstaff has told us, "it was always yet the trick of our English, if they have a good thing, to make it too common." The word "humour" was a good thing, but the Elizabethans certainly made it too common. It became a hack epithet of all work, to be used with no more discretion, though with less imbecile iteration, than the modern "awful." Shakespeare laughed at the folly, and pinned it for ever to the ridiculous company of Corporal Nym—"I like not the humour of lying. He hath wronged me in some humours. I should have borne the humoured letter to her ... I love not the humour of bread and cheese; and there's the humour of it." The humour of Jonson was that he tried to clear the air of thistledown by stamping on it. Asper ends in denunciation:—

"But that a rook by wearing a pied feather,
The sable hat-band, or the three-piled ruff,
A yard of shoe tie, or the Switzer knot
On his French gaiters, should affect a humour,
O! it is more than most ridiculous."

The abuse of the word was the peculiar practice of England. The use of it was not confined wholly to English writers. The Spaniards of the 16th and 17th centuries knew *humores* in the same sense, and still employ the word as a name for caprices, whims and vapours. *Humorada* was, and is, the correct Spanish for a festive saying or writing of epigrammatic form. Martial's immortal reply to the critic who admired only dead poets—

Ignoscas petimus Vacerra: tanti
Non est, ut placeam tibi perire,—

is a model *humorada*. It would be a difficult and would certainly be a lengthy task to exhaust all the applications given to so elastic a word. We still continue to use it in widely different senses. "Good humour" or "bad humour" are simply good temper or bad temper. There is a slight archaic flavour about the phrases "grim humour," "the humour they were in," in the sense of suspicious, or angry or careless mood, which were favourites with Carlyle, but though somewhat antiquated they are not affected, or very unusual. With the proviso that the exceptions must always be excepted, we may say that for a long time "humour" came to connote comic matter less refined than the matter of wit. It had about it a smack of the Boar's Head Tavern in Eastcheap, and of the unyoked "humour" of the society in which Prince Henry was content to imitate the sun—

"Who doth permit the base contagious clouds
To smother up his beauty from the world."

The presence of a base contagious cloud is painfully felt in the so-called humorous literature of England till the 18th century. The reader who does not sometimes wonder whether humour in the mouths of English writers of that period did not stand for maniacal tricks, horse-play, and the foul names of foul things, material and moral, must be very determined to prove himself a whole-hearted admirer of the ancient literature. Addison, who did much to clean it of mere nastiness, gives an excellent example of the base use of the word in his day. In Number 371 of the *Spectator* he introduces an example of the "sort of men called Whims and Humourists." It is the delight of this person to play practical jokes on his guests. He is proud when "he has packed together a set of oglers" who had "an unlucky cast in the eye," or has filled his table with stammerers. The humorist, in fact, was a mere practical joker, who was very properly answered by a challenge from a military gentleman of peppery temper. Indeed, the pump and a horse-whip would appear to have been the only effective forms of criticism on the prevalent humour and humours of the 16th, 17th and 18th centuries. But the pump and the horse-whip were themselves humours. Carlo Buffone in Jonson's play is put "out of his humour" by the counter humour of Signor Puntarvolo, who knocks him down and gags him with candle wax. The brutal pranks of Fanny Burney's Captain Mirvan, who belongs to the earlier part of the 18th century, were meant for humour, and were accepted as such. Examples might easily be multiplied. A briefer and also a more convincing method of demonstration is to take the deliberate judgment of a great authority. No writer of the 18th century possessed a finer sense of humour in the noble meaning than Goldsmith. What did he understand the word to mean? Not what he himself wrote when he created Dr Primrose. We

have his express testimony in the 9th chapter of *The Present State of Polite Learning*. Goldsmith complains that "the critic, by demanding an impossibility from the comic poet, has, in effect, banished true comedy from the stage." This he has done by banning "low" subjects, and by proscribing "the comic or satirical muse from every walk but high life, which, though abounding in fools as well as the humbler station, is by no means so fruitful in absurdity.... Absurdity is the poet's game, and good breeding is the nice concealment of absurdity. The truth is, the critic generally mistakes 'humour' for 'wit,' which is a very different excellence; wit raises human nature above its level; humour acts a contrary part, and equally depresses it. To expect exalted humour is a contradiction in terms.... The poet, therefore, must place the object he would have the subject of humour in a state of inferiority; in other words, the subject of humour must be *low*."

That no doubt may remain in his reader's mind, Goldsmith gives an example of true humour. It is nothing more or less than the absurdity and incongruity obvious in a man who, though "wanting a nose," is extremely curious in the choice of his snuffbox. We applaud "the humour of it," for "we here see him guilty of an absurdity of which we imagine it impossible for ourselves to be guilty, and therefore applaud our own good sense on the comparison."

Nothing could be more true as an account of what the Elizabethans, the Restoration, the Queen Anne men, and the 18th century meant by "humour." Nothing could be more false as an example of what we mean by the humour of Falstaff or of *The Vicar of Wakefield*.

When we pass from Goldsmith to Hazlitt—one of the greatest names in English criticism—we find that "humour" has grown in meaning, without quite reaching its full development. In the introduction to his *Lectures on the English Comic Writers* he attempts a classification of the comic spirit into wit and humour. "Humour," he says, "is the describing the ludicrous as it is in itself; wit is the exposing it, by comparing or contrasting it with something else. Humour is, as it were, the growth of nature and accident; wit is the product of art and fancy. Humour, as it is shown in books, is an imitation of the natural or acquired absurdities of mankind, or of the ludicrous in accident, situation and character; wit is the illustrating and heightening the sense of that absurdity by some sudden and unexpected likeness or opposition of one thing to another, which sets off the quality we laugh at or despise in a still more contemptible or striking point of view." Hazlitt's definition will, indeed, not stand analysis. The element of comparison is surely as necessary for humour as for wit. Yet his classification is valuable as illustrating the growth of the meaning of the word. Observe that Hazlitt has transferred to wit that power of pleasing as by a flattering sense of our own superiority which Goldsmith attributed to humour. He had not thought, and had not heard, that sympathy is necessary to complete humour. He cannot have thought it needful, for if he had he would hardly have said of the *Arabian Nights* that they are "an inexhaustible mine of comic humour and invention," "which from the manners of the East, which they describe, carry the principle of callous indifference in the jest as far as it can go." He might, and probably would, have dismissed Goldsmith's illustration as "low" in every conceivable sense. He would not have added, as we should to-day, that humour does not lie in laughter, according to the definition of Hobbes, in a "sudden glory," in a guffaw of self-conceited triumph over the follies and deficiencies of others. If there is any place for humour in Goldsmith's sordid example, it must be made by pity, and shown by a deft introduction of the *de te fabula* dear to Thackeray, by a reminder that the world is full of people, who, though wanting noses, are extremely curious in their choice of snuff-boxes, and that the more each of us thinks himself above the weakness the more likely he is to fall into it.

The critical value of Hazlitt's examination of the differences between wit and humour lies in this, that he ignores the doctrine that the quality of humour lies in the thing or the action and not in the mind of the observer. The examples quoted above, to which any one with a moderate share of reading in English literature could add with ease, show that humour was first held to lie in the trick, the whim, the act, or the event and clash of incidents. It might even be a mere flavour, as when men spoke of the salt humour of sea-sand. Even when it stood for the "general turn or temper of mind" it was a form of the ruling passion which inspires men's actions and words. It was used in that sense by Decius when he spoke of the humour of Caesar, which is a liability to be led by one who can play on his weakness—

> "for he loves to hear
> That unicorns may be betrayed with trees
> And bears with glasses, elephants with holes,
> Lions with toils, and men with flatterers;
> But when I tell him he hates flatterers
> He says he does; being then most flattered."

It is plain that this is not what Hazlitt meant, or we now mean, by the humour displayed in "describing the ludicrous as it is shown in itself." Nor did he, any more than we do, suppose with Goldsmith that a "low" quality of actions and persons is inseparable from humour. It had become for Hazlitt what Addison called cheerfulness, "a habit of the mind" as distinguished from mirth, which is "an act." If in Addison's sentences the place of cheerfulness is taken by humour, and that of mirth by wit, we have a very fair description of the two. "I have always preferred cheerfulness to mirth. The latter I consider as an act, the former as a habit of the mind. Mirth is short and transient, cheerfulness is fixed and permanent." Humour is the fixed and permanent appreciation of the ludicrous, of which wit may be the short and transient expression.

If now we pass to an attempt to define "humour," the temptation to take refuge in the use of an evasion employed by Dr Johnson is very strong. When Boswell asked him, "Then, Sir, what is poetry?" the doctor answered, "Why, Sir, it is much easier to say what it is not. We all know what light is, but it is not easy to tell what it is." But George Meredith has come to our assistance in two passages of his *Essay on Comedy and the uses of the Comic Spirit*. "If you laugh all round him (to wit, the ridiculous person), tumble him, roll him about, deal him a smack, and drop a tear on him, own his likeness to you, and yours to your neighbour, spare him as little as you shun, pity him as much as you expose, it is spirit of Humour that is moving you.... The humourist of mean order is a refreshing laugher, giving tone to the feelings, and sometimes allowing the feelings to be too much for him. But the humourist, if high, has an embrace of contrasts beyond the scope of the comic poet." The third sentence is required to complete the first. The tumbling and rolling, the smacks and the exposure, may be out of place where there is humour of the most humorous quality. Who could associate them with Sir Walter Scott's characters of Bradwardine or Monkbarns? Bradwardine, one feels, would have stopped them as he did the ill-timed jests of Sir Hew Halbert, "who was so unthinking as to deride my family name." Monkbarns was a man of peace who loved the company of Sir Priest better than that of Sir Knight. But there is that in him which cows mere ridicule, be it ever so genial. He cared not who knew so much of his valour, and by that very avowal of his preference took his position sturdily in the face of the world. But Meredith has given its due prominence to the quality which, for us, distinguishes humour from pure wit and the harder forms of jocularity. It is the sympathy, the appreciation, the love, which include the follies of Don Quixote, the prosaic absurdities of Sancho Panza, the oddities of Bradwardine, Dr Primrose or Monkbarns, and the jovial animalism of Falstaff, in "an embrace of contrasts beyond the scope of the comic poets."

It is needless to insist that humour of this order is far older than the very modern application of the name. It is assuredly present in Horace. Chaucer, who knew the word only as meaning "liquid," has left a masterpiece of humour in his prologue to the *Canterbury Pilgrims*. We look for the finest examples in Shakespeare. And if it is old, it is also more universal than is always allowed. National, or at least racial, partiality, has led to the unfortunate judgment that humour is a virtue of the northern peoples. Yet Rabelais came from Touraine, and if the creator of Panurge has not humour, who has? The Italians may say that *umore* in the English sense is unknown to them. They mean the word, not the thing, for it is in Ariosto. To claim the quality for Cervantes would indeed be to push at an open door. The humour of the Germans has been rarely indeed of so high an order as his. It has been found wherever humanity has been combined with a keen appreciation of the ludicrous. The appreciation may exist without the humanity. When Rivarol met the Chevalier Florian with a manuscript sticking out of his pocket, and said, "How rash you are! if you were not known you would be robbed," he was making use of the comic spirit, but he was not humorous. When Rivarol himself, a man of dubious claim to nobility, was holding forth on the rights of the nobles, and calling them "our rights," one of the company smiled. "Do you find anything singular in what I say?" asked he. "It is the plural which I find singular," was the answer. There is certainly something humorous in the neat overthrow of an insolent wit by a rival insolence, but the humour is in the spectator, not in the answer. The spirit of humour as described by George Meredith cannot be so briefly shown as in the rapid flash of the Frenchmen's wit. It lingers and expatiates, as in Dr Johnson's appreciation of Bet Flint. "Oh, a fine character, Madam! She was habitually a slut and a drunkard, and occasionally a thief and a harlot. And for heaven's sake how came you to know her? Why, Madam, she figured in the literary world too! Bet Flint wrote her own life, and called herself Cassandra, and it was in verse; it began:—

'When nature first ordained my birth
A diminutive I was born on earth
And then I came from a dark abode
Into a gay and gaudy world.'

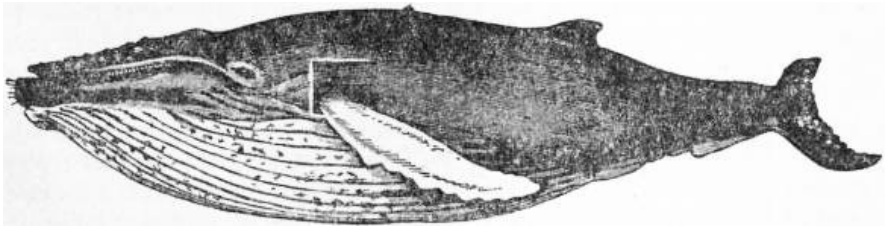
“So Bet brought her verses to me to correct; but I gave her half-a-crown, and she liked it as well. Bet had a fine spirit; she advertised for a husband, but she had no success, for she told me no man aspired to her. Then she hired very handsome lodgings and a footboy, and she got a harpsichord, but Bet could not play; however, she put herself in fine attitudes and drummed. And pray what became of her, Sir? Why, Madam, she stole a quilt from the man of the house, and he had her taken up; but Bet Flint had a spirit not to be subdued, so when she found herself obliged to go to gaol, she ordered a sedan chair, and bid her footboy walk before her. However, the footboy proved refractory, for he was ashamed, though his mistress was not. And did she ever get out of gaol, Sir? Yes, Madam, when she came to her trial, the judge acquitted her. ‘So now,’ she said to me, ‘the quilt is my own, and now I’ll make a petticoat of it.’ Oh! I loved Bet Flint.”

The subject is low enough to please Goldsmith. The humour may be of that mean order which has only a refreshing laugh, and gives tone to the feelings, but it is the pure spirit of humour.

We need not labour to demonstrate that a kindly appreciation of the ludicrous may find expression in art as well as in literature. But humour in art tends so inevitably to become caricature, which can be genial as well as ferocious, that the reader must be referred to the article on Caricature for an account of its manifestations in that field.

(D. H.)

HUMPBACK WHALE (*Megaptera longimana* or *M. böops*), the representative of a genus of whalebone whales distinguished by the great length of the flippers. This whale (or a closely allied species) is found in nearly all seas; and when full-grown may reach from 45 ft. to 50 ft. in length, the flippers which are indented along their edges measuring from 10 ft. to 12 ft. or more. The general colour is black, but there are often white markings on the under surface; and the flippers may be entirely white, or parti-coloured like the body. Deep longitudinal furrows, folds or plaits occur on the throat and chest. It is said that the popular name refers to a prominence on which the back fin is set; but this “hump” varies greatly in size in different individuals. The humpback is a coast-whale, irregular in its movements, sometimes found in “schools,” at others singly. The whalebone is short, broad and coarse; but the yield of oil from a single whale has been as much as 75 barrels. A few examples of this whale have been taken in Scotland and the north of England (see CETACEA).



Humpback Whale (*Megaptera longimana* or *böops*).

HUMPERDINCK, ENGELBERT (1854-), German musical composer, was born at Siegburg, in the Rhine Province, and studied under F. Hiller at Cologne, and F. Lachner and J. Rheinberger at Munich. In 1879, by means of a scholarship, he went to Italy, where he met Wagner at Naples; and on the latter’s invitation he went to Bayreuth and helped to produce *Parsifal* there next year. He travelled for the next few years in Italy and Spain but in 1890 became a professor at Frankfort, where he remained till 1896. In 1900 he became the head of a school in Berlin. His fame as a composer was made by his charming children’s opera *Hänsel und Gretel* in 1893, founded very largely (like his later operas) on folk-tunes; but his works also include other forms of music, in all of which his mastery of technique is apparent.

HUMPHREY (or HUMFREY), **LAWRENCE** (1527?-1590), president of Magdalen College, Oxford, and dean successively of Gloucester and Winchester, was born at Newport Pagnel. He was elected demy of Magdalen College in 1546 and fellow in 1548. He graduated B.A. in 1549, M.A. in 1552, and B.D. and D.D. in 1562. He was noted as one of the most promising pupils of Peter Martyr, and on Mary's accession obtained leave from his college to travel abroad. He lived at Basel, Zurich, Frankfort and Geneva, making the acquaintance of the leading Swiss divines, whose ecclesiastical views he adopted. His leave of absence having expired in 1556, he ceased to be fellow of Magdalen. He returned to England at Elizabeth's accession, was appointed regius professor of divinity at Oxford in 1560, and was recommended by Archbishop Parker and others for election as president of Magdalen. The fellows refused at first to elect so pronounced a reformer, but they yielded in 1561, and Humphrey gradually converted the college into a stronghold of Puritanism. In 1564 he and his friend Thomas Sampson, dean of Christ Church, were called before Parker for refusing to wear the prescribed ecclesiastical vestments; and a prolonged controversy broke out, in which Bullinger and other foreign theologians took part as well as most of the leading divines in England. In spite of Bullinger's advice, Humphrey refused to conform; and Parker wished to deprive him as well as Sampson. But the presidency of Magdalen was elective and the visitor of the college was not Parker but the bishop of Winchester; and Humphrey escaped with temporary retirement. Parker, in fact, was not supported by the council; in 1566 Humphrey was selected to preach at St Paul's Cross, and was allowed to do so without the vestments. In the same year he took a prominent part in the ceremonies connected with Elizabeth's visit to Oxford. On this occasion he wore his doctor's gown and habit, which the queen told him "became him very well"; and his resistance now began to weaken. He yielded on the point before 1571 when he was made dean of Gloucester. In 1578 he was one of the divines selected to attend a diet at Schmalkalde to discuss the project of a theological accommodation between the Lutheran and Reformed churches; and in 1580 he was made dean of Winchester. In 1585 he was persuaded by his bishop, Cooper, to restore the use of surplices in Magdalen College chapel. He died on the 1st of February 1590 and was buried in the college chapel, where there is a mural monument to his memory; a portrait is in Magdalen College school.

Humphrey was a voluminous writer on theological and other subjects. At Parker's desire he wrote a life of his friend and patron Bishop Jewel, which was published in 1573 and was also prefixed to the edition of Jewel's works issued in 1600. One of his books against the Jesuits was included in vol. iii. of the *Doctrina Jesuitarum per varios authores*, published at La Rochelle (6 vols., 1585-1586).

See Bloxam's *Register of Magdalen College*, iv. 104-132; Cooper's *Athenae Cantabrigienses*; Wood's *Athenae Oxonienses*; Gough's *Index to Parker Soc. Publ.*; Strype's *Works*: *Cal. State Papers* (Dom. 1547-1590); *Acts of the Privy Council*; Burnet's *Hist. Ref.*; Collier's *Eccles. Hist.*; Dixon's *Church Hist.* vol. vi.; *Dict. Nat. Biog.*

(A. F. P.)

HUMPHREYS, ANDREW ATKINSON (1810-1883), American soldier and engineer, was born at Philadelphia on the 2nd of November 1810. He was the son of Samuel Humphreys (1778-1846), chief constructor U.S.N., and grandson of Joshua Humphreys (1751-1838), the designer of the "Constitution" and other famous frigates of the war of 1812, sometimes known as the "father of the American navy." Graduating from West Point in 1831, he served with the 2nd Artillery in the Florida war in 1835. He resigned soon afterwards and devoted himself to civil engineering. In 1838 he returned to the army for survey duties, and from 1842 to 1849 was assistant in charge of the Coast Survey Office. Later he did similar work in the valley of the Mississippi, and, with Lieut. H. L. Abbott, produced in 1861 a valuable *Report on the Physics and Hydraulics of the Mississippi River*. In connexion with this work he visited Europe in 1851. In the earlier part of the Civil War Humphreys was employed as a topographical engineer with the Army of the Potomac, and rendered conspicuous services in the Seven Days' Battles. It is stated that he selected the famous position of Malvern Hill, before which Lee's army was defeated. Soon after this he was assigned to command a division of the V. corps, and at the battle of Fredericksburg he distinguished himself greatly in the last attack of Marye's heights. General Burnside recommended him for promotion to the rank of major-general U.S.V., which was not however awarded to Humphreys until after Gettysburg. He took part in the battle of Chancellorsville, and at Gettysburg commanded a division of the III. corps under Sickles. Upon Humphreys' division fell the brunt of Lee's attack on the second

day, by which in the end the III. corps was dislodged from its advanced position. His handling of his division in this struggle excited great attention, and was compared to Sheridan's work at Stone river. A few days later he became chief of staff to General Meade, and this position he held throughout the Wilderness campaign. Towards the end of the war General Humphreys succeeded General Hancock in command of the famous II. corps. The short campaign of 1865, which terminated in Lee's surrender, afforded him a greater opportunity of showing his capacity for leadership. His corps played a conspicuous part in the final operations around Petersburg, and the credit of the vigorous and relentless pursuit of Lee's army may be claimed hardly less for Humphreys than for Sheridan. After the war, now brevet major-general, he returned to regular engineer duty as chief engineer of the U.S. army, and retired in 1879. He was a member of the American Philosophical Society (1857) and of the American Academy of Arts and Sciences (1863), and received the degree of LL.D. from Harvard University in 1868. He died at Washington on the 27th of December 1883. Amongst his works may be mentioned *From Gettysburg to the Rapidan* (1882) and *The Virginia Campaigns of 1864-1865* (1882).

See Wilson, *Critical Sketches of some Commanders* (Boston, 1895).

HUMPHRY, OZIAS (1742-1810), English miniature painter, was born at Honiton and educated at the Grammar School of that town. Attracted by the gallery of casts opened by the duke of Richmond, Humphry came to London and studied at Shipley's school; and later he left for Bath, where he lodged with Linley and became a great friend of his beautiful daughter, afterwards Mrs Sheridan. In 1766 he was in London warmly encouraged by Sir Joshua Reynolds, who was always interested in Devonshire painters. He was a great friend of Romney, with whom in 1773 he went to Italy, staying, on his way to Dover, at Knole, where the duke of Dorset gave him many commissions. In 1785 he went to India, visiting the native courts, painting a large number of miniatures, and making many beautiful sketches. His sight failed him in 1797, and he died in Hampstead in 1810. The bulk of his possessions came into the hands of his natural son, William Upcott, the book collector. From him the British Museum acquired a large number of papers relating to Humphry. He was Opie's first master, and is alluded to in some lines by Hayley. His miniatures are exquisite in detail and delightful in colouring. Many of the finest are in the collection of Mr J. Pierpont Morgan.

See *The History of Portrait Miniatures*, by G. C. Williamson, vol. ii. (London, 1904).

(G. C. W.)

HUMUS (a Latin word meaning the ground), a product of decomposing organic matter. It is especially present in peat bogs, and also occurs in surface soils, to which it imparts a brown or black colour. It is one of the most important soil-constituents from the agricultural point of view; it is the chief source of nitrogenous food for plants, and modifies the properties of the soil by increasing its water-holding capacity and diminishing its tenacity. Little is known with regard to its chemical composition. By treating with a dilute acid to remove the bases present, and then acting on the residue with ammonia, a solution is obtained from which a mineral acid precipitates humic acid; the residue from the ammonia extraction is termed humin. Both the humic acid and humin are mixtures, and several constituents have been separated; ulmic acid and ulmin, in addition to humic acid and humin, are perhaps the best characterized.

HUNALD, Duke of Aquitaine, succeeded his father Odo, or Eudes, in 735. He refused to recognize the high authority of the Frankish mayor of the palace, Charles Martel, whereupon Charles marched south of the Loire, seized Bordeaux and Blaye, but eventually allowed Hunald to retain Aquitaine on condition that he should promise fidelity. From 736 to 741 the

relations between Charles and Hunald seem to have remained amicable. But at Charles's death in 741 Hunald declared war against the Franks, crossed the Loire and burned Chartres. Menaced by Pippin and Carloman, Hunald begged for peace in 745 and retired to a monastery, probably on the Isle of Ré. We find him later in Italy, where he allied himself with the Lombards and was stoned to death. He had left the duchy of Aquitaine to Waifer, who was probably his son, and who struggled for eight years in defending his independence against King Pippin. At the death of Pippin and at the beginning of the reign of Charlemagne, there was a last rising of the Aquitanians. This revolt was directed by a certain Hunald, and was repressed in 768 by Charlemagne and his brother Carloman. Hunald sought refuge with the duke of the Gascons, Lupus, who handed him over to his enemies. In spite of the opinion of certain historians, this Hunald seems to have been a different person from the old duke of Aquitaine.

See J. Vaissette, *Histoire générale de Languedoc*, vol. i. (ed. of 1872 seq.); Th. Breysig, H. Hahn, L. Oelsner, S. Abel and B. Simson, *Jahrbücher des deutschen Reichs*.

(C. PF.)

HU-NAN, a central province of China, bounded N. by Hu-peh, E. by Kiang-si, S. by Kwang-si and Kwang-tung, and W. by Kwei-chow and Szech'uen. It occupies an area of 84,000 sq. m., and its population is estimated at 22,000,000. The provincial capital is Chang-sha Fu, in addition to which it has eight prefectural cities. It is essentially a province of hills, the only considerable plain being that around the Tung-t'ing lake, but this extends little beyond the area which in summer forms part of the lake. To the north of Heng-chow Fu detached groups of higher mountains than are found in the southern portion of the province are met with. Among these is the Heng-shan, one of the Wu-yo or five sacred mountains of China, upon which the celebrated tablet of Yu was placed. The principal rivers of the province are: (1) The Siang-kiang, which takes its rise in the Nan-shan, and empties into the Tung-t'ing lake; it is navigable for a great distance from its mouth, and the area of its basin is 39,000 sq. m.; (2) the Tsze-kiang, the basin of which covers an area of 10,000 sq. m., and which is full of rapids and navigable only for the smallest boats; (3) the Yuen-kiang, a large river, which has some of its head-waters in the province of Kwei-chow, and empties into the Tung-t'ing lake in the neighbourhood of Chang-tê Fu; its basin has an area of 35,000 sq. m., 22,500 of which are in the province of Hu-nan and 12,500 in that of Kwei-chow; its navigation is dangerous, and only small boats are able to pass beyond Hang-kia, a mart about 180 m. above Chang-tê Fu; and (4) the Ling-kiang, which flows from the tea district of Ho-fêng Chow to the Tung-t'ing lake. Its basin covers an area of about 8000 sq. m., and it is navigable only in its lowest portion. The principal places of commerce are: (1) Siang-t'an, on the Siang-kiang, said to contain 1,000,000 inhabitants, and to extend 3 m. long by nearly 2 m. deep; (2) Chang-sha Fu, the provincial capital which stands on the same river 60 m. above the treaty port of Yo-chow, and between which mart and Han-kow steamers of 500 tons burden run; and (3) Chang-tê Fu, on the Yuen-kiang. The products of the province are tea (the best quality of which is grown at Gan-hwa and the greatest quantity at Ping-kiang), hemp, cotton, rice, paper, tobacco, tea-oil and coal. The whole of the south-eastern portion of the province is one vast coal-field, extending over an area of 21,700 sq. m. This area is divided into nearly two equal parts—one, the Lei river coal-fields, yielding anthracite, and the other the Siang river coal-fields, yielding bituminous coal. The people have been, as a rule, more anti-foreign in their ideas, and more generally prosperous than the inhabitants of the other provinces. Baron von Richthofen noticed with surprise the number of fine country seats, owned by rich men who had retired from business, scattered over the rural districts. Almost all the traffic is conveyed through Hu-nan by water-ways, which lead northward to Han-kow on the Yangtsze Kiang, and Fan-cheng on the Han River, eastward to Fu-kien, southward to Kwang-tung and Kwang-si and westward to Sze-ch'uen. One of the leading features of the province is the Tung-t'ing lake. Yo Chow, the treaty port of the province, stands at the outlet of the river Siang into this lake.

HUNDRED, the English name of the cardinal number equal to ten times ten. The O. Eng. *hundred* is represented in other Teutonic languages; cf. Dutch *honderd*, Ger. *Hundert*, Dan.

hundrede, &c. It is properly a compound, *hund-red*, the suffix meaning “reckoning”; the first part *hund* is the original Teutonic word for 100 which became obsolete in English in the 13th century. It represents the Indo-European form *kanta*, seen in Gr. ἑκατόν, Lat. *centum*, Sans. *catano*; *kanta* stands for *dakanta* and meant the tenth ten, and is therefore connected with Gr. δέκα, Lat. *decem* and Eng. “ten,” the Teutonic form of Indo-European *dakan* being *tehan*, cf. Ger. *zehn*. In England the term “hundred” is particularly applied to an ancient territorial division intermediate between the *villa* and the county. Such subordinate districts were also known in different parts of the country by other names, *e.g. wapentakes* in Yorkshire, Lincolnshire, Nottinghamshire, Derbyshire, Rutland and Leicestershire; *wards* in Northumberland, Durham and Cumberland; while some of the hundreds of Cornwall were formerly called *shires*. In some parts of England a further intermediate division is to be found between the hundred and the county. Thus we have the *trithing*, or as it is now called the *riding*, in Yorkshire, the *lathe* in Kent, and the *rape* in Sussex. In Lincolnshire the arrangement is peculiar. The whole county was divided into the three sub-counties of Lindsey, Kesteven and Holland; and of these Lindsey was again divided into three ridings. The division into hundreds is generally ascribed to the creative genius of Alfred, who, according to William of Malmesbury, divided his kingdom into counties, the counties into hundreds, and the hundreds into tithings or *villae*. It is probable, however, that he merely rearranged existing administrative districts in that part of England which was subject to his rule. The significance of the name hundred is a matter of some difficulty. The old theory, and perhaps the best, is that the hundred denoted first a group of a hundred families, and then the district which these families occupied. This is not inconsistent with another view, according to which the hundred was originally a term of measurement denoting a hundred hides of land, for there is good reason for considering that the hide was originally as much land as supported one family. It is important to notice that in the document compiled before the Norman Conquest, and now known as the *County Hidage*, the number of hides in all the counties are multiples of a hundred, and that in many cases the multiples agree with the number of hundreds ascribed to a county in Domesday Book. The hundreds of Devon, however, seem never to have contained a hundred hides; but various multiples of five, such as twenty, forty and sixty. Here, and in some of the other western counties, the hundreds are geographical divisions, to which a varying number of hides was attributed for fiscal purposes.

In the middle ages the hundred was chiefly important for its court of justice; and the word *hundredum* was as often applied to the court as to the district over which the court had jurisdiction. According to the compilation known as *Leges Henrici*, written shortly before 1118, it was held twelve times a year, but an ordinance of 1234, after stating that it had been held fortnightly in the reign of Henry II., declares that its ordinary sessions were henceforth to take place every three weeks (*Dunstable Annals*, 139). Existing court rolls show that from the 13th to the 15th centuries it usually sat seventeen times a year, in some hundreds in a fixed place, in others in various places, but in no regular course of rotation. Twice a year a specially full court was held, to which various names such as *hundredum legale* or *hundredum magnum* were applied. This was the sheriffs’ turn held after Easter and Michaelmas in accordance with the Magna Carta of 1217. The chief object of these sessions was to see that all who ought to be were in the frank-pledge, and that the articles of the view of frank-pledge had been properly observed during the preceding half-year. Each township of the hundred was represented by a varying number of suitors who were bound to attend at these half-yearly sessions without individual summons. If the proper number failed to appear the whole township was amerced, the entry on the rolls being frequently of the form “*Villata de A. est in misericordia quia non venit plenarie*.” All the seventeen courts, including the two full courts, had jurisdiction in trespass covenant and debt of less than forty shillings, and in these civil cases such of the freeholders of the county as were present were judges. But the sheriff or the lord of the hundred was the sole judge in the criminal business transacted at the full courts. A hundred court, especially in the west of England, was often appurtenant to the chief manor in the hundred, and passed with a grant of the manor without being expressly mentioned. In the 13th century a large number of hundreds had come into private hands by royal grant, and in Devonshire there was scarcely a hundred which still belonged to the king. In private hundreds the lord’s steward took the place of the king’s sheriff.

Owing to the great fall in the value of money the hundred court began to decay rapidly under the Tudor sovereigns. They were for the most part extinguished by a section in the County Courts Act 1867, which enacts that no action which can be brought in a county court shall thenceforth be brought in a hundred or other inferior court not being a court of record. Until lately the most important of the surviving duties of the hundred was its liability to make good damages occasioned by rioters. This liability was removed by the Riot (Damages) Act 1886, which threw the liability on the police rate.

See Pollock and Maitland, *History of English Law*; F. W. Maitland, *Domesday Book and*

Beyond (1897); J. H. Round, *Feudal England* (1895); *Annales monastici*, "Rolls" series, iii. (Dunstable), 139; various court rolls at the Public Record Office, London.

(G. J. T.)

HUNDRED DAYS (Fr. *Cent Jours*), the name commonly given to the period between the 20th of March 1815, the date on which Napoleon arrived in Paris after his return from Elba, and the 28th of June 1815, the date of the restoration of Louis XVIII. The phrase *Cent Jours* was first used by the prefect of Paris, the comte de Chabrol, in his speech welcoming the king. See NAPOLEON, and FRANCE: *History*.

HUNDRED YEARS' WAR. This name is given to the protracted conflict between France and England from 1337 to 1453, which continued through the reigns of the French kings Philip VI., John II., Charles V., Charles VI., Charles VII., and of the English kings Edward III., Richard II., Henry IV., Henry V. and Henry VI. The principal causes of the war, which broke out in Guienne in 1337, were the disputes arising in connexion with the French possessions of the English kings, in respect to which they were vassals of the kings of France; the pretensions of Edward III. to the French throne after the accession of Philip VI.; Philip's intervention in the affairs of Flanders and Scotland; and, finally, the machinations of Robert of Artois.

During Philip VI.'s reign fortune favoured the English. The French fleet was destroyed at Sluys on the 24th of June 1340. After the siege of Tournai a truce was arranged on the 25th of September 1340; but the next year the armies of England and France were again at war in Brittany on account of the rival pretensions of Charles of Blois and John of Montfort to the succession of that duchy. In 1346, while the French were trying to invade Guienne, Edward III. landed in Normandy, ravaged that province, part of the Île de France and Picardy, defeated the French army at Créçy on the 26th of August 1346, and besieged Calais, which surrendered on the 3rd of August 1347. Hostilities were suspended for some years after this, in consequence of the truce of Calais concluded on the 28th of September 1347.

The principal feats of arms which mark the first years of John the Good's reign were the taking of St Jean d'Angély by the French in 1351, the defeat of the English near St Omer in 1352, and the English victory near Guines in the same year. In 1355 Edward III. invaded Artois while the Black Prince was pillaging Languedoc. In 1356 the battle of Poitiers (September 19), in which John was taken prisoner, was the signal for conflicts in Paris between Stephen Marcel and the dauphin, and for the outbreak of the Jacquerie. The treaty of Brétigny, concluded on the 8th of May 1360, procured France several years' repose.

Under Charles V. hostilities at first obtained only between French, Anglo-Navarrais (Du Guesclin's victory at Cocherel, May 16, 1364) and Bretons. In 1369, on the pretext that Edward III. had failed to observe the terms of the treaty of Brétigny, the king of France declared war against him. Du Guesclin, having been appointed Constable, defeated the English at Pontvallain in 1370, at Chizé in 1373, and drove them from their possessions between the Loire and the Gironde, while the duke of Anjou retook part of Guienne. Edward III. thereupon concluded the truce of Bruges (June 27, 1375), which was prolonged until the 24th of June 1377. Upon the death of Edward III. (June 21, 1377) Charles V. recommenced war in Artois and Guienne and against Charles the Bad, but failed in his attempt to reunite Brittany and France. Du Guesclin, who had refused to march against his compatriots, died on the 13th of July 1380, and Charles V. on the 16th of the following September.

In the beginning of Charles VI.'s reign the struggle between the two countries seemed to slacken. An attempt at reconciliation even took place on the marriage of Richard II. with Isabella of France, daughter of Charles VI. (September 26, 1396). But Richard, having been dethroned by Henry of Lancaster (Henry IV.), hostilities were resumed, Henry profiting little by the internal discords of France. In 1415 his son, Henry V., landed in Normandy on the expiry of the truce of the 25th of September 1413, which had been extended in 1414 and 1415. He won the victory of Agincourt (October 25, 1415), and then seized Caen and part of

Normandy, while France was exhausting herself in the feuds of Armagnacs and Burgundians. By the treaty of Troyes (May 21, 1415) he obtained the hand of Catherine, Charles VI.'s daughter, with the titles of regent and heir to the kingdom of France. Having taken Meaux on the 2nd of May 1429, and made his entry into Paris on the 30th of May, he died on the 31st of August in the Bois de Vincennes, leaving the throne to his son, Henry VI., with the duke of Bedford as regent in France. Charles VI. died shortly afterwards, on the 21st of October.

His son, who styled himself Charles VII., suffered a series of defeats in the beginning of his reign: Cravant on the Yonne (1423), Verneuil (1424), St James de Beuvron (1426) and Rouvray (1429). Orleans, the last bulwark of royalty, had been besieged since the 12th of October 1428, and was on the point of surrender when Joan of Arc appeared. She saved Orleans (May 8, 1429), defeated the English at Patay on the 16th of June, had Charles VII. crowned at Reims on the 17th of July, was taken at Compiègne on the 24th of May 1430, and was burned at Rouen on the 30th of May 1431 (see JOAN OF ARC). From this time on the English lost ground steadily, and the treaty of Arras (March 20, 1435), by which good relations were established between Charles VII. and Philip the Good, duke of Burgundy, dealt them a final blow. Normandy rose against them, while the constable De Richemont[1] drove them from Paris (1436) and retook Nemours, Montereau (1437) and Meaux (1439). The quickly repressed revolt of the Praguerie made no break in Charles VII.'s successes. In 1442 he relieved successively Saint Sever, Dax, Marmande, La Réole, and in 1444 Henry VI. had to conclude the truce of Tours. In 1448 the English were driven from Mans; and in 1449, while Richemont was capturing Cotentin and Fougères, Dunois conquered Lower Normandy and Charles VII. entered Rouen. The defeat of Sir Thomas Kyriel, one of Bedford's veteran captains, at Formigny in 1450, and the taking of Cherbourg, completed the conquest of the province. During this time Dunois in Guienne was taking Bordeaux and Bayonne. Guienne revolted against France, whereupon Talbot returned there with an army of 5000 men, but was vanquished and killed at Castillon on the 17th of July 1453. Bordeaux capitulated on the 9th of October, and the Hundred Years' War was terminated by the expulsion of the English, who were by this time so fully occupied with the Wars of the Roses as to be unable to take the offensive against France anew.

AUTHORITIES.—The chronicles of Jean le Bel, Adam Murimuth, Robert of Avesbury, Froissart and "Le Religieux de Saint Denis." See Siméon Luce, *Hist. de Bertrand du Guesclin* (3rd ed., Paris, 1896); G. du Fresne de Beaucourt, *Hist. de Charles VII* (6 vols., Paris, 1881-1891); F. J. Snell, articles in the *United Service Magazine* (1906-1907).

(J. V.*)

1 Arthur, earl of Richmond, afterwards Arthur III., duke of Brittany.

HUNGARY (Hungarian *Magyarország*), a country in the south-eastern portion of central Europe, bounded E. by Austria (Bukovina) and Rumania; S. by Rumania, Servia, Bosnia and Austria (Dalmatia); W. by Austria (Istria, Carniola, Styria and Lower Austria); and N. by Austria (Moravia, Silesia and Galicia). It has an area of 125,402 sq. m., being thus about 4000 sq. m. larger than Great Britain and Ireland.

I. GEOGRAPHY AND STATISTICS

The kingdom of Hungary (*Magyarbiradolom*) is one of the two states which constitute the monarchy of Austria-Hungary (*q.v.*), and occupies 51.8% of the total area of the monarchy. Hungary, unlike Austria, presents a remarkable geographical unity. It is almost exclusively continental, having only a short extent of seaboard on the Adriatic (a little less than 100 m.). Its land-frontiers are for the most part well defined by natural boundaries: on the N.W., N., E. and S.E. the Carpathian mountains; on the S. the Danube, Save and Unna. On the W. they are not so clearly marked, being formed partly by low ranges of mountains and partly by the rivers March and Leitha. From the last-mentioned river are derived the terms Cisleithania and Transleithania, applied to Austria and Hungary respectively.

General Division.—The kingdom of Hungary in its widest extent, or the "Realm of the Crown of St Stephen," comprises Hungary proper (*Magyarország*), with which is included the former grand principality of Transylvania, and the province of Croatia-Slavonia. This province enjoys to a large extent autonomy, granted by the so-called compromise of 1868. The town and

district of Fiume, though united with Hungary proper in respect of administration, possess a larger measure of autonomy than the other cities endowed with municipal rights. Of the total area of the kingdom Hungary proper has 108,982 sq. m. and Croatia-Slavonia 16,420 sq. m. In the present article the kingdom is treated mainly as a whole, especially as regards statistics. In some respects Hungary proper has been particularly dealt with, while special information regarding the other regions will be found under Croatia-Slavonia, Transylvania and Fiume.

Mountains.—Orographically Hungary is composed of an extensive central plain surrounded by high mountains. These mountains belong to the Carpathians and the Alps, which are separated by the valley of the Danube. But by far the greater portion of the Hungarian highlands belongs to the Carpathian mountains, which begin, to the north, on the left bank of the Danube at Dévény near Pressburg (Pozsony), run in a north-easterly and easterly direction, sway round south-eastward and then westward in a vast irregular semicircle, and end near Orsova at the Iron Gates of the Danube, where they meet the Balkan mountains. The greatest elevations are in the Tátra mountains of the north of Hungary proper, in the east and south of Transylvania (the Transylvanian Alps) and in the eastern portion of the Banat. The highest peak, the Gerlsdorf or Spitze or Gerlachfalva, situated in the Tátra group, has an altitude of 8700 ft. The portion of Hungary situated on the right bank of the Danube is filled by the Alpine system, namely, the eastern outlying groups of the Alps. These groups are the Leitha mountains, the Styrian highlands, the Lower Hungarian highlands, which are a continuation of the former, and the Bakony Forest. The Bakony Forest, which lies entirely within Hungarian territory, extends to the Danube in the neighbourhood of Budapest, the highest peak being Köröshegy (2320 ft.). The south-western portion of this range is specially called Bakony Forest, while the ramifications to the north-east are known as the Vértes group (1575 ft.), and the Pilis group (2476 ft.). The Lower Hungarian highlands extend between the Danube, the Mur, and Lake Balaton, and attain in the Mesek hills near Mohács and Pécs an altitude of 2200 ft. The province of Croatia-Slavonia belongs mostly to the Karst region, and is traversed by the Dinaric Alps.

Plains.—The mountain systems enclose two extensive plains, the smaller of which, called the "Little Hungarian Alföld" or "Pressburg Basin," covers an area of about 6000 sq. m., and lies to the west of the Bakony and Mátra ranges, which separate it from the "Pest Basin" or "Great Hungarian Alföld." This is the largest plain in Europe, and covers about 37,000 sq. m., with an average elevation above sea-level of from 300 to 350 ft. The Pest Basin extends over the greater portion of central and southern Hungary, and is traversed by the Theiss (Tisza) and its numerous tributaries. This immense tract of low land, though in some parts covered with barren wastes of sand, alternating with marshes, presents in general a very rich and productive soil. The monotonous aspect of the Alföld is in summer time varied by the *déli-báb*, or *Fata Morgana*.

Caverns.—The numerous caverns deserve a passing notice. The Aggtelek (*q.v.*) or Baradla cave, in the county of Gömör, is one of the largest in the world. In it various fossil mammalian remains have been found. The Fonácza cave, in the county of Bihar, has also yielded fossils. No less remarkable are the Okno, Vodi and Deményfalva caverns in the county of Liptó, the Veterani in the Banat and the ice cave at Dobsina (*q.v.*) in Gömör county. Of the many interesting caverns in Transylvania the most remarkable are the sulphurous Büdös in the county of Haromszék, the Almás to the south of Udvarhely and the brook-traversed rocky caverns of Csetate-Boli, Pestere and Ponor in the southern mountains of Hunyad county.

Rivers.—The greater part of Hungary is well provided with both rivers and springs, but some trachytic and limestone mountainous districts show a marked deficiency in this respect. The Mátra group, *e.g.*, is poorly supplied, while the outliers of the Vértes mountains towards the Danube are almost entirely wanting in streams, and have but few water sources. A relative scarcity in running waters prevails in the whole region between the Danube and the Drave. The greatest proportionate deficiency, however, is observable in the arenaceous region between the Danube and Theiss, where for the most part only periodical floods occur. But in the north and east of the kingdom rivers are numerous. Owing to its orographical configuration the river system of Hungary presents several characteristic features. The first consists in the parallelism in the course of its rivers, as the Danube and the Theiss, the Drave and the Save, the Waag with the Neutra and the Gran, &c. The second is the direction of the rivers, which converge towards the middle of the country, and are collected either mediately or immediately by the Danube. Only the Zsil, the Aluta and the Bodza or Buzeu pierce the Transylvanian Alps, and flow into the Danube outside Hungary. Another characteristic feature is the uneven distribution of the navigable rivers, of which Upper Hungary and Transylvania are almost completely devoid. But even the navigable rivers, owing to the direction of their course, are not available as a means of external communication. The only river communication with foreign countries is furnished by the Danube, on the one hand towards Austria and Germany, and on the other towards the Black Sea. All the rivers belong to the watershed of the Danube, with the exception of the Poprád in the north, which as an affluent of the Dunajec flows into the Vistula, and of a few small streams near the Adriatic. The Danube enters

Hungary through the narrow defile called the *Porta Hungarica* at Dévény near Pressburg, and after a course of 585 m. leaves it at Orsova by another narrow defile, the Iron Gate. Where it enters Hungary the Danube is 400 ft. above sea-level, and where it leaves it is 127 ft.; it has thus a fall within the country of 273 ft. It forms several large islands, as the Great Schütt, called in Hungarian Czallóköz or the deceiving island, with at area of nearly 1000 sq. m.; the St Andrew's or Szent-Endre island; the Csepel island; and the Margitta island. The principal tributaries of the Danube in Hungary, of which some are amongst the largest rivers in Europe, are, on the right, the Raab, Drave and Save, and, on the left, the Waag, Neutra, Gran, Eipel, Theiss (the principal affluent, which receives numerous tributaries), Temes and Cserna. The total length of the river system of Hungary is about 8800 m., of which only about one-third is navigable, while of the navigable part only one-half is available for steamers. The Danube is navigable for steamers throughout the whole of its course in Hungary. Regulating works have been undertaken to ward off the dangers of periodical inundations, which occur in the valley of the Danube and of the other great rivers, as the Theiss, the Drave and the Save. The beds of these rivers, as well as that of the Danube, are continually changing, forming morasses and pools, and rendering the country near their banks marshy. Notwithstanding the work already done, such as canalizing and regulating the rivers, the erection of dams, &c., the problems of preventing inundations, and of reclaiming the marshes, have not yet been satisfactorily solved.

Canals.—Hungary is poorly supplied with canals. They are constructed not only as navigable waterways, but also to relieve the rivers from periodical overflow, and to drain the marshy districts. The most important canal is the Franz Josef canal between Bécse and Bezdán, above Zombor. It is about 70 m. in length, and considerably shortens the passage between the Theiss and the Danube. A branch of this canal called Uj Csatorna or New Channel, extends from Kis-Sztapár, a few miles below Zombor, to Ujvidék, opposite Petervárad. The Béga canal runs from Temesvár to Nagy-Becskerek, and thence to Titel, where it flows into the Theiss. The Versecz and the Berzava canal, which are connected with one another, drain the numerous marshes of the Banat, including the Alibunar marsh. The Berzava canal ends in the river Temes. The Sió and the Kapos or Zichy canal between Lake Balaton and the Danube is joined by the Sárviz canal, which drains the marshes south of Sopron. The Berettyó canal between the Körös and the Berettyó rivers, and the Körös canal along the White Körös were constructed in conjunction with the regulation of the Theiss, and for the drainage of the marshy region.

Lakes and Marshes.—Hungary has two large lakes, Balaton (*q.v.*) or Platten-See, the largest lake of southern Europe, and Fertö or Neusiedler See. The Fertö lake lies in the counties of Moson and Sopron, not far from the town of Sopron, and is about 23 m. in length by 6 to 8 m. in breadth. It is so shallow that it completely evaporated in 1865, but has filled again since 1870, at the same time changing its configuration. It lies in the marshy district known as the Hanság, through which it is in communication with the Danube. In the neighbourhood of this lake are very good vineyards. Several other small lakes are found in the Hanság. The other lowland lakes, as, for instance, the Palics near Szabadka, and the Velencze in the county of Fehér, are much smaller. In the deep hollows between the peaks of the Carpathians are many small lakes, popularly called "eyes of the sea." In the *puszta* are numerous small lakes, named generally *Fehér Tó* or White Lakes, because they evaporate in the summer leaving a white crust of soda on their bed. The vegetation around them contains plants characteristic of the sea shores. The largest of these lakes is the Fehér Tó situated to the north of Szeged.

As already mentioned large tracts of land on the banks of the principal rivers are occupied by marshes. Besides the Hanság, the other principal marshes are the Sárrét, which covers a considerable portion of the counties of Jász-Kun-Szolnok, Békés and Bihar; the Escedi Láp in the county of Szatmár; the Szernye near Munkács, and the Alibunár in the county of Torontál. Since the last half of the 19th century many thousands of acres have been reclaimed for agricultural purposes.

Geology.—The hilly regions of Transylvania and of the northern part of Hungary consist of Palaeozoic and Mesozoic rocks and are closely connected, both in structure and origin, with the Carpathian chain. The great Hungarian plain is covered by Tertiary and Quaternary deposits, through which rise the Bakony-wald and the Mecsek ridge near Pécs (Fünfkirchen). These are composed chiefly of Triassic beds, but Jurassic and Cretaceous beds take some share in their formation. Amongst the most interesting features of the Bakony-wald are the volcanic and the igneous rocks.

The great plain itself is covered for the most part by loess and alluvium, but near its borders the Tertiary deposits rise to the surface. Eocene nummulitic beds occur, but the deposits are mostly of Miocene age. Five subdivisions may be recognised in the Miocene deposits, corresponding with five different stages in the evolution of southern Europe. The first is the *First Mediterranean stage* of E. Suess, during which the Hungarian plain was covered by the sea, and the deposits were purely marine. The next is the *Schlier*, a peculiar blue-grey clay, widely spread over southern Europe, and contains extensive deposits of salt and gypsum.

During the formation of the Schlier the plain was covered by an inland sea or series of salt lakes, in which evaporation led to the concentration and finally to the deposition of the salts contained in the water. Towards the close of this period great earth movements took place and the gap between the Alps and the Carpathians was formed. The third period is represented by the *Second Mediterranean stage* of Suess, during which the sea again entered the Hungarian plain and formed true marine deposits. This was followed by the *Sarmatian* period, when Hungary was covered by extensive lagoons, the fauna being partly marine and partly brackish water. Finally, in the *Pontian* period, the lagoons became gradually less and less salt, and the deposits are characterized especially by the abundance of shells which live in brackish water, especially Congeria.

Climate.—Hungary has a continental climate—cold in winter, hot in summer—but owing to the physical configuration of the country it varies considerably. If Transylvania be excepted, three separate zones are roughly distinguishable: the “highland,” comprising the counties in the vicinity of the Northern and Eastern Carpathians, where the winters are very severe and continue for half the year; the “intermediate” zone, embracing the country stretching northwards from the Drave and Mur, with the Little Hungarian Plain, and the region of the Upper Alföld, extending from Budapest to Nyiregyháza and Sárospatak; and the “great lowland” zone, including the main portion of the Great Hungarian Plain, and the region of the lower Danube, where the heat during the summer months is almost tropical. In Transylvania the climate bears the extreme characteristics peculiar to mountainous countries interspersed with valleys; whilst the climate of the districts bordering on the Adriatic is modified by the neighbourhood of the sea. The minimum of the temperature is attained in January and the maximum in July. The rainfall in Hungary, except in the mountainous regions, is small in comparison with that of Austria. In these regions the greatest fall is during the summer, though in some years the autumn showers are heavier. Hail storms are of frequent occurrence in the Carpathians. On the plains rain rarely falls during the heats of summer; and the showers though violent are generally of short duration, whilst the moisture is quickly evaporated owing to the aridity of the atmosphere. The vast sandy wastes mainly contribute to the dryness of the winds on the Great Hungarian Alföld. Occasionally, the whole country suffers much from drought; but disastrous floods not unfrequently occur, particularly in the spring, when the beds of the rivers are inadequate to contain the increased volume of water caused by the rapid melting of the snows on the Carpathians. On the whole Hungary is a healthy country, excepting in the marshy tracts, where intermittent fever and diphtheria sometimes occur with great virulence.

The following table gives the mean temperature, relative humidity, and rainfall (including snow) at a series of meteorological stations during the years 1896-1900:—

Stations.	Feet above Sea.	Mean Temperature (Fahrenheit).			Relative Humidity.	Rainfall in Inches.
		Annual.	Jan.	July.		
Selmeczbánya	2037	46.2	27.9	64.8	79	35.29
Budapest	502	50.9	30.9	68.8	76	24.02
Keszthely	436	52.5	30.0	71.4	78	26.67
Zágráb	534	52.3	34.3	70.5	72	34.32
Fiume	16	56.9	43.6	72.7	75	70.39
Debreczen	423	50.2	28.6	70	79	22.26
Szeged	312	51.6	31.1	71.1	80	25.58
Nagyszeben	1357	48.9	25.9	60.1	79	28.66

Fauna.—The horned cattle of Hungary are amongst the finest in Europe, and large herds of swine are reared in the oak forests. The wild animals are bears, wolves, foxes, lynxes, wild cats, badgers, otters, martens, stoats and weasels. Among the rodents there are hares, marmots, beavers, squirrels, rats and mice, the last in enormous swarms. Of the larger game the chamois and deer are specially noticeable. Among the birds are the vulture, eagle, falcon, buzzard, kite, lark, nightingale, heron, stork and bustard. Domestic and wild fowl are generally abundant. The rivers and lakes yield enormous quantities of fish, and leeches also are plentiful. The Theiss, once better supplied with fish than any other river in Europe, has for many years fallen off in its productiveness. The culture of the silkworm is chiefly carried on in the south, and in Croatia-Slavonia.

Flora.—Almost every description of grain is found, especially wheat and maize, besides Turkish pepper or paprika, rape-seed, hemp and flax, beans, potatoes and root crops. Fruits of various descriptions, and more particularly melons and stone fruits, are abundant. In the southern districts almonds, figs, rice and olives are grown. Amongst the forest and other trees are the oak, which yields large quantities of galls, the beech, fir, pine, ash and alder, also the chestnut, walnut and filbert. The vine is cultivated over the greater part of Hungary, the chief grape-growing districts being those of the Hegyalja (Tokaj), Sopron, and Ruszt, Ménes,

Somlyó (Schomlau), Béllye and Villány, Balaton, Neszmély, Visonta, Eger (Erlau) and Buda. Hungary is one of the greatest wine-producing countries in Europe, and the quality of some of the vintages, especially that of Tokaj, is unsurpassed. A great quantity of tobacco is also grown; it is wholly monopolized by the crown. In Hungary proper and in Croatia and Slavonia there are many species of indigenous plants, which are unrepresented in Transylvania. Besides 12 species peculiar to the former grand-principality, 14 occur only there and in Siberia.

Population.—Hungary had in 1900 a population of 19,254,559, equivalent to 153.7 inhabitants per square mile. The great Alföld and the western districts are the most densely populated parts, whereas the northern and eastern mountainous counties are sparsely inhabited. As regards sex, for every 1000 men there were 1011 women in Hungary, and 998 women in Croatia-Slavonia. The excess of females over males is great in the western and northern counties, while in the eastern parts and in Croatia-Slavonia there is at slight preponderance of males.

The population of the country at the censuses of 1880, 1890 and 1900 was:—

	1880.	1890.	1900.
Hungary proper	13,749,603	15,261,864	16,838,255
Croatia-Slavonia	1,892,499	2,201,927	2,416,304
Total	15,642,102	17,463,791	19,254,559

From 1870 to 1880 there was little increase of population, owing to the great cholera epidemic of 1872-1873, and to many epidemic diseases among children towards the end of the period. More normal conditions having prevailed from 1880 to 1890, the yearly increase rose from 0.13% to 1.09%, declining in the decade 1890-1900 to 1.03.

If compared with the first general census of the country, decreed by Joseph II. in 1785, the population of the kingdom shows an increase of nearly 108% during these 116 years. Recent historical research has ascertained that the country was densely peopled in the 15th century. Estimates, based on a census of the tax-paying peasantry in the years 1494 and 1495, give five millions of inhabitants, a very respectable number, which explains fully the predominant position of Hungary in the east of Europe at that epoch. The disastrous invasion of the Turks, incessant civil wars and devastation by foreign armies and pestilence, caused a very heavy loss both of population and of prosperity. In 1715 and 1720, when the land was again free from Turkish hordes and peace was restored, the population did not exceed three millions. Then immigration began to fill the deserted plains once more, and by 1785 the population had trebled itself. But as the immigrants were of very different foreign nationalities, the country became a collection of heterogeneous ethnical elements, amid which the ruling Magyar race formed only a minority.

The most serious drain on the population is caused by emigration, due partly to the grinding poverty of the mass of the peasants, partly to the resentment of the subject races against the process of “Magyarization” to which they have long been subjected by the government. This movement reached its height in 1900, when 178,170 people left the country; in 1906 the number had sunk to 169,202, of whom 47,920 were women.[1] Altogether, since 1896 Hungary has lost about a million of its inhabitants through this cause, a serious source of weakness in a sparsely populated country; in 1907 an attempt was made by the Hungarian parliament to restrict emigration by law. The flow of emigration is mainly to the United States, and a certain number of the emigrants return (27,612 in 1906) bringing with them much wealth, and Americanized views which have a considerable effect on the political situation.[2] Of political importance also is the steady immigration of Magyar peasants and workmen into Croatia-Slavonia, where they become rapidly absorbed into the Croat population. From the Transylvanian counties there is an emigration to Rumania and the Balkan territories of 4000 or 5000 persons yearly.

This great emigration movement is the more serious in view of the very slow increase of the population through excess of births over deaths. The birth-rate is indeed high (40.2 in 1897), but with the spread of culture it is tending to decline (38.4 in 1902), and its effect is counteracted largely by the appalling death-rate, which exceeds that of any other European country except Russia.

In this respect, however, matters are improving, the death-rate sinking from 33.1 per thousand in 1881-1885 to 28.1 per thousand in 1896-1900. The improvement, which is mainly due to better sanitation and the draining of the pestilential marshes, is most conspicuous in the case of Hungary proper, which shows the following figures: 33.3 per thousand in 1881-1885, and 27.8 per thousand in 1896-1900.

At the census of 1900 fifteen towns had more than 40,000 inhabitants, namely: Budapest,

732,322; Szeged, 100,270; Szabadka (Maria-Theresiopel), 81,464; Debreczen, 72,351; Pozsony (Pressburg), 61,537; Hódmezö-Vásárhely, 60,824; Zágráb (Agram), 61,002; Kecskemét, 56,786; Arad, 53,903; Temesvár, 53,033; Nagyvárad (Grosswardein), 47,018; Kolozsvár (Klausenburg), 46,670; Pécs (Fünfkirchen), 42,252; Miskolcz, 40,833; Kassa, 35,856.

The number and aggregate population of all towns and boroughs in Hungary proper having in 1890 more than 10,000 inhabitants was at the censuses of 1880, 1890 and 1900:—

Census.	Towns.	Inhabitants.	Percentage of Total Population.
1880	93	2,191,878	15.94
1890	106	2,700,852	17.81
1900	122	3,525,377	21.58

Thus the relative increase of the population living in urban districts of more than 10,000 inhabitants amounted in 1900 to nearly 4% of the total population. In Croatia-Slavonia only 5.62% of the population was concentrated in such towns in 1900.

Races.—One of the prominent features of Hungary being the great complexity of the races residing in it (see map, “Distribution of Races,” in the article Austria), the census returns of 1880, 1890 and 1900, exhibiting the numerical strength of the different nationalities, are of great interest. Classifying the population according to the mother-tongue of each individual, there were, in the civil population of Hungary proper, including Fiume:— 897

Census.	Hungarians (*Magyars*).	Germans (*Német*).	Slovaks (*Tót*).	Rumanians (*Oláh*).	Ruthenians (*Ruthén*).	Croatians (*Horvát*).	Servians (*Szerb*).	Others.
1880	6,404,070	1,870,772	1,855,451	2,403,041	353,229	639,986		223,054
1890	7,357,936	1,990,084	1,896,665	2,589,079	379,786	194,412	495,133	259,893
1900	8,588,834	1,980,423	1,991,402	2,784,726	423,159	188,552	434,641	329,837
i.e. in percentages of the total population:								
1880	46.58	13.61	13.49	17.48	2.57	4.65		1.62
1890	48.53	13.12	12.51	17.08	2.50	1.28	3.27	1.71
1900	51.38	11.88	11.88	16.62	2.52	1.17	2.60	1.95

The censuses show a decided tendency of change in favour of the dominating nationality, the Magyar, which reached an absolute majority in the decade 1890-1900. This is also shown by the data relating to the percentage of members of other Hungarian races speaking this language. Thus in 1900 out of a total civil population of 8,132,740, whose mother-tongue is not Magyar, 1,365,764 could speak Magyar. This represents a percentage of 16.8, while in 1890 the percentage was only 13.8. In Croatia-Slavonia the language of instruction and administration being exclusively Croat, the other races tend to be absorbed in this nationality. The Magyars formed but 3.8%, the Germans 5.6% of the population according to the census of 1900.

The various races of Hungary are distributed either in compact ethnographical groups, in larger or smaller colonies surrounded by other nationalities, or—*e.g.* in the Banat—so intermingled as to defy exact definition.[3] The Magyars occupy almost exclusively the great central plain intersected by the Danube and the Theiss, being in an overwhelming majority in 19 counties (99.7% in Hajdu, east of the Theiss). With these may be grouped the kindred population of the three Szekel counties of Transylvania. In 14 other counties, on the linguistic frontier, they are either in a small majority or a considerable minority (61.6% in Szatmár, 18.9% in Torontál). The Germans differ from the other Hungarian races in that, save in the counties on the borders of Lower Austria and Styria, where they form a compact population in touch with their kin across the frontier, they are scattered in racial islets throughout the country. Excluding the above counties these settlements form three groups: (1) central and northern Hungary, where they form considerable minorities in seven counties (25% in Szepes, 7% in Komárom); (2) the Swabians of southern Hungary, also fairly numerous in seven counties (35.5% in Baranya, 32.9% in Temes, 10.5% in Arad); (3) the Saxons of Transylvania, in a considerable minority in five counties (42.7% in Nagy Küküllö, 17.6% in Kis Küküllö). The Germans are most numerous in the towns, and tend to become absorbed in the Magyar population. The Slavs, the most numerous race after the Magyars, are divided into several groups: the Slovaks, mainly massed in the mountainous districts of northern Hungary; the Ruthenians, established mainly on the slopes of the Carpathians between Poprád and Máramaros Sziget; the Serbs, settled in the south of Hungary from the bend of the Danube eastwards across the Theiss into the Banat; the Croats, overwhelmingly preponderant in

Croatia-Slavonia, with outlying settlements in the counties of Zala, Vas and Sopron along the Croatian and Styrian frontier. Of these the Slovaks are the most important, having an overwhelming majority in seven counties (94.7% in Árva, 66.1% in Sâros), a bare majority in three (Szepes, Bars and Poszody) and a considerable minority in five (40.6% in Gömör, 22.9% in Abauj-Torna). The Ruthenians are not in a majority in any county, but in four they form a minority of from 36 to 46% (Máramaros, Bereg, Ugocsa, Ung) and in three others (Sâros, Zemplén, Szepes) a minority of from 8.2 to 19.7%. The Serbs form considerable minorities in the counties of Torontál (31.2%), Bács-Bodrog (19.0%) and Temes (21.4%). Next to the Slav races in importance are the Rumanians (Vlachs), who are in an immense majority in ten of the eastern and south-eastern counties (90.2% in Fogaras), in eight others form from 30 to 60% of the population, and in two (Máramaros and Torontál) a respectable minority.[4]

The Jews in 1900 numbered 851,378, not counting the very great number who have become Christians, who are reckoned as Magyars. Their importance is out of all proportion to their number, since they monopolize a large portion of the trade, are with the Germans the chief employers of labour, and control not only the finances but to a great extent the government and press of the country. Owing to the improvidence of the Hungarian landowners and the poverty of the peasants the soil of the country is also gradually passing into their hands.[5]

The Gipsies, according to the special census of 1893, numbered 274,940. Of these, however, only 82,000 gave Romany as their language, while 104,000 described themselves as Magyars and 67,000 as Rumanians. They are scattered in small colonies, especially in Gömör county and in Transylvania. Only some 9000 are still nomads, while some 20,000 more are semi-nomads. Other races, which are not numerous, are Armenians, Greeks, Bulgars, Albanians and Italians.

The ethnographical map of Hungary does much to explain the political problems of the country. The central plains, which have the most fertile soil, and from the geographical conditions of the country form its centre of gravity, are occupied almost exclusively by the Magyars, the most numerous and the dominant race. But all round these, as far as the frontiers, the country is inhabited by the other races, which, as a rule, occupy it in large, compact and uniform ethnographical groups. The only exception is formed by the Banat, where Magyars, Rumanians, Serbs, Bulgarians, Croats and Germans live mixed together. Another important fact is that these races are all in direct contact with kindred peoples living outside Hungary: the Rumanians in Transylvania and Banat with those in Rumania and Bukovina; the Serbs and Croats with those on the other bank of the Danube, the Save and the Unna; the Germans in western Hungary with those in Upper Austria and Styria; the Slovaks in northern Hungary with those in Moravia; and lastly the Ruthenians with the Ruthenians of Galicia, who occupy the opposite slopes of the Carpathians. The centrifugal forces within the Hungarian kingdom are thus increased by the attraction of kindred nationalities established beyond its borders, a fact which is of special importance in considering the vexed and difficult racial problem in Hungary.

Agriculture.—Hungary is pre-eminently an agricultural country and one of the principal wheat-growing regions of Europe. At the census of 1900 nearly 69% of the total population of the country derived their income from agriculture, forestry, horticulture and other agricultural pursuits. The agricultural census taken in 1895 shows the great progress made in agriculture by Hungary, manifested by the increase in arable lands and the growth of the average production. The increase of the arable land has been effected partly by the reclamation of the marshes, but mostly by the transformation of large tracts of *puszta* (waste prairie land) into arable land. This latter process is growing every year, and is coupled with great improvements in agricultural methods, such as more intensive cultivation, the use of the most modern implements and the application of scientific discoveries. According to the agricultural census of 1895, the main varieties of land are distributed as follows:—

	Hungary Proper.	Croatia-Slavonia.
By area in acres—		
Arable land	29,714,382	13,370,540
Gardens	928,053	136,354
Meadows	7,075,888	1,099,451
Vineyards	482,801	65,475
Pastures	9,042,267	1,465,930
Forests	18,464,396	3,734,094
Marshes	199,685	7,921
By percentage of the total area—		
Arable land	42.81	32.26
Gardens	1.34	1.31
Meadows	10.19	10.52
Vineyards	0.69	0.63

Pastures	13.03	14.03
Forests	26.60	35.74
Marshes	0.28	0.08

The remainder, such as barren territory, devastated vineyards, water and area of buildings, amounts to 5.1% of the total.

The chief agricultural products of Hungary are wheat, rye, barley, oats and maize, the acreage and produce of which are shown in the following tables:—

Area in Acres in Hungary Proper.

Cereal.	Average per Annum.			1900.	1907.
	1881-85.	1886-90.	1891-95.		
Wheat	6,483,876	7,014,891	7,551,584	8,142,303	8,773,440
Rye	2,475,301	2,727,078	2,510,093	2,546,738	2,529,350
Barley	2,420,393	2,491,422	2,407,469	2,485,117	2,885,160
Oats	2,460,080	2,546,582	2,339,297	2,324,992	2,898,780
Maize	4,567,186	4,681,376	5,222,538	5,469,050	7,017,270

Produce in Millions of Bushels.

Cereal.	Average per Annum.			1900.	1907.
	1881-85.	1886-90.	1891-95.		
Wheat	99.8	121.3	144.9	137.3	128.5
Rye	41.8	42.1	46.5	39.2	38.0
Barley	46.2	43.7	53.6	49.7	51.0
Oats	53.9	52.3	64.9	63.6	43.7
Maize	92.4	86.4	118.0	121.7	158.7

In Croatia-Slavonia no crop statistics were compiled before 1885. Subsequent returns for maize and wheat show an increase both in the area cultivated and quantity yielded. The former is the principal product of this province. Certain districts are distinguished for particular kinds of fruit, which form an important article of commerce both for inland consumption and for export. The principal of these fruits are: apricots round Kecskemét, cherries round Körös, melons in the Alföld and plums in Croatia-Slavonia. The vineyards of Hungary, which have suffered greatly by the phylloxera since 1881, show since 1900 a tendency to recover ground, and their area is again slowly increasing.

Forests.—Of the productive area of Hungary 26.60% is occupied by forests, which for the most part cover the slopes of the Carpathians. Nearly half of them belong to the state, and in them forestry has been carried out on a scientific basis since 1879. The exploitation of this great source of wealth is still hindered by want of proper means of communication, but in many parts of Transylvania it is now carried on successfully. The forests are chiefly composed of oak, fir, pine, ash and alder.

Live Stock.—The number of live stock in Hungary proper in two different years is shown in the following table:—

Animal.	1884.	1895.
Horses	1,749,302	1,972,930
Cattle	4,879,334	5,829,483
Sheep	10,594,867	7,526,783
Pigs	4,803,777	6,447,134

In Croatia-Slavonia the live stock was numbered in 1895 at: horses, 309,098; cattle, 908,774; sheep, 595,898; pigs, 882,957. But the improved quality of the live stock is more worthy of notice than the growth in numbers.

The small Magyar horse, once famous for its swiftness and endurance, was improved during the Turkish wars, so far as height and beauty were concerned, by being crossed with Arabs; but it degenerated after the 17th century as the result of injudicious cross-breeding. The breed has, however, been since improved by government action, the establishment of state studs supported since 1867 by annual parliamentary grants, and the importation especially of

English stock. The largest of the studs is that at Mezöhegyes (founded 1785) in the county of Csanád, the most extensive and remarkable of those “economies,” model farms on a gigantic scale, which the government has established on its domains.[6] In 1905 it had 2224 horses, including 27 stallions and 422 blood mares. The next most important stud is at Kisber (founded 1853), with 731 horses; others are at Babolna (founded 1798), with 802 horses, and Fogaras (founded 1874), with 400 horses.[7] Besides these there are several large depôts of state stallions, which are hired out or sold at moderate rates; but buyers have to guarantee not to export them without permission of the government. Large numbers of horses are exported annually, principally to Austria, Germany, Italy, France and Rumania.

Owing to its wide stretches of pasture-land Hungary is admirably suited for cattle-raising, and in the government “economies” the same care has been bestowed on improving the breed of horned beasts as in the case of horses. The principal breeds are either native or Swiss (especially that of Simmenthal). The export trade in cattle is considerable, amounting in 1905 to 238,296 head of oxen, 56,540 cows, 23,765 bulls and 19,643 breeding cattle, as well as a large number of carcases.

Sheep are not stocked so extensively as cattle, and are tending rapidly to decrease, a result due to the spread of intensive cultivation and the rise in value of the soil. They are not exported, but there is a considerable export trade in wool.

Pigs are reared in large quantities all over the country, but the principal centres for distribution are Debreczen, Gyula, Barcs, Szeged and Budapest. They are exported in large numbers (408,000 in 1905), almost exclusively to Austria. There is also a considerable export trade in geese and eggs.

Minerals.—Hungary is one of the richest countries in Europe as regards both the variety and the extent of its mineral wealth. Its chief mineral products are coal, nitre, sulphur, alum, soda, saltpetre, gypsum, porcelain-earth, pipe-clay, asphalt, petroleum, marble and ores of gold, silver, mercury, copper, iron, lead, zinc, antimony, cobalt and arsenic. The principal mining regions are Zsepes-Gömör in Upper Hungary, the Kremnitz-Schemnitz district, the Nagybánya district, the Transylvanian deposits and the Banat. Gold and silver are chiefly found in Transylvania, where their exploitation dates back to the Roman period, and are mined at Zalatna and Abrudbánya; rich deposits are also found in the Kremnitz-Schemnitz, and the Nagybánya districts. The average yearly yield of gold is about £100,000, and that of silver about the same amount. The sand of some of the rivers, as for instance the Maros, Szamos, Körös and Aranyos, is auriferous. Coal is extensively mined in the region of Budapest-Oravicza, Nagybánya, Zalatna, at Brennberg near Sopron, at Salgó-Tarján, Pécs, in the counties of Krassó-Szörény, and of Esztergom, and in the valley of the river Zsil. Iron is extracted in the counties of Zsepes, Gömör and Abauj-Torna. The production of coal and iron trebled during the period 1880-1900, amounting in 1900 to 6,600,000 tons, and 463,000 tons respectively. The principal salt-mines are in Transylvania at Torda, Parajd, Deésakna and Marós-Ujvár; and in Hungary at Szlatina, Rónazsék and Sugatag. The salt-mines are a state monopoly. Hungary is the only country in Europe where the opal is found, namely at the famous mines of Vörösvágás in the county of Sáros, and at Nagy-Mihály in that of Zemplin. Other precious stones found are chalcedony, garnet, jacinth, amethyst, carnelian, agate, rock-crystals, &c. Amber is found at Magura in Zsepes, while fine marble quarries are found in the counties of Esztergom, Komárom, Veszprém and Szepes. The value of the mining (except salt) and smelting production in Hungary amounted in 1900 to £4,500,000, while in 1877 the value was only £1,500,000. The number of persons employed in mining and smelting works was (1900 census) 70,476.

Mineral Springs.—Hungary possesses a great number of cold, and several hot mineral springs, some of them being greatly frequented. Among the principal in Hungary proper except Transylvania are those of Budapest, Mehádia, Eger, Sztubnya (Turócz county), Szliács (Zólyom county), Harkány (Baránya county), Pistyán (Nyitra county) and Trencsén-Teplitz, where there are hot springs. Cold mineral springs are at Bártfa, with alkaline ferruginous waters; Czigelka, with iodate waters; Parád, with ferruginous and sulphate springs; Koritnicza or Korytnica, with strong iron springs; and the mineral springs of Budapest. Among the principal health resorts of Hungary are Tátrafüred in the Tátra mountains, and Balatonfüred on the shores of Lake Balaton.

Industrial Development.—Efforts to create a native industry date only from 1867, and, considering the shortness of the time and other adverse factors, such as scarcity of capital, lack of means of communication, the development of industry in the neighbouring state of Austria, &c., the industry of Hungary has made great strides. Much of this progress is due to the state, one of the principal aims of the Hungarian government being the creation of a large and independent native industry. For this purpose legislation was promoted in 1867, 1881, 1890 and 1907. The principal facilities granted by the state are, exemption of taxation for a determined period of years, reduced railway fares for the goods manufactured, placing of government contracts, the grant of subsidies and loans and the foundation of industrial

schools for the training of engineers and of skilled workmen. The branches of industry which have received special encouragement are those whose products are in universal request, such as cotton and woollen goods, and those which are in the service of natural production. In this category are the manufacture of agricultural machines, of tools and implements for agriculture, forestry and mining; such industries as depend for their raw material on the exploitation of the natural resources of the country, viz. those related to agriculture, forestry, mining, &c. Lastly, encouragement is given to all branches of industry concerned with the manufacture of articles used in the more important Hungarian industries, *i.e.* machinery, or semi-manufactured goods which serve as raw material for those industries. For the period 1890-1905, an average of 40 to 50 industrial establishments with an invested capital of £1,250,000 to £1,750,000 were founded yearly.

The principal industry of Hungary is flour-milling. The number of steam-mills, which in 1867 was about 150, rose to 1723 in 1895 and to 1845 in 1905. Between 3,000,000 and 3,200,000 tons of wheat-flour are produced annually. The principal steam-mills are at Budapest; large steam-mills are also established in many towns, while there are a great number of water-mills and some wind-mills. The products of these mills form the principal article of export of Hungary. Brewing and distilling, as other branches of industry connected with agriculture, are also greatly developed. The sugar industry has made great strides, the amount of beetroot used having increased tenfold between 1880 and 1905. Other principal branches of industry are: tobacco manufactories, belonging to the state, tobacco being a government monopoly; iron foundries, mostly in the mining region; agricultural machinery and implements, notably at Budapest; leather manufactures; paper-mills, the largest at Fiume; glass (only the more common sort) and earthenwares; chemicals; wooden products; petroleum-refineries; woollen yarns and cloth manufactories, as well as several establishments of knitting and weaving. The various industrial establishments are located in the larger towns, but principally at Budapest, the only real industrial town of Hungary.

In 1900 the various industries of Hungary (including Croatia-Slavonia) employed 1,127,730 persons, or 12.8% of the earning population. In 1890 the number of persons employed was 913,010. Including families and domestic servants, 2,605,000 persons or 13.5% of the total population were dependent on industries for their livelihood in Hungary in 1900.

Commerce.—Hungary forms together with Austria one customs and commercial territory, and the statistics for the foreign trade is given under AUSTRIA-HUNGARY. The following table gives the foreign trade of Hungary only for a period of years in millions sterling:—

Year.	Imports.	Exports.
1886-1890	37.3	37.5
1891-1895	43.7	44.1
1900	46.3	55.3
1907	66.0	64.7

Of the merchandise[8] entering the country, 75-80% comes from Austria, and exports go to the same country to the extent of 75%. Next comes Germany with about 10% of the value of the total exports and 5% of that of imports. The neighbouring Balkan states—Rumania and Servia—follow, and the United Kingdom receives somewhat more than 2% of the exports, while supplying about 1.5% of the imports. The principal imports are: cotton goods, woollen manufactures; apparel, haberdashery and linen; silk manufactures; leather and leather goods. The exports, which show plainly the prevailing agricultural character of the country, are flour, wheat, cattle, beef, barley, pigs, wine in barrels, horses and maize.

With but a short stretch of sea-coast, and possessing only one important seaport, Fiume, the mercantile marine of Hungary is not very developed. It consisted in 1905 of 434 vessels with a tonnage of 91,784 tons and with crews of 2359 persons. Of these 95 vessels with a tonnage of 89,161 tons were steamers. Fifty-four vessels with 84,844 tons and crews numbering 1168 persons were sea-going; 134 with 6587 tons were coasting-vessels, and 246 with 353 tons were fishing vessels.

At all the Hungarian ports in 1900 there entered 19,223 vessels of 2,223,302 tons; cleared 19,218 vessels of 2,226,733 tons. The tonnage of British steamers amounted to somewhat more than 11% of the total tonnage of steamers entered and cleared.

Railways.—Hungary is covered by a fairly extensive network of railways, although in the sparsely populated parts of the kingdom the high road is still the only means of communication. The first railway in Hungary was the line between Budapest and Vácz (Waitzen), 20 m. long, opened in 1846 (15th of July). After the Compromise of 1867, the policy of the Hungarian government was to construct its own railways, and to take over the lines constructed and worked by private companies.[9] In 1907 the total length of the Hungarian railways, in which over £145,000,000 had been invested, was 12,100 m., of which 5000 m.

belonged to and were worked by the state, 5100 m. belonged to private companies but were worked by the state, and 2000 m. belonged to and were worked by private companies. The passengers carried in 1907 numbered 107,171,000, the goods traffic was 61,483,000 tons; the traffic receipts for the year were £16,420,000. The corresponding figures for 1880 were as follows: passengers carried, 9,346,000; goods carried, 11,225,000 tons; traffic receipts, £4,300,000. The so-called zone tariff, adopted for the first time in Europe by the Hungarian state railways, was inaugurated in 1889 for passengers and in 1891 for goods. The principle of this system is to offer cheap fares and relatively low tariffs for greater distances, and to promote, therefore, long-distance travelling. The zone tariff has given a great impetus both to passenger and goods traffic in Hungary, and has been adopted on some of the Austrian railways.

In 1907 the length of the navigable waterways of Hungary was 3200 m., of which 2450 m. were navigable by steamers.

Seaports.—On the Adriatic lies the port of Fiume (*q.v.*), the only direct outlet by sea for the produce of Hungary. Its commanding position at the head of the Gulf of Quarnero, and spacious new harbour works, as also its immediate connexions with both the Austrian and Hungarian railway systems, render it specially advantageous as a commercial port. As shipping stations, Buccari, Portoré, Selče, Novi, Zengg, San Giorgio, Jablanac and Carlopago are of comparative insignificance. The whole of the short Hungarian seaboard is mountainous and subject to violent winds.

Government.—Hungary is a constitutional monarchy, its monarch bearing the title of king. The succession to the throne is hereditary in the order of primogeniture in the male line of the house of Habsburg-Lorraine; and failing this, in the female line. The king must be a member of the Roman Catholic Church. The king of Hungary is also emperor of Austria, but beyond this personal union, and certain matters regulated by both governments jointly (see Austria-Hungary), the two states are independent of each other, having each its own constitution, legislature and administration. The king is the head of the executive, the supreme commander of the armed forces of the nation, and shares the legislative power with the parliament.

The constitution of Hungary is in many respects strikingly analogous to that of Great Britain, more especially in the fact that it is based on no written document but on immemorial prescription, confirmed or modified by a series of enactments, of which the earliest and most famous was the Golden Bull of Andrew III. (1222), the Magna Carta of Hungary. The ancient constitution, often suspended and modified, based upon this charter, was reformed under the influence of Western Liberalism in 1848, the supremacy of the Magyar race, however, being secured by a somewhat narrow franchise. Suspended after the collapse of the Hungarian revolt in 1849 for some eighteen years, the constitution was restored in 1867 under the terms of the Compromise (*Ausgleich*) with Austria, which established the actual organization of the country (see *History*, below).

The legislative power is vested in the parliament (*Országgyülés*), which consists of two houses: an upper house or the House of Magnates (*Förendiház*), and a lower house or House of Representatives (*Képviselöház*). The House of Magnates is composed as follows: princes of the royal house who have attained their majority (16 in 1904); hereditary peers who pay at least £250 a year land tax (237 in 1904); high dignitaries of the Roman Catholic and Eastern Orthodox churches (42 in 1904); representatives of the Protestant confessions (13 in 1904); life peers appointed by the crown, not exceeding 50 in number, and life peers elected by the house itself (73 altogether in 1904); members *ex officio* consisting of state dignitaries and high judges (19 in 1904); and three delegates of Croatia-Slavonia. The House of Representatives consists of members elected, under the Electoral Law of 1874, by a complicated franchise based upon property, taxation, profession or official position, and ancestral privileges.[10] The house consists of 453 members, of which 413 are deputies elected in Hungary and 43 delegates of Croatia-Slavonia sent by the parliament of that province. The members are elected for five years and receive payment for their services. The parliament is summoned annually by the king at Budapest. The official language is Magyar, but the delegates of Croatia-Slavonia may use their own language. The Hungarian parliament has power to legislate on all matters concerning Hungary, but for Croatia-Slavonia only on matters which concern these provinces in common with Hungary. The executive power is vested in a responsible cabinet, consisting of ten ministers, namely, the president of the council, the minister of the interior, of national defence, of education and public worship, of finance, of agriculture, of industry and commerce, of justice, the minister for Croatia-Slavonia, and the minister *ad latus* or near the king's person. As regards local government, the country is divided into municipalities or counties, which possess a certain amount of self-government. Hungary proper is divided into sixty-three rural, and—including Fiume—twenty-six urban municipalities (see section on *Administrative Divisions*). These urban municipalities are towns which for their local government are independent of the counties in which they are situated,

and have, therefore, a larger amount of municipal autonomy than the communes or the other towns. The administration of the municipalities is carried on by an official appointed by the king, aided by a representative body. The representative body is composed half of elected members, and half of citizens who pay the highest taxes. Since 1876 each municipality has a council of twenty members to exercise control over its administration.

Administrative Divisions.—Since 1867 the administrative and political divisions of the lands belonging to the Hungarian crown have been in great measure remodelled. In 1868 Transylvania was definitely reunited to Hungary proper, and the town and district of Fiume declared autonomous. In 1873 part of the "Military Frontier" was united with Hungary proper and part with Croatia-Slavonia. Hungary proper, according to ancient usage, was generally divided into four great divisions or circles, and Transylvania up to 1876 was regarded as the fifth. In 1876 a general system of counties was introduced. According to this division Hungary proper is divided into seven circles, of which Transylvania forms one. The whole country is divided into the following counties:—

(*a*) The circle, on the left bank of the Danube contains eleven counties: (1) Árva, (2) Bars, (3) Esztergom, (4) Hont, (5) Liptó, (6) Nógrád, (7) Nyitra, (8) Pozsony (Pressburg), (9) Trencsén, (10) Turócz and (11) Zólyom.

(*b*) The circle on the right bank of the Danube contains eleven counties: Baranya, Fejér, Györ, Komárom, Moson, Somogy, Sopron, Tolna, Vas, Veszprém and Zala.

(*c*) The circle between the Danube and Theiss contains five counties: Bács-Bodrog, Csongrád, Heves, Jász-Nagykún-Szolnok and Pest-Pilis-Solt-Kiskun.

(*d*) The circle on the right bank of the Theiss contains eight counties: Abauj-Torna, Bereg, Borsod, Gömör-és Kis-Hont, Sáros, Szepes, Ung, Zemplén.

(*e*) The circle on the left bank of the Theiss contains eight counties: Békés, Bihar, Hajdu, Máramaros, Szabolcs, Szatmár, Szilágy and Ugocsa.

(*f*) The circle between the Theiss and the Maros contains five counties: Arad, Csanád, Krassó-Szörény, Temes and Torontál.

(*g*) Transylvania contains fifteen counties: Alsó-Fehér, Beszterce-Naszód, Brassó, Csík, Fogaras, Háromszék, Hunyad, Kis-Küküllö, Kolozs, Maros-Torda, Nagy-Küküllö, Szeben, Szolnok-Doboka, Torda-Aranyos and Udvarhely.

Fiume town and district forms a separate division.

Croatia-Slavonia is divided into eight counties: Belovar-Körös, Lika-Krbava, Modrus-Fiume, Pozsega, Szerém, Varasd, Veröcze and Zágráb.

Besides these sixty-three rural counties for Hungary, and eight for Croatia-Slavonia, Hungary has twenty-six urban counties or towns with municipal rights. These are: Arad, Baja, Debreczen, Györ, Hódmezö-Vásárhely, Kassa, Kecskemét, Kolozsvár, Komaróm, Maros-Vásárhely, Nagyvárad, Pancsova, Pécs, Pozsony, Selmecz-és Bélabánya, Sopron, Szabadka, Szatmár-Németi, Szeged, Székesfehérvár, Temesvár, Újvidék, Versecz, Zombor, the town of Fiume, and Budapest, the capital of the county.

In Croatia-Slavonia there are four urban counties or towns with municipal rights namely: Eszék, Varasd, Zágráb and Zimony.

Justice.—The judicial power is independent of the administrative power. The judicial authorities in Hungary are: (1) the district courts with single judges (458 in 1905); (2) the county courts with collegiate judgeships (76 in number); to these are attached 15 jury courts for press offences. These are courts of first instance. (3) Royal Tables (12 in number), which are courts of second instance, established at Budapest, Debreczen, Györ, Kassa, Kolozsvár, Maros-Vásárhely, Nagyvárad, Pécs, Pressburg, Szeged, Temesvár and Zágráb. (4) The Royal Supreme Court at Budapest, and the Supreme Court of Justice, or Table of Septemvirs, at Zágráb, which are the highest judicial authorities. There are also a special commercial court at Budapest, a naval court at Fiume, and special army courts.

Finance.—After the revolution of 1848-1849 the Hungarian budget was amalgamated with the Austrian, and it was only after the Compromise of 1867 that Hungary received a separate budget. The development of the Hungarian kingdom can be better appreciated by a comparison of the estimates for the year 1849 prepared by the Hungarian minister of finance, which shows a revenue of £1,335,000 and an expenditure of £5,166,000 (including £3,500,000 for warlike purposes), with the budget of 1905, which shows a revenue of £51,583,000, and an expenditure of about the same sum. Owing to the amount spent on railways, the Fiume harbour works and other causes, the Hungarian budgets after 1867 showed big annual deficits, until in 1888 great reforms were introduced and the finances of the country were established on a more solid basis. During the years 1891-1895 the annual revenue was £42,100,000 and the expenditure £39,000,000; in 1900 the revenue and expenditure balanced

themselves at £45,400,000. The following figures in later years are typical:—

	Revenue.	Expenditure.
1904	£49,611,200	£49,592,400
1908	57,896,845	57,894,923

The ordinary revenue of the state is derived from direct and indirect taxation, monopolies, stamp dues, &c. In 1904 direct taxes amounted to £9,048,000, and the chief heads of direct taxes yielded as follows: ground tax, £2,317,000; trade tax, £1,879,000; income tax, £1,400,000; house tax, £1,000,000. Indirect taxes amounted in 1904 to £7,363,000, and the chief heads of indirect taxation yielded as follows: taxes on alcoholic drinks, £4,375,000; sugar tax, £1,292,000; petroleum tax, £418,000; meat tax, £375,000. The principal monopolies yielded as follows: salt monopoly, £1,210,000; tobacco monopoly, £2,850,000; lottery monopoly, £105,000. Other revenues yielded as follows: stamp taxes and dues, £3,632,000; state railways, £3,545,000; post and telegraphs, £710,000; state landed property and forests, £250,000.

The national debt of Hungary alone, excluding the debt incurred jointly by both members of the Austro-Hungarian monarchy, was £192,175,000 at the end of 1903. The following table shows the growth of the total debt, due chiefly to expenditure on public works, in millions sterling:—

1880.	1890.	1900.	1905.
£83.6	£171.9	£192.8	£198.02

Religion.—There is in Hungary just as great a variety of religious confessions as there is of nationalities and of languages. None of them possesses an overwhelming majority, but perfect equality is granted to all religious creeds legally recognized. According to the census returns of 1900 in Hungary proper there were:—

	Per Cent. of Population.		
Roman Catholics	8,198,497	or	48.69
Uniat Greeks[11]	1,841,272	or	10.93
Greek Orthodox	2,199,195	or	13.06
Evangelicals—			
Augsburg confession, or Lutherans	1,258,860	or	7.48
Helvetian confession, or Calvinists	2,427,232	or	14.41
Unitarians	68,551	or	0.41
Jews	831,162	or	4.94
Others	13,486	or	0.08

In many instances nationality and religious faith are conterminous. Thus the Servians are mostly Greek Orthodox; the Ruthenians are Uniat Greeks; the Rumanians are either Greek Orthodox or Greek Uniats; the Slovaks are Lutherans; the only other Lutherans are the Germans in Transylvania and in the Zsepes county. The Calvinists are composed mostly of Magyars, so that in the country the Lutherans are designated as the “German Church,” and the Calvinists as the “Hungarian Church.” The Unitarians are all Magyars. Only to the Roman Catholic Church belong several nationalities. The Roman Catholic Church has 4 archbishops; Esztergom (Gran), Kalocsa, Eger (Erlau) and Zágráb (Agram), and 17 diocesan bishops; to the latter must be added the chief abbot of Pannonhalma, who likewise enjoys episcopal rights. The primate is the archbishop of Esztergom, who also bears the title of prince, and whose special privilege it is to crown the sovereigns of Hungary. The Greek Uniat Church owns besides the archbishop of Esztergom the archbishop of Gyulafehérvár (Carlsburg), or rather Balásfalva (*i.e.* “the city of Blasius”), and 6 bishops. The Armenian Uniat Church is partly under the jurisdiction of the Roman Catholic bishop of Transylvania, and partly under that of the Roman Catholic archbishop of Kalocsa. The Orthodox Eastern Church in Hungary is subject to the authority of the metropolitan of Carlowitz and the archbishop of Nagyszeben (Hermannstadt); under the former are the bishops of Bács, Buda, Temesvár, Versecz and Pakrácz, and under the latter the bishops of Arad and Karánsebes. The two great Protestant communities are divided into ecclesiastical districts, five for each; the heads of these districts bear the title of superintendents. The Unitarians, chiefly resident in Transylvania, are under the authority of a bishop, whose see is Kolozsvár (Klausenburg). The Jewish communities are comprised in ecclesiastical districts, the head direction being at Budapest.

Education.—Although great improvements have been effected in the educational system of the country since 1867, Hungary is still backward in the matter of general education, as in 1900 only a little over 50% of the population could read and write. Before 1867 public

instruction was entirely in the hands of the clergy of the various confessions, as is still the case with the majority of the primary and secondary schools. One of the first measures of newly established Hungarian government was to provide supplementary schools of a non-denominational character. By a law passed in 1868 attendance at school is obligatory on all children between the ages of 6 and 12 years. The communes or parishes are bound to maintain elementary schools, and they are entitled to levy an additional tax of 5% on the state taxes for their maintenance. But the number of state-aided elementary schools is continually increasing, as the spread of the Magyar language to the other races through the medium of the elementary schools is one of the principal concerns of the Hungarian government, and is vigorously pursued.[12] In 1902 there were in Hungary 18,729 elementary schools with 32,020 teachers, attended by 2,573,377 pupils, figures which compare favourably with those of 1877, when there were 15,486 schools with 20,717 teachers, attended by 1,559,636 pupils. In about 61% of these schools the language used was exclusively Magyar, in about 20% it was mixed, and in the remainder some non-Magyar language was used. In 1902, 80.56% of the children of school age actually attended school. Since 1891 infant schools, for children between the ages of 3 and 6 years, have been maintained either by the communes or by the state.

The public instruction of Hungary contains three other groups of educational institutions: middle or secondary schools, "high schools" and technical schools. The middle schools comprise classical schools (gymnasia) which are preparatory for the universities and other "high schools," and modern schools (*Realschulen*) preparatory for the technical schools. Their course of study is generally eight years, and they are maintained mostly by the state. The state-maintained gymnasia are mostly of recent foundation, but some schools maintained by the various churches have been in existence for three, or sometimes four, centuries. The number of middle schools in 1902 was 243 with 4705 teachers, attended by 71,788 pupils; in 1880 their number was 185, attended by 40,747 pupils.

The high schools include the universities, of which Hungary possesses three, all maintained by the state: at Budapest (founded in 1635), at Kolozsvár (founded in 1872), and at Zágráb (founded in 1874). They have four faculties: of theology, law, philosophy and medicine. (The university at Zágráb is without a faculty of medicine.) There are besides ten high schools of law, called academies, which in 1900 were attended by 1569 pupils. The Polytechnicum in Budapest, founded in 1844, which contains four faculties and was attended in 1900 by 1772 pupils, is also considered a high school. There were in Hungary in 1900 forty-nine high theological colleges, twenty-nine Roman Catholic; five Greek Uniat, four Greek Orthodox, ten Protestant and one Jewish. Among special schools the principal mining schools are at Selmeczbánya, Nagyág and Felsöbánya; the principal agricultural colleges at Debreczen and Kolozsvár; and there are a school of forestry at Selmeczbánya, military colleges at Budapest, Kassa, Déva and Zágráb, and a naval school at Fiume. There are besides an adequate number of training institutes for teachers, a great number of schools of commerce, several art schools —for design, painting, sculpture, music, &c. Most of these special schools are of recent origin, and are almost entirely maintained by the state or the communes.

The richest libraries in Hungary are the National Library at Budapest; the University Library, also at Budapest, and the library of the abbey of Pannonhálma. Besides the museums mentioned in the article Budapest, several provincial towns contain interesting museums, namely, Pressburg, Temesvár, Déva, Kolozsvár, Nagyszeben: further, the national museum at Zagrám, the national (Székler) museum at Maros-Vásarhely, and the Carpathian museum at Poprád should be mentioned.

At the head of the learned and scientific societies stands the Hungarian Academy of Sciences, founded in 1830; the Kisfaludy Society, the Petöfi Society, and numerous societies of specialists, as the historical, geographical, &c., with their centre at Budapest. There are besides a number of learned societies in the various provinces for the fostering of special provincial or national aims. There are also a number of societies for the propagation of culture, both amongst the Hungarian and the non-Hungarian nationalities. Worth mentioning are also the two Carpathian societies: the Hungarian and the Transylvanian.

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(O. Br.)

II. History

When Árpád, the semi-mythical founder of the Magyar monarchy, at the end of A.D. 895 led his savage hordes through the Vereczka pass into the regions of the Upper Theiss, the land, now called Hungary, was, for the most part, in the possession of Slavs or semi-Slavs. From the Riesengebirge to the Vistula, and from the Moldau to the Drave, extended the shadowy empire of Moravia, founded by Moimir and Svatopluk (*c.* 850-890), which collapsed so completely at the first impact of the Magyars that, ten years after their arrival, not a trace of it remained. The Bulgarians, Serbs, Croats and Avars in the southern provinces were subdued with equal ease. Details are wanting, but the traditional decisive battle was fought at Alpar on the Theiss, whereupon the victors pressed on to Orsova, and the conquest was completed by Árpád about the year 906. This forcible intrusion of a non-Aryan race altered the whole history of Europe; but its peculiar significance lay in the fact that it permanently divided the northern from the southern and the eastern from the western Slavs. The inevitable consequence of this rupture was the Teutonizing of the western branch of the great Slav family, which, no longer able to stand alone, and cut off from both Rome and Constantinople, was forced, in self-defence, to take Christianity, and civilization along with it, from Germany.

Magyar conquest.

During the following seventy years we know next to nothing of the internal history of the Magyars. Árpád died in 907, and his immediate successors, Zsolt (907-947) and Taksony (947-972), are little more than chronological landmarks. This was the period of those devastating raids which made the savage Magyar horsemen the scourge and the terror of Europe. We have an interesting description of their tactics from the pen of the emperor Leo VI., whose account of them is confirmed by the contemporary Russian annals. Trained riders, archers and javelin-throwers from infancy, they advanced to the attack in numerous companies following hard upon each other, avoiding close quarters, but wearing out their antagonists by the persistency of their onslaughts. Scarce a corner of Europe was safe from them. First (908-910) they ravaged Thuringia, Swabia and Bavaria, and defeated the Germans on the Lechfeld, whereupon the German king Henry I. bought them off for nine years, employing the respite in reorganizing his army and training cavalry, which henceforth became the principal military arm of the Empire. In 933 the war was resumed, and Henry, at the head of what was really the first national German army, defeated the Magyars at Gotha and at Ried (933). The only effect of these reverses was to divert them elsewhere. Already, in 926, they had crossed the Rhine and ravaged Lotharingia. In 934 and 942 they raided the Eastern Empire, and were bought off under the very walls of Constantinople. In 943 Taksony led them into Italy, when they penetrated as far as Otranto. In 955 they ravaged Burgundy. The same year the emperor Otto I. proclaimed them the enemies of God and humanity, refused to receive their ambassadors, and finally, at the famous battle of the Lechfeld, overwhelmed them on the very scene of their first victory, near Augsburg, which they were besieging (Aug. 10, 955). Only seven of the Magyars escaped, and these were sold as slaves on their return home.

The catastrophe of the Lechfeld convinced the leading Magyars of the necessity of accommodating themselves as far as possible to the Empire, especially in the matter of religion. Christianity had already begun to percolate Hungary. A large proportion of the captives of the Magyars had been settled all over the country to teach their conquerors the arts of peace, and close contact with this civilizing element was of itself an enlightenment. The moral superiority of Christianity to paganism was speedily obvious. The only question was which form of Christianity were the Magyars to adopt, the Eastern or the Western? Constantinople was the first in the field. The splendour of the imperial city profoundly impressed all the northern barbarians, and the Magyars, during the 10th century, saw a great deal of the Greeks. One Transylvanian raider, Gyula, brought back with him from Constantinople a Greek monk, Hierothus (*c.* 950), who was consecrated "first bishop of Turkia." Simultaneously a brisk border trade was springing up between the Greeks and the Magyars, and the Greek chapmen brought with them their religion as well as their wares. Everything at first tended to favour the propaganda of the Greek Church. But ultimately political prevailed over religious considerations. Alarmed at the sudden revival of the Eastern Empire, which under the Macedonian dynasty extended once more to the Danube, and thus

Acceptance of Christianity.

became the immediate neighbour of Hungary, Duke Geza, who succeeded Taksony in 972, shrewdly resolved to accept Christianity from the more distant and therefore less dangerous emperor of the West. Accordingly an embassy was sent to Otto II. at Quedlinburg in 973, and in 975 Geza and his whole family were baptized. During his reign, however, Hungarian Christianity did not extend much beyond the limits of his court. The nation at large was resolutely pagan, and Geza, for his own sake, was obliged to act warily. Moreover, by accepting Christianity from Germany, he ran the risk of imperilling the independence of Hungary. Hence his cautious, dilatory tactics: the encouragement of Italian propagandists, who were few, the discouragement of German propagandists, who were many. Geza, in short, regarded the whole matter from a statesman's point of view, and was content to leave the solution to time and his successor.

Stephen I.

That successor, Stephen I. (*q.v.*), was one of the great constructive statesmen of history. His long and strenuous reign (997-1038) resulted in the firm establishment of the Hungarian church and the Hungarian state. The great work may be said to have begun in 1001, when Pope Silvester II. recognized Magyar nationality by endowing the young Magyar prince with a kingly crown. Less fortunate than his great exemplar, Charlemagne, Stephen had to depend entirely upon foreigners—men like the Saxon Asztrik[13] (*c.* 976-1010), the first Hungarian primate; the Lombard St Gellert (*c.* 977-1046); the Bosomanns, a German family, better known under the Magyarized form of their name Pázmány, and many others who came to Hungary in the suite of his enlightened consort Gisela of Bavaria. By these men Hungary was divided into dioceses, with a metropolitan see at Esztergom (Gran), a city originally founded by Geza, but richly embellished by Stephen, whose Italian architects built for him there the first Hungarian cathedral dedicated to St Adalbert. Towns, most of them also the sees of bishops, now sprang up everywhere, including Székesfehérvár (Stuhlweissenburg), Veszprém, Pécs (Fünfkirchen) and Györ (Raab). Esztergom, Stephen's favourite residence, was the capital, and continued to be so for the next two centuries. But the Benedictines, whose settlement in Hungary dates from the establishment of their monastery at Pannonhalma (*c.* 1001), were the chief pioneers. Every monastery erected in the Magyar wildernesses was not only a centre of religion, but a focus of civilization. The monks cleared the forests, cultivated the recovered land, and built villages for the colonists who flocked to them, teaching the people western methods of agriculture and western arts and handicrafts. But conversion, after all, was the chief aim of these devoted missionaries, and when some Venetian priests had invented a Latin alphabet for the Magyar language a great step had been taken towards its accomplishment.

The monks were soon followed by foreign husbandmen, artificers and handicraftsmen, who were encouraged to come to Hungary by reports of the abundance of good land there and the promise of privileges. This immigration was also stimulated by the terrible condition of western Europe between 987 and 1060, when it was visited by an endless succession of bad harvests and epidemics.[14] Hungary, now better known to Europe, came to be regarded as a Promised Land, and, by the end of Stephen's reign, Catholics of all nationalities, Greeks, Pagans, Jews and Mahommedans were living securely together within her borders. For, inexorable as Stephen ever was towards fanatical pagans, renegades and rebels, he was too good a statesman to inquire too closely into the private religious opinions of useful and quiet citizens.

The county system.

In endeavouring, with the aid of the church, to establish his kingship on the Western model Stephen had the immense advantage of building on unencumbered ground, the greater part of the soil of the country being at his absolute disposal. His authority, too, was absolute, being tempered only by the shadowy right of the Magyar nation to meet in general assembly; and this authority he was careful not to compromise by any slavish imitation of that feudal polity by which in the West the royal power was becoming obscured. Although he broke off the Magyar tribal system, encouraged the private ownership of land, and even made grants of land on condition of military service—in order to secure an armed force independent of the national levy—he based his new principle of government, not on feudalism, but on the organization of the Frankish empire, which he adapted to suit the peculiar exigencies of his realm. Of the institutions thus borrowed and adapted the most notable was the famous county system which still plays so conspicuous a part in Hungarian national life. Central and western Hungary (the south and north-east still being desolate) were divided into forty-six counties (*vármegyek*, Lat. *comitatus*). At the head of each county was placed a count, or lord-lieutenant[15] (*Föispán*, Lat. *comes*), who nominated his subordinate officials: the castellan (*várnagy*), chief captain (*hadnagy*) and "hundredor" (*százados*, Lat. *centurio*). The lord-lieutenant was nominated by the king, whom he was bound to follow to battle at the first summons. Two-thirds of the revenue of the county went into the royal treasury, the remaining third the lord-lieutenant retained for administrative purposes. In the county system were included all the inhabitants

of the country save two classes: the still numerous pagan clans, and those nobles who were attached to the king's person, from whom he selected his chief officers of state and the members of his council, of which we now hear for the first time.

It is significant for the whole future of Hungary that no effort was or could be made by Stephen to weld the heterogeneous races under his crown into a united nation. The body politic consisted, after as before, of the king and the whole mass of Magyar freemen or nobles, descendants of Árpád's warriors, theoretically all equal in spite of growing inequalities of wealth and power, who constituted the *populus*; privileges were granted by the king to foreign immigrants in the cities, and the rights of nobility were granted to non-Magyars for special services; but, in general, the non-Magyars were ruled by the royal governors as subject races, forming—in contradistinction to the "nobles"—the mass of the peasants, the *misera contribuens plebs* upon whom until 1848 nearly the whole burden of taxation fell. The right, not often exercised, of the Magyar nobles to meet in general assembly and the elective character of the crown Stephen also did not venture to touch. On the other hand, his example in manumitting most of his slaves, together with the precepts of the church, practically put an end to slavery in the course of the 13th century, the slaves becoming for the most part serfs, who differed from the free peasants only in the fact that they were attached to the soil (*adscripti glebae*).

At this time all the conditions of life in Hungary were simple and primitive. The court itself was perambulatory. In summer the king dispensed justice in the open air, under a large tree. Only in the short winter months did he dwell in the house built for him at Esztergom by his Italian architects. The most valuable part of his property still consisted of flocks and herds, or the products of the labours of his serfs, a large proportion of whom were bee-keepers, hunters and fishers employed in and around the interminable virgin-forests of the rough-hewn young monarchy.

A troubled forty years (1038-1077) divides the age of St Stephen from the age of St Ladislaus. Of the six kings who reigned in Hungary during that period three died violent deaths, and the other three were fighting incessantly against foreign and domestic foes. In 1046, and again in 1061, two dangerous pagan risings shook the very foundations of the infant church and state; the western provinces were in constant danger from the attacks of the acquisitive emperors, and from the south and south-east two separate hordes of fierce barbarians (the Petchenegs in 1067-1068, and the Kumanians in 1071-1072) burst over the land. It was the general opinion abroad that the Magyars would either relapse into heathendom, or become the vassals of the Holy Roman Empire, and this opinion was reflected in the increasingly hostile attitude of the popes towards the Árpád kings. The political independence of Hungary was ultimately secured by the outbreak of the quarrel about investiture (1076), when Geza I. (1074-1077) shrewdly applied to Pope Gregory VII. for assistance, and submitted to accept his kingdom from him as a fief of the Holy See. The immediate result of the papal alliance was to enable Hungary, under both Ladislaus and his capable successor Coloman [Kálmán] (1095-1116), to hold her own against all her enemies, and extend her dominion abroad by conquering Croatia and a portion of the Dalmatian coast. As an incipient great power, she was beginning to feel the need of a seaboard.

Geza I.

In the internal administration both Ladislaus I. and Coloman approved themselves worthy followers of St Stephen. Ladislaus planted large Petcheneg colonies in Transylvania and the trans-Dravian provinces, and established military cordons along the constantly threatened south-eastern boundary, the germs of the future banates[16] (*bánságok*) which were to play such an important part in the national defence in the following century. Law and order were enforced with the utmost rigour. In that rough age crimes of violence predominated, and the king's justiciars regularly perambulated the land in search of offenders, and decimated every village which refused to surrender fugitive criminals. On the other hand, both the Jews and the "Ishmaelites" (Mahommedans) enjoyed complete civil and religious liberty in Hungary, where, indeed, they were too valuable to be persecuted. The Ishmaelites, the financial experts of the day, were the official mint-masters, treasurers and bankers. The clergy, the only other educated class, supplied the king with his lawyers, secretaries and ambassadors. The Magyar clergy was still a married clergy, and their connubial privileges were solemnly confirmed by the synod of Szabolcs, presided over by the king, in 1092. So firmly rooted in the land was this practice, that Coloman, much as he needed the assistance of the Holy See in his foreign policy, was only with the utmost difficulty induced, in 1106, to bring the Hungarian church into line with the rest of the Catholic world by enforcing clerical celibacy. Coloman was especially remarkable as an administrative reformer, and Hungary, during his reign, is said to have been the best-governed state in Europe. He regulated and simplified the whole system of

Ladislaus I. and Coloman.

taxation, encouraged agriculture by differential duties in favour of the farmers, and promoted trade by a systematic improvement of the ways of communication. The *Magna via Colomanni Regis* was in use for centuries after his death. Another important reform was the law permitting the free disposal of landed estate, which gave the holders an increased interest in their property, and an inducement to improve it. During the reign of Coloman, moreover, the number of freemen was increased by the frequent manumission of serfs. The lot of the slaves was also somewhat ameliorated by the law forbidding their exportation.

Throughout the greater part of the 12th century the chief impediment in the way of the external development of the Hungarian monarchy was the Eastern Empire, which, under the first three princes of the Comnenian dynasty, dominated south-eastern Europe. During the earlier part of that period the Magyars competed on fairly equal terms with their imperial rivals for the possession of Dalmatia, Rascia (the original home of the Servians, situated between Bosnia, Dalmatia and Albania) and Ráma or northern Bosnia (acquired by Hungary in 1135); but on the accession of Manuel Comnenus in 1143 the struggle became acute. As the grandson of St Ladislaus, Manuel had Hungarian blood in his veins; his court was the ready and constant refuge of the numerous Magyar malcontents, and he aimed not so much at the conquest as at the suzerainty of Hungary, by placing one of his Magyar kinsmen on the throne of St Stephen. He successfully supported the claims of no fewer than three pretenders to the Magyar throne, and finally made Béla III. (1173-1196) king of Hungary, on condition that he left him, Manuel, a free hand in Dalmatia. The intervention of the Greek emperors had important consequences for Hungary. Politically it increased the power of the nobility at the expense of the crown, every competing pretender naturally endeavouring to win adherents by distributing largesse in the shape of crown-lands. Ecclesiastically it weakened the influence of the Catholic Church in Hungary, the Greek Orthodox Church, which permitted a married clergy and did not impose the detested tithe (the principal cause of nearly every pagan revolt) attracting thousands of adherents even among the higher clergy. At one time, indeed, a Magyar archbishop and four or five bishops openly joined the Orthodox communion and willingly crowned Manuel's nominees despite the anathemas of their Catholic brethren.

Rivalry with the Eastern Empire.

The Eastern Empire ceased to be formidable on the death of Manuel (1080), and Hungary was free once more to pursue a policy of aggrandizement. In Dalmatia the Venetians were too strong for her; but she helped materially to break up the Byzantine rule in the Balkan peninsula by assisting Stephen Nemanya to establish an independent Servian kingdom, originally under nominal Hungarian suzerainty. Béla endeavoured to strengthen his own monarchy by introducing the hereditary principle, crowning his infant son Emerich, as his successor during his own lifetime, a practice followed by most of the later Árpáds; he also held a brilliant court on the Byzantine model, and replenished the treasury by his wise economies.

Béla III.

Unfortunately the fruits of his diligence and foresight were dissipated by the follies of his two immediate successors, Emerich (1196-1204) and Andrew II. (*q.v.*), who weakened the royal power in attempting to win support by lavish grants of the crown domains on the already over-influential magnates, a policy from which dates the supremacy of the semi-savage Magyar oligarchs, that insolent and self-seeking class which would obey no superior and trampled ruthlessly on every inferior. The most conspicuous event of Andrew's reign was the promulgation in 1222 of the so-called Golden Bull, which has aptly been called the Magna Carta of Hungary, and is in some of its provisions strikingly reminiscent of that signed seven years previously by the English king John.

Andrew II.

The Golden Bull has been described as consecrating the humiliation of the crown by the great barons, whose usurpations it legalized; the more usually accepted view, however, is that it was directed not so much to weakening as to strengthening the crown by uniting its interests with those of the mass of the Magyar nobility, equally threatened by the encroachments of the great barons.[17] The preamble, indeed, speaks of the curtailment of the liberties of the nobles by the power of certain of the kings, and at the end the right of armed resistance to any attempt to infringe the charter is conceded to "the bishops and the higher and lower nobles" of the realm; but, for the rest, its contents clearly show that it was intended to strengthen the monarchy by ensuring "that the momentary folly or weakness of the king should not endanger the institution itself." This is especially clear from clause xvi., which decrees that the title and estates of the lords-lieutenant of counties should not be hereditary, thus attacking feudalism at its very roots, while clause xiv. provides for the degradation of any lord-lieutenant who should abuse his office. On the other hand, the principle of the exemption of all the nobles from taxation is confirmed, as well as their right to refuse military service abroad, the defence of the realm being their sole obligation. All nobles were also to have the right to appear at the court which was to be held once a year at Székesfehérvár, by the king,

or in his absence by the palatine,[18] for the purpose of hearing causes. A clause also guarantees all nobles against arbitrary arrest and punishment at the instance of any powerful person.

This famous charter, which was amplified, under the influence of the clergy, in 1231, when its articles were placed under the guardianship of the archbishop of Esztergom (who was authorized to punish their violation by the king with excommunication), is generally regarded as the foundation of Hungarian constitutional liberty, though like Magna Carta it purported only to confirm immemorial rights; and as such it was expressly ratified as a whole in the coronation oaths of all the Habsburg kings from Ferdinand to Leopold I. Its actual effect in the period succeeding its issue was, however, practically nugatory; if indeed it did not actually give a new handle to the subversive claims of the powerful barons.

Béla IV.

Béla IV. (1235-1270), the last man of genius whom the Árpáds produced, did something to curb the aristocratic misrule which was to be one of the determining causes of the collapse of his dynasty. But he is best known as the regenerator of the realm after the cataclysm of 1241-1242 (see Béla IV.). On his return from exile, after the subsidence of the Tatar deluge, he found his kingdom in ashes; and his two great remedies, wholesale immigration and castle-building, only sowed the seeds of fresh disasters. Thus the Kumanian colonists, mostly pagans, whom he settled in vast numbers on the waste lands, threatened to overwhelm the Christian population; while the numerous strongholds, which he encouraged his nobles to build as a protection against future Tatar invasions, subsequently became so many centres of disloyalty. To bind the Kumanian still more closely to his dynasty, Béla married his son Stephen V. (1270-1272) to a Kumanian girl, and during the reign of her son Ladislaus IV. (1272-1290) the court was certainly more pagan than Christian. Valiant and enterprising as both these princes were (Stephen successfully resisted the aggressions of the brilliant "golden King," Ottakar II. of Bohemia, and Ladislaus materially contributed to his utter overthrow at Durnkrüt in 1278), neither of them was strong enough to make head against the disintegrating influences all around them. Stephen contrived to hold his own by adroitly contracting an alliance with the powerful Neapolitan Angevins who had the ear of the pope; but Ladislaus (*q.v.*) was so completely caught in the toils of the Kumanians, that the Holy See, the suzerain of Hungary, was forced to intervene to prevent the relapse of the kingdom into barbarism, and the unfortunate Ladislaus perished in the crusade that was preached against him. An attempt of a patriotic party to keep the last Árpád, Andrew III. (1290-1301), on the throne was only temporarily successful, and after a horrible eight years' civil war (1301-1308) the crown of St Stephen finally passed into the capable hands of Charles Robert of Naples.

Stephen V. and Ladislaus IV.

End of the Árpád Dynasty.

During the four hundred years of the Árpád dominion the nomadic Magyar race had established itself permanently in central Europe, adopted western Christianity and founded a national monarchy on the western model. Hastily and violently converted, driven like a wedge between the Eastern and the Western Empires, the young kingdom was exposed from the first to extraordinary perils. But, under the guidance of a series of eminent rulers, it successfully asserted itself alike against pagan reaction from within, and aggressive pressure from without, and, as it grew in strength and skill, expanded territorially at the expense of all its neighbours. These triumphs were achieved while the monarchy was absolute, and thus able to concentrate in its hands all the resources of the state, but towards the end of the period a political revolution began. The weakness and prodigality of the later Árpáds, the depopulation of the realm during the Tatar invasion, the infiltration of western feudalism and, finally, the endless civil discords of the 13th century, brought to the front a powerful and predacious class of barons who ultimately overshadowed the throne. The ancient county system was gradually absorbed by this new governing element. The ancient royal tenants became the feudatories of the great nobles, and fell naturally into two classes, the *nobiles bene possessionati*, and the *nobiles unius sessionis*, in other words the richer and the poorer gentry. We cannot trace the gradations of this political revolution, but we know that it met with determined opposition from the crown, which resulted in the utter destruction of the Árpáds, who, while retaining to the last their splendid physical qualities, now exhibited unmistakeable signs of moral deterioration, partly due perhaps to their too frequent marriages with semi-Oriental Greeks and semi-savage Kumanians. On the other hand the great nobles were the only class who won for themselves a recognized political position. The tendency towards a representative system of government had begun, but the almost uninterrupted anarchy which marked the last thirty years of the Árpád rule was no favourable time for constitutional development. The kings were fighting for their lives, the great nobles were indistinguishable from brigands and the whole nation seemed to be relapsing into savagery.

It was reserved for the two great princes of the house of Anjou, Charles I. (1310-1342) and Louis I. (1342-1382), to rebuild the Hungarian state, and lead the Magyars back to civilization. Both by character and education they were eminently fitted for the task, and all the circumstances were in their favour. They brought from their native Italy a thorough knowledge of the science of government as the middle ages understood it, and the decimation of the Hungarian magnates during the civil wars enabled them to re-create the noble hierarchy on a feudal basis, in which full allowance was made for Magyar idiosyncracies. Both these monarchs were absolute. The national assembly (Országgyülés) was still summoned occasionally, but at very irregular intervals, the real business of the state being transacted in the royal council, where able men of the middle class, principally Italians, held confidential positions. The lesser gentry were protected against the tyranny of the magnates, encouraged to appear at court and taxed for military service by the royal treasury direct—so as to draw them closer to the crown. Scores of towns, too, owe their origin and enlargement to the care of the Angevin princes, who were lavish of privileges and charters, and saw to it that the high-roads were clear of robbers. Charles, moreover, was a born financier, and his reform of the currency and of the whole fiscal system greatly contributed to enrich both the merchant class and the treasury. Louis encouraged the cities to surround themselves with strong walls. He himself erected a whole cordon of forts round the flourishing mining towns of northern Hungary. He also appointed Hungarian consuls in foreign trade centres, and established a system of protective tariffs. More important in its ulterior consequences to Hungary was the law of 1351 which, while confirming the Golden Bull in general, abrogated the clause (iv.) by which the nobles had the right to alienate their lands. Henceforward their possessions were to descend directly and as of right to their brothers and their issue, whose claim was to be absolute. This “principle of aviticity” (*ösiség, aviticum*), which survived till 1848, was intended to preserve the large feudal estates as part of the new military system, but its ultimate effect was to hamper the development of the country by preventing the alienation, and therefore the mortgaging of lands, so long as any, however distant, scion of the original owning family survived.[19] Louis’s efforts to increase the national wealth were also largely frustrated by the Black Death, which ravaged Hungary from 1347 to 1360, and again during 1380-1381, carrying off at least one-fourth of the population.

House of Anjou.

Reforms of Louis I.

Externally Hungary, under the Angevin kings, occupied a commanding position. Both Charles and Louis were diplomatists as well as soldiers, and their foreign policy, largely based on family alliances, was almost invariably successful. Charles married Elizabeth, the sister of Casimir the Great of Poland, with whom he was connected by ties of close friendship, and Louis, by virtue of a compact made by his father thirty-one years previously, added the Polish crown to that of Hungary in 1370. Thus, during the last twelve years of his reign, the dominions of Louis the Great included the greater part of central Europe, from Pomerania to the Danube, and from the Adriatic to the steppes of the Dnieper.

The Angevins were less successful towards the south, where the first signs were appearing of that storm which ultimately swept away the Hungarian monarchy. In 1353 the Ottoman Turks crossed the Hellespont from Asia Minor and began that career of conquest which made them the terror of Europe for the next three centuries. In 1360 they conquered southern Bulgaria. In 1365 they transferred their capital from Brusa to Adrianople. In 1371 they overwhelmed the Servian tsar Vukashin at the battle of Taenarus and penetrated to the heart of old Servia. In 1380 they threatened Croatia and Dalmatia. Hungary herself was now directly menaced, and the very circumstances which had facilitated the advance of the Turks, enfeebled the potential resistance of the Magyars. The Árpád kings had succeeded in encircling their whole southern frontier with half a dozen military colonies or banates, comprising, roughly speaking, Little Walachia,[20] and the northern parts of Bulgaria, Servia and Bosnia. But during this period a redistribution of territory had occurred in these parts, which converted most of the old banates into semi-independent and violently anti-Magyar principalities. This was due partly to the excessive proselytizing energy of the Angevins, which provoked rebellion on the part of their Greek-Orthodox subjects, partly to the natural dynastic competition of the Servian and Bulgarian tsars, and partly to the emergence of a new nationality, the Walachian. Previously to 1320, what is now called Walachia was regarded by the Magyars as part of the banate of Szörény. The base of the very mixed and ever-shifting population in these parts were the Vlachs (Rumanians), perhaps the descendants of Trajan’s colonists, who, under their voivode, Bazarad, led King Charles into an ambuscade from which he barely escaped with his life (Nov. 9-12, 1330). From this disaster are to be dated the beginnings of Walachia as an independent state. Moldavia, again, ever since the 11th century, had been claimed by the Magyars as forming, along with Bessarabia and the Bukowina, a portion of the semi-mythical Etélköz, the original seat of the Magyars before they

Turkish invasions.

The Vlachs.

occupied modern Hungary. This desolate region was subsequently peopled by Vlachs, whom the religious persecutions of Louis the Great had driven thither from other parts of his domains, and, between 1350 and 1360, their voivode Bogdan threw off the Hungarian yoke altogether. In Bosnia the persistent attempts of the Magyar princes to root out the stubborn, crazy and poisonous sect of the Bogomils had alienated the originally amicable Bosnians, and in 1353 Louis was compelled to buy the friendship of their Bar Tvrtko by acknowledging him as king of Bosnia. Both Servia and Bulgaria were by this time split up into half a dozen principalities which, as much for religious as for political reasons, preferred paying tribute to the Turks to acknowledging the hegemony of Hungary. Thus, towards the end of his reign, Louis found himself cut off from the Greek emperor, his sole ally in the Balkans, by a chain of bitterly hostile Greek-Orthodox states, extending from the Black Sea to the Adriatic. The commercial greed of the Venetians, who refused to aid him with a fleet to cut off the Turks in Europe from the Turks in Asia Minor, nullified Louis' last practical endeavour to cope with a danger which from the first he had estimated at its true value.

Louis the Great left two infant daughters: Maria, who was to share the throne of Poland with her betrothed, Sigismund of Pomerania, and Hedwig, better known by her Polish name of Jadwiga, who was to reign over Hungary with her young bridegroom, William of Austria. This plan was upset by the queen-dowager Elizabeth, who determined to rule both kingdoms during the minority of her children. Maria, her favourite, with whom she refused to part, was crowned queen of Hungary a week after her father's death (Sept. 17, 1382). Two years later Jadwiga, reluctantly transferred to the Poles instead of her sister, was crowned queen of Poland at Cracow (Oct. 15, 1384) and subsequently compelled to marry Jagiello, grand-duke of Lithuania. In Hungary, meanwhile, impatience at the rule of women induced the great family of the Horváthys to offer the crown of St Stephen to Charles III. of Naples, who, despite the oath of loyalty he had sworn to his benefactor, Louis the Great, accepted the offer, landed in Dalmatia with a small Italian army, and, after occupying Buda, was crowned king of Hungary on the 31st of December, 1385, as Charles II. His reign lasted thirty-eight days. On the 7th of February, 1386, he was treacherously attacked in the queen-dowager's own apartments, at her instigation, and died of his injuries a few days later. But Elizabeth did not profit long by this atrocity. In July the same year, while on a pleasure trip with her daughter, she was captured by the Horváthys, and tortured to death in her daughter's presence. Maria herself would doubtless have shared the same fate, but for the speedy intervention of her *fiancé*, whom a diet, by the advice of the Venetians, had elected to rule the headless realm on the 31st of March 1387. He married Maria in June the same year, and she shared the sceptre with him till her sudden death by accident on the 17th of May 1395.

Sigismund.

During the long reign of Sigismund (1387-1437) Hungary was brought face to face with the Turkish peril in its most threatening shape, and all the efforts of the king were directed towards combating or averting it. However sorry a figure Sigismund may have cut as emperor in Germany, as king of Hungary he claims our respect, and as king of Hungary he should be judged, for he ruled her, not unsuccessfully, for fifty years during one of the most difficult crises of her history, whereas his connexion with Germany was at best but casual and transient.[21] From the first he recognized that his chief duty was to drive the Turks from Europe, or, at least, keep them out of Hungary, and this noble ambition was the pivot of his whole policy. A domestic rebellion (1387-1395) prevented him at the outset from executing his design till 1396, and if the hopes of Christendom were shattered at Nicopolis, the failure was due to no fault of his, but to the haughty insubordination of the feudal levies. Again, his inaction during those memorable twelve years (1401-1413) when the Turkish empire, after the collapse at Angora (1402), seemed about to be swallowed up by "the great wolf" Tamerlane, was due entirely to the malice of the Holy See, which, enraged at his endeavours to maintain the independence of the Magyar church against papal aggression (the diet of 1404, on Sigismund's initiative, had declared bulls bestowing Magyar benefices on foreigners, without the royal consent, pernicious and illegal), saddled him with a fresh rebellion and two wars with Venice, resulting ultimately in the total loss of Dalmatia (*c.* 1430). Not till 1409 could Sigismund be said to be king in his own realm, yet in 1413 we find him traversing Europe in his endeavour to terminate the Great Schism, as the first step towards uniting Christendom once more against the Turk. Hence the council of Constance to depose three rival popes; hence the council of Basel to pacify the Hussites, and promote another anti-Moslem league. But by this time the Turkish empire had been raised again from its ruins by Mahommed I. (1402-1421), and resumed its triumphal progress under Murad II. (1421-1451). Yet even now Sigismund, at the head of his Magyars, thrice (1422-1424, 1426-1427, and 1430-1431) encountered the Turks, not ingloriously, in the open field, till, recognizing that Hungary must thenceforth rely entirely on her own resources in any future struggle with Islam, he elaborately fortified the whole southern frontier, and converted the little fort of Nándorfehérvár, later Belgrade, at the

junction of the Danube and Save, into an enormous first-class fortress, which proved strong enough to repel all the attacks of the Turks for more than a century. It argued no ordinary foresight thus to recognize that Hungary's strategy in her contest with the Turks must be strictly defensive, and the wisdom of Sigismund was justified by the disasters which almost invariably overcame the later Magyar kings whenever they ventured upon aggressive warfare with the sultans.

A monarch so overburdened with cares was naturally always in need of money,[22] and thus obliged to lean heavily upon the support of the estates of the realm. The importance and influence of the diet increased proportionately. It met every year, sometimes twice a year, during Sigismund's reign, and was no longer, as in the days of Louis the Great, merely a consultative council, but a legislative body in partnership with the king. It was still, however, essentially an assembly of notables, lay and clerical, at which the gentry, though technically eligible, do not seem to have been directly represented. At Sigismund's first diet (1397) it was declared that the king might choose his counsellors where he listed, and at the diet of 1397 he invited the free and royal towns to send their deputies to the parliament. Subsequently this privilege was apparently erected into a statute, but how far it was acted upon we know not. Sigismund, more fortunate than the Polish kings, seems to have had little trouble with his diets. This was largely due to his friendly intimacy with the majority of the Magyar notables, from among whom he chose his chief counsellors. The estates loyally supported him against the attempted exactions of the popes, and do not seem to have objected to any of his reforms, chief among which was the army-reform project of 1435, to provide for the better defence of the land against the Turks. This measure obliged all the great dignitaries, and the principal towns also, according to their means, to maintain a *banderium* of five hundred horsemen, or a proportional part thereof, and hold it ready, at the first summons, thus supplying the crown with a standing army 76,875 strong. In addition to this, a reserve force called the *telekkatonaság* was recruited from among the lesser gentry according to their *teleks* or holdings, every thirty-three *teleks* being held responsible for a mounted and fully equipped archer. Moreover, river fleets, built by Genoese masters and manned by Servians, were constructed to patrol and defend the great rivers of Hungary, especially on the Turkish frontier. Much as he owed to them, however, Sigismund was no mere nobles' king. His care for the common people was sincere and constant, but his beneficial efforts in this direction were thwarted by the curious interaction of two totally dissimilar social factors, feudalism and Hussitism. In Sigismund's reign the feudal system, for the first time, became deeply rooted in Magyar soil, and it is a lamentable fact that in 15th-century Hungary it is to be seen at its very worst, especially in those wild tracts, and they were many, in which the king's writ could hardly be said to run.

Feudal system.

Hussites.

Simultaneously from the west came the Hussite propagandists teaching that all men were equal, and that all property should be held in common. The suffering Magyar multitudes eagerly responded to these seductive teachings, and the result was a series of dangerous popular risings (the worst in 1433 and 1436) in which heresy and communism were inextricably intermingled. With the aid of inquisitors from Rome, the evil was literally burnt out, but not before provinces, especially in the south and south-east, had been utterly depopulated. They were repeopled by Vlachs.

Yet despite the interminable wars and rebellions which darken the history of Hungary in the reign of Sigismund, the country, on the whole, was progressing. Its ready response to the king's heavy demands for the purpose of the national defence points to the existence of a healthy and self-sacrificing public spirit, and the eagerness with which the youth of all classes now began to flock to the foreign universities is another satisfactory feature of the age. Between 1362 and 1450 no fewer than 4151 Magyar students frequented the university of Vienna, nearly as many went by preference to Prague, and this, too, despite the fact that there were now two universities in Hungary itself, the old foundation of Louis the Great at Pécs, and a new one established at Buda by Sigismund.

Like Louis the Great before him, Sigismund had failed to found a dynasty, but, fifteen years before his death, he had succeeded in providing his only daughter Elizabeth with a consort apparently well able to protect both her and her inheritance in the person of Albert V., duke of Austria. Albert, a sturdy soldier, who had given brilliant proofs of valour and generalship in the Hussite wars, was crowned king of Hungary at Székesfehérvar (Stuhlweissenburg) on the 1st of January 1438, elected king of the Romans at Frankfort on the 18th of March 1438, and crowned king of Bohemia at Prague on the 29th of June 1438. On returning to Buda in 1439, he at once plunged into a war with the Turks, who had, in the meantime, captured the important Servian fortress of Semendria and subjugated the greater part of Bosnia. But the king got no farther than Servia, and was carried off by dysentery (Oct. 27, 1439), in the forty-second year of his age, in the course of the campaign.

Albert left behind him two infant daughters only, but his consort was big with child, and, in the event of that child proving to be an heir male, his father's will bequeathed to him the kingdoms of Hungary and Bohemia, under the regency of his mother. Thus, with the succession uncertain, with the Turk at the very door, with the prospect, dismal at the best, of a long minority, the political outlook was both embarrassing and perilous. Obviously a warrior-king was preferable to a regimen of women and children, and the eyes of the wiser Magyars turned involuntarily towards Wladislaus III. of Poland, who, though only in his nineteenth year, was already renowned for his martial disposition. Wladislaus accepted the proffered throne from the Magyar delegates at Cracow on the 8th of March 1440; but in the meantime (Feb. 22) the queen-widow gave birth to a son who, six weeks later, as Ladislaus V. (*q.v.*) was crowned king of Hungary (May 15) at Székesfehérvár. On the 22nd of May the Polish monarch appeared at Buda, was unanimously elected king of Hungary under the title of Wladislaus I. (June 24) and crowned on the 17th of July. This duoregnum proved even more injurious to Hungary than the dreaded interregnum. Queen Elizabeth, aided by her kinsmen, the emperor Frederick III. and the counts of Cilli, flooded northern and western Hungary with Hussite mercenaries, one of whom, Jan Giszkra, she made her captain-general, while Wladislaus held the central and south-eastern parts of the realm. The resulting civil war was terminated only by the death of Elizabeth on the 13th of December 1443.

John Hunyadi.

All this time the pressure of the Turks upon the southern provinces of Hungary had been continuous, but fortunately all their efforts had so far been frustrated by the valour and generalship of the ban of Szörény, John Hunyadi, the fame of whose victories, notably in 1442 and 1443, encouraged the Holy See to place Hungary for the third time at the head of a general crusade against the infidel. The experienced diplomatist Cardinal Cesarini was accordingly sent to Hungary to reconcile Wladislaus with the emperor. The king, who had just returned from the famous "long campaign" of 1443, willingly accepted the leadership of the Christian League. At the diet of Buda, early in 1444, supplies were voted for the enterprise, and Wladislaus was on the point of quitting his camp at Szeged for the seat of war, when envoys from Sultan Murad 907 arrived with the offer of a ten years' truce on such favourable conditions (they included the relinquishment of Servia, Walachia and Moldavia, and the payment of an indemnity) that Hunyadi persuaded the king to conclude (in July) a peace which gave him more than could reasonably be anticipated from the most successful campaign. Unfortunately, two days later, Cardinal Cesarini absolved the king from the oath whereby he had sworn to observe the peace of Szeged, and was thus mainly responsible for the catastrophe of Varna, when four months later (Nov. 10) the young monarch and the flower of the Magyar chivalry were overwhelmed by fourfold odds on Turkish soil. (See Hunyadi, János; and Wladislaus III.)

The next fourteen years form one of the most interesting and pregnant periods of Hungarian history. It marks the dawn of a public spirit as represented by the gentry, who, alarmed at the national peril and justly suspicious of the ruling magnates, unhesitatingly placed their destinies in the hands of Hunyadi, the one honest man who by sheer merit had risen within the last ten years from the humble position of a country squire to a leading position in the state. This feeling of confidence found due expression at the diet of 1446, which deliberately passing over the palatine László Garai elected Hunyadi governor of Hungary, and passed a whole series of popular measures intended to be remedial, *e.g.* the decree ordering the demolition of the new castles, most of them little better than robber-strongholds; the decree compelling the great officers of state to suspend their functions during the session of the diet; the decree declaring illegal the new fashion of forming confederations on the Polish model, all of which measures were obviously directed against the tyranny and the lawlessness of the oligarchy. Unfortunately this salutary legislation remained a dead letter. It was as much as the governor could do to save the state from destruction, let alone reform it. At this very time northern Hungary, including the wealthy mining towns, was in the possession of the Hussite mercenary Jan Giszkra, who held them nominally for the infant king Ladislaus V., still detained at Vienna by his kinsman the emperor. The western provinces were held by Frederick himself. Invaluable time was wasted in negotiating with these intruders before the governor could safely devote himself to the task of expelling the Turk from the southern provinces. He had to be content with armistices, reconciliations and matrimonial contracts, because the great dignitaries of the state, men like the palatine László Garai, Count Ulrich of Cilli, and the voivode of Transylvania, Mihály Ujlaky, thwarted in every way the *novus homo* whom they hated and envied. From them, the official guardians of Hungary's safety, he received no help, either during his governorship (1446-1453), or when, in 1454, on the eve of his departure for his last and most glorious campaign, the diet commanded a *levée en masse* of the whole population in his support. At that critical hour it was at his own expense that Hunyadi fortified Belgrade, now the sole obstacle between Hungary and destruction, with the sole assistance of the Franciscan friar Giovanni da

Capistrano, equipped the fleet and the army which relieved the beleaguered fortress and overthrew Mahommed II. But the nation at least was grateful, and after his death (Aug. 11, 1456) it freely transferred its allegiance to his family as represented by his two sons, László, now in his 23rd, and Matthias, now in his 16th year. The judicial murder of László Hunyadi (*q.v.*) by the enemies of his house (March 16, 1457) was therefore a stupid blunder as well as the foulest of crimes, and on the death of his chief assassin, Ladislaus V., six months later (Nov. 23, 1457), the diet which assembled on the banks of the Rákos, in defiance of the magnates and all foreign competitors, unanimously and enthusiastically elected Matthias Hunyadi king of Hungary (Jan. 24, 1458).

In less than three years the young king had justified their confidence, and delivered his country from its worst embarrassments. (See Matthias I., king of Hungary.) This prodigy was accomplished in the face of every conceivable obstacle. His first diet grudgingly granted him supplies and soldiers for the Turkish war, on condition that under no circumstances whatever should they henceforth be called upon to contribute towards the national defence, and he was practically deprived of the control of the *banderia* or mounted militia. It was with a small force of mercenaries, raised at his own expense, that the young king won his first Turkish victories, and expelled the Czechs from his northern and the Habsburgs from his western provinces. But his limited resources, and, above all, the proved incapacity of the militia in the field, compelled him instantly to take in hand the vital question of army reform. In the second year of his reign he undertook personally the gigantic task of providing Hungary with an army adequate to her various needs on the model of the best military science of the day. The landless younger sons of the gentry and the Servian and Vlach immigrants provided him with excellent and practically inexhaustible military material. The old feudal levies he put aside. Brave enough personally, as soldiers they were distinctly inferior both to the Janissaries and the Hussites, with both of whom Matthias had constantly to contend. It was a trained regular army in his pay and consequently at his disposal that he wanted. The nucleus of the new army he found in the Czech mercenaries, seasoned veterans who readily transferred their services to the best payer. This force, formed in 1459, was generally known as the *Fekete Sereg*, or "Black Brigade," from the colour of its armour. From 1465 the pick of the Magyars and Croatians were enlisted in the same way every year, till, towards the end of his reign, Matthias could count upon 20,000 horse and 8000 foot, besides 6000 black brigaders. The cavalry consisted of the famous Hussars, or light horse, of which he may be said to have been the creator, and the heavily armed mounted musketeers on the Czech-German model. The infantry, in like manner, was divided into light and heavy. This army was provided with a regular commissariat, cannon[23] and ballistic machines, and, being constantly on active service, was always in a high state of efficiency. The land forces were supported by a river fleet consisting (in 1479) of 360 vessels, mostly sloops and corvettes, manned by 2600 sailors, generally Croats, and carrying 10,000 soldiers. Eight large military stations were also built at the chief strategic points on the Danube, Save and Theiss. These armaments, which cost Matthias 1,000,000 florins per annum, equivalent to £200,000, did not include the auxiliary troops of the hospodars of Walachia and Moldavia, or the feudal levies of the barons and prelates.

Matthias I.

The army of Matthias was not only a military machine of first-rate efficiency, but an indispensable civilizing medium. It enabled the king to curb the lawlessness of the Magyar nobility, and explains why none of the numerous rebellions against him ever succeeded. Again and again, during his absence on the public service, the barons and prelates would assemble to compass his ruin or dispose of his crown, when, suddenly, "like a tempest," from the depths of Silesia or of Bosnia, he would himself appear among them, confounding and scattering them, often without resistance, always without bloodshed. He also frequently employed his soldiers in collecting the taxes from the estates of those magnates who refused to contribute to the public burdens, in protecting the towns from the depredations of the robber barons, or in convoying the caravans of the merchants. In fact, they were a police force as well as an army.

Despite the enormous expense of maintaining the army, Matthias, after the first ten years of his reign, was never in want of money. This miracle was achieved by tact and management. No Hungarian king had so little trouble with the turbulent diet as Matthias. By this time the gentry, as well as the barons and prelates, took part in the legislature. But attendance at the diet was regarded by the bulk of the poorer deputies as an intolerable burden, and they frequently agreed to grant the taxes for two or three years in advance, so as to be saved the expense of attending every year. Moreover, to promote their own convenience, they readily allowed the king to assess as well as to collect the taxes, which consequently tended to become regular and permanent, while Matthias' reform of the treasury, which was now administered by specialists with separate functions, was economically of great benefit to the state. Yet Matthias never dispensed with the diet. During the thirty-two years of his reign he

held at least fifteen diets,[24] at which no fewer than 450 statutes were passed. He re-codified the Hungarian common law; strictly defined the jurisdiction of the whole official hierarchy from the palatine to the humblest village judge; cheapened and accelerated legal procedure, and in an age when might was right did his utmost to protect the weak from the strong. There is not a single branch of the law which he did not simplify and amend, and the iron firmness with which he caused justice to be administered, irrespective of persons, if it exposed him to the charge of tyranny from the nobles, also won for him from the common people the epithet of "the Just." To Matthias is also due the credit of creating an efficient official class. Merit was with him the sole qualification for advancement. One of his best generals, Pál Kinizsy, was a miller's son, and his capable chancellor, Péter Várady, whom he made archbishop of Kálocsa, came of a family of small squires. For education so scholarly a monarch as Matthias naturally did what he could. He founded the university of Pressburg (Academia Istropolitana, 1467), revived the declining university of Pécs, and, at the time of his death, was meditating the establishment of a third university at Buda.

Unfortunately the civilizing efforts of Matthias made but little impression on society at large. The bulk of the Magyar nobility was still semi-barbaric. Immensely wealthy (it is estimated that most of the land, at this time, was in the hands of 25 great families, the Zapolyas alone holding an eighth of it), it was a point of honour with them to appear in public in costly raiment ablaze with silver, gold and precious stones, followed at every step by armies of retainers scarcely less gorgeous. At the same time their ignorance was profound. Many of the highest dignitaries of state did not know their alphabet. Signatures to documents of the period are rare; seals served instead of signatures, because most of the nobles were unable to sign their names. Learning, indeed, was often ridiculed as pedantry in a gentleman of good family.

The clergy, the chief official class, were naturally less ignorant than the gentry. Some of the prelates—notably János Csezmeczey, better known as Janus Pannonius (1433-1472)—had a European reputation for learning. The primate Cardinal, János Vitez (1408-1472), at the beginning, and the primate, Cardinal Tamas Bakócz (*q.v.*), at the end of the reign were men of eminent ability and the highest culture. But the moral tone of the Magyar church at this period was very low. The bishops prided themselves on being great statesmen, great scholars, great financiers, great diplomatists—anything, in fact, but good Christians. Most of them, except when actually celebrating mass, were indistinguishable alike in costume and conduct from the temporal magnates. Of twelve of them it is said that foreigners took them at first for independent temporal princes, so vast were their estates, so splendid their courts, so numerous their armed retainers. Under such guides as these the lower clergy erred deplorably, and drunkenness, gross immorality, brawling and manslaughter were common occurrences in the lives of the parish priests. The regular clergy were if possible worse than the secular, with the exception of the Paulicians, the sole religious order which steadily resisted the general corruption, of whose abbot, the saintly Gregory, was the personal friend of Matthias.

What little culture there was outside the court, the capital and the palaces of a few prelates, was to be found in the towns, most of them of German origin. Matthias laboured strenuously to develop and protect the towns, multiplied municipal charters, and materially improved the means of communication, especially in Transylvania. His Silesian and Austrian acquisitions were also very beneficial to trade, throwing open as they did the western markets to Hungarian produce. Wine and meat were the chief exports. The wines of Hungary were already renowned throughout Europe, and cattle breeding was conducted on a great scale. Of agricultural produce there was barely sufficient for home consumption, but the mining industries had reached a very high level of excellence, and iron, tin and copper were very largely exported from the northern counties to Danzig and other Baltic ports. So highly developed indeed were the Magyar methods of smelting, that Louis XI. of France took the Hungarian mining system as the model for his metallurgical reforms, and Hungarian master-miners were also in great demand at the court of Ivan the Terrible. Moreover, the keen artistic instincts of Matthias led him to embellish his cities as well as fortify them. Debreczen was practically rebuilt by him, and dates its prosperity from his reign. Breslau, his favourite town, he endowed with many fine public buildings. Buda he endeavoured to make the worthy capital of a great realm, and the palace which he built there was pronounced by the papal legates to be superior to any in Italy.

Power in Europe.

Politically Matthias raised Hungary to the rank of the greatest power in central Europe, her influence extending into Asia and Africa. Poland was restrained by his alliances with the Teutonic Knights and the tsardom of Muscovy, and his envoys appeared in Persia and in Egypt to combat the diplomacy of the Porte. He never, indeed, jeopardized the position of the Moslems in Europe as his father had done,

and thus the peace of Szeged (1444), which regained the line of the Danube and drove the Turk behind the Balkans, must always be reckoned as the high-water mark of Hungary's Turkish triumphs. But Matthias at least taught the sultan to respect the territorial integrity of Hungary, and throughout his reign the Eastern Question, though often vexatious, was never acute. Only after his death did the Ottoman empire become a menace to Christendom. Besides, his hands were tied by the unappeasable enmity of the emperor and the emperor's allies, and he could never count upon any material help from the West against the East. The age of the crusades had gone. Throughout his reign the Czechs and the Germans were every whit as dangerous to Hungary as the Turks, and the political necessity which finally compelled Matthias to partition Austria and Bohemia, in order to secure Hungary, committed him to a policy of extreme circumspection. He has sometimes been blamed for not crushing his incurably disloyal and rebellious nobles, instead of cajoling them, after the example of his contemporary, Louis XI., who laid the foundations of the greatness of France on the ruin of the vassals. But Louis XI. had a relatively civilized and politically developed middle class behind him, whereas Matthias had not. It was as much as Matthias could do to keep the civic life of Hungary from expiring altogether, and nine-tenths of his burgesses were foreigners with no political interest in the country of their adoption. Never was any dominion so purely personal, and therefore so artificial as his. His astounding energy and resource curbed all his enemies during his lifetime, but they were content to wait patiently for his death, well aware that the collapse of his empire would immediately follow.

Period of decline.

All that human foresight could devise for the consolidation and perpetuation of the newly established Hungarian empire had been done by Matthias in the last years of his reign. He had designated as his successor his natural son, the highly gifted János (John) Corvinus, a youth of seventeen. He had raised him to princely rank, endowed him with property which made him the greatest territorial magnate in the kingdom, placed in his hands the sacred crown and half-a-dozen of the strongest fortresses, and won over to his cause the majority of the royal council. How János was cajoled out of an almost impregnable position, and gradually reduced to insignificance, is told elsewhere (see Corvinus, János). The nobles and prelates, who detested the severe and strenuous Matthian system, desired, as they expressed it, "a king whose beard they could hold in their fists," and they found a monarch after their own heart in Wladislaus Jagiello, since 1471 king of Bohemia, who as Wladislaus II. was elected unanimously king of Hungary on the 15th of July 1490. Wladislaus was the personification of helpless inertia. His Bohemian subjects had long since dubbed him "King All Right" because he said yes to everything. As king of Hungary he was, from first to last, the puppet of the Magyar oligarchs, who proceeded to abolish all the royal prerogatives and safeguards which had galled them under Matthias. By the compact of Farkashida (1490) Wladislaus not only confirmed all the Matthian privileges, but also repealed all the Matthian novelties, including the system of taxation which had enabled his predecessor to keep on foot an adequate national army. The virtual suppression of Wladislaus was completed at the diet of 1492, when "King All Right" consented to live on the receipts of the treasury, which were barely sufficient to maintain his court, and engaged never to impose any new taxes on his Magyar subjects. The dissolution of the standing army, including the Black Brigade, was the immediate result of these decrees. Thus, at the very time when the modernization of the means of national defence had become the first principle, in every other part of Europe, of the strongly centralized monarchies which were rising on the ruins of feudalism, the Hungarian magnates deliberately plunged their country back into the chaos of medievalism. The same diet which destroyed the national armaments and depleted the exchequer confirmed the disgraceful peace of Pressburg, concluded between Wladislaus and the emperor Maximilian on the 7th of November 1491, whereby Hungary retroceded all the Austrian conquests of Matthias, together with a long strip of Magyar territory, and paid a war indemnity equivalent to £200,000.

Wladislaus II.

The thirty-six years which elapsed between the accession of Wladislaus II. and the battle of Mohács is the most melancholy and discreditable period of Hungarian history. Like Poland two centuries later, Hungary had ceased to be a civilized autonomous state because her prelates and her magnates, uncontrolled by any higher authority, and too ignorant or corrupt to look beyond their own immediate interests, abandoned themselves to the exclusive enjoyment of their inordinate privileges, while openly repudiating their primal obligation of defending the state against extraneous enemies. During these miserable years everything like patriotism or public spirit seems to have died out of the hearts of the Hungarian aristocracy. The great officers of state acted habitually on the principle that might is right. Stephen Bathóry, voivode of Transylvania and count of the Szeklers, for instance, ruled Transylvania like a Turkish pasha, and threatened to behead all who dared to complain of his exactions; "Stinking carrion," he said, was better than living Szeklers. Thousands of Transylvanian

gentlemen emigrated to Turkey to get out of his reach. Other great nobles were at perpetual feud with the towns whose wealth they coveted. Thus the Zapolyas, in 1500 and again in 1507, burnt a large part of Breznóbánya and Beszterczebánya, two of the chief industrial towns of north Hungary. Kronstadt, now the sole flourishing trade centre in the kingdom, defended itself with hired mercenaries against the robber barons. Everywhere the civic communities were declining; even Buda and Pressburg were half in ruins. In their misery the cities frequently appealed for protection to the emperor and other foreign potentates, as no redress was attainable at home. Compared even with the contemporary Polish diet the Hungarian national assembly was a tumultuous mob. The diet of 1497 passed most of its time in constructing, and then battering to pieces with axes and hammers, a huge wooden image representing the ministers of the crown, who were corrupt enough, but immovable, since they regularly appeared at the diet with thousands of retainers armed to the teeth, and openly derided the reforming endeavours of the lower gentry, who perceived that something was seriously wrong, yet were powerless to remedy it. All that the gentry could do was to depress the lower orders, and this they did at every opportunity. Thus, many of the towns, notably Visegrád, were deprived of the charters granted to them by Matthias, and a whole series of anti-civic ordinances were passed. Noblemen dwelling within the walls of the towns were especially exempted from all civic burdens, while every burgess who bought an extra-mural estate was made to pay double for the privilege.[25] Every nobleman had the right to engage in trade toll-free, to the great detriment of their competitors the burgesses. The peasant class suffered most of all. In 1496 Varady, archbishop of Kalocsa, one of the few good prelates, declared that their lot was worse than that of brute beasts. The whole burden of taxation rested on their shoulders, and so ground down were they by ingeniously multiplied exactions, that thousands of them were reduced to literal beggary.

Yet, despite this inward rottenness, Hungary, for nearly twenty years after the death of Matthias, enjoyed an undeserved prestige abroad, due entirely to the reputation which that great monarch had won for her. Circumstances, indeed, were especially favourable. The emperor Maximilian was so absorbed by German affairs, that he could do her little harm, and under Bayezid II. and Selim I. the Turkish menace gave little anxiety to the court of Buda, Bayezid being no warrior, while Selim's energies were claimed exclusively by the East, so that he was glad to renew the triennial truce with Hungary as often as it expired. Hungary, therefore, for almost the first time in her history, was free to choose a foreign policy of her own, and had she been guided by a patriot, she might now have easily regained Dalmatia, and acquired besides a considerable seaboard. Unfortunately Tamás Bakócz, her leading diplomatist from 1499 to 1521, was as much an egotist as the other magnates, and he sacrificed the political interests of Hungary entirely to personal considerations. Primate of Hungary since 1497, he coveted the popedom—and the red hat as the first step thereto above all things,—and looked mainly to Venetian influence for both. He therefore supported Venice against her enemies, refused to enter the League of Cambray in 1508, and concluded a ten years' alliance with the Signoria, which obliged Hungary to defend Venetian territory without any equivalent gain. Less reprehensible, though equally self-seeking, were his dealings with the emperor, which aimed at a family alliance between the Jagiellos and the Habsburgs on the basis of a double marriage between the son and daughter of Wladislaus, Louis and Anne, and an Austrian archduke and archduchess; this was concluded by the family congress at Vienna, July 22, 1515, to which Sigismund I. of Poland, the brother of Wladislaus, acceded. The Hungarian diet frantically opposed every Austrian alliance as endangering the national independence, but to any unprejudiced observer a union with the house of Habsburg, even with the contingent probability of a Habsburg king, was infinitely preferable to the condition into which Hungary, under native aristocratic misrule, was swiftly drifting. The diet itself had become as much a nullity as the king, and its decrees were systematically disregarded. Still more pitiable was the condition of the court. The penury of Wladislaus II. was by this time so extreme, that he owed his very meals to the charity of his servants. The diet, indeed, voted him aids and subsidies, but the great nobles either forbade their collection within their estates, or confiscated the amount collected. Under the circumstances, we cannot wonder if the frontier fortresses fell to pieces, and the border troops, unpaid for years, took to brigandage.

Peasant Rising, 1514.

The last reserves of the national wealth and strength were dissipated by the terrible peasant rising of György Dozsa (*q.v.*) in 1514, of which the enslavement of the Hungarian peasantry was the immediate consequence. The "Savage Diet" which assembled on the 18th of October the same year, to punish the rebels and restore order, well deserved its name. Sixty-two of its seventy-one enactments were directed against the peasants, who were henceforth bound to the soil and committed absolutely into the hands of "their natural lords." To this vindictive legislation, which converted the labouring population into a sullenly hostile force within the

state, it is mainly due that a healthy political life in Hungary became henceforth impossible.

The Tripartitum.

The same spirit of hostility to the peasantry breathed through the famous condification of the Hungarian customary law known as the *Tripartitum*, which, though never actually formally passed into law, continued until 1845 to be the only document defining the relations of king and people, of nobles and their peasants, and of Hungary and her dependent states.[26]

Wladislaus II. died on the 13th of March 1516, two years after the "Savage Diet," the ferocity of whose decrees he had feebly endeavoured to mitigate, leaving his two kingdoms to his son Louis, a child of ten, who was pronounced of age in order that his foreign guardians, the emperor Maximilian and Sigismund of Poland, might be dispensed with. The government remained in the hands of Cardinal Bakócz till his death in 1521, when the supreme authority at court was disputed between the lame palatine István Báthory, and his rival, the eminent jurist and orator István Verböczy (*q.v.*),—both of them incompetent, unprincipled place-hunters,—while, in the background lurked János Zapolya (see John (Zapolya), King of Hungary), voivode of Transylvania, patiently waiting till the death of the feeble and childless king (who, in 1522, married Maria of Austria) should open for him a way to the throne. Every one felt that a catastrophe was approaching. "Things cannot go on like this much longer," wrote the Venetian ambassador to his government. The war of each against all continued; no taxes could be collected; the holders of the royal domains refused to surrender them at the command of the diet; and the boy king had very often neither clothes to wear nor food to eat. The whole atmosphere of society was one of rapine and corruption, and only on the frontier a few self-sacrificing patriots like the ban-bishop, Peter Biriszlo, the last of Matthias's veterans, and his successor the saintly Pál Tomori, archbishop of Kalocsa, showed, in their ceaseless war against the predatory Turkish bands, that the ancient Magyar valour was not yet wholly extinct. But the number of the righteous men was too few to save the state. The first blow fell in 1521, when Sultan Suleiman appeared before the southern fortresses of Sabác and Belgrade, both of which fell into his hands during the course of the year. After this Venice openly declared that Hungary was no longer worth the saving. Yet the *coup de grâce* was postponed for another five years, during which time Suleiman was occupied with the conquest of Egypt and the siege of Rhodes. The Magyars fancied they were safe from attack, because the final assault was suspended; and everything went on in the old haphazard way. Every obstacle was opposed to the collection of the taxes which had been voted to put the kingdom in a state of defence. "If this realm could be saved at the expense of three florins," exclaimed the papal envoy, Antonio Burgio, "there is not a man here willing to make the sacrifice." Only on the southern frontier did Archbishop Tomori painfully assemble a fresh army and fleet, and succeed, by incredible efforts, in constructing at Péterwardein, on the right bank of the Danube, a new fortress which served him as a refuge and sally post in his interminable guerilla war with the Turks.

Subjection by the Turks.

In the spring of 1526 came the tidings that Sultan Suleiman had quitted Constantinople, at the head of a countless host, to conquer Hungary. On the 28th of July Péterwardein, after a valiant resistance, was blown into the air. The diet, which met at Buda in hot haste, proclaimed the young king[27] dictator, granted him unlimited subsidies which there was no time to collect, and ordered a *levée en masse* of the entire male population, which could not possibly assemble within the given time. Louis at once formed a camp at Tolna, whence he issued despairing summonses to the lieges, and, by the middle of August, some 25,000 ill-equipped gentlemen had gathered around him. With these he marched southwards to the plain of Mohács, where, on the 29th of August, the Hungarians, after a two hours' fight, were annihilated, the king, both the archbishops, five bishops and 24,000 men perishing on the field. The sultan refused to believe that the pitiful array he had so easily overcome could be the national army of Hungary. Advancing with extreme caution, he occupied Buda on the 12th of September, but speedily returned to his own dominions, carrying off with him 105,000 captives, and an amount of spoil which filled the bazaars of the East for months to come. By the end of October the last Turkish regular had quitted Magyar soil, and, to use the words of a contemporary observer, one quarter of Hungary was as utterly destroyed as if a flood had passed over it.

The Turks had no sooner quitted the land than John Zapolya, voivode of Transylvania, assembled a diet at Tokaj (Oct. 14, 1526) at which the towns were represented as well as the counties. The tone of the assembly being violently anti-German, and John being the only conceivable national candidate, his election was a matter of course; but his misgivings were so great that it was not till the beginning of November that he very reluctantly allowed himself to be crowned at a second diet, held at Székesfehérvár. By this time a competitor had entered the field. This was the archduke Ferdinand, who claimed the Hungarian crown by right of inheritance in the name o

John Zapolya elected King.

Ferdinand of Austria elected.

his wife, Anne, sister of the late king. Ferdinand was elected (Dec. 16) by a scratch assembly consisting of deputies from Croatia and the towns of Pressburg and Sopron; but he speedily improved his position in the course of 1527, by driving King John first from Buda and then from Hungary. In November the same year he was elected and crowned by a properly constituted diet at Székesfehérvár (Stuhlweissenburg). In 1529 Zapolya was reinstated in Buda by Suleiman the Magnificent in person, who, at this period, preferred setting up a rival to "the king of Vienna" to conquering Hungary outright. Thus the Magyars were saddled with two rival kings with equally valid titles, which proved an even worse disaster than the Mohács catastrophe; for in most of the counties of the unhappy kingdom desperadoes of every description plundered the estates of the gentry, and oppressed the common people, under the pretext that they were fighting the battles of the contending monarchs. The determination of Ferdinand to partition Hungary rather than drive the Turks out, which he might easily have done after Suleiman's unsuccessful attempts on Vienna in 1529-1530, led to a prolongation of the struggle till the 24th of February 1538, when, by the secret peace of Nagyvárad,[28] Hungary was divided between the two competitors. By this treaty Ferdinand retained Croatia-Slavonia and the five western counties with Pressburg and Esztergom (Gran), while Zapolya kept the remaining two-thirds with the royal title. He was indeed the last national king of Hungary till modern times. His court at Buda was maintained according to the ancient traditions, and his *gyüles*, at which 67 of the 73 counties were generally represented, was the true national diet, the phantom assembly occasionally convened at Pressburg by Ferdinand scarcely deserving the title. Indeed, Ferdinand regarded his narrow strip of Hungarian territory as simply a barrier behind which he could better defend the hereditary states. During the last six years (1534-1540) of John's reign, his kingdom, beneath the guidance of the Paulician monk, Frater György, or George Martinuzzi (*q.v.*), the last great statesman of old Hungary, enjoyed a stability and prosperity marvellous in the difficult circumstances of the period, Martinuzzi holding the balance exactly between the emperor and the Porte with astounding diplomatic dexterity, and at the same time introducing several important domestic reforms. Zapolya died on the 18th of July 1540, whereupon the estates of Hungary elected his baby son John Sigismund king, in direct violation of the peace of Grosswardein which had formally acknowledged Ferdinand as John's successor, whether he left male issue or not. Ferdinand at once asserted his rights by force of arms, and attacked Buda in May 1541, despite the urgent remonstrances of Martinuzzi, who knew that the Turk would never suffer the emperor to reign at Buda. His fears were instantly justified. In August 1541, Suleiman, at the head of a vast army, invaded Hungary, and on the 30th of August, Buda was in his hands. During the six following years the sultan still further improved his position, capturing, amongst many other places, Pécs, and the primatial city of Esztergom; but, in 1547, the exigencies of the Persian war induced him to sell a truce of five years to Ferdinand for £100,000, on a *uti possidetis* basis, Ferdinand holding thirty-five counties (including Croatia and Slavonia) for which he was to pay an annual tribute of £60,000; John Sigismund retaining Transylvania and sixteen adjacent counties with the title of prince, while the rest of the land, comprising most of the central counties, was annexed to the Turkish empire. Thus the ancient kingdom was divided into three separate states with divergent aims and interests, a condition of things which, with frequent rearrangements, continued for more than 150 years.

Rival kings.

Partition of Hungary.

A period of infinite confusion and extreme misery now ensued, of which only the salient points can here be noted. The attempts of the Habsburgs to conquer Transylvania drew down upon them two fresh Turkish invasions, the first in 1552, when the sultan's generals captured Temesvár and fifty-four lesser forts or fortresses, and the second in 1566, memorable as Suleiman's last descent upon Hungary, and also for the heroic defence of Szigetvár by Miklós Zrinyi (*q.v.*), one of the classical sieges of history. The truce of Adrianople in 1568, nominally for eight years, but prolonged from time to time till 1593, finally suspended regular hostilities, and introduced the epoch known as "The Long Peace," though, throughout these twenty-five years, the guerilla warfare on the frontier never ceased for more than a few months at a time, and the relations between the Habsburgs and Transylvania were persistently hostile.

Siege of Szigetvár.

Probably no other country ever suffered so much from its rulers as Hungary suffered during the second half of the 16th century. This was due partly to political and partly to religious causes. To begin with, there can be no doubt that from 1558, when the German imperial crown was transferred from the Spanish to the Austrian branch of the Habsburg family, royal Hungary[29] was regarded by the emperors as an insignificant barrier province yielding far more trouble than profit. The visible signs of this contemptuous point of view were (1) the suspension of the august dignity of palatine, which, after the death of Tamás Nádasdy, "the great palatine," in 1562, was left vacant for many years; (2) the abolition or attenuation of all

the ancient Hungarian court dignitaries; (3) the degradation of the capital, Pressburg, into a mere provincial town; and (4) the more and more openly expressed determination to govern Hungary from Vienna by means of foreigners, principally German or Czech. During the reign of Ferdinand, whose consort, Anne, was a Hungarian princess, things were at least tolerable; but under Maximilian (1564-1576) and Rudolph (1576-1612) the antagonism of the Habsburgs towards their Magyar subjects was only too apparent. The diet, which had the power of the purse, could not be absolutely dispensed with; but it was summoned as seldom as possible, the king often preferring to forego his subsidies rather than listen to the unanswerable remonstrances of the estates against the illegalities of his government. In the days of the semi-insane recluse Rudolph things went from bad to worse. The Magyar nobles were now systematically spoliated on trumped-up charges of treason; hundreds of them were ruined. At last they either durst not attend the diet, or "sat like dumb dogs" during its session, allowing the king to alter and interpret the statutes at his good pleasure. Presently religious was superadded to political persecution.

Effect of Reformation.

The Reformation had at first produced little effect on Hungary. Except in the towns, mostly of German origin, it was generally detested, just because it came from Germany. The battle of Mohács, however, severely shook the faith of the Hungarians. "Where are the old Magyar saints? Why do they not defend the realm against the Turks?" was the general cry. Moreover, the corrupt church had lost its hold on the affections of the people. Zapolya, a devout Catholic, is lauded by Archbishop Frangipan in 1533 for arresting the spread of the new doctrines, though he would not allow Martinuzzi to take the extreme step of burning perverts at the stake. These perverts were mostly to be found among nobles desirous of amassing church property, or among those of the clergy who clamoured for communion in both kinds. So long, however, as the old national kingdom survived, the majority of the people still clung to the old faith. Under Ferdinand the parochial clergy were tempted to become Lutherans by the prospect of matrimony, and, in reply to the remonstrances of their bishops, declared that they would rather give up their cures than their wives. In Transylvania matters were at first ordered more peaceably. In 1552 the new doctrines obtained complete recognition there, the diet of Torda (1557) going so far as to permit every one to worship in his own way so long as he did not molest his neighbour. Yet, in the following year, the whole of the property of the Catholic Church there was diverted to secular uses, and the Calvinists were simultaneously banished, though they regained complete tolerance in 1564, a privilege at the same time extended to the Unitarians, who were now very influential at court and converted Prince John Sigismund to their views. In Turkish Hungary all the confessions enjoyed liberty of worship, though the Catholics, as possible partisans of the "king of Vienna," were liked the least. It was only when the Jesuits obtained a footing both at Prague[30] and Klausenburg that persecution began, but then it was very violent. In Transylvania the princes of the Báthory family (1571-1604) were ardent disciples of the Jesuit fathers, and Sigismund Báthory in particular persecuted fiercely, his fury being especially directed against the queer judaizing sect known as the Sabbatarians, whose tenets were adopted by the Szeklers, the most savage of "the three nations" of Transylvania, many thousands of whom were, after a bloody struggle, forced to emigrate. In royal Hungary also the Jesuits were the chief persecutors. The extirpation of Protestantism was a deliberate prearranged programme, and as Protestantism was by this time identical with Magyarism[31] the extirpation of the one was tantamount to the extirpation of the other. The method generally adopted was to deprive the preachers in the towns of their churches by force, Italian mercenaries being preferably employed for the purpose. It was assumed that the Protestant nobles' jealousy of the burgesses would prevent them from interfering; but religious sympathy proved stronger than caste prejudice, and the diets protested against the persecution of their fellow citizens so vehemently that religious matters were withdrawn from their jurisdiction.

The "Long War."

This persecution raged most fiercely towards the end of what is generally called "The Long War," which began in 1593, and lasted till 1606. It was a confused four-cornered struggle between the emperor and the Turks, the Turks and Transylvania, Michael of Moldavia and Transylvania, and Transylvania and the emperor, desultory and languishing as regards the Turks (the one notable battle being Sigismund Báthory's brilliant victory over the grand vizier in Walachia in 1595, when the Magyar army penetrated as far as Giurgevo), but very bitter as between the emperor and Transylvania, the principality being finally subdued by the imperial general, George Basta, in August 1604. A reign of terror ensued, during which the unfortunate principality was well-nigh ruined. Basta was authorized to Germanize and Catholicize without delay, and he began by dividing the property of most of the nobles among his officers, appropriating the lion's share himself. In royal Hungary the same object was aimed at by innumerable indictments against the richer landowners, indictments supported by false title-deeds and carried through

by forged or purchased judgments of the courts. At last the estates of even the most devoted adherents of the Habsburgs were not safe, and some of them, like the wealthy István Illesházy (1540-1609), had to fly abroad to save their heads. Fortunately a peculiarly shameless attempt to blackmail Stephen Bocskay, a rich and powerful Transylvanian nobleman, converted a long-suffering friend of the emperor into a national deliverer. Bocskay (*q.v.*), a quiet but resolute man, having once made up his mind to rebel, never paused till he had established satisfactory relations between the Austrian court and the Hungarians. The two great achievements of his brief reign (he was elected prince of Transylvania on the 5th of April 1605, and died on the 29th of December 1606) were the peace of Vienna (June 23, 1606) and the truce of Zsitvatörök (November 1606). By the peace of Vienna, Bocskay obtained religious liberty and political autonomy, the restoration of all confiscated estates, the repeal of all unrighteous judgments and a complete retrospective amnesty for all the Magyars in royal Hungary, besides his own recognition as independent sovereign prince of an enlarged[32] Transylvania. This treaty is remarkable as being the first constitutional compact between the ruling dynasty and the Hungarian nation. Almost equally important was the twenty years' truce of Zsitvatörök, negotiated by Bocskay between the emperor and the sultan, which established for the first time a working equilibrium between the three parts of Hungary, with a distinct political preponderance in favour of Transylvania. Of the 5163 sq. m. of Hungarian territory, Transylvania now possessed 2082, Turkish Hungary 1859, and royal Hungary only 1222. The emperor, on the other hand, was freed from the humiliating annual tribute to the Porte on payment of a war indemnity of £400,000. The position of royal Hungary was still further improved when the popular and patriotic Archduke Matthias was elected king of Hungary on the 16th of November 1608. He had previously confirmed the treaty of Vienna, and the day after his election he appointed Illesházy, now reinstated in all his possessions and dignities, palatine of Hungary.[33] In Transylvania, meantime, Gabriel Bathóry had been elected (Nov. 11, 1608) in place of the decrepit Sigismund Rákoczy, Bocskay's immediate successor.

Stephen Bocskay.

For more than fifty years after the peace of Vienna the principality of Transylvania continued to be the bulwark of the liberties of the Magyars. It owed its ascendancy in the first place to the abilities of the two princes who ruled it from 1613 to 1648. The first and most famous of these rulers was Gabriel Bethlen (*q.v.*), who reigned from 1613 to 1629, perpetually thwarted all the efforts of the emperor to oppress or circumvent his Hungarian subjects, and won some reputation abroad by adroitly pretending to champion the Protestant cause. Three times he waged war on the emperor, twice he was proclaimed king of Hungary, and by the peace of Nikolsburg (Dec. 31, 1621) he obtained for the Protestants a confirmation of the treaty of Vienna, and for himself seven additional counties in northern Hungary besides other substantial advantages. Bethlen's successor, George I. Rákoczy, was equally successful. His principal achievement was the peace of Linz (Sept. 16, 1645), the last political triumph of Hungarian Protestantism, whereby the emperor was forced to confirm once more the oft-broken articles of the peace of Vienna, to restore nearly a hundred churches to the sects and to acknowledge the sway of Rákoczy over the north Hungarian counties. Gabriel Bethlen and George I. Rákoczy also did much for education and civilization generally, and their era has justly been called the golden era of Transylvania. They lavished money on the embellishment of their capital, Gyulafehérvár, which became a sort of Protestant Mecca, whither scholars and divines of every anti-Roman denomination flocked to bask in the favour of princes who were as liberal as they were pious. Yet both Bethlen and Rákoczy owed far more to favourable circumstances than to their own cunning. Their reigns synchronized with the Thirty Years' War, during which the emperors were never in a position seriously to withstand the attacks of the malcontent Magyars, the vast majority of whom were still Protestants, who naturally looked upon the Transylvanian princes as their protectors and joined them in thousands whenever they raided Moravia or Lower Austria, or threatened to advance upon Vienna. In all these risings no battle of importance was fought. Generally speaking, the Transylvanians had only to appear, to have their demands promptly complied with; for these marauders had to be bought off because the emperor had more pressing business elsewhere. Yet their military efficiency must have been small, for their allies the Swedes invariably allude to them as wild and ragged semi-barbarians.

Transylvanian Hegemony.

Another fortunate accident which favoured the hegemony of Transylvania was the temporary collapse of Hungary's most formidable adversary, the Turk. From the peace of Zsitvatörök (1606) to the ninth year of the reign of George Rákoczy II., who succeeded his father in 1648, the Turkish empire, misruled by a series of incompetent sultans and distracted by internal dissensions, was unable to intervene in Hungarian politics. But in the autumn of 1656 a great statesman, Mahommed Kuprili (*q.v.*), obtained the supreme control of affairs at Constantinople, and all

Turkish conflict.

Europe instantly felt the pressure of the Turk once more. It was George Rákoczy II. (*q.v.*) who gave the new grand vizier a pretext for interference. Against the advice of all his counsellors, and without the knowledge of the estates, Rákoczy, in 1657, plunged into the troubled sea of Polish politics, in the hope of winning the Polish throne, and not only failed miserably but overwhelmed Transylvania in his own ruin. Kuprili, who had forbidden the Polish enterprise, at once occupied Transylvania, and, in the course of the next five years, no fewer than four princes, three of whom died violent deaths, were forced to accept the kaftan and kalpag of investiture in the camp of the grand vizier. When, at the end of 1661, a more stable administration was set up with Michael Apaffy (1661-1690) as prince, Transylvania had descended to the rank of a feudatory of the Turkish empire. On the death of Mahommed Kuprili (Oct. 11, 1661) his son Fazil Ahmed succeeded him as grand vizier, and pursued his father's policy with equal genius and determination. In 1663 he invaded royal Hungary, with the intention of uniting all the Magyars against the emperor, but, the Magyars steadily refusing to attend any diet summoned under Turkish influence, his plan fell through, and his only notable military success was the capture of the fortress of Érsekujvár (Neuhäusel). In the following year, thanks to the generalship and heroism of Miklós Zrinyi the younger (*q.v.*), Kuprili was still less successful. Zrinyi captured fortress after fortress, and interrupted the Turkish communications by destroying the famous bridge of Esseg, while Montecuculi defeated the grand vizier at the battle of St Gothard (Aug. 1, 1664). Yet, despite these reverses, Kuprili's superior diplomacy enabled him, at the peace of Vasvár (Aug. 10, 1664) to obtain terms which should only have been conceded to a conqueror. The fortress of Érsekujvár and surrounding territory were now ceded to the Turks, with the result that royal Hungary was not only still further diminished, but its northern practically separated from its southern portion. On the other hand the treaty of Vasvár gave Hungary a respite from regular Turkish invasions for twenty years, though the border raiding continued uninterruptedly.

Peace of Vasvár, 1664.

Of far more political importance than these fluctuating wars of invasion and conquest was the simultaneous Catholic reaction in Hungary. The movement may be said to have begun about 1601, when the great Jesuit preacher and controversialist, Péter Pázmány (*q.v.*), first devoted himself to the task of reconverting his countrymen. Progress was necessarily retarded by the influence of the independent Protestant princes of Transylvania in the northern counties of Hungary. Even as late as 1622 the Protestants at the diet of Pressburg were strong enough to elect their candidate, Szaniszló Thurzó, palatine. But Thurzó was the last Protestant palatine, and, on his death, the Catholics, at the diet of Sopron (1625), where they dominated the Upper Chamber, and had a large minority in the Lower, were able to elect Count Miklós Esterházy in Thurzó's stead. The Jesuit programme in Hungary was the same as it had been in Poland a generation earlier, and may be summed up thus: convert the great families and all the rest will follow.[34] Their success, due partly to their whole-hearted zeal, and partly to their superior educational system, was extraordinary; and they possessed the additional advantage of having in Pázmány a leader of commanding genius. During his primacy (1616-1637), when he had the whole influence of the court, and the sympathy and the assistance of the Catholic world behind him, he put the finishing touches to his life's labour by founding a great Catholic university at Nagyszombát (1635), and publishing a Hungarian translation of the Bible to counteract the influence of Gaspar Károli's widely spread Protestant version. Pázmány was certainly the great civilizing factor of Hungary in the seventeenth century, and indirectly he did as much for the native language as for the native church. His successors had only to build on his foundations. One most striking instance of how completely he changed the current of the national mind may here be given. From 1526 to 1625 the usual jubilee pilgrimages from Hungary to Rome had entirely ceased. During his primacy they were revived, and in 1650, only seventeen years after his death, they were as numerous as ever they had been. Five years later there remained but four noble Protestant families in royal Hungary. The Catholicization of the land was complete.

Catholic reaction.

Pázmány's work.

Unfortunately the court of Vienna was not content with winning back the Magyars to the Church. The Habsburg kings were as jealous of the political as of the religious liberties of their Hungarian subjects. This was partly owing to the fact that national aspirations of any sort were contrary to the imperial system, which claimed to rule by right divine, and partly to an inveterate distrust of the Magyars, who were regarded at court as rebels by nature, and therefore as enemies far more troublesome than the Turks. The conduct of the Hungarian nobles in the past, indeed, somewhat justified this estimate, for the fall of the ancient monarchy was entirely due to their persistent disregard of authority, to their refusal to bear their share of the public burdens. They were now to suffer severely for their past misdoings, but unfortunately the innocent

Habsburg repression.

nation was forced to suffer with them. Throughout the latter part of the 17th and the beginning of the 18th century, the Hungarian gentry underwent a cruel discipline at the hands of their Habsburg kings. Their privileges were overridden, their petitions were disregarded, their diets were degraded into mere registries of the royal decrees. They were never fairly represented in the royal council, they were excluded as far as possible from commands in Hungarian regiments, and were treated, generally, as the members of an inferior and guilty race. This era of repression corresponds roughly with the reign of Leopold I. (1657-1705), who left the government of the country to two bigoted Magyar prelates, György Szelepesényi (1595-1685) and Lipót (Leopold) Kollonich (1631-1707), whose domination represents the high-water mark of the anti-national regimen. The stupid and abortive conspiracy of Peter Zrinyi and three other magnates, who were publicly executed (April 30, 1671), was followed by wholesale arrests and confiscations, and for a time the legal government of Hungary was superseded (Patent of March 3, 1673) by a committee of eight persons, four Magyars and four Germans, presided over by a German governor; but the most influential person in this committee was Bishop Kollonich, of whom it was said that, while Pázmány hated the heretic in the Magyar, Kollonich hated the Magyar in the heretic. A gigantic process against leading Protestant ministers for alleged conspiracy was the first act of this committee. It began at Pressburg in March 1674, when 236 of the ministers were "converted" or confessed to acts of rebellion. But the remaining 93 stood firm and were condemned to death, a punishment commuted to slavery in the Neapolitan galleys. Sweden, as one of the guarantors of the peace of Westphalia, and several north German states, protested against the injury thus done to their coreligionists. It was replied that Hungary was outside the operation of the treaty of Westphalia, and that the Protestants had been condemned not *ex odio religionis* but *crimine rebellionis*.

Hungarian resistance.

But a high-spirited nation cannot be extinguished by any number of patents and persecutions. So long as the Magyar people had any life left, it was bound to fight in self-defence, it was bound to produce "malcontents" who looked abroad for help to the enemies of the house of Habsburg. The first and most famous of the malcontent leaders was Count Imre Tököli (*q.v.*). Between 1678 and 1682 Tököli waged three wars with Leopold, and, in September 1682, was acknowledged both by the emperor and the sultan as prince of North Hungary as far as the river Garam, to the great relief of the Magyar Protestants. The success of Tököli rekindled the martial ardour of the Turks, and a war party, under the grand vizier Kara Mustafa, determined to wrest from Leopold his twelve remaining Hungarian counties, gained the ascendancy at Constantinople in the course of 1682. Leopold, intent on the doings of his perennial rival Louis XIV., was loth to engage in an eastern war even for the liberation of Hungary, which he regarded as of far less importance than a strip or two of German territory on the Rhine. But, stimulated by the representations of Pope Innocent XI., who, well aware of the internal weakness of the Turk, was bent upon forming a Holy League to drive them out of Europe, and alarmed, besides, by the danger of Vienna and the hereditary states, Leopold reluctantly contracted an alliance with John III. of Poland, and gave the command of the army which, mainly through the efforts of the pope he had been able to assemble, to Prince Charles of Lorraine. The war, which lasted for 16 years and put an end to the Turkish dominion in Hungary, began with the world-renowned siege of Vienna (July 14-Sept. 12, 1683). There is no need to recount the oft-told victories of Sobieski (see John III. Sobieski, King of Poland). What is not quite so generally known is the fact that Leopold slackened at once and would have been quite content with the results of these earlier victories had not the pope stiffened his resistance by forming a Holy League between the Emperor, Poland, Venice, Muscovy and the papacy, with the avowed object of dealing the Turk the *coup de grâce* (March 5, 1684). This statesmanlike persistence was rewarded by an uninterrupted series of triumphs, culminating in the recapture of Buda (1686) and Belgrade (1688), and the recovery of Bosnia (1689). But, in 1690, the third of the famous Kuprilis, Mustafa, brother of Fazil Ahmed, became grand vizier, and the Turk, still further encouraged by the death of Innocent XI., rallied once more. In the course of that year Kuprili regained Servia and Bulgaria, placed Tököli on the throne of Transylvania, and on the 6th of October took Belgrade by assault. Once more the road to Vienna lay open, but the grand vizier wasted the remainder of the year in fortifying Belgrade, and on August 18th, 1691, he was defeated and slain at Slankamen by the margrave of Baden. For the next six years the war languished owing to the timidity of the emperor, the incompetence of his generals and the exhaustion of the Porte; but on the 11th of September 1697 Prince Eugene of Savoy routed the Turks at Zenta and on the 13th of November 1698 a peace-congress was opened at Karlowitz which resulted in the peace of that name (Jan. 26, 1699). Nominally a truce for 25 years on the *uti possidetis* basis, the peace of Karlowitz left in the emperor's hands the whole of Hungary except Syrmia and the territory lying between the rivers Maros, Theiss, Danube and the mountains of

Liberation from the Turks.

Peace of Karlowitz.

Transylvania, the so-called Temesköz, or about one-eleventh of the modern kingdom. The peace of Karlowitz marks the term of the Magyar's secular struggle with Mahommedanism and finally reunited her long-separated provinces beneath a common sceptre.

But the liberation of Hungary from the Turks brought no relief to the Hungarians. The ruthless suppression of the Magyar malcontents, in which there was little discrimination between the innocent and the guilty, had so crushed the spirit of the country that Leopold considered the time ripe for realizing a long-cherished ideal of the Habsburgs and changing Hungary from an elective into an hereditary monarchy. For this purpose a diet was assembled at Pressburg in the autumn of 1687. It was a mere rump, for wholesale executions had thinned its numbers and the reconquered countries were not represented in it. To this weakened and terrorized assembly the emperor-king explained that he had the right to treat Hungary as a conquered country, but that he was prepared to confirm its constitutional liberties under three conditions: the inaugural diploma was to be in the form signed by Ferdinand I., the crown was to be declared hereditary in the house of Habsburg, and the 31st clause of the Golden Bull, authorizing armed resistance to unconstitutional acts of the sovereign, was to be abrogated. These conditions the diet had no choice but to accept, and, in October 1687, the elective monarchy of Hungary, which had been in existence for nearly seven hundred years, ceased to exist. The immediate effect of the peace of Karlowitz was thus only to strengthen despotism in Hungary. Kollonich, who had been created a cardinal in 1685, archbishop of Kalocsa in 1691 and archbishop of Esztergom (Gran) and primate of Hungary in 1695, was now at the head of affairs, and his plan was to germanize Hungary as speedily as possible by promoting a wholesale immigration into the recovered provinces, all of which were in a terrible state of dilapidation.[35]

The border counties, now formed into a military zone, were planted exclusively with Croatian colonists as being more trustworthy defenders of the Hungarian frontier than the Hungarians themselves. Moreover, a *neo-acquisita commissio* was constituted to inquire into the title-deeds of the Magyar landowners in the old Turkish provinces, and hundreds of estates were transferred, on the flimsiest of pretexts, to naturalized foreigners. Transylvania since 1690 had been administered from Vienna, and though the farce of assembling a diet there was still kept up, even the promise of religious liberty, conceded to it on its surrender in 1687, was not kept. No wonder then if the whole country was now seething with discontent and only awaiting an opportunity to burst forth in open rebellion. This opportunity came when the emperor, involved in the War of the Spanish Succession, withdrew all his troops from Hungary except some 1600 men. In 1703 the malcontents found a leader in Francis Rakóczy II. (*q.v.*), who was elected prince by the Hungarian estates on the 6th of July 1704, and during the next six years gave the emperor Joseph I., who had succeeded Leopold in May 1705, considerable anxiety. Rakóczy had often as many as 100,000 men under him, and his bands penetrated as far as Moravia and even approached within a few miles of Vienna. But they were guerillas, not regulars; they had no good officers, no serviceable artillery, and very little money; and all the foreign powers to whom Rakóczy turned for assistance (excepting France, who fed them occasionally with paltry subsidies) would not commit themselves to a formal alliance with rebels who were defeated in every pitched battle they fought. On the other hand, if the Rakóczians were easily dispersed, they as quickly reassembled, and at one time they held all Transylvania and the greater part of Hungary. In the course of 1707 two Rakóczian diets even went so far as formally to depose the Habsburgs and form an interim government with Rakóczy at its head, till a national king could be legally elected. The Maritime Powers, too, fearful lest Louis XIV. should materially assist the Rakóczians and thus divert part of the emperor's forces at the very crisis of the War of the Spanish Succession, intervened, repeatedly and energetically, to bring about a compromise between the court and the insurgents, whose claims they considered to be just and fair. But the obstinate refusal of Joseph to admit that the Rakóczians were anything but rebels was always the insurmountable object in all such negotiations. But when, on the 7th of April 1711, Joseph died without issue, leaving the crown to his brother the Archduke Charles, then fighting the battles of the Allies in Spain, a peace-congress met at Szátmár on the 27th of April, and, two days later, an understanding was arrived at on the basis of a general amnesty, full religious liberty and the recognition of the inviolability of the ancient rights and privileges of the Magyars.

Francis Rakóczy.

Peace of Szátmár, 1711.

Thus the peace of Szátmár assured to the Hungarian nation all that it had won by former compacts with the Habsburgs; but whereas hitherto the Transylvanian principality had been the permanent guardian of all such compacts, and the authority of the reigning house had been counterpoised by the Turk, the effect and validity of the peace of Szátmár depended entirely upon the support it might derive from the nation itself. It was a fortunate thing for

Hungary that the conclusion of the War of the Spanish Succession introduced a new period, in which, at last, the interests of the dynasty and the nation were identical, thus rendering a reconciliation between them desirable. Moreover, the next century and a half was a period of domestic tranquillity, during which Hungary was able to repair the ruin of the long Turkish wars, nurse her material resources, and take the first steps in the direction of social and political reform. The first reforms, however, were dynastic rather than national. Thus, in 1715, King Charles III.[36] persuaded the diet to consent to the establishment of a standing army, which—though the diet reserved the right to fix the number of recruits and vote the necessary subsidies from time to time—was placed under the control of the Austrian council of war. The same centralizing tendency was shown in the administrative and judicial reforms taken in hand by the diet of 1722. A Hungarian court chancery was now established at Vienna, while the government of Hungary proper was committed to a royal stadholdership at Pressburg. Both the chancery and the stadholdership were independent of the diet and responsible to the king alone, being, in fact, his executive instruments. It was this diet also which accepted the Pragmatic Sanction, first issued in 1713, by which the emperor Charles VI., in default of his leaving male heirs, settled the succession to his hereditary dominions on his daughter Maria Theresa and her heirs. By the laws of 1723, which gave effect to the resolution of the diet in favour of accepting the principle of female succession, the Habsburg king entered into a fresh contract with his Hungarian subjects, a contract which remained the basis of the relations of the crown and nation until 1848. On the one hand it was declared that the kingdom of Hungary was an integral part of the Habsburg dominions and inseparable from these so long as a male or female heir of the kings Charles, Joseph and Leopold should be found to succeed to them. On the other hand, Charles swore, on behalf of himself and his heirs, to preserve the Hungarian constitution intact, with all the rights, privileges, customs, laws, &c., of the kingdom and its dependencies. Moreover, in the event of the failure of a Habsburg heir, the diet reserved the right to revive the “ancient, approved and accepted custom and prerogative of the estates and orders in the matter of the election and coronation of their king.”

Charles III.

Pragmatic Sanction, 1723.

The reign of Charles III. is also memorable for two Turkish wars, the first of which, beginning in 1716, and made glorious by the victories of Prince Eugene and János Pállfy, was terminated by the peace of Passarowitz (July 21, 1718), by which the Temesköz was also freed from the Turks, and Servia, Northern Bosnia and Little Walachia, all of them ancient conquests of Hungary, were once more incorporated with the territories of the crown of St Stephen. The second war, though undertaken in league with Russia, proved unlucky, and, at the peace of Belgrade (Sept. 1, 1739), all the conquests of the peace of Passarowitz, including Belgrade itself, were lost, except the banat of Temesvár.

With Maria Theresa (1740-1780) began the age of enlightened despotism. Deeply grateful to the Magyars for their sacrifices and services during the War of the Austrian Succession, she dedicated her whole authority to the good of the nation, but she was very unwilling to share that authority *with* the people. Only in the first stormy years of her reign did she summon the diet; after 1764 she dispensed with it altogether. She did not fill up the dignity of palatine, vacant since the 26th of October 1765, and governed Hungary through her son-in-law, Albert of Saxe-Teschen. She did not attack the Hungarian constitution; she simply put it on one side. Her reforms were made not by statute, but by royal decree. Yet the nation patiently endured the mild yoke of the great queen, because it felt and knew that its welfare was safe in her motherly hands. Her greatest achievement lay in the direction of educational reform. She employed the proceeds of the vast sums coming to her from the confiscation of the property of the suppressed Jesuit order in founding schools and colleges all over Hungary. The kingdom was divided into ten educational districts for the purpose, with a university at Buda. Towards all her Magyars, especially the Catholics, she was ever most gracious; but the magnates, the Bátthyanis, the Nadásdys, the Pállfys, the Andrássys, who had chased her enemies from Bohemia and routed them in Bavaria, enjoyed the lion’s share of her benefactions. In fact, most of them became professional courtiers, and lived habitually at Vienna. She also attracted the gentry to her capital by forming a Magyar body-guard from the cadets of noble families. But she was good to all, not even forgetting the serfs. The *úrbéri szabályzat* (feudal prescription) of 1767 restored to the peasants the right of transmigration and, in some respects, protected them against the exactions of their landlords.

Maria Theresa.

Joseph II. (1780-1790) was as true to the principles of enlightened despotism and family politics as his mother; but he had none of the common sense which had led her to realize the limits of her power. Joseph was an idealist and a doctrinaire, whose dream was to build up his ideal body politic; the first step toward which was to be the amalgamation of all his dominions into a common state under an absolute

Joseph II.

sovereign (see Austria-Hungary; and Joseph II., Emperor). Unfortunately, the Hungarian constitution stood in the way of this political paradise, so Joseph resolved that the Hungarian constitution must be sacrificed. Refusing to be crowned, or even to take the usual oaths of observance, he simply announced his accession to the Hungarian counties, and then deliberately proceeded to break down all the ancient Magyar institutions. In 1784 the Language Edict made German the official language of the common state. The same year he ordered a census and a land-survey to be taken, to enable him to tax every one irrespective of birth or wealth. Protests came in from every quarter and a dangerous rebellion broke out in Transylvania; but opposition only made Joseph more obstinate, and he endeavoured to anticipate any further resistance by abolishing the ancient county assemblies and dividing the kingdom into two districts administered by German officials.

In taking this course Joseph made the capital mistake of neglecting the Machiavellian maxim that in changing the substance of cherished institutions the prince should be careful to preserve the semblance. In substance the county assemblies were worse than ineffective: mere turbulent gatherings of country squires and peasants, corrupt and prejudiced, representing nothing but their own pride of race and class; and to try and govern without them, or to administer in spite of them, may have been the only expedient possible to statesmen. But to the Magyars they were the immemorial strongholds of their liberties, the last defences of their constitution; and the attempt to suppress them, which made every county a centre of disaffection and resistance, was the action not of a statesman, but of a visionary. The failure of Joseph's "enlightened" policy in Hungary was inevitable in any case; it was hastened by the disastrous Turkish war of 1787-92, which withdrew Joseph altogether from domestic affairs; and on his death-bed (Feb. 22, 1790) he felt it to be his duty to annul all his principal reforms, so as to lighten the difficulties of his successor.

Leopold II. found the country on the verge of revolution; but the wisdom of the new monarch saved the situation and won back the Magyars. At the diet of 1790-1791 laws were passed not only confirming the royal prerogatives and the national liberties, but leaving the way open for future developments. Hungary was declared to be a free, independent and unsubjected kingdom governed by its own laws and customs. The legislative functions were to be exercised by the king and the diet conjointly and by them alone. The diets were henceforth to be triennial, and every new king was to pledge himself to be crowned and issue his credentials[37] within six months of the death of his predecessor. Latin was still to be the official language, but Magyar was now introduced into the university and all the schools. Leopold's successor Francis I. (1792-1835) received a declaration of war from the French Legislative Assembly immediately on ascending the throne. For the next quarter of a century he, as the champion of legitimacy, was fighting the Revolution on countless battle-fields, and the fearful struggle only bound the Magyar nation closer to the Habsburg dynasty. Ignaz Jozsef Martinovics (1755-1795) and his associates, the Hungarian Jacobins, vainly attempted a revolutionary propaganda (1795), and Napoleon's mutilations of the ancient kingdom of St Stephen did not predispose the Hungarian gentry in his favour. Politically, indeed, the whole period was one of retrogression and stagnation. The frequent diets held in the earlier part of the reign occupied themselves with little else but war subsidies; after 1811 they ceased to be summoned. In the latter years of Francis I. the dark shadow of Metternich's policy of "stability" fell across the kingdom, and the forces of reactionary absolutism were everywhere supreme. But beneath the surface a strong popular current was beginning to run in a contrary direction. Hungarian society, not unaffected by western Liberalism, but without any direct help from abroad, was preparing for the future emancipation. Writers, savants, poets, artists, noble and plebeian, layman and cleric, without any previous concert, or obvious connexion, were working towards that ideal of political liberty which was to unite all the Magyars. Mihály Vörösmartyo, Ferencz Kölcsey, Ferencz Kazinczy and his associates, to mention but a few of many great names, were, consciously or unconsciously, as the representatives of the renascent national literature, accomplishing a political mission, and their pens proved no less efficacious than the swords of their ancestors.

Leopold II., 1790-1792.

Francis I., 1792-1835.

It was a direct attack upon the constitution which, to use the words of István Széchenyi, first "startled the nation out of its sickly drowsiness." In 1823, when the reactionary powers were meditating joint action to suppress the revolution in Spain, the government, without consulting the diet, imposed a war-tax and called out the recruits. The county assemblies instantly protested against this illegal act, and Francis I. was obliged, at the diet of 1823, to repudiate, the action of his ministers. But the estates felt that the maintenance of their liberties demanded more substantial guarantees than the dead letter of ancient laws. Széchenyi, who had resided abroad and studied Western institutions, was the recognized leader of all those who wished to create a new Hungary out of the old. For years he and his friends educated public opinion by

Hungarian revival.

issuing innumerable pamphlets in which the new Liberalism was eloquently expounded. In particular Széchenyi insisted that the people must not look exclusively to the government, or even to the diet, for the necessary reforms. Society itself must take the initiative by breaking down the barriers of class exclusiveness and reviving a healthy public spirit. The effect of this teaching was manifest at the diet of 1832, when the Liberals in the Lower Chamber had a large majority, prominent among whom were Francis Deák and Ödön Beöthy. In the Upper House, however, the magnates united with the government to form a conservative party obstinately opposed to any project of reform, which frustrated all the efforts of the Liberals.

The alarm of the government at the power and popularity of the Liberal party induced it, soon after the accession of the new king, the emperor Ferdinand I. (1835-1848), to attempt to crush the reform movement by arresting and imprisoning the most active agitators among them, Louis Kossuth and Miklós Wesselényi. But the nation was no longer to be cowed. The diet of 1839 refused to proceed to business till the political prisoners had been released, and, while in the Lower Chamber the reforming majority was larger than ever, a Liberal party was now also formed in the Upper House under the brilliant leadership of Count Louis Batthyány and Baron Joseph Eötvös. Two progressive measures of the highest importance were passed by this diet, one making Magyar the official language of Hungary, the other freeing the peasants' holdings from all feudal obligations.

The results of the diet of 1839 did not satisfy the advanced Liberals, while the opposition of the government and of the Upper House still further embittered the general discontent. The chief exponent of this temper was the Pesti Hirlap, Hungary's first political newspaper, founded in 1841 by Kossuth, whose articles, advocating armed reprisals if necessary, inflamed the extremists but alienated Széchenyi, who openly attacked Kossuth's opinions. The polemic on both sides was violent; but, as usual, the extreme views prevailed, and on the assembling of the diet of 1843 Kossuth was more popular than ever, while the influence of Széchenyi had sensibly declined. The tone of this diet was passionate, and the government was fiercely attacked for interfering with the elections. Fresh triumphs were won by the Liberals. Magyar was now declared to be the language of the schools and the law-courts as well as of the legislature; mixed marriages were legalized; and official positions were thrown open to non-nobles.

Kossuth.

The interval between the diet of 1843 and that of 1847 saw a complete disintegration and transformation of the various political parties. Széchenyi openly joined the government, while the moderate Liberals separated from the extremists and formed a new party, the Centralists. Immediately before the elections, however, Deák succeeded in reuniting all the Liberals on the common platform of "The Ten Points": (1) Responsible ministries, (2) Popular representation, (3) The incorporation of Transylvania, (4) Right of public meeting, (6) Absolute religious liberty, (7) Universal equality before the law, (8) Universal taxation, (9) The abolition of the *Aviticum*, an obsolete and anomalous land-tenure, (10) The abolition of serfdom, with compensation to the landlords. The ensuing elections resulted in a complete victory of the Progressives. All efforts to bring about an understanding between the government and the opposition were fruitless. Kossuth demanded not merely the redress of actual grievances, but a reform which would make grievances impossible in the future. In the highest circles a dissolution of the diet now seemed to be the sole remedy; but, before it could be carried out, tidings of the February revolution in Paris reached Pressburg[38] (March 1), and on the 3rd of March Kossuth's motion for the appointment of an independent, responsible ministry was accepted by the Lower House. The moderates, alarmed not so much by the motion itself as by its tone, again tried to intervene; but on the 13th of March the Vienna revolution broke out, and the king, yielding to pressure or panic, appointed Count Louis Batthyány premier of the first Hungarian responsible ministry, which included Kossuth, Széchenyi and Deák. The Ten Points, or the March Laws as they were now called, were then adopted by the legislature and received the royal assent (April 10). Hungary had, to all intents and purposes, become an independent state bound to Austria only by the fact that the palatine chanced to be an Austrian archduke.

Revolution of 1848. The March Laws.

In the assertion of their national aspirations, confused as these were with the new democratic ideals, the Magyars had had the support of the German democrats who temporarily held the reins of power in Vienna. On the other hand, they were threatened by an ominous stirring of the subject races in Hungary itself. Croats, Vlachs, Serbs and Slovaks resented Magyar domination—a domination which had been carefully secured under the revolutionary constitution by a very narrow franchise, and out of the general chaos each race hoped to create for itself a separate national existence. The separatist movement was strongest in the south, where the Rumans were in touch with their kinsmen in Walachia and

The non-Magyar races.

Moldavia, the Serbs with their brethren in Servia, and the Croats intent on reasserting the independence of the "Tri-une Kingdom."

Jellachich.

The attitude of the distracted imperial government towards these movements was at first openly suspicious and hostile. The emperor and his ministers hoped that, having conceded the demands of the Magyars, they would receive the help of the Hungarian government in crushing the revolution elsewhere, a hope that seemed to be justified by the readiness with which Batthyány consented to send a contingent to the assistance of the imperialists in Italy. That the encouragement of the Slav aspirations was soon deliberately adopted as a weapon against the Hungarian government was due, partly to the speedy predominance at Pest of Kossuth and the extreme party of which he was the mouthpiece, but mainly to the calculated policy of Baron Jellachich, who on the 14th of April was appointed ban of Croatia. Jellachich, who as a soldier was devoted to the interests of the imperial house, realized that the best way to break the revolutionary power of the Magyars and Germans would be to encourage the Slav national ideas, which were equally hostile to both; to set up against the Dualism in favour at Pest and Vienna the federal system advocated by the Slavs, and so to restore the traditional Habsburg principle of *Divide et impera*. This policy he pursued with masterly skill. His first acts on taking up his office were to repudiate the authority of the Hungarian diet, to replace the Magyar officials with ardent "Illyrians," and to proclaim martial law. Under pressure from the palatine of Batthyány an imperial edict was issued, on the 7th day of May, ordering the ban to desist from his separatist plans and take his orders from Pest. He not only refused to obey, but on the 5th of June convoked to Agram the Croatian national diet, of which the first act was to declare the independence of the Tri-une Kingdom. Once more, at the instance of Batthyány, the emperor intervened; and on the 10th an imperial edict stripped Jellachich of all his offices.

Meanwhile, however, Jellachich had himself started for Innsbruck, where he succeeded in persuading the emperor of the loyalty of his intentions, and whence, though not as yet formally reinstated, he was allowed to return to Croatia with practically unfettered discretion. The Hungarian government, in fact, had played into his hands. At a time when everything depended on the army, they had destroyed the main tie which bound the Austrian court to their interests by tampering with the relation of the Hungarian army to the crown. In May a national guard had been created, the disaffected troops being bribed by increased pay to desert their colours and join this; and on the 1st of June the garrison of Pest had taken an oath to the constitution. All hope of crushing revolutionary Vienna with Magyar aid was thus at an end, and Jellachich, who on the 20th issued a proclamation to the Croat regiments in Italy to remain with their colours and fight for the common fatherland, was free to carry out his policy of identifying the cause of the southern Slavs with that of the imperial army. The alliance was cemented in July by a military demonstration, of which Jellachich was the hero, at Vienna; as the result of which the government mustered up courage to declare publicly that the basis of the Austrian state was "the recognition of the equal rights of all nationalities." This was the challenge which the Magyars were not slow to accept.

Jellachich invades Hungary.

In the Hungarian diet, which met on the 2nd of July, the influence of the conservative cabinet was wholly overshadowed by that of Kossuth, whose inflammatory orations—directed against the disruptive designs of the Slavs and the treachery of the Austrian government—precipitated the crisis. At his instance the diet not only refused to vote supplies for the troops of the ban of Croatia, but only consented to pass a motion for sending reinforcements to the army in Italy on condition that the anti-Magyar races in Hungary should be first disarmed. On the 11th, on his motion, a decree was passed by acclamation for a levy of 200,000 men and the raising of £4,500,000 for the defence of the independence of the country. Desultory fighting, in which Austrian officers with the tacit consent of the minister of war took part against the Magyars, had already broken out in the south. It was not, however, until the victory of Custozza (July 25) set free the army in Italy, that the Austrian government ventured on bolder measures. On the 4th of September, after weeks of fruitless negotiation, the king-emperor threw down the gauntlet by reinstating Jellachich in all his honours. Seven days later the ban declared open war on Hungary by crossing the Drave at the head of 36,000 Croatian troops (see Austria-Hungary: *History*). The immediate result was to place the extreme revolutionaries in power at Pest. Széchenyi had lost his reason some days before; Eötvös and Deák retired into private life; of the conservative ministers only Batthyány, to his undoing, consented to remain in office, though hardly in power. Kossuth alone was supreme.

The advance of Jellachich as far as Lake Balaton had not been checked, the Magyar troops, though—contrary to his expectation—none joined him, offering no opposition. The palatine, the Austrian Archduke Stephen, after fruitless attempts at negotiation, laid down his office on the 24th of September and left for Vienna. One more attempt at compromise was made,

General Count Lamberg[39] being sent to take command of all the troops, Slav or Magyar, in Hungary, with a view to arranging an armistice. His mission, which was a slight to Jellachich, was conceived as a concession to the Magyars, and had the general approval of Batthyány. Unhappily, however, when Lamberg arrived in Pest, Batthyány had not yet returned; the diet, on Kossuth's motion, called on the army not to obey the new commander-in-chief, on the ground that his commission had not been countersigned by a minister at Pest. Next day, as he was crossing the bridge of Buda, Lamberg was dragged from his carriage by a frantic mob and torn to pieces. This made war inevitable; though Batthyány hurried to Vienna to try and arrange a settlement. Failing in this, he retired, and on the 2nd of October a royal proclamation, countersigned by his successor, Recsséy, placed Hungary under martial law and appointed Jellachich viceroy and commander of all the forces. This proclamation, together with the order given to certain Viennese regiments to march to the assistance of Jellachich, who had been defeated at Pákozd on the 29th of September, led to the *émeute* (Oct. 3) which ended in the murder of the minister of war, Latour, and the second flight of the emperor to Innsbruck. The fortunes of the German revolutionaries in Vienna and the Magyar revolutionists in Pest were now closely bound up together; and when, on the 11th, Prince Windischgrätz laid siege to Vienna, it was to Hungary that the democrats of the capital looked for relief. The despatch of a large force of militia to the assistance of the Viennese was, in fact, the first act of open rebellion of the Hungarians. They suffered a defeat at Schwechat on the 30th of October, which sealed the fate of the revolutionists in Vienna and thus precipitated a conflict *à outrance* in Hungary itself.

Fall of Vienna.

In Austria the army was now supreme, and the appointment of Prince Felix Schwarzenberg as head of the government was a guarantee that its power would be used in a reactionary sense without weakness or scruple. The Austrian diet was transferred on the 15th of November to Kremsier, remote from revolutionary influences; and, though the government still thought it prudent to proclaim its constitutional principles, it also proclaimed its intention to preserve the unity of the monarchy. A still further step was taken when, on the 2nd of December, the emperor Ferdinand abdicated in favour of his nephew Francis Joseph. The new sovereign was a lad of eighteen, who for the present was likely to be the mere mouthpiece of Schwarzenberg's policy. Moreover, he was not bound by the constitutional obligations unwillingly accepted by his uncle. The Magyars at once took up the challenge. On the 7th the Hungarian diet formally refused to acknowledge the title of the new king, "as without the knowledge and consent of the diet no one could sit on the Hungarian throne," and called the nation to arms. Constitutionally, in the Magyar opinion, Ferdinand was still king of Hungary, and this gave to the revolt an excuse of legality. Actually, from this time until the collapse of the rising, Louis Kossuth was the ruler of Hungary.

Francis Joseph.

The struggle opened with a series of Austrian successes. Prince Windischgrätz, who had received orders to reduce Hungary by fire and sword, began his advance on the 15th of December; opened up the way to the capital by the victory of Mór (Oct. 30), and on the 5th of January 1849 occupied Pest, while the Hungarian government and diet retired behind the Theiss and established themselves at Debreczen. A last attempt at reconciliation, made by the more moderate members of the diet in Windischgrätz's camp at Bieské (Jan. 3), had foundered on the uncompromising attitude of the Austrian commander, who demanded unconditional submission; whereupon the moderates, including Deák and Batthyány, retired into private life, leaving Kossuth to carry on the struggle with the support of the enthusiastic extremists who constituted the rump of the diet at Debreczen. The question now was: how far the military would subordinate itself to the civil element of the national government. The first symptom of dissonance was a proclamation by the commander of the Upper Danube division, Arthur Görgei, from his camp at Vácz (Jan. 5) emphasizing the fact that the national defence was purely constitutional, and menacing all who might be led astray from this standpoint by republican aspirations. Immediately after this proclamation Görgei disappeared with his army among the hills of Upper Hungary, and, despite the difficulties of a phenomenally severe winter and the constant pursuit of vastly superior forces, fought his way down to the valley of Hernád—and safety. This masterly winter-campaign first revealed Görgei's military genius, and the discipline of that terrible month of marching and counter-marching had hardened his recruits into veterans whom his country regarded with pride and his country's enemies with respect. Unfortunately his success caused some jealousy in official quarters, and when, in the middle of February 1849, a commander-in-chief was appointed to carry out Kossuth's plan of campaign, that vital appointment was given, not to the man who had made the army what it was, but to a foreigner, a Polish refugee, Count Henrik Dembinski, who, after fighting the bloody and indecisive battle of Kápolna (Feb. 26-27), was forced

War of Independence.

Battle of

Kápolna.

to retreat. Görgei was immediately appointed his successor, and the new generalissimo led the Honvéds from victory to victory. Ably supported by Klapka and Damjanich he pressed forward irresistibly. Szólnok (March 5), Isaszeg (April 6), Vácz (April 10), and Nagysarló (April 19) were so many milestones in his triumphal progress. On the 25th of May the Hungarian capital was once more in the hands of the Hungarians.

Meanwhile, the earlier events of the war had so altered the political situation that any idea which the diet at Debreczen had cherished of a compromise with Austria was destroyed. The capture of Pest had confirmed the Austrian court in its policy of unification, which after the victory of Kápolna they thought it safe to proclaim. On the 7th of March the diet of Kremsier was dissolved, and immediately afterwards a proclamation was issued in the name of the emperor Francis Joseph establishing a united constitution for the whole empire, of which Hungary, cut up into half a dozen administrative districts, was henceforth to be little more than the largest of several subject provinces. The news of this manifesto, arriving as it did simultaneously with that of Görgei's successes, destroyed the last vestiges of a desire of the Hungarian revolutionists to compromise, and on the 14th of April, on the motion of Kossuth, the diet proclaimed the independence of Hungary, declared the house of Habsburg as false and perjured, for ever excluded from the throne, and elected Kossuth president of the Hungarian Republic. This was an execrable blunder in the circumstances, and the results were fatal to the national cause. Neither the government nor the army could accommodate itself to the new situation. From henceforth the military and civil authorities, as represented by Kossuth and Görgei, were hopelessly out of sympathy with each other, and the breach widened till all effective co-operation became impossible.

Proclamation of a united empire.

Meanwhile the humiliating defeats of the imperial army and the course of events in Hungary had compelled the court of Vienna to accept the assistance which the emperor Nicholas I. of Russia had proffered in the loftiest spirit of the Holy Alliance. The Austro-Russian alliance was announced at the beginning of May, and before the end of the month the common plan of campaign had been arranged. The Austrian commander-in-chief, Count Haynau, was to attack Hungary from the west, the Russian, Prince Paskevich, from the north, gradually environing the kingdom, and then advancing to end the business by one decisive blow in the mid-Theissian counties. They had at their disposal 375,000 men, to which the Magyars could only oppose 160,000. The Magyars, too, were now more than ever divided among themselves, no plan of campaign had yet been drawn up, no commander-in-chief appointed to replace Görgei, whom Kossuth had deposed. Haynau's first victories (June 20-28) put an end to their indecisions. On the 2nd of July the Hungarian government abandoned Pest and transferred its capital first to Szeged and finally to Arad. The Russians were by this time well on their way to the Theiss, and the terrible girdle which was to throttle the liberties of Hungary was all but completed. Kossuth again appointed as commander-in-chief the brave but inefficient Dembinski, who was utterly routed at Temesvár (Aug. 9) by Haynau. This was the last great battle of the War of Independence. The final catastrophe was now unavoidable. On the 13th of August Görgei, who had been appointed dictator by the panic-stricken government two days before, surrendered the remnant of his hardly pressed army to the Russian General Rüdiger at Világos. The other army corps and all the fortresses followed his example, Komárom, heroically defended by Klapka, being the last to capitulate (Sept. 27). Kossuth and his associates, who had quitted Arad on the 10th of August, took refuge in Turkish territory. By the end of the month Paskevich could write to the Emperor Nicholas: "Hungary lies at the feet of your Imperial Majesty."

Intervention of Russia.

From October 1849 to July 1850 Hungary was governed by martial law administered by "the butcher" Haynau. This was a period of military tribunals, dragooning, wholesale confiscation and all manner of brutalities.[40] From 1851 to 1860 pure terrorism was succeeded by the "Bach System," which derives its name from the imperial minister of the interior, Baron Alexander von Bach. The Bach System did not recognize historical Hungary. It postulated the existence of one common indivisible state of which mutilated Hungary[41] formed an important section. The supreme government was entrusted to an imperial council responsible to the emperor alone. The counties were administered by imperial officials, Germans, Czechs and Galicians, who did not understand the Magyar tongue. German was the official language. But though reaction was the motive power of this new machinery of government, it could not do away with many of the practical and obvious improvements of 1848, and it was not blind to some of the indispensable requirements of a modern state. The material welfare of the nation was certainly promoted by it. Modern roads were made, the first railways were laid down, the regulation of the river Theiss was taken in hand, a new and better scheme of finance was inaugurated. But the whole system, so to speak, hung in the air. It took no root in the soil. The Magyar nation stood aloof

The "Bach System."

from it. It was plain that at the first revolutionary blast from without, or the first insurrectionary outburst from within, the “Bach System” would vanish like a mirage.

Meanwhile the new Austrian empire had failed to stand the test of international complications. The Crimean War had isolated it in Europe. The Italian war of 1859 had revealed its essential instability. It was felt at court that some concessions were now due to the subject nationalities. Hence the October Diploma (Oct. 20, 1860) which proposed to prop up the crazy common state with the shadow of a constitution and to grant some measure of local autonomy to Hungary, subject always to the supervision of the imperial council (Reichsrath).[42] This project was favoured by the Magyar conservative magnates who had never broken with the court, but was steadily opposed by the Liberal leader Ferencz Deák whose upright and tenacious character made him at this crisis the oracle and the buttress of the national cause. Deák’s standpoint was as simple as it was unchangeable. He demanded the re-establishment of the constitution of 1848 in its entirety, the whole constitution and nothing but the constitution.

The October Diploma, 1860.

The October Diploma was followed by the February Patent (Feb. 26, 1861), which proposed to convert the Reichsrath into a constitutional representative assembly, with two chambers, to which all the provinces of the empire were to send deputies. The project, elaborated by Anton von Schmerling, was submitted to a Hungarian diet which assembled at Pest on the 2nd of April 1861. After long and violent debates, the diet, on the 8th of August, unanimously adopted an address to the crown, drawn up by Deák, praying for the restoration of the political and territorial integrity of Hungary, for the public coronation of the king with all its accompaniments, and the full restitution of the fundamental laws. The executive retorted by dissolving the diet on the 21st of August and levying the taxes by military execution. The so-called *Provisorium* had begun.

The February Patent, 1861.

But the politicians of Vienna had neither the power nor the time to realize their intentions. The question of Italian unity had no sooner been settled than the question of German unity arose, and fresh international difficulties once more inclined the Austrian government towards moderation and concession. In the beginning of June 1865, Francis Joseph came to Buda; on the 26th a provisional Hungarian government was formed, on the 20th of September the February constitution was suspended, and on the 14th of December a diet was summoned to Buda-Pest. The great majority of the nation naturally desired a composition with its ruler and with Austria, and this general desire was unerringly interpreted and directed by Deák, who carried two-thirds of the deputies along with him. The session was interrupted by the outbreak of the Austro-Prussian War, but not before a committee had been formed to draft the new constitution. The peace of Prague (Aug. 20, 1866), excluding Austria from Italy and Germany, made the fate of the Habsburg monarchy absolutely dependent upon a compromise with the Magyars. (For the Compromise or *Ausgleich*, see Austria-Hungary: *History*.) On the 7th of November 1866, the diet reassembled. On the 17th of February 1867 a responsible independent ministry was formed under Count Gyula Andrássy. On the 29th of May the new constitution was adopted by 209 votes to 89. Practically it was an amplification of the March Laws of 1848. The coronation took place on the 8th of June, on which occasion the king solemnly declared that he wished “a veil to be drawn over the past.” The usual coronation gifts he devoted to the benefit of the Honvéd invalids who had fought in the War of Independence. The reconciliation between monarch and people was assured.

The Austro-Prussian War of 1866.

The Compromise of 1867.

Hungary was now a free and independent modern state; but the very completeness and suddenness of her constitutional victory made it impossible for the strongly flowing current of political life to keep within due bounds. The circumstance that the formation of political parties had not come about naturally, was an additional difficulty. Broadly speaking, there have been in Hungary since 1867 two parties: those who accept the compromise with Austria, and affirm that under it Hungary, so far from having surrendered any of her rights, has acquired an influence which she previously did not actually possess, and secondly, those who see in the compromise an abandonment of the essentials of independence and aim at the restoration of the conditions established in 1848. Within this broad division, however, have appeared from time to time political groups in bewildering variety, each adopting a party designation according to the exigencies of the moment, but each basing its programme on one or other of the theoretical foundations above mentioned. Thus, at the outset, the most heterogeneous elements were to be found both on the Left and Right. The Extreme Left was infected by the fanaticism of Kossuth, who condemned the compromise and refused to take the benefit of the

Parties in Independent Hungary.

amnesty, while the prelates and magnates who had originally opposed the compromise were now to be found by the side of Deák and Andrássy. The Deák party preserved its majority at the elections of 1869, but the Left Centre and Extreme Left returned to the diet considerably reinforced. The outbreak of the Franco-German War of 1870 turned the attention of the Magyars to foreign affairs. Andrássy never rendered a greater service to his country than when he prevented the imperial chancellor and joint foreign minister, Count Beust,[43] from intervening in favour of France. On the retirement of Beust in 1871, Andrássy was appointed his successor, the first instance, since Hungary came beneath the dominion of the Habsburgs, of an Hungarian statesman being entrusted with the conduct of foreign affairs. But, however gratifying such an elevation might be, it was distinctly prejudicial, at first, to Hungary's domestic affairs, for no one else at this time, in Hungary, possessed either the prestige or the popularity of Andrássy. Within the next five years ministry followed ministry in rapid succession. A hopeless political confusion ensued. Few measures could be passed. The finances fell into disorder. The national credit was so seriously impaired abroad that foreign loans could only be obtained at ruinous rates of interest. During this period Deák had almost entirely withdrawn from public life. His last great speech was delivered on the 28th of June 1873, and he died on the 29th of January 1876. Fortunately, in Kálmán Tisza, the leader of the Liberal (*Szabadelmü*, *i.e.* "Free Principle") party, he left behind him a statesman of the first rank, who for the next eighteen years was to rule Hungary uninterruptedly. From the first, Tisza was exposed to the violent attacks of the opposition, which embraced, not only the party of Independence, champions of the principles of 1848, but the so-called National party, led by the brilliant orator Count Albert Apponyi, which aimed at much the same ends but looked upon the Compromise of 1867 as a convenient substructure on which to build up the Magyar state. Neither could forgive Tisza for repudiating his earlier Radical policy, the so-called Bihar Programme (March 6, 1868), which went far beyond the Compromise in the direction of independence, and both attacked him with a violence which his unyielding temper, and the ruthless methods by which he always knew how to secure victory, tended ever to fan into fury. Yet Tisza's aim also was to convert the old polyglot Hungarian kingdom into a homogeneous Magyar state, and the methods which he employed—notably the enforced magyarization of the subject races, which formed part of the reformed educational system introduced by him—certainly did not err on the side of moderation.[44] Whatever view may be held of Tisza's policy in this respect, or of the corrupt methods by which he maintained his party in power,[45] there can be no doubt that during his long tenure of office—which practically amounted to a dictatorship—he did much to promote the astonishing progress of his country, which ran a risk of being stifled in the strife of factions. Himself a Calvinist, he succeeded in putting an end to the old quarrel of Catholic and Protestant and uniting them in a common enthusiasm for a race ideal; nominally a Liberal, he trampled on every Liberal principle in order to secure the means for governing with a firm hand; and if the political corruption of modern Hungary is largely his work,[46] to him also belongs the credit for the measures which have placed the country on a sound economic basis and the statesmanlike temper which made Hungary a power in the affairs of Europe. In this latter respect Tisza rendered substantial aid to the joint minister for foreign affairs by repressing the anti-Russian ardour of the Magyars on the outbreak of the Russo-Turkish war of 1877-78, and by supporting Andrássy's execution of the mandate from the Berlin Congress to Austria-Hungary for the occupation of Bosnia, against which the Hungarian opposition agitated for reasons ostensibly financial. Tisza's policy on both these occasions increased his unpopularity in Hungary, but in the highest circles at Vienna he was now regarded as indispensable.

Andrássy.

Kálmán Tisza.

The following nine years mark the financial and commercial rehabilitation of Hungary, the establishment of a vast and original railway system which won the admiration of Europe, the liberation and expansion of her over-sea trade, the conversion of her national debt under the most favourable conditions and the consequent equilibrium of her finances. These benefits the nation owed for the most part to Gábor Baross, Hungary's greatest finance minister, who entered the cabinet in 1886 and greatly strengthened it. But the opposition, while unable to deny the recuperation of Hungary, shut their eyes to everything but Tisza's "tyranny," and their attacks were never so savage and unscrupulous as during the session of 1889, when threats of a revolution were uttered by the opposition leaders and the premier could only enter or leave the House under police protection. The tragic death of the crown prince Rudolph hushed for a time the strife of tongues, and in the meantime Tisza brought into the ministry Dezsö Szilágyi, the most powerful debater in the House, and Sándor Wekerle, whose solid talents had hitherto been hidden beneath the bushel of an under-secretaryship. But in 1890, during the debates on the Kossuth Repatriation Bill, the attacks on the premier were renewed, and on the 13th of March he placed his resignation in the king's hands.

Material progress.

The withdrawal of Tisza scarcely changed the situation, but the period of brief ministries now began. Tisza's successor, Count Gyula Szápáry, formerly minister of agriculture, held office for eighteen months, and was succeeded (Nov. 21, 1892) by Wekerle.

First Wekerle Ministry, 1892. The religious question.

Wekerle, essentially a business man, had taken office for the express purpose of equilibrating the finances, but the religious question aroused by the encroachments of the Catholic clergy, and notably their insistence on the baptism of the children of mixed marriages, had by this time (1893-1894) excluded all others, and the government were forced to postpone their financial programme to its consideration. The Obligatory Civil Marriage Bill, the State Registries Bill and the Religion of Children of Mixed Marriages Bill, were finally adopted on the 21st of June 1894, after fierce debates and a ministerial interregnum of ten days (June 10-20); but on the 25th of December, Wekerle, who no longer possessed the king's confidence,[47] resigned a second time, and was succeeded by Baron Dezsö (Desiderius) Bánffy.

Bánffy Ministry, 1894.

The various parties meanwhile had split up into some half a dozen sub-sections; but the expected fusion of the party of independence and the government fell through, and the barren struggle continued till the celebration of the millennium of the foundation of the monarchy produced for some months a lull in politics. Subsequently, Bánffy still further exasperated the opposition by exercising undue influence during the elections of 1896. The majority he obtained on this occasion enabled him, however, to carry through the Army Education Bill, which tended to magyarize the Hungarian portion of the joint army; and another period of comparative calm ensued, during which Bánffy attempted to adjust various outstanding financial and economical differences with Austria. But in November 1898, on the occasion of the renewal of the commercial convention with Austria, the attack on the ministry was renewed with unprecedented virulence, obstruction being systematically practised with the object of goading the government into committing illegalities, till Bánffy, finding the situation impossible, resigned on the 17th of February 1899. His successor, Kálmán

Széll Ministry, 1899.

Széll, obtained an immense but artificial majority by a fresh fusion of parties, and the minority pledged itself to grant an indemnity for the extra-parliamentary financial decrees rendered necessary by Hungary's understanding with Austria, as well as to cease from obstruction. As a result of this compromise the budget of 1899 was passed in little more than a month, and the commercial and tariff treaty with Austria were renewed till 1903.[48] But the government had to pay for this complacency with a so-called "pactum," which bound its hands in several directions, much to the profit of the opposition during the "pure" elections of 1901. On the reassembling of the diet, Count Albert Apponyi was elected speaker, and the

The army language question.

minority seemed disposed to let the government try to govern. But the proposed raising of the contingent of recruits by 15,000 men (Oct. 1902) once more brought up the question of the common army, the parliament refusing to pass the bill, except in return for the introduction of the Hungarian national flag into the Hungarian regiments and the substitution of Magyar for German in the words of command. The king refusing to yield an inch of his rights under clause ii. of Law XII. of the Compromise of 1867, the opposition once more took to obstruction, and on the 1st of May 1903 Széll was forced to resign.

Every one now looked to the crown to extract the nation from an *ex-lex*, or extra-constitutional situation, but when the king, passing over the ordinary party-leaders, appointed as premier Count Károly Khuen-Hedérváry, who had made himself impossible

First Khuen-Hedérváry Ministry, 1903.

as ban of Croatia, there was general amazement and indignation. The fact was that the king, weary of the tactics of a minority which for years had terrorized every majority and prevented the government from exercising its proper constitutional functions, had resolved to show the Magyars that he was prepared to rule unconstitutionally rather than imperil the stability of the Dual Monarchy by allowing any tampering with the joint army. In an ordinance on the army word of command, promulgated on the 16th of September, he reaffirmed the inalienable character of the powers of the crown over the joint army and the necessity for maintaining German as the common military language. This was followed by the fall of Khuen-Hedérváry (September 29), and a quarrel *à outrance* between crown and parliament seemed unavoidable. The Liberal party, however, realized the abyss towards which they were hurrying the country, and united their efforts to come to a constitutional understanding with the king. The problem was to keep the army an Hungarian army without infringing on the prerogative of the king as commander-in-chief, for, unconstitutional as the new ordinance might be, it could not constitutionally be set aside without the royal assent. The king met them half way by inviting the majority to appoint a committee to settle the army question provisionally, and a committee was formed, which included Széll, Apponyi, Count István Tisza and other experienced statesmen.

A programme approved of by all the members of the committee was drawn up, and on the 3rd of November 1903, Count István Tisza was appointed minister president to carry it out.

István Tisza Ministry, 1903.

Thus, out of respect for the wishes of the nation, the king had voluntarily thrown open to public discussion the hitherto strictly closed and jealously guarded domain of the army. Tisza, a statesman of singular probity and tenacity, seemed to be the one person capable of carrying out the programme of the king and the majority. The irreconcilable minority, recognizing this, exhausted all the resources of "technical obstruction" in order to reduce the government to impotence, a task made easy by the absurd standing-rules of the House which enabled any single member to block a measure. These tactics soon rendered legislation impossible, and a modification of the rule of procedure became absolutely necessary if any business at all was to be done. The Modification of the Standing-orders Bill was accordingly introduced by the deputy Gábor Daniel (Nov. 18, 1904); but the opposition, to which the National party had attached itself, denounced it as "a gagging order" inspired at Vienna, and shouted it down so vehemently that no debate could be held; whereupon the president declared the bill carried and adjourned the House till the 13th of December 1904. This was at once followed by an anti-ministerial fusion of the extremists of all parties, including seceders from the government (known as the Constitutional party); and when the diet reassembled, the opposition broke into the House by force and wrecked all the furniture, so that a session was physically impossible (Jan. 5, 1905). Tisza now appealed to the country, but was utterly defeated. The opposition thereupon proceeded to annul the Lex Daniel (April 7) and stubbornly to clamour for the adoption of the Magyar word of command in the Hungarian part of the common army. To this demand the king as stubbornly refused to accede;[49] and as the result of the consequent dead-lock, Tisza, who had courageously continued in office at the king's request, after every other leading politician had refused to form a ministry, was finally dismissed on the 17th of June.

Crisis of 1904-1906.

The "Coalition."

(R. N. B.; W. A. P.)

Long negotiations between the crown and the leaders of the Coalition having failed to give any promise of a *modus vivendi*, the king-emperor at last determined to appoint an extra-parliamentary ministry, and on the 21st of June Baron Fejérváry, an officer in the royal bodyguard, was nominated minister president with a cabinet consisting of little-known permanent officials. Instead of presenting the usual programme, the new premier read to the parliament a royal autograph letter stating the reasons which had actuated the king in taking this course, and giving as the task of the new ministry the continuance of negotiations with the Coalition on the basis of the exclusion of the language question. The parliament was at the same time prorogued. A period followed of arbitrary government on the one hand and of stubborn passive resistance on the other. Three times the parliament was again prorogued—from the 15th of September to the 10th of October, from this date to the 19th of December, and from this yet again to the 1st of March 1906—in spite of the protests of both Houses. To the repressive measures of the government—press censorship, curtailment of the right of public meeting, dismissal of recalcitrant officials, and dragooning of disaffected county assemblies and municipalities—the Magyar nation opposed a sturdy refusal to pay taxes, to supply recruits or to carry on the machinery of administration.

Fejérváry Government.

Had this attitude represented the temper of the whole Hungarian people, it would have been impossible for the crown to have coped with it. But the Coalition represented, in fact, not the mass of the people, but only a small dominant minority,[50] and for years past this minority had neglected the social and economic needs of the mass of the people in the eager pursuit of party advantage and the effort to impose, by coercion and corruption failing other means, the Magyar language and Magyar culture on the non-Magyar races. In this supreme crisis, then, it is not surprising that the masses listened with sullen indifference to the fiery eloquence of the Coalition leaders. Moreover, by refusing the royal terms, the Coalition had forced the crown into an alliance with the extreme democratic elements in the state. Universal suffrage had already been adopted in the Cis-leithan half of the monarchy; it was an obvious policy to propose it for Hungary also, and thus, by an appeal to the non-Magyar majority, to reduce the irreconcilable Magyar minority to reason. Universal suffrage, then, was the first and most important of the proposals put forward by Mr Joszef Kristóffy, the minister of the interior, in the programme issued by him on the 26th of November 1905. Other proposals were: the maintenance of the system of the joint army as established in 1867, but with the concession that all Hungarian recruits were to receive their education in Magyar; the maintenance till 1917 of the actual customs convention with Austria; a reform of the land laws, with a view to assisting the poorer proprietors; complete religious equality; universal and compulsory primary education.

Kristóffy's Universal Suffrage proposal.

The issue of a programme so liberal, and notably the inclusion in it of the idea of universal suffrage, entirely checkmated the opposition parties. Their official organs, indeed, continued to fulminate against the "unconstitutional" government, but the enthusiasm with which the programme had been received in the country showed the Coalition leaders the danger of their position, and henceforth, though they continued their denunciations of Austria, they entered into secret negotiations with the king-emperor, in order, by coming to terms with him, to ward off the fatal consequences of Kristóffy's proposals.

Coalition Ministry, 1906.

On the 19th of February 1906 the parliament was dissolved, without writs being issued for a new election, a fact accepted by the country with an equanimity highly disconcerting to patriots. Meanwhile the negotiations continued, so secretly that when, on the 9th of April, the appointment of a Coalition cabinet[51] under Dr Sandór Wekerle was announced, the world was taken completely by surprise. The agreement with the crown which had made this course possible included the postponement of the military questions that had evoked the crisis, and the acceptance of the principle of Universal Suffrage by the Coalition leaders, who announced that their main tasks would be to repair the mischief wrought by the "unconstitutional" Fejérváry cabinet, and then to introduce a measure of franchise reform so wide that it would be possible to ascertain the will of the whole people on the questions at issue between themselves and the crown.[52] In the general elections that followed the Liberal party was practically wiped out, its leader, Count István Tisza, retiring into private life.

Andrássy's Universal Suffrage Bill.

For two years and a half the Coalition ministry continued in office without showing any signs that they intended to carry out the most important item of their programme. The old abuses continued: the muzzling of the press in the interests of Magyar nationalism, the imprisonment of non-Magyar deputies for "incitement against Magyar nationality," the persecution of Socialists and of the subordinate races. That this condition of things could not be allowed to continue was, indeed, recognized by all parties; the fundamental difference of opinion was as to the method by which it was to be ended. The dominant Magyar parties were committed to the principle of franchise reform; but they were determined that this reform should be of such a nature as not to imperil their own hegemony. What this would mean was pointed out by Mr Kristóffy in an address delivered at Budapest on the 14th of March 1907. "If the work of social reform," he said, "is scamped by a measure calculated to falsify the essence of reform, the struggle will be continued in the Chamber until full electoral liberty is attained. Till then there can be no social peace in Hungary."[53] The postponement of the question was, indeed, already producing ugly symptoms of popular indignation. On the 10th of October 1907 there was a great and orderly demonstration at Budapest, organized by the socialists, in favour of reform. About 100,000 people assembled, and a deputation handed to Mr Justh, the president of the Chamber, a monster petition in favour of universal suffrage. The reception it met with was not calculated to encourage constitutional methods. The Socialist deputy, Mr Mezöffy, who wished to move an interpellation on the question, was howled down by the Independents with shouts of "Away with him! Down with him!"[54] Four days later, in answer to a question by the same deputy, Count Andrássy said that the Franchise Bill would be introduced shortly, but that it would be of such a nature that "the Magyar State idea would remain intact and suffer no diminution."[55] Yet more than a year was to pass before the promised bill was introduced, and meanwhile the feeling in the country had grown more intense, culminating in serious riots at Budapest on the 13th of March 1908.

At last (November 11, 1908) Count Andrássy introduced the long-promised bill. How far it was from satisfying the demands of the Hungarian peoples was at once apparent. It granted manhood suffrage, it is true, but hedged with so many qualifying conditions and complicated with so elaborate a system of plural voting as to make its effect nugatory. Every male Hungarian citizen, able to read and write, was to receive the vote at the beginning of his twenty-fifth year, subject to a residential qualification of twelve months. Illiterate citizens were to choose one elector for every ten of their number. All electors not having the qualifications for the plural franchise were to have one vote. Electors who, *e.g.*, had passed four standards of a secondary school, or paid 16s. 8d. in direct taxation, were to have two votes. Electors who had passed five standards, or who paid £4, 3s. 4d. in direct taxes, were to have three votes. Voting was to be public, as before, on the ground, according to the Preamble, that "the secret ballot protects electors in dependent positions only in so far as they break their promises under the veil of secrecy."

It was at once seen that this elaborate scheme was intended to preserve "the Magyar State idea intact." Its result, had it passed, would have been to strengthen the representation of the Magyar and German elements, to reduce that of the Slovaks, and almost to destroy that of the

Rumans and other non-Magyar races whose educational status was low.[56] On the other hand, according to the *Neue Freie Presse*, it would have increased the number of electors from some million odd to 2,600,000, and the number of *votes* to 4,000,000; incidentally it would have largely increased the working-class representation.

This proposal was at once recognized by public opinion—to use the language of the *Journal des Débats* (May 21, 1909)—as "an instrument of domination" rather than as an attempt to carry out the spirit of the compact under which the Coalition government had been summoned to power. It was not, indeed, simply a reactionary or undemocratic measure; it was, as *The Times* correspondent pointed out, "a measure *sui generis*, designed to defeat the objects of the universal suffrage movement that compelled the Coalition to take office in April 1906, and framed in accordance with Magyar needs as understood by one of the foremost Magyar noblemen." Under this bill culture was to be the gate to a share in political power, and in Hungary culture must necessarily be Magyar.

Plainly, this bill was not destined to settle the Hungarian problem, and other questions soon arose which showed that the crisis, so far from being near a settlement, was destined to become more acute than ever. In December 1908 it was clear that the Coalition Ministry was falling to pieces. Those ministers who belonged to the constitutional and popular parties, *i.e.* the Liberals and Clericals, desired to maintain the compact with the crown; their colleagues of the Independence party were eager to advance the cause they have at heart by pressing on the question of a separate Hungarian bank. So early as March 1908 Mr Hallo had laid a formal proposal before the House that the charter of the Austro-Hungarian bank, which was to expire on the 31st of December 1910, should not be renewed; that negotiations should be opened with the Austrian government with a view to a convention between the banks of Austria and Hungary; and that, in the event of these negotiations failing, an entirely separate Hungarian bank should be established. The Balkan crisis threw this question into the background during the winter; but, with the settlement of the international questions raised by the annexation of Bosnia and Herzegovina, it once more came to the front. The ministry was divided on the issue, Count Andrássy opposing and Mr Ferencz Kossuth supporting the proposal for a separate bank. Finally, the prime minister, Dr Wekerle, mainly owing to the pressure put upon him by Mr Justh, the president of the Chamber, yielded to the importunity of the Independence party, and, in the name of the Hungarian government, laid the proposals for a separate bank before the king-emperor and the Austrian government.

The crisis, 1909-1910.

Demand for separate Hungarian Bank.

The result was a foregone conclusion. The conference at Vienna revealed the irreconcilable difference within the ministry; but it revealed also something more—the determination of the emperor Francis Joseph, if pressed beyond the limits of his patience, to appeal again to the non-Magyar Hungarians against the Magyar chauvinists. He admitted that under the Compromise of 1867 Hungary might have a separate bank, while urging the expediency of such an arrangement from the point of view of the international position of the Dual Monarchy. But he pointed out also that the question of a separate bank did not actually figure in the act of 1867, and that it could not be introduced into it, *more especially since the capital article of the ministerial programme, i.e. electoral reform, was not realized, nor near being realized*. On the 27th of April, in consequence of this rebuff, Dr Wekerle tendered his resignation, but consented to hold office pending the completion of the difficult task of forming another government.

This task was destined to prove one of almost insuperable difficulty. Had the issues involved been purely Hungarian and constitutional, the natural course would have been for the king to have sent for Mr Kossuth, who commanded the strongest party in the parliament, and to have entrusted him with the formation of a government. But the issues involved affected the stability of the Dual Monarchy and its position in Europe; and neither the king-emperor nor his Austrian advisers, their position strengthened by the success of Baron Aehrenthal's diplomatic victory in the Balkans, were prepared to make any substantial concessions to the party of Independence. In these circumstances the king sent for Dr László Lukacs, once finance minister in the Fejérváry cabinet, whose task was, acting as a *homo regius* apart from parties, to construct a government out of any elements that might be persuaded to co-operate with him. But Lukacs had no choice but to apply in the first instance to Mr Kossuth and his friends, and these, suspecting an intention of crushing their party by entrapping them into unpopular engagements, rejected his overtures. Nothing now remained but for the king to request Dr Wekerle to remain "for the present" in office with his colleagues, thus postponing the settlement of the crisis (July 4).

This procrastinating policy played into the hands of the extremists; for supplies had not been voted, and the question of the credits for the expenditure incurred in connexion with the

annexation of Bosnia and Herzegovina, increasingly urgent, placed a powerful weapon in the hands of the Magyars, and made it certain that in the autumn the crisis would assume an even more acute form. By the middle of September affairs had again reached an *impasse*. On the 14th Dr Wekerle, at the ministerial conference assembled at Vienna for the purpose of discussing the estimates to be laid before the delegations, announced that the dissensions among his colleagues made the continuance of the Coalition government impossible. The burning points of controversy were the magyarization of the Hungarian regiments and the question of the separate state bank. On the first of these Wekerle, Andrássy and Apponyi were prepared to accept moderate concessions; as to the second, they were opposed to the question being raised at all. Kossuth and Justh, on the other hand, competitors for the leadership of the Independence party, declared themselves not prepared to accept anything short of the full rights of the Magyars in those matters. The matter was urgent; for parliament was to meet on the 28th, and it was important that a new cabinet, acceptable to it, should be appointed before that date, or that the Houses should be prorogued pending such appointment; otherwise the delegations would be postponed and no credits would be voted for the cost of the new Austro-Hungarian "Dreadnoughts" and of the annexation of Bosnia-Herzegovina. In the event, neither of these courses proved possible, and on the 28th Dr Wekerle once more announced his resignation to the parliament.

The prime minister was not, however, as yet to be relieved of an impossible responsibility. After a period of wavering Mr Kossuth had consented to shelve for the time the question of the separate bank, and on the strength of this Dr Wekerle advised the crown to entrust to him the formation of a government. The position thus created raised a twofold question: Would the crown accept? In that event, would he be able to carry his party with him in support of his modified programme? The answer to the first question, in effect, depended on that given by events to the second; and this was not long in declaring itself. The plan, concerted by Kossuth and Apponyi, with the approval of Baron Aehrenthal, was to carry on a modified coalition government with the aid of the Andrássy Liberals, the National party, the Clerical People's party[57] and the Independence party, on a basis of suffrage reform with plural franchise, the 923
prolongation of the charter of the joint bank, and certain concessions to Magyar demands in the matter of the army. It was soon clear, however, that in this Kossuth would not carry his party with him. A trial of strength took place between him and Mr de Justh, the champion of the extreme demands in the matter of Hungarian financial and economic autonomy; on the 7th of November rival banquets were held, one at Mako, Justh's constituency, over which he presided, one at Budapest with Kossuth in the chair; the attendance at each foreshadowed the outcome of the general meeting of the party held at Budapest on the 11th, when Kossuth found himself in a minority of 46. The Independence party was now split into two groups: the "Independence and 1848 party," and the "Independence, 1848 and Kossuth party."

On the 12th Mr de Justh resigned the presidency of the Lower House and sought re-election, so as to test the relative strength of parties. He was defeated by a combination of the Kossuthists, Andrássy Liberals and Clerical People's party, the 30 Croatian deputies, whose vote might have turned the election, abstaining on Dr Wekerle promising them to deliver Croatia from the oppressive rule of the ban, Baron Rauch. A majority was thus secured for the Kossuthist programme of compromise, but a majority so obviously precarious that the king-emperor, influenced also—it was rumoured—by the views of the heir-apparent, in an interview with Count Andrássy and Mr Kossuth on the 15th, refused to make any concessions to the Magyar national demands. Hereupon Kossuth publicly declared (Nov. 22) to a deputation of his constituents from Czegled that he himself was in favour of an independent bank, but that the king opposed it, and that in the event of no concessions being made he would join the opposition.

How desperate the situation had now become was shown by the fact that on the 27th the king sent for Count Tisza, on the recommendation of the very Coalition ministry which had been formed to overthrow him. This also proved abortive, and affairs rapidly tended to revert to the *ex-lex* situation. On the 23rd of December Dr Lukacs was again sent for. On the previous day the Hungarian parliament had adopted a proposal in favour of an address to the crown asking for a separate state bank. Against this Dr Wekerle had protested, as opposed to general Hungarian opinion and ruinous to the national credit, pointing out that whenever it was a question of raising a loan, the maintenance of the financial community between Hungary and Austria was always postulated as a preliminary condition. Point was given to this argument by the fact that the premier had just concluded the preliminaries for the negotiation of a loan of £20,000,000 in France, and that the money—which could not be raised in the Austrian market, already glutted with Hungarian securities—was urgently needed to pay for the Hungarian share in the expenses of the annexation policy, for public works (notably the new railway scheme), and for the redemption in 1910 of treasury bonds. It was hoped that, in the circumstances, Dr Lukacs, a financier of experience, might be able to come to terms with

Mr de Justh, on the basis of dropping the bank question for the time, or, failing that, to patch together out of the rival parties some sort of a working majority.

On the 28th the Hungarian parliament adjourned *sine die*, pending the settlement of the crisis, without having voted the estimates for 1910, and without there being any prospect of a meeting of the delegations. On the two following days Dr Lukacs and Mr de Justh had audiences of the king, but without result; and on the 31st Hungary once more entered on a period of extra-constitutional government.

Khuen Hedérváry Government.

After much negotiation a new cabinet was finally constituted on the 17th of January 1910. At its head was Count Khuen Hedérváry, who in addition to the premiership, was minister of the interior, minister for Croatia, and minister in waiting on the crown. Other ministers were Mr Károly de Hieronymi (commerce), Dr Lukacs (finance), Ferencz de Szekely (justice, education, public worship), Béla Serenyi (agriculture) and General Hazay (national defence). The two main items in the published programme of the new government were the introduction of universal suffrage and—even more revolutionary from the Magyar point of view—the substitution of state-appointed for elected officials in the counties. The real programme was to secure, by hook or by crook, a majority at the polls. Meanwhile, the immediate necessities of the government were provided for by the issue through Messrs Rothschild of £2,000,000 fresh treasury bills. These were to be redeemed in December 1910, together with the £9,000,000 worth issued in 1909, out of the £20,000,000 loan agreed on in principle with the French government; but in view of the opposition in Paris to the idea of advancing money to a member of the Triple Alliance, it was doubtful whether the loan would ever be floated.

The overwhelming victory of the government in June at the polls produced a lull in a crisis which at the beginning of the year had threatened the stability of the Dual Monarchy and the peace of Europe; but, in view of the methods by which the victory had been won, not the most sanguine could assert that the crisis was overpassed. Its deep underlying causes can only be understood in the light of the whole of Hungarian history. It is easy to denounce the dominant Magyar classes as a selfish oligarchy, and to criticize the methods by which they have sought to maintain their power. But a nation that for a thousand years had maintained its individuality in the midst of hostile and rival races could not be expected to allow itself without a struggle to be sacrificed to the force of mere numbers, and the less so if it were justified in its claim that it stood for a higher ideal of culture and civilization. The Magyars had certainly done much to justify their claim to a special measure of enlightenment. In their efforts to establish Hungarian independence on the firm basis of national efficiency they had succeeded in changing their country from one of very backward economic conditions into one which promised to be in a position to hold its own on equal terms with any in the world.

(W. A. P.)

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(*b*) **Works:** The modern literature of Hungary is very rich in historical monographs, of which a long list will be found in the Subject Index of the London Library. Here it is only possible to

give some of the more important general histories, together with such special works as are most readily accessible to English readers. Of the earlier Hungarian historians two are still of some value: Katona, *Hist. critica regum Hungariae* (42 vols., Pest, 1779-1810), and Pray, *Annales regum Hungariae* (5 vols., Vienna, 1764-1770). Of modern histories written in Magyar the most imposing is the *History of the Hungarian Nation* (10 vols., Budapest, 1898), issued to commemorate the celebration of the millennium of the foundation of the monarchy, by Sándor Szilágyì and numerous collaborators. Of importance, too, is Ignacz Acsády's *History of the Magyar Empire* (2 vols., Budapest, 1904), though its author is too often ultra-chauvinistic in tone.

To those who do not read Magyar the following books on the general history of Hungary may be recommended: Armín Vambéry, *Hungary in Ancient and Modern Times* (London, 1897); R. Chélard, *La Hongrie millénaire* (Paris, 1896); Mór Gelléri, *Aus der Vergangenheit und Gegenwart des tausendjährigen Ungarn* (Budapest, 1896); József Jekelfalussy, *The Millennium of Hungary* (Budapest, 1897); E. Sayous, *Histoire générale des Hongrois* (2 vols., Budapest, 1st ed., 1876, 2nd ed., *ib.* 1900); János Majláth, *Geschichte der Magyaren* (5 vols., 3rd ed., Regensburg, 1852-1853)—somewhat out of date (it first appeared in 1828), but useful for those who like a little more detail; Count Julius Andrássy, *The Development of Hungarian Constitutional Liberty*, translated by C. Arthur and Ilona Ginever (London, 1908), containing an interesting comparison with English constitutional development; C. M. Knatchbull-Hugessen, *The Political Evolution of the Hungarian Nation* (2 vols., London, 1908), strongly Magyar in sympathy; R. W. Seton-Watson (Scotus Viator), *Racial Problems in Hungary* (London, 1908), a strong criticism of the Magyar attitude towards the Slav subject races, especially the Slovaks, with documents and a full bibliography.

(*c*) **Constitutional:** Anton von Virozsil, *Das Staatsrecht des Königreichs Ungarn* (3 vols., Pest, 1865); S. Radó-Rothfeld, *Die ungarische Verfassung* (Berlin, 1898) and, based on this, A. de Bertha, *La Constitution Hongroise* (Paris, 1898), both supporting the policy of Magyarization; Ákos von Timon, *Ungarische Verfassungs- und Rechisgeschichte* (Berlin, 1904); Knatchbull-Hugessen, *op. cit.*

(*d*) **Biographical:** In Magyar, the great serial entitled *Hungarian Historical Biographies* (Budapest, 1884, &c.), edited by Sándor Szilágyi, is a collection of lives of famous Hungarian men and women from the earliest times by many scholars of note, finely illustrated.

For works on special periods see the separate articles on the sovereigns and other notabilities of Hungary. For works on the Compromise of 1867 and the relations of Austria and Hungary generally, see the bibliography to the article Austria-Hungary.

III. Language

The Magyar or Hungarian language belongs to the northern or Finno-Ugric (*q.v.*) division of the Ural-Altaic family, and forms, along with Ostiak and Vogul, the Ugric branch of that division. The affinity existing between the Magyar and the Finnic languages, first noticed by John Amos Comenius (Komensky) in the middle of the 17th century,[58] and later by Olav Rudbeck,[59] Leibnitz,[60] Strahlenberg,[61] Eccard, Sajnovics,[62] and others, was proved "grammatically" by Samuel Gyarmathi in his work entitled *Affinitas linguae Hungaricae cum linguis Finnicae originis grammatice demonstrata* (Göttingen, 1799). The Uralian travels of Anthony Reguly (1843-1845), and the philological labours of Paul Hunfalvy and Joseph Budenz, may be said to have established it, and no doubt has been thrown on it by recent research, though most authorities regard the Magyars as of mixed origin physically and combining Turkish with Finno-Ugric elements.

Although for nearly a thousand years established in Europe and subjected to Aryan influences, the Magyar has yet retained its essential Ural-Altaic or Turanian features. The grammatical forms are expressed, as in Turkish, by means of affixes modulated according to the high or low vowel power of the root or chief syllables of the word to which they are appended—the former being represented by *e*, *ö*, *ő*, *ü*, *ű*, the latter by *a*, *á*, *o*, *ó*, *u*, *ú*; the sounds *é*, *i*, *í* are regarded as neutral. In some respects the value of the consonants varies from that usual in the Latin alphabet. *S* is pronounced as *sh* in English, the sound of simple *s* being represented by *sz*. *C* or *cz* is pronounced as English *ts*; *cs* as English *ch*; *ds* as English *j*; *zs* as French *j*; *gy* as *dy*. Among the striking peculiarities of the language are the definite and indefinite forms of the active verb, *e.g. látom*, "I see" (definite, viz. "him," "her," "the man," &c.), *látok*, "I see" (indefinite); the insertion of the causative, frequentative, diminutive and potential syllables after the root of the verb, *e.g. ver*, "he beats"; *veret*, "he causes to beat"; *vereget*, "he beats repeatedly"; *verint*, "he beats a little"; *verhet*, "he can beat"; the mode of expressing possession by the tenses of the irregular verb *lenni*, "to be" (viz. *van*, "is"; *vannak*, "are"; *volt*, "was"; *lesz*, "will be," &c.), with the object and its possessive affixes, *e.g. nekem vannak könyveim*, literally, "to me are books—my" = "I have books"; *neki volt könyve*, "to him

was book—his" = "he had a book." Other characteristic features are the use of the singular substantive after numerals, and adjectives of quantity, *e.g. két ember*, literally, "two man"; *sok szó*, "many word," &c.; the position of the Christian name and title after the family name, *e.g. Ólmosy Károly tanár ur*, "Mr Professor Charles Ólmosy"; and the possessive forms of the nouns, which are varied according to the number and person of the possessor and the number of the object in the following way: *tollam*, "my pen"; *tollaim*, "my pens"; *tollad*, "thy pen"; *tollaid*, "thy pens"; *tollunk*, "our pen"; *tollaink*, "our pens," &c. There is no gender, not even a distinction between "he," "she," and "it," in the personal pronouns, and the declension is less developed than in Finnish. But there is a wealth of verbal derivatives, the vocabulary is copious, and the intonation harmonious. Logical in its derivatives and in its grammatical structure, the Magyar language is, moreover, copious in idiomatic expressions, rich in its store of words, and almost musical in its harmonious intonation. It is, therefore, admirably adapted for both literary and rhetorical purposes.

The first Hungarian grammar known is the *Grammatica Hungaro-Latina* of John Erdösi *alias* Sylvester Pannonius, printed at Sárvár-Ujsziget in 1539. Others are the posthumous treatises of Nicholas Révai (Pest, 1809); the *Magyar nyelvmester* of Samuel Gyarmathi, published at Klausenburg in 1794; and grammars by J. Farkas (9th ed., Vienna, 1816), Mailáth (2nd ed., Pest, 1832), Kis (Vienna, 1834), Márton (8th ed., Vienna, 1836), Maurice Ballagi or (in German) Bloch (5th ed., Pest, 1869), Töpler (Pest, 1854), Riedl (Vienna, 1858), Schuster (Pest, 1866), Charles Ballagi (Pest, 1868), Reméle (Pest and Vienna, 1869), Roder (Budapest, 1875), Führer (Budapest, 1878), Ney (20th ed., Budapest, 1879), C. E. de Ujfalvy (Paris, 1876), S. Wékey (London, 1852), J. Csink (London, 1853), Ballantik (Budapest, 1881); Singer (London, 1882).

The earliest lexicon is that of Gabriel (Mizsér) Pesti *alias* Pestinus Pannonius, *Nomenclatura sex linguarum, Latinae, Italicae, Gallicae, Bohemicae, Ungaricae et Germanicae* (Vienna, 1538), which was several times reprinted. The *Vocabula Hungarica* of Bernardino Baldi (1583), the original MS. of which is in the Biblioteca Nazionale at Naples, contains 2899 Hungarian words with renderings in Latin or Italian.[63] In the *Dictionarium undecim linguarum* of Calepinus (Basel, 1590) are found also Polish, Hungarian and English words and phrases. This work continued to be reissued until 1682. The *Lexicon Latina-Hungaricum* of Albert Molnár first appeared at Nuremberg in 1604, and with the addition of Greek was reprinted till 1708. Of modern Hungarian dictionaries the best is that of the Academy of Sciences, containing 110,784 articles in 6 vols., by Czuczor and Fogarasi (Pest, 1862-1874). The next best native dictionary is that of Maurice Ballagi, *A Magyar nyelv teljes szótára*, (Pest, 1868-1873). In addition to the above may be mentioned the work of Kresznerics, where the words are arranged according to the roots (Buda, 1831-1832); the *Etymologisches Wörterbuch ... aus chinesischen Wurzeln*, of Podhorszky (Paris, 1877); *Lexicon linguae Hungaricae aevi antiquioris*, by Szarvas Gábor and Simonyi Zsigmond (1889); and "Magyar-Ugor összehasonlito szótar" *Hungarian Ugrian Comparative Dictionary*, by Bydenz (Budapest, 1872-1879). Other and more general dictionaries for German scholars are those of Márton, *Lexicon trilingue Latino-Hungarico-Germanicum* (Vienna, 1818-1823), A. F. Richter (Vienna, 1836), E. Farkas (Pest, 1848-1851), Fogarasi (4th ed., Pest, 1860), Loos (Pest, 1869) and M. Ballagi (Budapest, 3rd ed., 1872-1874). There are, moreover, Hungarian-French dictionaries by Kiss and Karády (Pest and Leipzig, 1844-1848) and Babos and Molé (Pest, 1865), and English-Hungarian dictionaries by Dallos (Pest, 1860) and Bizonfy (Budapest, 1886).

(C. El.)

IV. Literature

The Catholic ecclesiastics who settled in Hungary during the 11th century, and who found their way into the chief offices of the state, were mainly instrumental in establishing Latin as the predominant language of the court, the higher schools and public worship, and of eventually introducing it into the administration. Having thus become the tongue of the educated and privileged classes, Latin continued to monopolize the chief fields of literature until the revival of the native language at the close of the 18th century.

Early Latin chronicles.

Amongst the earliest Latin works that claim attention are the "Chronicle" (*Gesta Hungarorum*), by the "anonymous notary" of King Béla, probably Béla II. (see Podhradczky,[64] *Béla király névtelen jegyzöje*, Buda, 1861, p. 48), which describes the early ages of Hungarian history, and may be assigned to the middle of the 12th century; the *Carmen Miserabile* of Rogerius; the *Liber Cronicorum* of Simon Kézai, belonging to the end of the 13th century, the so-called "Chronicon Budense," *Cronica Hungarorum*, printed at Buda in 1473 (Eichhorn, *Geschichte der Litteratur*, ii. 319); and the *Chronicon Rerum Hungaricarum* of John Thuróczi.[65] An extraordinary stimulus was given to literary enterprise by King Matthias Corvinus, who attracted both foreign and native scholars to his court. Foremost amongst the Italians was Antonio Bonfini, whose work, *Rerum Hungaricarum Decades IV.*, comprising Hungarian history from the

earliest times to the death of King Matthias, was published with a continuation by Sambucus (Basel, 1568).[66] Marzio Galeotti, the king's chief librarian, wrote an historical account of his reign. The most distinguished of the native scholars was John Cesinge, *alias* Janus Pannonius, who composed Latin epigrams, panegyrics and epic poems. The best edition of his works was published by Count S. Teleki at Utrecht in 1784.

Magyar literature. Earliest relics.

Arpadian period, 1000-1301.

As there are no traces of literary productions in the native or Magyar dialect before the 12th century, the early condition of the language is concealed from the philologist. It is, however, known that the Hungarians had their own martial songs, and that their princes kept lyre and lute players who sang festal odes in praise of the national heroes. In the 11th century Christian teachers introduced the use of the Roman letters, but the employment of the Latin language was not formally decreed until 1114 (see Bowring, *Poetry of the Magyars*, Introd. xix.). It appears, moreover, that up to that date public business was transacted in Hungarian, for the decrees of King Coloman the Learned (1095-1114) were translated from that language into Latin. Among the literary relics of the 12th century are the "Latiatuc" or *Halotti Beszéd* funeral discourse and prayer in Hungarian, to which Döbrentei in his *Régi Magyar Nyelvemlékek* assigns as a probable date the year 1171 (others, however, 1182 or 1183). From the *Margit-Legenda*, or "Legend of St Margaret," composed in the early part of the 14th century,[67] it is evident that from time to time the native language continued to be employed as a means of religious edification. Under the kings of the house of Anjou, the Magyar became the language of the court. That it was used also in official documents and ordinances is shown by copies of formularies of oaths, the import of which proves beyond a doubt that the originals belonged to the reigns of Louis I. and Sigismond; by a statute of the town of Sajó-St-Peter (1403) relating to the wine trade; by the testament of Kazzai-Karácson (1413); and by other relics of this period published by Döbrentei in vol. ii. of the *R. M. Nyelvemlékek*. To the early part of the 15th century may be assigned also the legends of "St Francis" and of "St Ursula," and possibly the original of the *Ének Pannónia megvételéröl*, an historical "Song about the Conquest of Pannonia." But not until the dawn of the Reformation did Magyar begin in any sense to replace Latin for literary purposes. The period placed by Hungarian authors between 1437 and 1530 marks the first development of Magyar literature.

Anjou-Sigismond period, 1301-1437.

Jagelló-Matthias or pre-Reformation period (1437-1530).

About the year 1437 two Hussite monks named Tamás and Bálint (*i.e.* Thomas and Valentine) adapted from older sources a large portion of the Bible for the use of the Hungarian refugees in Moldavia. To these monks the first extant Magyar version of part of the Scriptures (the *Vienna* or *Révai Codex*[68]) is directly assigned by Döbrentei, but the exact date either of this copy or of the original translation cannot be ascertained. With approximate certainty may be ascribed also to Tamás and Bálint the original of the still extant transcript, by George Németi, of the Four Gospels, the *Jászay* or *Munich Codex* (finished at Tátros in Moldavia in 1466), Amongst other important codices are the *Jordánszky Codex* (1516-1519), an incomplete copy of the translation of the Bible made by Ladislaus Bátori, who died about 1456; and the *Döbrentei* or *Gyulafehérvár Codex* (1508), containing a version of the Psalter, Song of Solomon, and the liturgical epistles and gospels, copied by Bartholomew Halabori from an earlier translation (Környei, *A Magyar nemzeti irodalomtörténet vázlata*, 1861, p. 30). Other relics belonging to this period are the oath which John Hunyady took when elected governor of Hungary (1446); a few verses sung by the children of Pest at the coronation of his son Matthias (1458); the *Siralomének Both János veszedelmén* (Elegy upon John Both), written by a certain "Gregori," as the initial letters of the verses show, and during the reign of the above-mentioned monarch; and the *Emlékdal Mátyás király halálára* (Memorial Song on the Death of King Matthias, 1490). To these may be added the rhapsody[69] on the taking of "Szabács" (1476); the *Katalin-Legenda*, a metrical "Legend of St Catherine of Alexandria," extending to over 4000 lines: and the *Feddöének* (Upbraiding Song), by Francis Apáthi.

Reformation period (1530-1606).

In the next literary period (1530-1606) several translations of the Scriptures are recorded. Among these there are—versions of the Epistles of St Paul, by Benedict Komjáti (Cracow, 1533); of the Four Gospels, by Gabriel (Mizsér) Pesti (Vienna, 1536); of the New Testament, by John Erdösi (Ujsziget, 1541; 2nd ed., Vienna, 1574[70]), and by Thomas Félegyházi (1586); and the translations of the Bible, by Caspar Heltai (Klausenburg, 1551-1565), and by Caspar Károli (Vizsoly, near Göncz, 1589-1590). The last, considered the best, was corrected and re-edited by Albert Molnár at Hanau in 1608.[71] Heltai published also (1571) a translation, improved from that by Blasius Veres (1565), of the *Tripartitum* of Verböczy, and *Chronika* (1575) adapted from the *Decades* of Bonfini. Karádi in 1569 brought to light the earliest national drama, *Balassi Menyhért*. Among the native poets, mostly mere rhyming chroniclers of the 16th century, were Csanádi, Tinódi, Nagy-Báczai, Bogáti, Ilósvay, Istvánfi, Görgei,

Temesvári and Valkai. Of these the best and most prolific writer was Tinódi. Székely wrote in prose, with verse introduction, a “Chronicle of the World” under the title of *Cronica ez világnac yeles dolgairól* (Cracow, 1559). Csáktornya and Kákony imitated the ancient classical poets, and Erdösi introduced the hexameter. Andrew Farkas and the homilist Peter Melius (Juhász) attempted didactic verse; and Batizi busied himself with sacred song and Biblical history. During the latter part of the 16th century and the beginning of the 17th two poets of a higher order appeared in Valentine Balassa, the earliest Magyar lyrical writer, and his contemporary John Rimay, whose poems are of a contemplative and pleasing character.

17th century period (1606-1711).

The melancholy state of the country consequent upon the persecutions of Rudolph I., Ferdinand II. and Leopold I., as also the continual encroachment of Germanizing influences under the Habsburgs, were unfavourable to the development of the national literature during the next literary period, dating from the Peace of Vienna (1606) to that of Szatmár (1711). A few names were, however, distinguished in theology, philology and poetry. In 1626 a Hungarian version of the Vulgate was published at Vienna by the Jesuit George Káldi,[72] and another complete translation of the Scriptures, the so-called *Komáromi Biblia* (Komorn Bible) was made in 1685 by the Protestant George Csipkés, though it was not published till 1717 at Leiden, twenty-nine years after his death.[73] On behalf of the Catholics the Jesuit Peter Pázmán, eventually primate, Nicholas Eszterházy, Sámbár, Balásfi and others were the authors of various works of a polemical nature. Especially famous was the *Hodaegus, kalauz* of Pázmán, which first appeared at Pozsony (Pressburg) in 1613. Among the Protestants who exerted themselves in theological and controversial writings were Németi, Alvinczy, Alexander Felvinczy, Mártonfalvi and Melotai, who was attached to the court of Bethlen Gábor. Telkibányai wrote on “English Puritanism” (1654). The Calvinist Albert Molnár, already mentioned, was more remarkable for his philological than for his theological labours. Párispápai compiled an Hungarian-Latin Dictionary, *Dictionarium magyar és deák nyelven* (Löcse, 1708), and Apáczai-Csere, a *Magyar Encyclopaedia* (Utrecht, 1653). John Szalárdi, Paul Lisznyai, Gregory Pethö, John Kemény and Benjamin Szilágyi, which last, however, wrote in Latin, were the authors of various historical works. In polite literature the heroic poem *Zrinyiász* (1651), descriptive of the fall of Sziget, by Nicholas Zrinyi, grandson of the defender of that fortress, marks a new era in Hungarian poetry. Of a far inferior character was the monotonous *Mohácsi veszedelem* (Disaster of Mohács), in 13 cantos, produced two years afterwards at Vienna by Baron Liszti. The lyric and epic poems of Stephen Gyöngyösi, who sang the deeds of Maria Széchy, the heroine of Murány, *Murányi Venus* (Kassa, 1664), are samples rather of a general improvement in the style than of the purity of the language. As a didactic and elegiac poet Stephen Kohári is much esteemed. More fluent but not less gloomy are the sacred lyrics of Nyéki-Veres first published in 1636 under the Latin title of *Tintinnabulum Tripudiantium*. The songs and proverbs of Peter Beniczky, who lived in the early part o£ the 17th century, are not without merit, and have been several times reprinted. From the appearance of the first extant printed Magyar work[74] at Cracow in 1531 to the end of the period just treated, more than 1800 publications in the native language are known.[75]

Period of decline (1711-1772).

The period comprised between the peace of Szatmár (1711) and the year 1772 is far more barren in literary results than even that which preceded it. The exhaustion of the nation from its protracted civil and foreign wars, the extinction of the court of the Transylvanian princes where the native language had been cherished, and the prevalent use of Latin in the schools, public transactions and county courts, all combined to bring about a complete neglect of the Magyar language and literature. Among the few prose writers of distinction were Andrew Spangár, whose “Hungarian Bookstore,” *Magyar Könyvtár* (Kassa, 1738), is said to be the earliest work of the kind in the Magyar dialect; George Bárányi, who translated the New Testament (Lauba, 1754); the historians Michael Cserei and Matthew Bél, which last, however, wrote chiefly in Latin; and Peter Bod, who besides his theological treatises compiled a history of Hungarian literature under the title *Magyar Athénás* (Szeben, 1766). But the most celebrated writer of this period was the Jesuit Francis Faludi, the translator, through the Italian, of William Darrell’s works. On account of the classic purity of his style in prose, Faludi was known as the “Magyar Cicero.” Not only as a philosophic and didactic writer, but also as a lyric and dramatic poet he surpassed all his contemporaries. Another pleasing lyric poet of this period was Ladislaus Amade, the naturalness and genuine sentiment of whose lightly running verses are suggestive of the love songs of Italian authors. Of considerable merit are also the sacred lyrical melodies of Paul Rádai in his *Lelki hódolás* (Spiritual Homage), published at Debreczen in 1715. Among the didactic poets may be mentioned Lewis Nagy, George Kálmár, John Illey and Paul Bertalanfi, especially noted for his rhymed “Life of St Stephen, first Hungarian king,” *Dicsöséges Sz. István elsö magyar királynak élete* (Vienna, 1751).

The next three literary periods stand in special relationship to one another, and are sometimes regarded as the same. The first two, marking respectively the progress of the “Regeneration of the Native Literature” (1772-1807) and the “Revival of the Language”

(1807-1830), were introductory to and preparatory for the third or "Academy," period, which began about 1830.

Regeneration of the literature (1772-1807).

In consequence of the general neglect of the Magyar language during the reigns of Maria Theresa and her successor Joseph II., the more important prose productions of the latter part of the 18th century, as for instance the historical works of George Pray, Stephen Katona, John Engel and Ignatius Fessier, were written either in Latin or in German. The reaction in favour of the native literature manifested itself at first chiefly in the creation of various schools of poetry. Foremost among these stood the so-called "French" school, founded by George Bessenyei, the author of several dramatic pieces, and of an imitation of Pope's "Essay on Man," under the title of *Az embernek próbája* (Vienna, 1772). Bessenyei introduced the use of rhymed alexandrines in place of the monotonous Zrinian measure. Other writers of the same school were Laurence Orczy and Abraham Barcsay, whose works have a striking resemblance to each other, and were published together by Révai (1789). The songs and elegies of the short-lived Paul Ányos, edited by Bacsányi in 1798, show great depth of feeling. Versifiers and adapters from the French appeared also in Counts Adam and Joseph Teleki, Alexander Báróczi and Joseph Péczeli, known also as the translator of Young's "Night Thoughts." The chief representatives of the strictly "classical" school, which adopted the ancient Greek and Latin authors as its models, were David Baróti Szabó, Nicholas Révai, Joseph Rájnis and Benedict Virág. Among the most noteworthy works of Baróti are the *Uj mértékre vett külömb versek* (Kassa, 1777), comprising hexameter verses, Horatian odes, distichs, epistles and epigrams; the *Paraszti Majorság* (Kassa, 1779-1780), an hexameter version of Vanière's *Praedium rusticum*; and an abridged version of "Paradise Lost," contained in the *Költeményes munkaji* (Komárom, 1802). Baróti, moreover, published (1810-1813) a translation of Virgil's *Aeneid* and *Eclogues*. Of Baróti's purely linguistic works the best known are his *Ortographia és Prosodia* (Komárom, 1800); and the *Kisded Szótár* (Kassa, 1784 and 1792) or "Small Lexicon" of rare Hungarian words. As a philologist Baróti was far surpassed by Nicholas Révai, but as a poet he may be considered superior to Rájnis, translator of Virgil's Bucolics and Georgics, and author of the *Magyar Helikonra vezetö kalauz* (Guide to the Magyar Helicon, 1781). The "classical" school reached its highest state of culture under Virág, whose poetical works, consisting chiefly of Horatian odes and epistles, on account of the perfection of their style, obtained for him the name of the "Magyar Horace." The *Poetai Munkai* (Poetical Works) of Virág were published at Pest in 1799, and again in 1822. Of his prose works the most important is the *Magyar Századok* or "Pragmatic History of Hungary" (Buda, 1808 and 1816). Vályi-Nagy, the first Magyar translator of Homer, belongs rather to the "popular" than the "classical" school. His translation of the *Iliad* appeared at Sárospatak in 1821. The establishment of the "national" or "popular" school is attributable chiefly to Andrew Dugonics, though his earliest works, *Troja veszedelme* (1774) and *Ulysses* (1780), indicate a classical bias. His national romances, however, and especially *Etelka* (Pozsony, 1787) and *Az arany pereczek* (Pest and Pozsony, 1790), attracted public attention, and were soon adapted for the stage. The most valuable of his productions is his collection of "Hungarian Proverbs and Famous Sayings," which appeared in 1820 at Szeged, under the title of *Magyar példabeszédek és jeles mondások*. The most noteworthy follower of Dugonics was Adam Horváth, author of the epic poems *Hunniász* (Györ, 1787) and *Rudolphiász* (Vienna, 1817), Joseph Gvadányi's tripartite work *Falusi notárius* (Village Notary), published between 1790 and 1796, as also his *Rontó Pál és gr. Benyowsky történeteik* (Adventures of Paul Rontó and Count Benyowski), are humorous and readable, but careless in style. As writers of didactic poetry may be mentioned John Endrödy, Caspar Göböl, Joseph Takács and Barbara Molnár, the earliest distinguished Magyar poetess.

Of a more general character, and combining the merits of the above schools, are the works of the authors who constituted the so-called "Debreczen Class," which boasts the names of the naturalist and philologist John Földi, compiler of a considerable part of the *Debreczeni magyar grammatica*; Michael Fazekas, author of *Ludas Matyi* (Vienna, 1817), an epic poem, in 4 cantos; and Joseph Kovács. Other precursors of the modern school were the poet and philologist Francis Verseghy, whose works extend to nearly forty volumes; the gifted didactic prose writer, Joseph Kármán; the metrical rhymster, Gideon Ráday; the lyric poets, Ssentjóbi Szabó, Janos Bacsányi (*q.v.*), and the short-lived Gabriel Dayka, whose posthumous "Verses" were published in 1813 by Kazinczy. Still more celebrated were Mihaly Csokonai (*q.v.*) and Alexander Kisfaludy (*q.v.*). The first volume of Alexander Kisfaludy's *Himfy*, a series of short lyrics of a descriptive and reflective nature, appeared at Buda in 1801, under the title of *Kesergö szerelem* (Unhappy Love), and was received with great enthusiasm; nor was the success of the second volume *Boldog szerelem* (Happy Love), which appeared in 1807, inferior. The *Regék*, or "Tales of the Past," were published at Buda from 1807 to 1808, and still further increased Kisfaludy's fame; but in his dramatic works he was not equally successful. Journalistic literature in the native language begins with the *Magyar Hírmondó* (Harbinger) started by Matthias Ráth at Pozsony in 1780. Among the magazines the most important was the *Magyar Muzeum*, established at Kassa (Kaschau) in 1788 by Baróti,

Kazinczy and Bacsányi. The *Orpheus* (1790) was the special work of Kazinczy, and the *Urania* (1794) of Kármán and of Pajor.

Closely connected with the preceding period is that of the "Revival of the Language" (1807-1830), with which the name of Francis Kazinczy (*q.v.*) is especially associated. To him it was left to perfect that work of restoration begun by Baróti and amplified by Révai. Poetry and belles lettres still continued to occupy the chief place in the native literature, but under Kazinczy and his immediate followers Berzsenyi, Kölcsey, Fáy and others, a correctness of style and excellence of taste hitherto unknown soon became apparent. Kazinczy, in his efforts to accommodate the national language to the demands of an improved civilization, availed himself of the treasures of European literature, but thereby incurred the opposition of those who were prejudiced by a too biased feeling of nationality. The opinions of his enemies were ventilated in a lampoon styled *Mondolat*. Daniel Berzsenyi, whose odes are among the finest in the Hungarian language, was the correspondent of Kazinczy, and like him a victim of the attacks of the *Mondolat*. But the fervent patriotism, elevated style, and glowing diction of Berzsenyi soon caused him to be recognized as a truly national bard. A too frequent allusion to Greek mythological names is a defect sometimes observable in his writings. His collective works were published at Buda by Döbrentei in 1842. Those of John Kis, the friend of Berzsenyi, cover a wide range of subjects, and comprise, besides original poetry, many translations from the Greek, Latin, French, German and English, among which last may be mentioned renderings from Blair, Pope and Thomson, and notably his translation, published at Vienna in 1791, of Lowth's "Choice of Hercules." The style of Kis is unaffected and easy. As a sonnet writer none stands higher than Paul Szemere, known also for his rendering of Körner's drama *Zrinyi* (1818), and his contributions to the *Elet és Literatura* (Life and Literature). The articles of Francis Kölcsey in the same periodical are among the finest specimens of Hungarian aesthetical criticism. The lyric poems of Kölcsey can hardly be surpassed, whilst his orations, and markedly the *Emlék beszéd Kazinczy felett* (Commemorative Speech on Kazinczy), exhibit not only his own powers, but the singular excellence of the Magyar language as an oratorical medium. Andrew Fáy, sometimes styled the "Hungarian Aesop," is chiefly remembered for his *Eredeti Mesék* (Original Fables). The dramatic works of Charles Kisfaludy, brother of Alexander, won him enthusiastic recognition as a regenerator of the drama. His plays bear a distinctive national character, the subjects of most of them referring to the golden era of the country. His genuine simplicity as a lyrical writer is shown by the fact that several of his shorter pieces have passed into popular song. As the earliest Magyarizer of Servian folk-song, Michael Vitkovics did valuable service. Not without interest to Englishmen is the name of Gabriel Döbrentei (*q.v.*), the translator of Shakespeare's Macbeth, represented at Pozsony in 1825. An historical poem of a somewhat philosophical nature was produced in 1814 by Andreas Horváth under the title of *Zircz emlékezete* (Reminiscence of Zircz); but his *Árpád*, in 12 books, finished in 1830, and published at Pest in the following year, is a great national epic. Among other poets of this period were Alois Szentmiklóssy, George Gaal, Emil Buczy, Joseph Szász, Ladislaus Tóth and Joseph Katona, author of the much-extolled historical drama *Bánk Bán*.[76] Izidore Guzmics, the translator of Theocritus into Magyar hexameters, is chiefly noted for his prose writings on ecclesiastical and philosophical subjects. As authors of special works on philosophy, we find Samuel Köteles, John Imre, Joseph Ruszék, Daniel Ercsei and Paul Sárvári; as a theologian and Hebraist John Somossy; as an historian and philologist Stephen Horváth, who endeavoured to trace the Magyar descent from the earliest historic times; as writers on jurisprudence Alexander Kövy and Paul Szlemenics. For an account of the historian George Fejér, the laborious compiler of the *Codex Diplomaticus*, see Fejér.

Revival of the language (1807-1830).

The establishment of the Hungarian Academy of Sciences[77] (17th November 1830) marks the commencement of a new period, in the first eighteen years of which gigantic exertions were made as regards the literary and intellectual life of the nation. The language, nursed by the academy, developed rapidly, and showed its capacity for giving expression to almost every form of scientific knowledge.[78] By offering rewards for the best original dramatic productions, the academy provided that the national theatre should not suffer from a lack of classical dramas. During the earlier part of its existence the Hungarian academy devoted itself mainly to the scientific development of the language and philological research. Since its reorganization in 1869 the academy has, however, paid equal attention to the various departments of history, archaeology, national economy and the physical sciences. The encouragement of polite literature was more especially the object of the Kisfaludy Society, founded in 1836.[79]

Academy period, 1830-1880.

Polite literature had received a great impulse in the preceding period (1807-1830), but after the formation of the academy and the Kisfaludy society it advanced with accelerated speed towards the point attained by other nations. Foremost among epic poets, though not equally successful as a dramatist, was Mihaly Vörösmarty (*q.v.*), who, belonging also to the close of the last period, combines great power of imagination with elegance of language. Generally less varied and romantic, though easier in style, are the heroic poems *Augsburgi ütközet*

(Battle of Augsburg) and *Aradi gyülés* (Diet of Arad) of Gregory Czuczor, who was, moreover, very felicitous as an epigrammatist. Martin Debreczeni was chiefly famed for his *Kióvi csata* (Battle of Kieff), published at Pest in 1854 after his death by Count Emeríc Mikó. The laborious John Garay in his *Szent László* shows considerable ability as an epic poet, but his greatest merit was rather as a romancist and ballad writer, as shown by the "Pen Sketches" or *Tollrajzok* (1845), and his legendary series *Árpádok* (1847). Joseph Bajza was a lyricist of a somewhat melancholy cast, but his *Borének* (Wine Song), *Sohajtás* (Sigh), *Ébresztö* (Awakening) and *Apotheosis* are much admired. He is known further as the translator of F. C. Dahlmann's *Geschichte der englischen Revolution*. As generally able writers of lyrical poetry during the earlier part of this period may be mentioned among others Francis Császár, Joseph Székács and Andrew Kunoss—also Lewis Szakál and Alexander Vachott, whose songs and romances are of an artless and simple character, and the sacred lyricist Béla Tárkányi. As an original but rather heavy lyric and didactic poet we may mention Peter Vajda, who was, moreover, the translator of Bulwer's "Night and Morning." Of a more distinctly national tendency are the lyrics of John Kriza[80] and John Erdélyi, but the reputation of the latter was more especially due to his collections of folk-lore made on behalf of the Kisfaludy society. More popular than any of the preceding, and well known in England through Sir John Bowring's translation, are the charming lyrics of Alexander Petöfi (*q.v.*), the "Burns" of Hungary. His poems, which embody the national genius, have passed into the very life of the people; particularly is he happy in the pieces descriptive of rural life. Among lyricists were: Coloman Tóth, who is also the author of several epic and dramatic pieces; John Vajda, whose *Kisebb Költemények* (Minor Poems), published by the Kisfaludy society in 1872, are partly written in the mode of Heine, and are of a pleasing but melancholy character; Joseph Lévay, known also as the translator of Shakespeare's *Titus Andronicus*, *Taming of the Shrew* and *Henry IV.*; and Paul Gyulai, who, not only as a faultless lyric and epic poet, but as an impartial critical writer, is highly esteemed, and whose *Romhányi* is justly prized as one of the best Magyar poems that has appeared in modern times. To these may be added the names of Charles Berecz, Joseph Zalár, Samuel Nyilas, Joseph Vida, Lewis Tolnai, the sentimental Ladislaus Szelestey, and the talented painter Zoltán Balogh, whose romantic poem *Alpári* was published in 1871 by the Kisfaludy society. The lyrics of Anthony Várady (1875, 1877) are somewhat dull and unequal in tone; both he and Baron Ivor Kaas, author of *Az ítélet napja* (Day of Judgment, 1876), have shown skill rather in the art of dramatic verse. The poems of Count Géza Zichy and Victor Dalmady, those of the latter published at Budapest in 1876, are mostly written on subjects of a domestic nature, but are conceived in a patriotic spirit. Emil Ábrányi adopts a rather romantic style, but his *Nagypéntek* (Good Friday) is an excellent descriptive sketch. Alexander Endrödy, author of *Tücsök dalok* (Cricket Songs, 1876), is a glowing writer, with great power of conception, but his metaphors, following rapidly one upon the other, become often confused. Joseph Kiss in 1876 brought out a few lyric and epic poems of considerable merit. The *Mesék* of Augustus Greguss (1878), a collection of verse "Fables," belonging to the school of Gay, partake more of a didactic than lyrical nature. This feature is noticeable also in the *Költemények* (1873) of Ladislaus Torkos and the *Modern Mesék* (1874) of Ladislaus Névy. The *Salamon* (1878) of Charles Szász (b. 1829) was rewarded with the prize of the academy. The subject, taken from the age of Hungarian chivalry, is artistically worked out from medieval legends, and gives an excellent description of the times of St Ladislaus of Hungary. Charles Szász is generally better known as a metrical translator than as an original poet. He is the Magyarizer of Shakespeare's *Anthony and Cleopatra*, *Othello*, *Macbeth*, *Henry VIII.*, *Winter's Tale*, *Romeo and Juliet* and *Tempest*, as also of some of the best pieces of Burns, Moore, Byron, Shelley, Milton, Béranger, Lamartine, Victor Hugo, Goethe and others. A translator from Byron and Pope appeared also in Maurice Lukács.[81]

Meanwhile dramatic literature found many champions, of whom the most energetic was Edward Szigligeti, *proprie* Joseph Szathmáry, who enriched the Hungarian stage with more than a hundred pieces. Of these the most popular are comedies and serio-comic national dramas. A less prolific but more classical writer appeared in Charles Obernyik, whose *George Brankovics* is, next to Katona's *Bánk Bán*, one of the best historical tragedies in the language. Several of the already mentioned lyric and epic poets were occasional writers also for the drama. To these we may add the gifted but unfortunate Sigismund Czakó, Lewis Dobsa, Joseph Szigeti, Ignatius Nagy, Joseph Szenvey (a translator from Schiller), Joseph Gaal, Charles Hugo, Lawrence Tóth (the Magyarizer of the *School for Scandal*), Emeric Vahot, Alois Degré (equally famous as a novelist), Stephen Toldy and Lewis Dóczi, author of the popular prize drama *Csók* (The Kiss). *Az ember tragoediája* (The Tragedy of Man), by Emeric Madách (1861), is a dramatic poem of a philosophical and contemplative character, and is not intended for the stage. Among successful dramatic pieces may be mentioned the *Falu rossza* (Village Scamp) of Edward Tóth (1875), which represents the life of the Hungarian peasantry, and shows both poetic sentiment and dramatic skill; *A szerelem harcza* (Combat of Love), by Count Géza Zichy; *Iskáriot* (1876) and the prize tragedy *Tamora* (1879), by Anthony Várady; *Jánus* (1877), by Gregory Csiky; and the dramatized romance *Szép Mikhal* (Handsome Michal), by Maurus Jókai (1877). The principal merit of this author's drama *Milton* (1876) consists in its brilliance of language. The *Szerelem iskolája* (School of Love), by Eugene Rákosy, although in

some parts exquisitely worded, did not meet with the applause accorded to his *Ripacsos Pista Dolmánya* (1874). The *Gróf Dormándi Kálmán* (Count Coloman Dormándi) of Béla Bercsényi (1877) is a social tragedy of the French school. Among the most recent writers of comedy we single out Árpád Berczik for his A *házasitók* (The Matchmakers); Ignatius Súlyovsky for his *Nöi diplomatia* (Female Diplomacy); and the above-mentioned Gregory Csiky for his *Ellenállhatatlan* (The Irresistible), produced on the stage in 1878. As popular plays the *Sárga csikó* (Bay Foal) and *A piros bugyelláris* (The Red Purse), by Francis Csepreghy, have their own special merit, and were often represented in 1878 and 1879 at Budapest and elsewhere.

Original romance writing, which may be said to have commenced with Dugonics and Kármán at the close of the 18th, and to have found a representative in Francis Verseghy at the beginning of the 19th century, was afterwards revived by Fáy in his *Bélteky ház* (1832), and by the contributors to certain literary magazines, especially the *Aurora*, an almanack conducted by Charles Kisfaludy, 1821-1830, and continued by Joseph Bajza to 1837. Almost simultaneously with the rise of the Kisfaludy society, works of fiction assumed a more vigorous tone, and began to present just claims for literary recognition. Far from adopting the levity of style too often observable in French romances, the Magyar novels, although enlivened by touches of humour, have generally rather a serious historical or political bearing. Especially is this the case with Nicholas Jósika's *Abafi* (1835), *A csehek Magyarországon* (The Bohemians in Hungary), and *Az utolsó Bátori* (The Last of the Báthoris), published in 1847. In these, as in many other of the romances of Jósika, a high moral standard is aimed at. The same may be said of Baron Joseph Eötvös's *Karthausi* (1839) and *Falu Jegyzöje* (Village Notary), published in 1845, and translated into English (1850) by O. Wenckstern (see Eötvös). The *Árvizönyv* or "Inundation Book," edited by Eötvös (1839-1841), is a collection of narratives and poems by the most celebrated authors of the time. Of the novels produced by Baron Sigismund Kemény the *Gyulai Pál* (1847), in 5 vols., is, from its historical character, the most important. His *Férj és nö* (Husband and Wife) appeared in 1853 (latest ed., 1878), the *Rajongók* (Fanatics), in 4 vols., in 1858-1859. The graphic descriptions of Hungarian life in the middle and lower classes by Lewis Kuthy won for him temporary renown; but his style, though flowery, is careless. Another popular writer of great originality was Joseph Radákovics *alias* Vas-Gereben. The romances of Baron Frederick Podmaniczky are simpler, and rather of a narrative than colloquial character. The fertile writer Paul Kovács excels more particularly in humorous narration. Fay's singular powers in this direction were well shown by his *Jávor orvos és Bakator Ambrus szolgája* (Doctor Jávor and his servant Ambrose Bakator), brought out at Pest in 1855. The *Beszélyek* (Tales) of Ladislaus Beöthy were produced in the same year, his *Puszták fia* (Son of the Pusztas) in 1857. Pleasing humorous sketches are contained also in Ignatius Nagy's *Beszélyek* (1843) and "Caricatures" or *Torzképek* (1844); in Caspar Bernát's *Fresko képek* (1847-1850); in Gustavus Lauka's *Vidék*, and his *A jó régi világ* (The Good Old World), published respectively in 1857 and 1863; and in Alexander Balázs's *Beszélyei* (1855) and *Tükördarabok* (1865). Among authors of other historical or humorous romances and tales which have appeared from time to time are Francis Márton *alias* Lewis Abonyi, Joseph Gaal, Paul Gyulai, William Györi, Lazarus Horváth, the short-lived Joseph Irinyi, translator of *Uncle Tom's Cabin*, Francis Ney, Albert Pálffy, Alexander Vachott and his brother Emeric (Vahot), Charles Szathmáry, Desider Margittay, Victor Vajda, Joseph Bodon, Atala Kisfaludy and John Krátky. But by far the most prolific and talented novelist that Hungary can boast of is Maurus Jókai (*q.v.*), whose power of imagination and brilliancy of style, no less than his true representations of Hungarian life and character, have earned for him a European reputation. Of the novels produced by other authors between 1870 and 1880, we may mention *A hol az ember kezdödik* (Where the Man Begins), by Edward Kavassy (1871), in which he severely lashes the idling Magyar nobility; *Az én ismeröseim* (My Acquaintances), by Lewis Tolnai (1871); and *Anatol*, by Stephen Toldy (1872); the versified romances *Déli bábok höse* (Hero of the Fata Morgana), generally ascribed to Ladislaus Arany, but anonymously published, *A szerelem höse* (Hero of Love), by John Vajda (1873), and *Találkozások* (Rencounters) by the same (1877), and *A Tündérör* (The Fairy Zone), by John Sulla (1876), all four interesting as specimens of narrative poetry; *Kálozdy Béla* (1875), a tale of Hungarian provincial life, by Zoltán Beöthy, a pleasing writer who possesses a fund of humour, and appears to follow the best English models; *Edith története* (History of Edith), by Joseph Prém (1876); *Nyomorúság iskolája* (School of Misery), by the prolific author Arnold Vértesi (1878); *Titkolt szerelem* (Secret Love), by Cornelius Ábrányi (1879), a social-political romance of some merit; and *Uj idök, avult emberek* (Modern Times, Men of the Past), by L. Véka (1879). In the *Itthon* (At Home), by Alois Degré (1877), the tale is made the medium for a satirical attack upon official corruption and Hungarian national vanity; and in the *Álmok álmódoja* (Dreamer of Dreams), by John Ásbóth (1878), other national defects are aimed at. *A rosz szomszéd* (The Bad Neighbour), by Charles Vadnay (1878), is a felicitous representation of the power of love. The *Az utolsó Bebek* (The Last of the Bebeks), by the late Charles Pétery, is a work rich in poetic invention, but meagre in historical matter. The reverse is the case with the *Lajos pap* (Priest Lewis), by Charles Vajkay (1879), the scene of which is placed at Pest, in the beginning of the 14th century. In this romance the interest of the narrative is weakened by a superabundance of historical and archaeological detail.

As regards works of a scientific character, the Magyars until recently were confessedly behindhand as compared with many other European nations. Indeed, before the foundation of the Hungarian academy in 1830, but few such works claiming general recognition had been published in the native language. Even in 1847 astronomy, physics, logic and other subjects of the kind had to be taught in several of the lyceums through the medium of Latin. The violent political commotions of the next few years allowed but little opportunity for the prosecution of serious studies; the subsequent quieter state of the country, and gradual re-establishment of the language as a means of education, were, however, more favourable to the development of scientific knowledge.

In the department of philosophy, besides several writers of dissertations bearing an imitative, didactic or polemical character, Hungary could boast a few authors of independent and original thought. Of these one of the most notable is Cyril Horváth, whose treatises published in the organs of the academy display a rare freedom and comprehensiveness of imagination. John Hetényi and Gustavus Szontagh must be rather regarded as adopters and developers of the ethical teaching of Samuel Köteles in the previous period. Hyacinth Rónay in his *Mutatvány* (Representation) and *Jellemisme* (Characteristics) endeavoured to popularize psychological studies. The philosophical labours of the already mentioned John Erdélyi and of Augustus Greguss won for them well-deserved recognition, the latter especially being famous for his aesthetical productions, in which he appears to follow out the principles of Vischer. The *Tanulmányok* (Studies) of Greguss were brought out at Pest in 1872. The reputation of John Szilasy, John Varga, Fidelius Beély and Francis Ney arose rather from their works bearing on the subject of education than from their contributions to philosophy.

The labours of Stephen Horváth in the preceding period had prepared the way for future workers in the field of historical literature. Specially meritorious among these are Michael Horváth, Ladislaus Szalay, Paul Jászay and Count Joseph Teleki. The *Magyarok története* (History of the Magyars), in 4 vols., first published at Pápa (1842-1846), and afterwards in 6 vols. at Pest (1860-1863), and in 8 vols. (1871-1873), is the most famous of Michael Horváth's numerous historical productions. Ladislaus Szalay's *Magyarország története* (History of Hungary), vols. i.-iv. (Leipzig, 1852-1854), vols. v.-vi. (Pest, 1856-1861), 2nd ed., i.-v. (1861-1866), is a most comprehensive work, showing more particularly the progress of Hungarian legislative development in past times. His style is elevated and concise, but somewhat difficult. Magyar history is indebted to Paul Jászay for his careful working out of certain special periods, as, for instance, in his *A Magyar nemzet napjai a legrégibb idötöl az arany bulláig* (Days of the Hungarian nation from the earliest times to the date of the Golden Bull). Count Joseph Teleki is famed chiefly for his *Hunyadiak kora Magyarországon* (The Times of the Hunyadys in Hungary), vols. i.-vi. (Pest, 1852-1863), x.-xii. (1853-1857), the result of thirty years' labour and research. In particular departments of historical literature we find George Bartal, author of *Commentariorum ... libri XV.*, tom. i.-iii. (Pozsony, 1847), John Czech, Gustavus Wenczel, Frederick Pesty and Paul Szlemenics as writers on legal history; Joseph Bajza, who in 1845 commenced a *History of the World*; Alexander Szilágyi, some of whose works, like those of Ladislaus Köváry, bear on the past of Transylvania, others on the Hungarian revolution of 1848-1849; Charles Lányi and John Pauer, authors of treatises on Roman Catholic ecclesiastical history; John Szombathi, Emeric Révész and Balogh, writers on Protestant church history; William Fraknói, biographer of Cardinal Pázmán, and historian of the Hungarian diets; and Anthony Gévay, Aaron Sziládi, Joseph Podhradczky, Charles Szabó, John Jerney and Francis Salamon, who have investigated and elucidated many special historical subjects. For the medieval history of Hungary the *Mátyáskori diplomatikai emlékek* (Diplomatic Memorials of the Time of Matthias Corvinus), issued by the academy under the joint editorship of Ivan Nagy and Baron Albert Nyáry, affords interesting material. As a masterly production based on extensive investigation, we note the *Wesselényi Ferencz ... összeesküvése* (The Secret Plot of Francis Wesselényi, 1664-1671), by Julius Pauler (1876). Among the many historians of Magyar literature Francis Toldy alias Schedel holds the foremost place. As compilers of useful manuals may be mentioned also Joseph Szvorényi, Zoltán Beöthy, Alexander Imre, Paul Jámbor, Ladislaus Névy, John Környei and Joseph Szinnyei, junior. For philological and ethnographical research into the origin and growth of the language none excels Paul Hunfalvy. He is, moreover, the warm advocate of the theory of its Ugrio-Finnic origin, as established by the Uralian traveller Anthony Reguly, the result of whose labours Hunfalvy published in 1864, under the title *A Vogul föld és nép* (The Vogul Land and People). Between 1862 and 1866 valuable philological studies bearing on the same subject were published by Joseph Budenz in the *Nyelvtudományi közlemények* (Philological Transactions). This periodical, issued by the academy, has during the last decade (1870-1880) contained also comparative studies, by Arminius Vámbéry and Gabriel Bálint, of the Magyar, Turkish-Tatar and Mongolian dialects.

As compilers and authors of works in various scientific branches allied to history, may be particularly mentioned—in statistics and geography, Alexius Fényes, Emeric Palugyay, Alexander Konek, John Hunfalvy, Charles Galgóczy, Charles Keleti, Leo Beöthy, Joseph Körösi, Charles Ballagi and Paul Király, and, as regards Transylvania, Ladislaus Köváry; in travel,

Arminius Vámbéry, Ignatius Goldziher, Ladislaus Magyar, John Xantus, John Jerney, Count Andrássy, Ladislaus Podmaniczky, Paul Hunfalvy; in astronomy, Nicholas Konkoly; in archaeology, Bishop Arnold Ipolyi, Florian Rómer, Emeric Henszlmann, John Érdy, Baron Albert Nyáry, Francis Pulszky and Francis Kiss; in Hungarian mythology, Bishop Ipolyi, Anthony Csengery,[82] and Árpád Kerékgyártó; in numismatics, John Érdy and Jacob Rupp; and in jurisprudence, Augustus Karvassy, Theodore Pauler, Gustavus Wenczel, Emeric Csacskó, John Fogarasi and Ignatius Frank. After 1867 great activity was displayed in history and its allied branches, owing to the direct encouragement given by the Hungarian Historical Society, and by the historical, archaeological, and statistical committees of the academy.

Notwithstanding the exertions of Paul Bugát to arouse an interest in the natural sciences by the establishment in 1841 of the "Hungarian Royal Natural Science Association," no general activity was manifested in this department of knowledge, so far as the native literature was concerned, until 1860, when the academy organized a special committee for the advancement of mathematical and natural science.[83] The principal contributors to the "Transactions" of this section of the academy were—for anatomy and physiology, Coloman Balogh, Eugene Jendrassik, Joseph Lenhossék and Lewis Thanhoffer; for zoology, John Frivaldszky, John Kriesch and Theodore Margó; for botany, Frederick Hazslinszky, Lewis Jurányi and Julius Klein; for mineralogy and geology, Joseph Szabó, Max Hantken, Joseph Krenner, Anthony Koch and Charles Hoffman; for physics, Baron Lorando Eötvös, Coloman Szily and Joseph Sztoczek; for chemistry, Charles Than and Vincent Wartha; for meteorology, Guido Schenzl. As good text-books, for which the so-called "Ladies' Prize" was awarded by the academy, we may mention the *Természettan* (Physics) and *Természettani földrajz* (Physical Geography) of Julius Greguss.

Almost simultaneously with the formation of the above-mentioned committee of the academy, the "Natural Science Association" showed signs of renewed animation, and soon advanced with rapid strides in the same direction, but with a more popular aim than the academy. Between 1868 and 1878 the number of its members increased from some 600 to about 5000. After 1872, in addition to its regular organs, it issued Hungarian translations of several popular scientific English works, as, for instance, Darwin's *Origin of Species*; Huxley's *Lessons in Physiology*; Lubbock's *Prehistoric Times*; Proctor's *Other Worlds than Ours*; Tyndall's *Heat as a Mode of Motion*, &c. Versions were also made of Cotta's *Geologie der Gegenwart* and Helmholtz's *Populäre Vorlesungen*. As important original monographs we note —*Az árapály a Fiumei öbölben* (Ebb and Flow in the Gulf of Fiume), by Emil Stahlberger (1874); *Magyarország pókfaunája* (The Arachnida of Hungary), by Otto Hermann (1876-1878); *Magyarország vasköveі és vasterméneyei* (The Iron Ores and Iron Products of Hungary), by Anthony Kerpely (1877); *Magyarország nevezetesebb dohányfajainak chemiai ... megvizsgálása* (Chemical Examination of the most famous Tobaccos of Hungary), by Dr Thomas Kosutány (1877).

(E. D. Bu.)

Literature since 1880.

The number of Magyar writers has since 1880 increased to an extent hardly expected by the reading public in Hungary itself. In 1830 there were only 10 Magyar periodical publications; in 1880 we find 368; in 1885 their number rose to 494; in 1890 to 636; and at the beginning of 1895 no fewer than 806 periodical publications, written in the Hungarian language, appeared in Hungary. Since that time (1895) the number of periodical as well as of non-periodical literary works has been constantly rising, although, as in all countries with a literature of rather recent origin, the periodical publications are, in proportion to the whole of the output, far more numerous than the non-periodical.[84] This remarkable increase in the quantity of literary work was, on the whole, accompanied by a fair advance in literary quality.

In lyrical poetry, among the poets who first came to the fore in the 'sixties several were active after 1880, such as Joseph Komócsy (d. 1894), whose *Szerelem Könyve* ("Book of Love") has become a popular classic; Victor Dalmady, who published in the 'nineties his *Hazafias Költemények* (Patriotic Poems); and Ladislas Arany, son of the great John. Among the prominent lyrists whose works, although partly published before 1880, belong largely to the later period, the following deserve special mention: The poetry of Emil Ábrányi (born 1850) is filled with the ideas and ideals of Victor Hugo. Ábrányi excels also as a translator, more particularly of Byron. Julius Reviczky (1855-1899) also inclined to the Occidental rather than to the specifically Magyar type of poets; his lyrics are highly finished, aristocratic and pessimistic (*Pán halála*, "The Death of Pan"). Count Géza Zichy (b. 1849) published his lyrical poems in 1892. Joseph Kiss (b. 1843) is especially felicitous in ballads taken from village and Jewish life, and in love-songs; Alexander Endrödi (b. 1850), one of the most gifted modern lyrical poets of Hungary, has the charm of tenderness and delicacy together with that of a peculiar and original style, his *Kurucz nóták* being so far his most successful attempt at romantic lyrics. Louis Bartók (b. 1851) is a remarkable satirist and epigrammatist (*Kárpáti emlékek*). Ödön Jakab (b. 1850) leans towards the poetic manner of Tompa, with perhaps a greater power of expression than the author of the *Virágregék* ("Flower-fables"); Jakab wrote

Hangok az ifjuságból (“Sounds of Youth”), *Nyár* (“Summer”), both collections of lyrical poems. Louis Pósa (b. 1850) has made a sphere of his own in his charming poems for and about children, *Édes anyám* (“My dear Mother”). In Andor Kozma (b. 1860), author of *A tegnap és a ma* (“Yesterday and To-day,” 1889), *Versek* (Poems, 1893), &c., there is undoubted power of genuine satire and deep humour. Michael Szabolcska (b. 1864), author of *Hangulatok* (“Moods,” 1894), showed great promise; Julius Vargha (b. 1853) cultivates the *népies* or folk-poetry as represented by Hungary’s two greatest poets, Petőfi and Arany; Vargha has also published excellent translations of Schiller and Goethe. Perhaps scarcely less remarkable are the modern Magyar lyrists, such as, of the older set, John Bulla (b. 1843), J. D. Temérdek, Gustavus Csengey (b. 1842), Paul Koroda (b. 1854), E. Julius Kovács (b. 1839, *Poems*, 1892), Ladislas Inczédi, Julius Nógrádi Pap, Julius Szávay (b. 1860), John Dengi (b. 1853); among the juniors, Anton Radó (also an excellent translator), Louis Palágyi (*Magányos úton*, “On Lonely Way,” &c.), Géza Gárdonyi (b. 1863, *Aprilis*, 1894), Zoltán Pap, Eugen Heltai (*Ignotus*), Julius Rudnyánszky (b. 1860, *Szerelem*, “Love”; *Nyár*, “Summer”), Árpád Zemplényi, Julius Szentessy, Emil Makai (b. 1870), Cornelius Gáspár, Julius Varsányi (b. 1863, *Mulandóság*, “The Unstableness of Things”), Alexander Luby (*Vergödés*, “Striving”), Eugen V. Szászvárosi, Endre Szabó (b. 1849), political satirist. In the most recent lyrics of Hungary there is a growing tendency to socialistic poetry, to the “poetry of misery” (*A nyomor költészete*). In epic poetry Josef Kiss’s *Jehova* is the most popular work. Amongst rhymed novels—novels in verse form—the best is the *Délibábok hőse* (“The Hero of Mirages”), in which Ladislas Arany tells, in brilliantly humorous and captivating fashion, the story of a young Magyar nobleman who, at first full of great ideals and aspirations, finally ends as a commonplace country squire.

Among Hungarian novels we may distinguish four dominant *genres* or tendencies. The first is represented almost exclusively by Maurus Jókai (*q.v.*). To the school so perfectly represented by Jókai belong Árpád Kupa (*A napszámosok*, “The Labourers”; *Képselt királyok*, “Imaginary Kings”); Robert Tábori (*Nagy játék*, “Great Game”; *A negyvenéves férfiu*, “The Man at Forty”); and Julius Werner (*Kendi Imre házassága*, “The Wedding of Emericus Kendi”; *Olga; Megvirrad még valaha*, “Dawn will come in the End”). The second class of Hungarian modern novelists is led by the well-known Koloman Mikszáth, a poet endowed with originality, a charming *naïveté*, and a freshness of observation from life. A close observer of the multifarious low life of Hungary, Mikszáth has, in his short stories, given a delightful yet instructive picture of all the minor varied phases of the peasant life of the Slavs, the *Palócok*, the Saxons, the town artisan. Amongst his numerous works may be mentioned *A jó palóczok* (“The Good Palóczok,” Slav peasants); *Egy választás Magyarországon* (“An Election in Hungary”); *Pipacsok a búzában* (“Wild Poppies in the Wheatfield”); *A tekintetes vármegye* (“The Worshipful County”); *Ne okoskodj Pista* (“Don’t reason, Pista”); *Szent Peter esernyője* (“St Peter’s Umbrella,” translated from the original into English by Miss B. W. Worswick), &c. Mikszáth has had considerable influence upon other writers. Such are Victor Rákosi (*Sipulus tárcái*, “The Essays of Sipulus”; *Rejtett fészkek*, “Hidden Nests”); Stephen Móra (*Atyánkfiai*, “Our Compatriots”); Alexius Benedek, the author of numerous distinctly sympathetic and truly Magyar tales, fables and novels, one of the most gifted and deserving literary workers of modern Hungary (*Huszár Anna*, “Anna Huszar”; *Egy szalmaözvegy levelei*, “Letters of a grass widow”; *A sziv könyve*, “The Book of the Heart”; *Katalin*, “Catherine”; *Csendes órák*, “Quiet Hours”; *Testamentum és hat levél*, “Last Will and Six Letters,” translated into German by Dr W. Schönwald, &c.); Géza Gárdonyi (several novels containing the adventures, observations, &c., of Mr Gabriel Gőre; *A kékszemü Davidkáné*, “Blue-eyed Mrs Dávidka”; *A Kátsa*, scenes from gipsy life); Charles Murai (*Vig történetek*, “Jolly Stories”; *Bandi*, a collection of short tales); Stephen Bársony (*Csend*, “Silence”; *A Kaméleon-leány*, “The Chamaeleon Girl, and other Stories”; *Erdőn-mezőn*, “In Wood and Field”). The third class of Magyar novelists comprises those cosmopolitan writers who take their method of work, their inspiration and even many of their subjects from foreign authors, chiefly French, German, Russian and also Norwegian. A people with an intense national sentiment, such as the Hungarians, do not as a rule incline towards permanent admiration of foreign-born or imported literary styles; and accordingly the work of this class of novelists has frequently met with very severe criticism on the part of various Magyar critics. Yet it can scarcely be denied that several of the “foreign” novelists have contributed a wholesome, if not quite Magyar, element of form or thought to literary narrative style in Hungary. Probably the foremost among them is Sigismund Justh, who died prematurely in the midst of his painful attempt at reconciling French “realistic” modes of thought with what he conceived to be Magyar simplicity (*A puszta könyve*, “The Book of the *Puszta*,” prairie of Hungary; *A Pénz legendája*, “The Legend of Money”; *Gányo Julcsa*, “Juliet Gányó”; *Fuimus*). Other novelists belonging to this school are: Desiderius Malonyai (*Az utolsó*, “The Last”; *Judith könyve*, “The Book of Judith”; *Tanulmányfejek*, “Typical Heads”); Julius Pekár (*Dodo főhadnagy problémái*, “Lieutenant Dodo’s Problems”; *Az aranykesztyűs kisasszony*, “The Maid with the Golden Gloves”; *A szoborszép asszony*, “The Lady as Beautiful as a Statue”; *Az esztendo legendája*, “The Legend of the Year”); Thomas Kobor (*Aszfalt*, “Asphalt”; *O akarta*, “He Wanted It”; *A csillagok felé*, “Towards the Stars”); Stephen Szomaházy (*Huszonnégy óra*, “Twenty-four Hours”; *A Clairette Keringő*, “The Clairette Valse”; *Páratlan szerdák*, “Incomparable Wednesdays”; *Nyári felhők*, “Clouds of

Summer"); Zoltán Thury (*Ullrich főhadnagy és egyéb történetek*, "Lieutenant Ullrich and other Tales"; *Urak és parasztok*, "Gentlemen and Peasants"); also Desiderius Szomory, Ödon Gerő, Árpád Abonyi, Koloman Szántó, Edward Sas, Julius Vértesi, Tibor Dénes, Ákos Pintér, the Misses Janka and Stéphanie Wohl, Mrs Sigismund Gyarmathy and others. In the fourth class may be grouped such of the latest Hungarian novelists as have tried, and on the whole succeeded, in clothing their ideas and characters in a style peculiar to themselves. Besides Stephen Petelei (*Jetti*, a name—"Henrietta"—*Felhők*, "Clouds") and Zoltán Ambrus (*Pókháló Kisasszony*, "Miss Cobweb"; *Gyanu*, "Suspicion") must be mentioned especially Francis Herczeg, who has published a number of very interesting studies of Hungarian social life (*Simon Zsuzsa*, "Susanna Simon"; *Fenn és lenn*, "Above and Below"; *Egy leány története*, "The History of a Girl"; *Idegenek között*, "Amongst Strangers"); Alexander Bródy, who brings a delicate yet resolute analysis to unfold the mysterious and fascinating inner life of persons suffering from overwrought nerves or overstrung mind (*A kétlelkü asszony*, "The Double-Souled Lady"; *Don Quixote kisasszony*, "Miss Don Quixote"; *Faust orvos*, "Faust the Physician"; *Tündér Ilona, Rejtelmek*, "Mysteries"; *Az ezüst kecske*, "The Silver Goat"); and Edward Kabos, whose sombre and powerful genius has already produced works, not popular by any means, but full of great promise. In him we may trace the influence of Nietzsche's philosophy (*Koldusok*, "Beggars"; *Vándorok*, "Wanderers"). To this list we must add the short but incomparable *feuilletons* (*tárczalevelek*) of Dr Adolf Ágai (writing under the *nom de plume* of Porzó), whose influence on the formation of modern Hungarian literary prose is hardly less important than the unique *esprit* and charm of his writings.

Dramatic literature, liberally supported by the king and the government, and aided by magnificent theatres in the capital and also in the provinces (the finest provincial theatre is in Kolozsvár, in Transylvania), has developed remarkably. The Hungarians have the genuine dramatic gift in abundance; they have, moreover, actors and actresses of the first rank. In the modern drama three great and clearly differentiated groups may be distinguished. First the neo-romantic group, whose chief representatives are Eugen Rákosi, Louis Dóczi (b. 1845), who, in addition to *Csók* ("The Kiss"), has written *Utolsó szerelem* ("Last Love"), *Széchy Mária* ("Maria Széchy"), *Vegyes Párok* ("Mixed Couples"). In these and other dramatic writings, more remarkable perhaps for poetic than for stage effects, Dóczi still maintains his brilliancy of diction and the delicacy of his poetic touch. To the same school belong Louis Bartók, Anton Váradi and Alexander Somló. The next group of Hungarian dramatists is dominated by the master spirit of Gregor Csiky (*q.v.*). Among Csiky's most promising disciples is Francis Herczeg (already mentioned as a novelist), author of the successful society comedy, *A Gyurkovics leányok* ("The Misses Gyurkovics"), *Három testőr* ("Three Guardsmen"), *Honty háza* ("The House of Honty"). Árpád Berczik's *Nézd meg az anyját* ("Look at her Mother"), *A protekczió* ("Patronizing"), also followed on the lines of Csiky. The third group of dramatic writers take their subjects, surroundings and diction from the folk-life of the villages (*népszínmü*, "folk-drama"). The greatest of these dramatists has so far been Edward Tóth (*Toloncz*, "The Ousted Pauper"). Amongst his numerous followers, who have, however, sometimes vulgarized their figures and plots, may be mentioned Tihamér Almási (*Milimári, A Miniszterelnök bálja*, "The Ball of the Premier") and Alexander Somló.

In philosophy there has been a remarkable increase of activity, partly assimilative or eclectic and partly original. Peter Bihari and Maurice Kármán have in various writings spread the ideas of Herbart. After the school of Comte, yet to a large extent original, is the *Az ember és világa* ("Man and his World") of Charles Böhm, who in 1881 started a philosophical review (*Magyar Filozofiaí Szemle*), subsequently edited by Joseph Bokor, a vigorous thinker. Realism, more particularly of the Wundt type, is represented by Emericus Pauer, *Az ethikai determinismus* ("Ethical Determinism"), and Eugen Posch (*Az időről*, "On Time"). On a Thomistic basis John Kiss edits a philosophical review (*Bölcseleti Folyóirat*); on similar lines have been working Ákos Mihályfi, Répássy, Augustin Lubrich and others. Neo-Hegelianism is cultivated by Eugen Schmitt, efficiently assisted by Joseph Alexander Simon (*Az egységes és reális természet filozofia alapvonalai*, "Outlines of a Uniform and Realistic Philosophy of Nature"). F. Medveczky (formerly a German author under the name of Fr. von Bärenbach) espouses Neo-Kantism (*Társadalmi elméletek és eszmények*, 1887, "Social Theories and Ideals"). The Hungarian scholar Samuel Brassai published, in 1896, *Az igazi pozitiv filozofia* ("The True Positive Philosophy"). Amongst the ablest and most zealous students of the history of philosophy are Bernhard Alexander, under whose editorship, aided by Joseph Bánoczi, a series of the works of the world's great thinkers has appeared; Andrew Domanovszky, author of an elaborate History of Philosophy; Julius Gyomlai, translator of Plato; Eugen Péterfy, likewise translator of philosophical works, &c.

Juristic literature has been stimulated by the activity in positive legislation. On 1st January 1900 a new criminal code, thoroughly modern in spirit, was put in force; and in 1901 a Civil Code Bill, to replace the old Hungarian customary system, was introduced. Among the newer writers on common and commercial law may be mentioned Wenczal, Zlinsky, Zögöd, Gustave Schwarz, Alexander Plósz, Francis Nagy and Neumann; on constitutional law, Korbuly, Boncz, Stephen Kiss, Ernest Nagy, Kmety, Arthur Balogh, Ferdinandy, Béla Grünwald, Julius

Andrássy and Emeric Hajnik; on administration, George Fésüs, Kmety and Csiky; on finance, Mariska, Exner and László. Among the later writers on statistics, moreover, have been Konek, Keleti, Láng, Földes, Jekelfalussy, Vorgha, Körösy, Ráth and Vízaknai.

On subjects of politics, amongst the more important works are the various monographs of Gustavus Beksics on the Dualism of Austria-Hungary, on the "New Foundations of Magyar Politics" (*A magyar politika uj alapjai*, 1899), on the Rumanian question, &c.; the writings of Emericus Bálint, Ákos Beöthy, Victor Concha (systematic politics), L. Ecsery, Géza Ferdinandy (historical and systematic politics), Árpád Zigány, Béla Földes (political economy), Julius Mandello (political economy), Alexander Matlekovics (Hungary's administrative service; *Államháztartás*, 3 vols.), J. Pólya (agrarian politics), M. Somogyi (sociology), and the late Augustus Pulszky.

In history there has been great activity. The millennial festivities in 1896 gave rise to the publication of what was then the most extensive history of the Hungarian nation (*A magyar nemzet története*, 1895-1901), ten large and splendidly illustrated volumes, edited by Alexander Szilágyi, with the collaboration of the best specialists of modern Hungary, Robert Fröhlich, B. Kuzsinszky, Géza Nagy, H. Marczali, Anton Pór, Schönherr, V. Fraknói, Árpád Károlyi, David Angyal, Coloman Thaly, Géza Ballagi.

Literary criticism is actively pursued. Among the more authoritative writers Paul Gyulai and Zsolt Beöthy represent the conservative school; younger critics, like Béla Lázár, Alexander Hevesi, H. Lenkei, Zoltán Ferenczy, Aladár Ballagi, Ladislas Négyessy, have shown themselves somewhat too ready to follow the latest Norwegian or Parisian sensation.

Authorities.—The best authorities on Magyar literature are: F. Toldy, *A Magyar nemzeti irodalom története a legrégibb időktől a jelenkorig* (Pest, 1864-1865; 3rd ed., 1872); S. Imre, *A Magyar irodalom és nyelv rövid története* (Debreczen, 1865; 4th ed., 1878); J. Szvorényi, *Magyar irodalmi szemelvények* (Pest, 1867), and *A Magyar irodalmi tanulmányok kézikönyve* (Pest, 1868); P. Jámbor, *A Magyar irodalom története* (Pest, 1864); J. Környei, *A Magyar nemzeti irodalomtörténet vázlata* (Pest, 1861; 3rd ed., 1874); A. Lonkay, *A Magyar irodalom ismertetése* (Budán, 1855; 3rd ed., Pest, 1864); J. Ferencz, *Magyar irodalom és tudományosság története* (Pest, 1854); J. Ferencz és J. Danielik, *Magyar Irók. Életrajz-Gyütemény* (2 vols., Pest, 1856-1858); and the literary histories of L. Névy, Z. Beöthy and B. Erödi. One of the most useful monographs on "Magyar Literary History Writing" is that of J. Szinnyei, junior, *A Magyar Irodalomtörténet-Irás ismertetése* (Budapest, 1878). For information as to the most recent literature see A. Dux, *Aus. Ungarn.* (Leipzig, 1880); Zsolt Beöthy, *A Magy. nemz. irod. tört.*; S. Bodnár, *A magy. irod. tört.*; Béla Lázár, *A tegnap, a ma, és a holnap* (Budapest, 1896-1900); Joseph Szinnyel, *Magy. irók élete és munkái* (an extensive biographical dictionary of Hungarian authors); *Irodalom történeti Közlemények* (a periodical edited by Aron Szilády, for the history of literature); Emil Reich, *Hungarian Literature* (London, 1898).

(E. Re.*)

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1 See the table in Seton-Watson's *Racial Problems in Hungary*, Appendix xiii. p. 470, and Drage, *Austria-Hungary*, p. 289. Of the emigrants in 1906, 52,121 were Magyars, 32,904 Slovaks, 30,551 Germans, 20,859 Rumanians and 16,016 Croats.

2 *Racial Problems*, p. 202.

3 The colouring of ordinary ethnographical maps is necessarily somewhat misleading. When an attempt is made to represent in colour the actual distribution of the races (as in Dr Chavanne's *Geographischer und statistischer Handatlas)* the effect is that of occasional blotches of solid colour on a piece of shot silk.

4 The distribution of the races is analysed in greater detail in Mr Seton-Watson's *Racial Problems*, p. 3 seq.

5 Seton-Watson, *op. cit.* pp. 173, 188, 252; Drage, Austria-Hungary, pp. 280, 588; Gonnard, La Hongrie, p. 72.

6 An admirable account of this "little world, which produces almost everything and is almost self-sufficient" is given by M. Gonnard in his *Hongrie au XX^{me} siècle*, p. 159 seq.

7 *Ib.* p. 349 seq.

8 Merchandise passing the boundaries is subject to declaration; the respective values are stated by a special commission of experts residing in Budapest.

9 The acquisition of the Austrian Staatsbahn in 1891 practically gave to the state the control of the whole railway net of Hungary. By 1900 all the main lines, except the Südbahn and the Kaschan-Oberbergar Bahn, were in its hands.

10 The franchise is "probably the most illiberal in Europe." Servants, in the widest sense of the word, apprenticed workmen and agricultural labourers are carefully excluded. The result is that the working classes are wholly unrepresented in the parliament, only 6% of them, and 13% of the

small trading class, possessing the franchise, which is only enjoyed by 6% of the entire population (see Seton-Watson, *Racial Problems*, 250, 251). For the question of franchise reform which played so great a part in the Austro-Hungarian crisis of 1909-1910 see *History*, below.—[Ed.]

11 *i.e.* Catholics of the Oriental rite in communion with Rome.

12 The methods pursued to this end are exposed in pitiless detail by Mr Seton-Watson in his chapter on the Education Laws of Hungary, in *Racial Problems*, 205.

13 Ger. Ottrik, in religion Anastasius.

14 At its worst, *c.* 1030-1033, cannibalism was common.

15 The English title of lord-lieutenant is generally used as the best translation of *Föispán* or *comes* (in this connexion). The title of count (*gróf*) was assumed later (15th century) by those nobles who had succeeded, in spite of the Golden Bull, in making their authority over whole counties independent and hereditary.—[Ed.]

16 The bán is equivalent to the margrave, or count of the marches.

17 Andrássy, *Development of Hung. Const. Liberty* (Eng. trans., p. 93); *Knatchbull-Hugessen*, i. 26 seq., where its provisions are given in some detail.

18 The full title of the palatine (Mag. *nádor* or *nádor-ispán*, Lat. *palatinus*) was *comes palatii regni*, the first palatine being Abu Samuel (*c.* 1041). By the Golden Bull the palatine acquired something of the quality of a responsible minister, as "intermediary between the crown and people, guardian of the nation's rights, and keeper of the king's conscience" (*Knatchbull-Hugessen*, i. 30).

19 *Knatchbull-Hugessen*, i. 41.

20 That is to say the western portion of Walachia, which lies between the Aluta and the Danube.

21 Though elected king of the Romans in 1411, he cannot be regarded as the legal emperor till his coronation at Rome in 1423, and if he was titular king of Bohemia as early as 1419, he was not acknowledged as king by the Czechs themselves till 1436.

22 In 1412 he pawned the twenty-four Zips towns to Poland, and, in 1411 he pledged his margraviate of Brandenburg to the Hohenzollerns.

23 Some of these were of gigantic size, *e.g.* the Varga Mozsar, or great mortar, which sixty horses could scarce move from its place, and a ballistic machine invented by Matthias which could hurl stones of 3 cwt.

24 We know actually of fifteen, but there may have been many more.

25 It should be remembered that at this time one-third of the land belonged to the church, and the remainder was in the hands of less than a dozen great families who had also appropriated the royal domains.

26 The *Opus tripartitum juris consuetudinarii regni Hungariae* was drawn up by Verböczy at the instance of the diet in 1507. It was approved by a committee of the diet and received the royal *imprimatur* in 1514, but was never published. In the constitutional history of Hungary the *Tripartitum* is of great importance as reasserting the fundamental equality of all the members of the populus (*i.e.* the whole body of the nobles) and, more especially, as defining the co-ordinate power of the king and "people" in legislation: *i.e.* the king may propose laws, but they had no force without the consent of the people, and vice versa. See Knatchbull-Hugessen, i. 64.

27 He was just twenty.

28 It was kept secret for some years for fear of Turkish intervention.

29 In contradistinction to Turkish Hungary and Transylvanian Hungary.

30 At first the Habsburgs held their court at Prague instead of at Vienna.

31 According to contemporary records the number of prelates and priests in the three parts of Hungary at the beginning of the 17th century was but 103, all told, and of the great families not above half a dozen still clung to Catholicism.

32 The counties of Szatmar, Ugocsa and Bereg and the fortress of Tokaj were formally ceded to him.

33 He was the first Protestant palatine.

34 The jobbagyok, or under-tenants, had to follow the example of their lords; they were, by this time, mere serfs with no privileges either political or religious.

35 E.g. in Esztergom, the primatial city, there were only two buildings still standing.

36 Charles VI. as emperor.

37 *Litterae credentiales*, nearly equivalent to a coronation oath.

38 Up to 1848 the Hungarian diet was usually held at Pressburg.

39 Franz Phillip, Count von Lamberg (1791-1848), a field-marshal in the Austrian army, who had

seen service in the campaigns of 1814-1815 in France, belonged to the Stockerau branch of the ancient countly family of Orteneck-Ottenstein. He was chosen for this particular mission as being himself a Hungarian magnate conversant with Hungarian affairs, but at the same time of the party devoted to the court.

40 The crowning atrocities, which the Magyars have never wholly forgiven, were the shooting and hanging of the "Arad Martyrs" and the execution of Batthyány. On October 6, 1849, thirteen generals who had taken part in the war, including Damjanics and Counts Vécsey and Leiningen, were hanged or shot at Arad. On the same day Count Louis Batthyány, who had taken no part in the war and had done his utmost to restrain his countrymen within the bounds of legality, was shot at Pest.

41 Transylvania, Croatio-Slavonia with Fiume and the Temes Banat were separated from the kingdom and provided with local governments.

42 This *Reichsrath* was a purely consultative body, the ultimate control of all important affairs being reserved to the emperor. Its representative element consisted of 100 members elected by the provinces.

43 Beust was the only "imperial chancellor" in Austro-Hungarian history: even Metternich bore only the title of "chancellor"; and Andrássy, who succeeded Beust, styled himself "minister of the imperial and royal household and for foreign affairs."

44 See for this Mr Seton-Watson's *Racial Problems of Hungary, passim*.

45 *Ibid.* p. 168.

46 Especially the Electoral Law of 1874, which established a very unequal distribution of electoral areas, a highly complicated franchise, and voting by public declaration, thus making it easy for the government to intimidate the electors and generally to gerrymander the elections.

47 The Austrian court resented especially the decree proclaiming national mourning for Louis Kossuth, though no minister was present at the funeral.

48 Subsequently extended till 1907.

49 The question involves rather complex issues. Apart from the question of constitutional right, the Magyars objected to German as the medium of military education as increasing the difficulty of magyarizing the subordinate races of Hungary (see *Knatchbull-Hugessen*, ii. 296). On the other hand the Austrians pointed out that not only would failure to understand each other's language cause fatal confusion on a battlefield, but also tend to disintegrate the forces even in peace time. They also laid stress on the fact that Magyar was not, any more than German, the language of many Hungarian regiments, consisting as these did mainly of Slovaks, Vlachs, Serbs and Croats. In resisting the Magyar word of command, then, the king-emperor was able to appeal to the anti-Magyar feeling of the other Hungarian races.

(W. A. P.)

50 Of the 16,000,000 inhabitants of Hungary barely a half were Magyar; and the franchise was possessed by only 800,000, of whom the Magyars formed the overwhelming majority.

51 The cabinet consisted of Dr Wekerle (premier and finance), Ferencz Kossuth (commerce), Count Gyula Andrássy (interior), Count Albert Apponyi (education), Daványi (agriculture), Polónyi (justice) and Count Aladár Zichy (court).

52 Seton-Watson, *Racial Problems*, p. 194.

53 *The Times*, March 14, 1907.

54 *Ibid.* October 11, 1907.

55 *Ibid.* October 15, 1907.

56 *The Times*, September 27, 1908.

57 The People's party first emerged during the elections of 1896, when it contested 98 seats. Its object was to resist the anti-clerical tendencies of the Liberals, and for this purpose it appealed to the "nationalities" against the dominant Magyar parties, the due enforcement of the Law of Equal Rights of Nationalities (1868) forming a main item of its programme. Its leader, Count Zichy, in a speech of Jan. 1, 1897, declared it to be neither national, nor Liberal, nor Christian to oppress the nationalities. See Seton-Watson, p. 185.

58 See Hunfalvy's "Die ungarische Sprachwissenschaft," *Literarische Berichte aus Ungarn*, pp. 80-87 (Budapest, 1877).

59 *Specimen usus linguae Gothicae in eruendis atque illustrandis obscurissimis quibusdam Sacrae Scripturae locis; addita analogia linguae Gothicae cum Sinica, necnon Finnicae cum Ungarica* (Upsala, 1717).

60 Hunfalvy, p. 81.

61 Id. pp. 82-86.

62 *Demonstratio Idioma Ungarorum et Lapponum idem esse* (Copenhagen und Tyrnau, 1770).

63 See Count Géza Kuun's "Lettere Ungheresi," *La Rivista Europea*, anno vi., vol. ii. fasc. 3, pp. 561-562 (Florence, 1875).

64 So also Jámbor (*A Magyar Irod. Tört.*, Pest, 1864, p. 104). Környei, Imre and others incline to the belief that it was Béla I. and that consequently the "anonymous notary" belongs rather to the 11th than to the 12th century.

65 An example of this work, printed on vellum in Gothic letter (Augsburg, 1488), and formerly belonging to the library of Matthias Corvinus, king of Hungary, may be seen in the British Museum. Of the three first-mentioned chronicles Hungarian translations by Charles Szabó appeared at Budapest in 1860, 1861 and 1862.

66 Both this and the later editions of Frankfort (1581), Cologne (1690) and Pressburg (1744) are represented in the British Museum.

67 The only copy existing at the present time appears to have been transcribed at the beginning of the 16th century. Both this and the *Halotti Beszéd* (Pray Codex) are preserved in the National Museum at Budapest.

68 This codex contains Ruth, the lesser prophets, and part of the Apocrypha. According to Toldy, it is copied from an earlier one of the 14th century.

69 First made known by Coloman Thaly (1871) from a discovery by MM. E. Nagy and D. Véghelyi in the archives of the Csicsery family, in the county of Ung.

70 One of the only seven perfect copies extant of the Vienna (1574) edition is in the British Museum library.

71 A copy, with the autograph of the editor, is in the British Museum.

72 A copy is in the British Museum library.

73 There are two copies of this edition in the British Museum library.

74 The earliest, styled "Song on the Discovery of the right hand of the Holy King Stephen," and printed at Nuremberg by Anton Koburger in 1484, is lost.

75 See Chas. Szabó's *Régi Magyar Kònyvtár* (Budapest, 1879). Cf. also *Lit. Ber. aus Ungarn for 1879*, Bd. iii. Heft 2, pp. 433-434.

76 The subject is similar to that of Grillparzer's tragedy, *Ein treuer Diener seines Herrn*.

77 It was founded in 1825 through the generosity of Count Széchenyi, who devoted his whole income for one year (60,000 florins) to the purpose. It was soon supported by contributions from all quarters except from the government.

78 Among the earlier publications of the academy were the *Tudománytár* (Treasury of Sciences, 1834-1844), with its supplement *Literatura*; the *Külföldi játékszin* (Foreign Theatres); the *Magyar nyelv rendszere* (System of the Hungarian language, 1846; 2nd ed., 1847); various dictionaries of scientific, mathematical, philosophical and legal terms; a Hungarian-German dictionary (1835-1838), and a Glossary of Provincialisms (1838). The *Nagy-Szótár* (Great Dictionary), begun by Czuczor and Fogarasi in 1845, was not issued till 1862-1874. Among the regular organs of the academy are the *Transactions* (from 1840), in some 60 vols., and the *Annuals*.

79 Among its earlier productions were the *Nemzeti könyvtár* (National Library), published 1843-1847, and continued in 1852 under the title *Ujabb Nemzeti könyvtár*, a repository of works by celebrated authors; the *Külföldi Regénytár* (Treasury of Foreign Romances), consisting of translations; and some valuable collections of proverbs, folk-songs, traditions and fables. Of the many later publications of the Kisfaludy society the most important as regards English literature is the *Shakspere Minden Munkái* (Complete Works of Shakespeare), in 19 vols. (1864-1878), to which a supplementary vol., *Shakspere Pályája* (1880), containing a critical account of the life and writings of Shakespeare, has been added by Professor A. Greguss. Translations from Molière, Racine, Corneille, Calderon and Moreto have also been issued by the Kisfaludy society. The *Évlapok új folyama*, or "New Series of Annuals," from 1860 (Budapest, 1868, &c.), is a chrestomathy of prize orations, and translations and original pieces, both in poetry and prose.

80 Unitarian bishop of Transylvania, author of *Vadrózsák*, or "Wild Roses" (1863), a collection of Szekler folk-songs, ballads and sayings.

81 Besides the various translators from the English, as for instance William Györi, Augustus Greguss, Ladislaus Arany, Sigismond Ács, Stephen Fejes and Eugene Rákosy, who, like those already incidentally mentioned, assisted in the Kisfaludy society's version of Shakespeare's complete works, metrical translations from foreign languages were successfully made by Emil Ábrányi, Dr Ignatius Barna, Anthony Várady, Andrew Szabó, Charles Bérczy, Julius Greguss, Lewis Dóczi, Béla Erödi, Emeric Gáspár and many others. A Magyar version, by Ferdinand Barna, of the *Kalewala* was published at Pest in 1871. Faithful renderings by Lewis Szeberényi, Theodore Lehoczky and Michael Fincicky of the popular poetry of the Slavic nationalities appeared in vols. i. and ii. of the *Hazai nép költészet tára* (Treasury of the Country's Popular Song), commenced in 1866, under the auspices of the Kisfaludy society. In vol. iii. Rumanian folk-songs were Magyarized by George Ember, Julian Grozescu and Joseph Vulcanu, under the title *Román népdalok* (Budapest,

1877). The Rózsák (Zombor, 1875) is a translation by Eugene Pavlovits from the Servian of Jovan Jovanovits. Both the last-mentioned works are interesting from an ethnographical point of view. We may here note that for foreigners unacquainted with Hungarian there are, besides several special versions of Petöfi and of Arany, numerous anthologies of Magyar poetry in German, by Count Majláth (1825), J. Fenyéry and F. Toldy (1828), G. Steinacker (1840, 1875), G. Stier (1850), K. M. Kertbeny (1854, 1860), A. Dux (1854), Count Pongrácz (1859-1861), A. M. Riedl (1860), J. Nordheim (1872), G. M. Henning (1874), A. von der Heide (1879) and others. Selections have also been published in English by Sir John Bowring (1830), S. Wékey in his grammar (1852) and E. D. Butler (1877), and in French by H. Desbordes-Valmore and C. E. de Ujfalvy (1873).

82 The translator of Macaulay.

83 See, however, J. Szinnyei & Son's *Bibliotheca Hungarica historiae naturalis et matheseos*, 1472-1875 (Budapest, 1878), where the number of Magyar works bearing on the natural sciences and mathematics printed from the earliest date to the end of 1875 is stated to be 3811, of which 106 are referred to periodicals.

84 This will appear even more striking by a consideration of the number of periodical publications published in Hungary in languages other than Magyar. Thus, while of German periodicals appearing in Hungary there were in 1871 only 85, they increased in 1880 to 114, in 1885 to 141; and they were, at the beginning of 1895, still 128, in spite of the constant spread of that process of Magyarization which has, since 1880, considerably changed the linguistic habits of the people of Hungary.

HUNGER and THIRST. These terms are used to express peculiar sensations which are produced by and give expression to general wants of the system, satisfied respectively by the ingestion of organic solids containing substances capable of acting as food, and by water or liquids and solids containing water.

Hunger (a word common to Teutonic languages) is a peculiarly indefinite sensation of craving or want which is referred to the stomach, but with which is often combined, always indeed in its most pronounced stages, a general feeling of weakness or faintness. The earliest stages are unattended with suffering, and are characterized as "appetite for food." Hunger is normally appeased by the introduction of solid or semi-solid nutriment into the stomach, and it is probable that the almost immediate alleviation of the sensation in these circumstances is in part due to a local influence, perhaps connected with a free secretion of gastric juice. Essentially, however, the sensation of hunger is a mere local expression of a general want, and this local expression ceases when the want is satisfied, even though no food be introduced into the stomach, the needs of the economy being satisfied by the introduction of food through other channels, as, for example, when food which admits of being readily absorbed is injected into the large intestine.

Thirst (a word of Teutonic origin, Ger. *Durst*, Swed. and Dan. *törst*, akin to the Lat. *torrere*, to parch) is a peculiar sensation of dryness and heat localized in the tongue and throat. Although thirst may be artificially produced by drying, as by the passage of a current of air over the mucous membrane of the above parts, normally it depends upon an impoverishment of the system in water. And, when this impoverishment ceases, in whichever way this be effected, the sensation likewise ceases. The injection of water into the blood, the stomach, or the large intestine appeases thirst, though no fluid is brought in contact with the part to which the sensation is referred.

The sensations of hunger and thirst lead us, or when urgent compel us, to take food and drink into the mouth. Once in the mouth, the entrance to the alimentary canal, the food begins to undergo a series of processes, the object of which is to extract from it as much as possible of its nutritive constituents. Food in the alimentary canal is, strictly speaking, outside the confines of the body; as much so as the fly grasped in the leaves of the insectivorous *Dionea* is outside of the plant itself. The mechanical and chemical processes to which the food is subjected have their seat and conditions outside the body which it is destined to nourish, though unquestionably the body is no passive agent, and innumerable glands come into action to supply the chemical agents which dissolve and render assimilable those constituents of the food capable of being absorbed into the organism, and of forming part and parcel of its substance (see further under NUTRITION).

HUNGERFORD, WALTER HUNGERFORD, Baron (d. 1449), English soldier, belonged to a Wiltshire family. His father, Sir Thomas Hungerford (d. 1398), was speaker of the House of Commons in 1377, a position which he owed to his friend John of Gaunt, and is the first person formally mentioned in the rolls of parliament as holding the office. Walter Hungerford also served as speaker, but he is more celebrated as a warrior and diplomatist, serving in the former capacity at Agincourt and in the latter at the council of Constance and the congress of Arras. An executor of Henry V.'s will and a member of the council under Henry VI., Hungerford became a baron in 1426, and he was lord treasurer from 1426 to 1431. Remains of his benefactions still exist at Heytesbury, long the principal residence of the family.

Hungerford's son Robert (*c.* 1400-1459) was also called to parliament as a baron; he was very wealthy, both his mother and his wife being heiresses. Like several other members of the family, Robert was buried in the cathedral at Salisbury.

Robert's son and heir, Robert, Lord Moleyns and Hungerford (*c.* 1420-1464), married Eleanor, daughter of Sir William de Moleyns, and was called to parliament as Lord de Moleyns in 1445. He is chiefly remembered through his dispute with John Paston over the possession of the Norfolk manor of Gresham. After losing this case he was taken prisoner in France in 1452, not securing his release until 1459, During the Wars of the Roses he fought for Henry VI., with whom he fled to Scotland; then he was attainted, was taken prisoner at the battle of Hexham, and was executed at Newcastle in May 1464.

His eldest son, Sir Thomas Hungerford (d. 1469), was attainted and executed for attempting the restoration of Henry VI.; a younger son, Sir Walter Hungerford (d. 1516), who fought for Henry VII. at Bosworth, received some of the estates forfeited by his ancestors. Sir Thomas, who had no sons, left an only daughter Mary (d. *c.* 1534). When the attainders of her father and grandfather were reversed in 1485 this lady became Baroness Hungerford and Baroness de Moleyns; she married into the Hastings family and was the mother of George Hastings, 1st earl of Huntingdon.

Sir Walter Hungerford's son Edward (d. 1522) was the father of Walter, Lord Hungerford of Heytesbury (1503-1540), who was created a baron in 1536, but was attainted for his alleged sympathy with the Pilgrimage of Grace; he was beheaded on the 28th of July 1540, the same day as his patron Thomas Cromwell. As his sons Sir Walter (1532-1596) and Sir Edward (d. 1607) both died without sons the estates passed to another branch of the family.

Sir Edward Hungerford (1596-1648), who inherited the estates of his kinsman Sir Edward in 1607, was the son of Sir Anthony (1564-1627) and a descendant of Walter, Lord Hungerford. He was a member of both the Short and Long Parliaments in 1640; during the Civil War he attached himself to the parliamentary party, fighting at Lansdowne and at Roundway Down. His half-brother Anthony (d. 1657) was also a member of both the Short and the Long Parliaments, but was on the royalist side during the war. This Anthony's son and heir was Sir Edward Hungerford (1632-1711), the founder of Hungerford market at Charing Cross, London. He was a member of parliament for over forty years, but was very extravagant and was obliged to sell much of his property; and little is known of the family after his death.

See Sir R. C. Hoare, *History of Modern Wiltshire* (1822-1844).

HUNGERFORD, a market town in the Newbury parliamentary division of Berkshire, England, extending into Wiltshire, 61 m. W. by S. of London by the Great Western railway. Pop. (1901) 2906. It is beautifully situated in the narrow valley of the Kennet at the junction of tributary valleys from the south and south-west, the second of which is followed by the Bath road, an important highway from London to the west. The town, which lies on the Kennet and Avon canal, has agricultural trade. John of Gaunt, duke of Lancaster, presented to the citizens manorial rights, including common pasture and fishing. The fishing is valuable, for the trout of the Kennet and other streams in the locality are numerous and carefully preserved. Hungerford is also a favourite hunting centre. A horn given to the town by John of Gaunt is preserved in the town hall, another horn dating from 1634 being used to summon the manorial court of twelve citizens called feoffees (the president being called the constable), at Hocktide, the Tuesday following Easter week. In 1774, when a number of towns had taken action against the imposition of a fee for the delivery of letters from their local post-offices, Hungerford was selected as a typical case, and was first relieved of the imposition.

HÜNINGEN, a town of Germany, in Alsace-Lorraine, situated on the left bank of the Rhine, on a branch of the Rhine-Rhone canal, and 3 m. N. of Basel by rail. Pop. (1905) 3304. The Rhine is here crossed by an iron railway bridge. The town boasts a handsome Roman Catholic church, and has manufactures of silk, watches, chemicals and cigars. Hüningen is an ancient place and grew up round a stronghold placed to guard the passage of the Rhine. It was wrested from the Imperialists by the duke of Lauenburg in 1634, and subsequently passed by purchase to Louis XIV. of France. It was fortified by Vauban (1679-1681) and a bridge was built across the Rhine. The fortress capitulated to the Austrians on the 26th of August 1815 and the works were shortly afterwards dismantled. In 1871, the town passed, with Alsace-Lorraine, to the German empire.

See Tschamber, *Geschichte der Stadt und ehemaligen Festung Hüningen* (St Ludwig, 1894); and Latruffe, *Huningue et Bâle devant les traités de 1815* (Paris, 1863).

HUNNERIC (d. 484), king of the Vandals, was a son of King Gaiseric, and was sent to Italy as a hostage in 435 when his father made a treaty with the emperor Valentinian III. After his return to the Vandal court at Carthage, he married a daughter of Theodoric I., king of the Visigoths; but when this princess was suspected of attempting to poison her father-in-law, she was mutilated and was sent back to Europe. Hunneric became king of the Vandals on his father's death in 477. Like Gaiseric he was an Arian, and his reign is chiefly memorable for his cruel persecution of members of the orthodox Christian Church in his dominions. Hunneric's second wife was Eudocia, a daughter of Valentinian III. and his wife Eudocia. (See VANDALS.)

HUNNIS, WILLIAM (d. 1597), English musician and poet, was as early as 1549 in the service of William Herbert, afterwards earl of Pembroke. His friend Thomas Newton, in a poem prefixed to *The Hive of Hunnye* (1578), says: "In prime of youth thy pleasant Penne depaincted Sonets sweete," and mentions his interludes, gallant lays, rondelets and songs, explaining that it was in the winter of his age that he turned to sacred lore and high philosophy. In 1550 he published *Certayne Psalms ... in Englishe metre*, and shortly afterwards was made a gentleman of the Chapel Royal. At Mary's accession he retained his appointment, but in 1555 he is said to have been one of a party of twelve conspirators who had determined to take Mary's life. Nothing came of this plot, but shortly afterwards he was party to a conspiracy to dethrone Mary in favour of Elizabeth. Hunnis, having some knowledge of alchemy, was to go abroad to coin the necessary gold, but this doubtful mission was exchanged for the task of making false keys to the treasury in London, which he was able to do because of his friendship with Nicholas Brigham, the receiver of the exchequer. The conspirators were, however, betrayed by one of their number, Thomas Whyte. Some of them were executed, but Hunnis escaped with imprisonment. The death of Mary made him a free man, and in 1559 he married Margaret, Brigham's widow, but she died within the year, and Hunnis married in 1560 the widow of a grocer. He himself became a grocer and freeman of the City of London, and supervisor of the Queen's Gardens at Greenwich. In 1566 he was made Master of the Children of the Chapel Royal. No complete piece of his is extant, perhaps because of the rule that the plays acted by the Children should not have been previously printed. In his later years he purchased land at Barking, Essex. If the lines above his signature on a 1557 edition of Sir Thomas More's works are genuine, he remained a poor man, for he refuses to make a will on the ground that "the good that I shall leave, will not pay all I owe." In Harleian MS. 6403 is a story that one of his sons, in the capacity of page, drank the remainder of the poisoned cup supposed to have been provided by Leicester for Walter Devereux, 1st earl of Essex, but escaped with no injury beyond the loss of his hair.

Hunnis's extant works include *Certayne Psalms* (1549), *A Hive full of Hunnye* (1578), *Seven Sobbes of a sorrowful Soule for Sinne* (1583), *Hunnies Recreations* (1588), sixteen poems in

the *Paradise of Dainty Devices* (1576), and two in *England's Helicon* (1600). See Mrs C. Carmichael Stopes's tract on William Hunnis, reprinted (1892) from the *Jahrbuch der deutschen Shakespeare Gesellschaft*.

HUNS. This or some similar name is given to at least four peoples, whose identity cannot be regarded as certain. (1) The Huns, who invaded the East Roman empire from about A.D. 372 to 453 and were most formidable under the leadership of Attila. (2) The Hungarians or Magyars. The Magyars crossed the Carpathians into Hungary in A.D. 898 and mingled with the races they found there. The modern Hungarians (excluding Slavonic elements) are probably a mixture of these Magyars with the remnants of older invaders such as Huns, Petchenegs and Kumans. (3) The White Huns (Λευκοὶ Οὖννοι or Ephthalites), who troubled the Persian empire from about 420 to 557 and were known to the Byzantines. (4) The Hûnas, who invaded India during the same period. There is not much doubt that the third and fourth of these tribes are the same, and it is quite likely that the Magyars are descended from the horde which sent forth the Huns in the 4th century, but it is not demonstrable. Neither can it be proved that the Huns and Magyars belonged either physically or linguistically to the same section as the Hûnas and Ephthalites. But the occurrence of the name in both India and Europe is prima facie evidence in favour of a connexion between those who bore it, for, though civilized races often lumped all their barbarian neighbours together under one general name, it would seem that, when the same name is applied independently to similar invaders in both India and eastern Europe, the only explanation can be that they gave themselves that name, and this fact probably indicates that they were members of the same tribe or group. What we know of the history and distribution of the Huns does not conflict with this idea. They appear in Europe towards the end of the 4th century and the Ephthalites and Hûnas in western Asia about fifty years later. It may be supposed that some defeat in China (and the Chinese were successful in driving back the Hiung-nu in the 1st century A.D.) had sent them westwards some time earlier. One body remained in Transoxiana and, after resting for a time, pushed their way through the mountains into Afghanistan and India, exactly as the Yüe-Chi had done before them. Another division pressed farther westwards and probably made its headquarters near the northern end of the Caspian Sea and the southern part of the Ural Mountains. It was from here that the Huns invaded Europe, and when their power collapsed, after the death of Attila, many of them may have returned to their original haunts. Possibly the Bulgarians and Khazars were offshoots of the same horde. The Magyars may very well have gradually spread first to the Don and then beyond it, until in the 9th century they entered Hungary. But this sketch of possible migrations is largely conjectural, and authorities are not even agreed as to the branch of the Turanians to which the Huns should be referred. The physical characteristics of these nomadic armies were very variable, since they continually increased their numbers by slaves, women and soldiers of fortune drawn from all the surrounding races. The language of the Magyars is Finno-Ugric and most nearly allied to the speech of the Ostiaks now found on the east of the Ural, but we have no warrant for assuming that the Huns, and still less that the Ephthalites and Hûnas, spoke the same language. Neither can we assume that the Huns and Hûnas are the same as the Hiung-nu Of the Chinese. The names may be identical, but it is not certain, for in Hun may lurk some such designation as the ten (Turkish *on* or *ūn*) tribes. Also Hiung-nu seems to be the name of warlike nomads in general, not of a particular section. Again the Finnish languages spoken in various parts of Russia and more or less allied to Magyar must have spread gradually westwards from the Urals, and their development and diffusion seem to postulate a long period (for the history of the Finns shows that they were not mobile like the Turks and Mongols), so that the ancestral language from which spring Finnish and Magyar can hardly have been brought across Asia after the Christian era. The warlike and vigorous temper of the Huns has led many writers to regard them as Turks. The Turks were perhaps not distinguished by name or institutions from other tribes before the 5th century, but the Huns may have been an earlier offshoot of the same stock. Apart from this the Hungarians may have received an infusion of Turkish blood not only from the Osmanlis but from the Kumans and other tribes who settled in the country.

History.—The authentic history of the Huns in Europe practically begins about the year A.D. 372, when under a leader named Balamir (or, according to some MSS., Balamber) they began a westward movement from their settlements in the steppes lying to the north of the Caspian. After crushing, or compelling the alliance of, various nations unknown to fame (Alpilzuri, Alcidzuri, Himari, Tuncarsi, Boisci), they at length reached the Alani, a powerful nation which had its seat between the Volga and the Don; these also, after a struggle, they defeated and

finally enlisted in their service. They then proceeded, in 374, to invade the empire of the Ostrogoths (Greutungi), ruled over by the aged Ermanaric, or Hermanric, who died (perhaps by his own hand) while the critical attack was still impending. Under his son Hunimund a section of his subjects promptly made a humiliating peace; under Withemir (Winithar), however, who succeeded him in the larger part of his dominions, an armed resistance was organized; but it resulted only in repeated defeat, and finally in the death of the king. The representatives of his son Witheric put an end to the conflict by accepting the condition of vassalage. Balamir now directed his victorious arms still farther westward against that portion of the Visigothic nation (or Tervingi) which acknowledged the authority of Athanaric. The latter entrenched himself on the frontier which had separated him from the Ostrogoths, behind the "Greutungrampart" and the Dniester; but he was surprised by the enemy, who forded the river in the night, fell suddenly upon his camp, and compelled him to abandon his position. Athanaric next attempted to establish himself in the territory between the Pruth and the Danube, and with this object set about heightening the old Roman wall which Trajan had erected in north-eastern Dacia; before his fortifications, however, were complete, the Huns were again upon him, and without a battle he was forced to retreat to the Danube. The remainder of the Visigoths, under Alavivus and Fritigern, now began to seek, and ultimately were successful in obtaining (376), the permission of the emperor Valens to settle in Thrace; Athanaric meanwhile took refuge in Transylvania, thus abandoning the field without any serious struggle to the irresistible Huns. For more than fifty years the Roman world was undisturbed by any aggressive act on the part of the new invaders, who contented themselves with over-powering various tribes which lived to the north of the Danube. In some instances, in fact, the Huns lent their aid to the Romans against third parties; thus in 404-405 certain Hunnic tribes, under a chief or king named Uldin, assisted Honorius in the struggle with Radagaisus (Ratigar) and his Ostrogoths, and took a prominent part in the decisive battle fought in the neighbourhood of Florence. Once indeed, in 409, they are said to have crossed the Danube and invaded Bulgaria under perhaps the same chief (Uldin), but extensive desertions soon compelled a retreat.

About the year 432 a Hunnic king, Ruas or Rugulas, made himself of such importance that he received from Theodosius II. an annual stipend or tribute of 350 pounds of gold (£14,000), along with the rank of Roman general. Quarrels soon arose, partly out of the circumstance that the Romans had sought to make alliances with certain Danubian tribes which Ruas chose to regard as properly subject to himself, partly also because some of the undoubted subjects of the Hun had found refuge on Roman territory; and Theodosius, in reply to an indignant and insulting message which he had received about this cause of dispute, was preparing to send off a special embassy when tidings arrived that Ruas was dead and that he had been succeeded in his kingdom by Attila and Bleda, the two sons of his brother Mundzuk (433). Shortly afterwards the treaty of Margus (not far from the modern Belgrade), where both sides negotiated on horseback, was ratified. By its stipulations the yearly stipendium or tribute payable to Attila by the Romans was doubled; the fugitives were to be surrendered, or a fine of £8 to be paid for each of those who should be missing; free markets, open to Hun and Roman alike, were to be instituted; and any tribe with which Attila might be at any time at war was thereby to be held as excluded from alliance with Rome. For eight years afterwards there was peace so far as the Romans were concerned; and it was probably during this period that the Huns proceeded to the extensive conquests to which the contemporary historian Priscus so vaguely alludes in the words: "He (Attila) has made the whole of Scythia his own, he has laid the Roman empire under tribute, and he thinks of renewing his attacks upon Persia. The road to that eastern kingdom is not untrodden by the Huns; already they have marched fifteen days from a certain lake, and have ravaged Media." They also appear before the end of this interval to have pushed westward as far as to the Rhone, and to have come into conflict with the Burgundians. Overt acts of hostility, however, occurred against the Eastern empire when the town of Margus (by the treachery of its bishop) was seized and sacked (441), and against the Western when Sirmium was invested and taken.

In 445 Bleda died, and two years afterwards Attila, now sole ruler, undertook one of his most important expeditions against the Eastern empire; on this occasion he pushed southwards as far as Thermopylae, Gallipoli and the walls of Constantinople; peace was cheaply purchased by tripling the yearly tribute (which accordingly now stood at 2100 pounds of gold, or £84,000 sterling) and by the payment of a heavy indemnity. In 448 again occurred various diplomatic negotiations, and especially the embassy of Maximinus, of which many curious details have been recorded by Priscus his companion. Then followed, in 451, that westward movement across the Rhine which was only arrested at last, with terrible slaughter, on the Catalaunian plains (according to common belief, in the neighbourhood of the modern Châlons, but more probably at a point some 50 m. to the south-east, near Mery-sur-Seine). The following year (452), that of the Italian campaign, was marked by such events as the sack

of Aquileia, the destruction of the cities of Venetia, and finally, on the banks of the Mincio, that historical interview with Pope Leo I. which resulted in the return of Attila to Pannonia, where in 453 he died (see Attila). Almost immediately afterwards the empire he had amassed rather than consolidated fell to pieces. His too numerous sons began to quarrel about their inheritance, while Ardaric, the king of the Gepidae, was placing himself at the head of a general revolt of the dependent nations. The inevitable struggle came to a crisis near the river Netad in Pannonia, in a battle in which 30,000 of the Huns and their confederates, including Ellak, Attila's eldest son, were slain. The nation, thus broken, rapidly dispersed, exactly as the White Huns did after a similar defeat about a hundred years later. One horde settled under Roman protection in Little Scythia (the Dobrudzha), others in Dacia Ripensis (on the confines of Servia and Bulgaria) or on the southern borders of Pannonia. Many, however, appear to have returned to what is now South Russia, and may perhaps have taken part in the ethnical combinations which produced the Bulgarians.

The chief original authorities are Ammianus Marcellinus, Priscus, Jordanes, Procopius, Sidonius Apollinaris and Menander Protector. See also Gibbon, *Decline and Fall of the Roman Empire*; J. B. Bury, *History of the Later Roman Empire* (1889); H. H. Howorth, *History of the Mongols* (1876-1888); J. Hodgkin, *Italy and her Invaders* (1892); and articles in the *Revue orientale pour les études Ouralaltaiques*. For the Chinese sources see E. H. Parker, *A Thousand Years of the Tartars* (1905), and numerous articles by the same author in the *Asiatic Quarterly*; also articles by Chavannes, O. Franke, Stein and others in various learned periodicals. For the literature on the White Huns see Ephthalites.

(C. El.)

HUNSDON, HENRY CAREY, 1st Baron (*c.* 1524-1596), English soldier and courtier, was a 934
son of William Carey (d. 1529); his mother was Mary (d. 1543), a sister of Anne Boleyn, and he was consequently cousin to Queen Elizabeth. Member of parliament for Buckingham under Edward VI. and Mary, he was knighted in 1558, was created Baron Hunsdon in 1559, and in 1561 became a privy councillor and a knight of the Garter. In 1568 he became governor of Berwick and warden of the east Marches, and he was largely instrumental in quelling the rising in the north of England in 1569, gaining a decisive victory over Leonard Dacre near Carlisle in February 1570. Hunsdon received very little money to cover his expenses, but Elizabeth lavished honours upon him, although he did not always carry out her wishes. In 1583 he became lord chamberlain, but he did not relinquish his post at Berwick. Hunsdon was one of the commissioners appointed to try Mary queen of Scots; after Mary's execution he went on a mission to James VI. of Scotland, and when the Spanish Armada was expected he commanded the queen's bodyguard. He died in London, at Somerset House, on the 23rd of July 1596.

His eldest son, George (1547-1603), 2nd Baron Hunsdon, was a member of parliament, a diplomatist, a soldier and lord chamberlain. He was also captain-general of the Isle of Wight during the time of the Spanish Armada. He was succeeded by his brother John (d. 1617). In 1628 John's son Henry, 4th Baron Hunsdon, was created earl of Dover. This title became extinct on the death of the 2nd earl, John, in 1677, and a like fate befell the barony of Hunsdon on the death of the 8th baron, William Ferdinand, in June 1765. Elizabeth, daughter of Sir John Spencer of Althorp, and wife of the 2nd Lord Hunsdon, is celebrated as the patroness of her kinsman, the poet Spenser; and either this lady or her daughter Elizabeth was the author of the *Tragedie of Marian* (1613).

The 1st lord's youngest son, Robert Carey (*c.* 1560-1639), was for a long time a member of the English parliament. He was frequently employed on the Scottish borders; he announced the death of Elizabeth to James VI. of Scotland; and he was created earl of Monmouth in 1626. He wrote some interesting *Memoirs*, first published in 1759. His son and successor, Henry (1596-1661), is known as a translator of various French and Italian books. The title of earl of Monmouth became extinct on his death in June 1661.

HUNSTANTON [commonly pronounced Hunston], a seaside resort in the north-western

parliamentary division of Norfolk, England, on the east shore of the Wash, 112 m. N. by E. from London by the Great Eastern railway. Pop. of urban district of New Hunstanton (1901) 1893. The new watering-place is about 1 m. from the old village. It has a good beach, a golf course and a pier. The parish church of St Mary is a fine Decorated building, containing monuments of the L'Estrange family, whose mansion, Hunstanton Hall, is a picturesque Tudor building of brick in a well-wooded park. A convalescent home (1872) commemorates the recovery from illness of King Edward VII. when Prince of Wales. At Brancaster, 6 m. E., there is a Roman fort which formed part of the defences of the *Litus Saxonicum* (4th century A.D.)

HUNT, ALFRED WILLIAM (1830-1896), English painter, son of Andrew Hunt, a landscape painter, was born at Liverpool in 1830. He began to paint while at the Liverpool Collegiate School; but as the idea of adopting the artist's profession was not favoured by his father, he went in 1848 to Corpus Christi College, Oxford. His career there was distinguished; he won the Newdigate Prize in 1851, and became a Fellow of Corpus in 1858. He did not, however, abandon his artistic practice, for, encouraged by Ruskin, he exhibited at the Royal Academy in 1854, and thenceforward regularly contributed landscapes in oil and water-colour to the London and provincial exhibitions. In 1861 he married, gave up his Fellowship, and was elected an Associate of the Royal Society of Painters in Water-Colours, receiving full membership three years later. His work is distinguished mainly by its exquisite quality and a poetic rendering of atmosphere. Hunt died on 3rd May 1896. Mrs A. W. Hunt (*née* Margaret Raine) wrote several works of fiction; and one of her daughters, Violet Hunt, is well known as a novelist.

See Frederick Wedmore, "Alfred Hunt," *Magazine of Art* (1891); *Exhibition of Drawings in Water Colour by Alfred William Hunt*, Burlington Fine Arts Club (1897).

HUNT, HENRY (1773-1835), English politician, commonly called "Orator Hunt," was born at Widdington Farm, Upavon, Wiltshire, on the 6th of November 1773. While following the vocation of a farmer he made the acquaintance of John Horne Tooke, with whose advanced views he soon began to sympathize. At the general election of 1806 he came to the front in Wiltshire; he soon associated himself with William Cobbett, and in 1812 he was an unsuccessful candidate for Bristol. He was one of the speakers at the meeting held in Spa Fields, London, in November 1816; in 1818 he tried in vain to become member of parliament for Westminster, and in 1820 for Preston. In August 1819 Hunt presided over the great meeting in St Peter's Field, Manchester, which developed into a riot and was called the "Peterloo massacre." He was arrested and was tried for conspiracy, being sentenced to imprisonment for two years and a half. In August 1830 he was elected member of parliament for Preston, but he lost his seat in 1833. While in parliament Hunt presented a petition in favour of women's rights, probably the first of this kind, and he moved for a repeal of the corn laws. He died on the 15th of February 1835. During his imprisonment Hunt wrote his *Memoirs* which were published in 1820.

See R. Huish, *Life of Hunt* (1836); and S. Bamford, *Passages in the Life of a Radical* (2nd ed., 1893).

HUNT, HENRY JACKSON (1819-1889), American soldier, was born in Detroit, Michigan, on the 14th of September 1819, and graduated at the U.S. military academy in 1839. He served in the Mexican War under Scott, and was breveted for gallantry at Contreras and Churubusco and at Chapultepec. He became captain in 1852 and major in 1861. His professional attainments were great, and in 1856 he was a member of a board entrusted with the revision of light artillery drill and tactics. He took part in the first battle of Bull Run in

1861, and soon afterwards became chief of artillery in the Washington defences. As a colonel on the staff of General M'Clellan he organized and trained the artillery reserve of the Army of the Potomac. Throughout the Civil War he contributed more than any officer to the effective employment of the artillery arm. With the artillery reserve he rendered the greatest assistance at the battle of Malvern Hill, and soon afterwards he became chief of artillery in the Army of the Potomac. On the day after the battle of South Mountain he was made brigadier-general of volunteers. At the Antietam, Fredericksburg and Chancellorsville, he rendered further good service, and at Gettysburg his handling of the artillery was conspicuous in the repulse of Pickett's charge, and he was rewarded with the brevet of colonel. He served in Virginia to the end of the war, attaining the brevet ranks of major-general of volunteers and brigadier-general of regulars. When the U.S. army was reorganized in 1866 he became colonel of the 5th artillery and president of the permanent Artillery Board. He held various commands until 1883, when he retired to become governor of the Soldiers' Home, Washington, D.C. He died on the 11th of February 1889. He was the author of *Instructions for Field Artillery* (1860), and of papers on Gettysburg in the "Battles and Leaders" series.

His brother, Lewis Cass Hunt (1824-1886), served throughout the Civil War in the infantry arm, becoming brigadier-general of volunteers in 1862, and brevet brigadier-general U.S.A. in 1865.

HUNT, JAMES HENRY LEIGH (1784-1859), English essayist and miscellaneous writer, was born at Southgate, Middlesex, on the 19th of October 1784, His father, the son of a West Indian clergyman, had settled as a lawyer in Philadelphia, and his mother was the daughter of a merchant there. Having embraced the loyalist side, Leigh Hunt's father was compelled to fly to England, where he took orders, and acquired some reputation as a popular preacher, but want of steadiness, want of orthodoxy, and want of interest conspired to prevent his obtaining any preferment. He was engaged by James Brydges, 3rd duke of Chandos, to act as tutor to his nephew, James Henry Leigh, after whom Leigh Hunt was called. The boy was educated at Christ's Hospital, of which school he has left a lively account in his autobiography. As a boy at school he was an ardent admirer of Gray and Collins, writing many verses in imitation of them. An impediment in his speech, afterwards removed, prevented his being sent to the university. "For some time after I left school," he says, "I did nothing but visit my school-fellows, haunt the book-stalls and write verses." These latter were published in 1801 under the title of *Juvenilia*, and contributed to introduce him into literary and theatrical society. He began to write for the newspapers, and published in 1807 a volume of theatrical criticisms, and a series of *Classic Tales* with critical essays on the authors.

In 1808 he quitted the War Office, where he had for some time been a clerk, to become editor of the *Examiner* newspaper, a speculation of his brother John. The new journal with which Leigh Hunt was connected for thirteen years soon acquired a high reputation. It was perhaps the only newspaper of the time which owed no allegiance to any political party, but assailed whatever seemed amiss, "from a principle of taste," as Keats happily expressed it. The taste of the attack itself, indeed, was not always unexceptionable; and one upon the Prince Regent, the chief sting of which lay in its substantial truth, occasioned (1813) a prosecution and a sentence of two years' imprisonment for each of the brothers. The effect was to give a political direction to what should have been the career of a man of letters. But the cheerfulness and gaiety with which Leigh Hunt bore his imprisonment attracted general attention and sympathy, and brought him visits from Byron, Moore, Brougham and others, whose acquaintance exerted much influence on his future destiny.

In 1810-1811 he edited for his brother John a quarterly magazine, the *Reflector*, for which he wrote "The Feast of the Poets," a satire which gave offence to many contemporary poets, and particularly offended William Gifford of the *Quarterly*. The essays afterwards published under the title of the *Round Table* (2 vols., 1816-1817), conjointly with William Hazlitt, appeared in the *Examiner*. In 1816 he made a permanent mark in English literature by the publication of his *Story of Rimini*. There is perhaps no other instance of a poem short of the highest excellence having produced so important and durable an effect in modifying the accepted standards of literary composition. The secret of Hunt's success consists less in superiority of genius than of taste. His refined critical perception had detected the superiority of Chaucer's versification, as adapted to the present state of the language by Dryden, over the sententious epigrammatic couplet of Pope which had superseded it. By a simple return to the

old manner he effected for English poetry in the comparatively restricted domain of metrical art what Wordsworth had already effected in the domain of nature; his is an achievement of the same class, though not of the same calibre. His poem is also a triumph in the art of poetical narrative, abounds with verbal felicities, and is pervaded throughout by a free, cheerful and animated spirit, notwithstanding the tragic nature of the subject. It has been remarked that it does not contain one hackneyed or conventional rhyme. But the writer's occasional flippancy and familiarity, not seldom degenerating into the ludicrous, made him a mark for ridicule and parody on the part of his opponents, whose animosity, however, was rather political than literary.

In 1818 appeared a collection of poems entitled *Foliage*, followed in 1819 by *Hero and Leander*, and *Bacchus and Ariadne*. In the same year he reprinted these two works with *The Story of Rimini* and *The Descent of Liberty* with the title of *Poetical Works*, and started the *Indicator*, in which some of his best work appeared. Both Keats and Shelley belonged to the circle gathered around him at Hampstead, which also included William Hazlitt, Charles Lamb, Bryan Procter, Benjamin Haydon, Cowden Clarke, C. W. Dilke, Walter Coulson,[1] John Hamilton Reynolds,[2] and in general almost all the rising young men of letters of liberal sympathies. He had now for some years been married to Marianne Kent, who seems to have been sincerely attached to him, but was not in every respect a desirable partner. His own affairs were by this time in the utmost confusion, and he was only saved from ruin by the romantic generosity of Shelley. In return he was lavish of sympathy to Shelley at the time of the latter's domestic distresses, and defended him with spirit in the *Examiner*, although he does not appear to have at this date appreciated his genius with either the discernment or the warmth of his generous adversary, Professor Wilson. Keats he welcomed with enthusiasm, and introduced to Shelley. He also wrote a very generous appreciation of him in the *Indicator*, and, before leaving for Italy, Keats stayed with Hunt at Hampstead. Keats seems, however, to have subsequently felt that Hunt's example as a poet had been in some respects detrimental to him. After Shelley's departure for Italy (1818) Leigh Hunt's affairs became still more embarrassed, and the prospects of political reform less and less satisfactory. His health and his wife's failed, and he was obliged to discontinue his charming series of essays entitled the *Indicator* (1819-1821), having, he says, "almost died over the last numbers." These circumstances induced him to listen to a proposal, which seems to have originated with Shelley, that he should proceed to Italy and join Shelley and Byron in the establishment of a quarterly magazine in which Liberal opinions should be advocated with more freedom than was possible at home. The project was injudicious from every point of view; it would have done little for Hunt or the Liberal cause at the best, and depended entirely upon the co-operation of Byron, the most capricious of allies, and the most parsimonious of paymasters. Byron's principal motive for acceding to it appears to have been the expectation of acquiring influence over the *Examiner*, and he was exceedingly mortified on discovering when too late that Hunt had parted, or was considered to have parted, with his interest in the journal. Leigh Hunt left England for Italy in November 1821, but storm, sickness and misadventure retarded his arrival until the 1st of July 1822, a rate of progress which T. L. Peacock appropriately compares to the navigation of Ulysses.

The tragic death of Shelley, a few weeks later, destroyed every prospect of success for the *Liberal*. Hunt was now virtually a dependant upon Byron, whose least amiable qualities were called forth by the relation of patron to an unsympathetic dependant, burdened with a large and troublesome family. He was moreover incessantly wounded by the representations of his friends that he was losing caste by the connexion. The *Liberal* lived through four quarterly numbers, containing contributions no less memorable than Byron's "Vision of Judgment" and Shelley's translations from Faust; but in 1823 Byron sailed for Greece, leaving his coadjutor at Genoa to shift for himself. The Italian climate and manners, however, were entirely to Hunt's taste, and he protracted his residence until 1825, producing in the interim *Ultra-Crepidarius, a Satire on William Gifford* (1823), and his matchless translation (1825) of Francesco Redi's *Bacco in Toscana*. In 1825 an unfortunate litigation with his brother brought him back to England, and in 1828 he committed his greatest mistake by the publication of his *Lord Byron and some of his Contemporaries*. The work is of considerable value as a corrective of merely idealized estimates of Lord Byron. But such a corrective should not have come from one who had lain under obligations to Byron. British ideas of what was decent were shocked, and the author especially writhed under the withering satire of Moore. For many years ensuing the history of Hunt's life is that of a painful struggle with poverty and sickness. He worked unremittingly, but one effort failed after another. Two journalistic ventures, the *Tatler* (1830-1832), a daily devoted to literary and dramatic criticism, and *Leigh Hunt's London Journal* (1834-1835), were discontinued for want of subscribers, although in the latter Leigh Hunt had able coadjutors, and it contained some of his best writing. His editorship (1837-1838) of the *Monthly Repository*, in which he succeeded W. J. Fox, was also unsuccessful. The

adventitious circumstances which had for a time made the fortune of the *Examiner* no longer existed, and Hunt's strong and weak points, his refinement and his affectations, were alike unsuited to the general body of readers.

In 1832 a collected edition of his poems was published by subscription, the list of subscribers including many of his opponents. In the same year was printed for private circulation *Christianism*, the work afterwards published (1853) as *The Religion of the Heart*. A copy sent to Carlyle secured his friendship, and Hunt went to live next door to him in Cheyne Row in 1833. *Sir Ralph Esher*, a romance of Charles II.'s period, had a success, and *Captain Sword and Captain Pen* (1835), a spirited contrast between the victories of peace and the victories of war, deserves to be ranked among his best poems. In 1840 his circumstances were improved by the successful representation at Covent Garden of his *Legend of Florence*, a play of considerable merit. *Lover's Amazements*, a comedy, was acted several years afterwards, and was printed in *Leigh Hunt's Journal* (1850-1851); and other plays remained in MS. In 1840 he wrote introductory notices to the work of R. B. Sheridan and to Moxon's edition of the works of Wycherley, Congreve, Vanbrugh and Farquhar, a work which furnished the occasion of Macaulay's essay on the *Dramatists of the Restoration*. The pretty narrative poem of *The Palfrey* was published in 1842.

The time of Hunt's greatest difficulties was between 1834 and 1840. He was at times in absolute want, and his distress was aggravated by domestic complications. By Macaulay's recommendation he began to write for the *Edinburgh Review*. In 1844 he was further benefited by the generosity of Mrs Shelley and her son, who, on succeeding to the family estates, settled an annuity of £120 upon him; and in 1847 Lord John Russell procured him a civil list pension of £200. The fruits of the improved comfort and augmented leisure of these latter years were visible in the production of some charming volumes. Foremost among these are the companion books, *Imagination and Fancy* (1844), and *Wit and Humour* (1846), two volumes of selections from the English poets. In these Leigh Hunt shows himself within a certain range the most refined, appreciative and felicitous of critics. Homer and Milton may be upon the whole beyond his reach, though even here he is great in the detection of minor and unapprehended beauties; with Spenser and the old English dramatists he is perfectly at home, and his subtle and discriminating criticism upon them, as well as upon his own great contemporaries, is continually bringing to light unsuspected beauties. His companion volume on the pastoral poetry of Sicily, quaintly entitled *A Jar of Honey from Mount Hybla* (1848), is almost equally delightful. *The Town* (2 vols., 1848) and *Men, Women and Books* (2 vols., 1847) are partly made up from former material. *The Old Court Suburb* (2 vols., 1855; ed. A. Dobson, 1902) is an anecdotic sketch of Kensington, where he long resided before his final removal to Hammersmith. In 1850 he published his *Autobiography* (3 vols.), a naïve and accurate piece of self-portraiture, full of affectations, but on that account free from the affectation of unreality. It contains very detailed accounts of some of the most interesting periods of the author's life, his education at Christ's Hospital, his imprisonment, and his residence in Italy. *A Book for a Corner* (2 vols.) was published in 1849, and his *Table Talk* appeared in 1851. In 1855 his narrative poems, original and translated, were collected under the title of *Stories in Verse*, with an interesting preface. He died at Putney on the 28th of August 1859.

Leigh Hunt's virtues were charming rather than imposing or brilliant; he had no vices, but very many foibles. His great misfortune was that these foibles were for the most part of an undignified sort. His affectation is not comparable to Byron's, nor his egotism to Wordsworth's, but their very pettiness excites a sensation of the ludicrous. The very sincerity of his nature is detrimental to him; the whole man seems to be revealed in everything he ever wrote, and hence the most beautiful productions of his pen appear in a manner tainted by his really very pardonable weaknesses. Some of these, such as his helplessness in money matters, and his facility in accepting the obligations which he would have delighted to confer, involved him in painful and humiliating embarrassments, which seem to have been aggravated by the mismanagement of those around him. The notoriety of these things has deprived him of much of the honour due to him for his fortitude under the severest calamities, for his unremitting literary industry under the most discouraging circumstances, and for his uncompromising independence as a journalist and an author. It was his misfortune to be involved in politics, for he was as thorough a man of letters as ever existed, and most of his failings were more or less incidental to that character. But it is not every consummate man of letters of whom it can be unhesitatingly affirmed that he was brave, just and pious. When it was suggested that Leigh Hunt was the original of Harold Skimpole in *Bleak House*, Charles Dickens denied that any of the shadows in the portrait were suggested by Hunt, who was, he said, "the very soul of truth and honour."

Leigh Hunt's character as an author was the counterpart of his character as a man. In some respects his literary position is unique. Few men have effected so much by mere exquisiteness

of taste in the absence of high creative power; fewer still, so richly endowed with taste, have so frequently and conspicuously betrayed the want of it; and he was incapable of discovering where familiarity became flippancy. But his poetry possesses a brightness, animation, artistic symmetry and metrical harmony, which lift the author out of the rank of minor poets, particularly when the influence of his example upon his contemporaries is taken into account. He excelled especially in narrative poetry, of which, upon a small scale, there are probably no better examples than "Abou ben Adhem" and "Solomon's Ring." He possessed every qualification for a translator; and as an appreciative critic, whether literary or dramatic, he has hardly been equalled.

Leigh Hunt's other works include: *Amyntas, A Tale of the Woods* (1820), translated from Tasso; *The Seer, or Common-Places refreshed* (2 pts., 1840-1841); three of the Canterbury Tales in *The Poems of Geoffrey Chaucer, modernized* (1841); *Stories from the Italian Poets* (1846); compilations such as *One Hundred Romances of Real Life* (1843); selections from Beaumont and Fletcher (1855); and, with S. Adams Lee, *The Book of the Sonnet* (Boston, 1867). His *Poetical Works* (2 vols.), revised by himself and edited by Lee, were printed at Boston, U.S.A., in 1857, and an edition (London and New York) by his son, Thornton Hunt, appeared in 1860. Among volumes of selections are: *Essays* (1887), ed. A. Symons; *Leigh Hunt as Poet and Essayist* (1889), ed. C. Kent; *Essays and Poems* (1891), ed. R. B. Johnson for the "Temple Library."

His *Autobiography* was revised by himself shortly before his death, and edited (1859) by his son Thornton Hunt, who also arranged his *Correspondence* (2 vols., 1862). Additional letters were printed by the Cowden Clarkes in their *Recollections of Writers* (1878). The *Autobiography* was edited (2 vols., 1903) with full bibliographical note by R. Ingpen. A bibliography of his works was compiled by Alexander Ireland (*List of the Writings of William Hazlitt and Leigh Hunt*, 1868). There are short lives of Hunt by Cosmo Monkhouse ("Great Writers," 1893) and by R. B. Johnson (1896).

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1 Walter Coulson (1794?-1860), lawyer and journalist, was at one time amanuensis to Jeremy Bentham, and became in 1823 editor of the *Globe*.

2 John Hamilton Reynolds (1796-1852), best known for his friendship and correspondence with Keats. His narrative verse founded on the tales of Boccaccio appeared in 1821 as *The Garden of Florence and other Poems*. He wrote some admirable sonnets, one of which is addressed to Keats.

HUNT, ROBERT (1807-1887), English natural philosopher, was born at Devonport on the 6th of September 1807. His father, a naval officer, was drowned while Robert was a youth. He began to study in London for the medical profession, but ill-health caused him to return to the west of England, and in 1840 he became secretary to the Royal Cornwall Polytechnic Society at Falmouth. Here he was brought into contact with Robert Were Fox, and carried on some physical and chemical investigations with him. He took up photography with great zeal, following Daguerre's discovery, and introducing new processes. His *Manual of Photography* (1841, ed. 5, 1857) was the first English treatise on the subject. He also experimented generally on the action of light, and published *Researches on Light* (1844). In 1845 he accepted the invitation of Sir Henry de la Beche to become keeper of mining records at the Museum of Economic (afterwards "Practical") Geology, and when the school of mines was established in 1851 he lectured for two years on mechanical science, and afterwards for a short time on experimental physics. His principal work was the collection and editing of the *Mineral Statistics* of the United Kingdom, and this he continued to the date of his retirement (1883), when the mining record office was transferred to the Home Office. He was elected F.R.S. in 1854. In 1884 he published a large volume on *British Mining*, in which the subject was dealt with very fully from an historical as well as a practical point of view. He also edited the fifth and some later editions of Ure's *Dictionary of Arts, Mines and Manufactures*. He died in London on the 17th of October 1887. A mineralogical museum at Redruth has been established in his memory.

HUNT, THOMAS STERRY (1826-1892), American geologist and chemist, was born at

Norwich, Conn., on the 5th of September 1826. He lost his father when twelve years old, and had to earn his own livelihood. In the course of two years he found employment in a printing office, in an apothecary's shop, in a book store and as a clerk. He became interested in natural science, and especially in chemical and medical studies, and in 1845 he was elected a member of the Association of American Geologists and Naturalists at Yale—a body which four years later became the American Association for the Advancement of Science. In 1848 he read a paper in Philadelphia *On Acid Springs and Gypsum Deposits of the Onondaga Salt Group*. At Yale he became assistant to Professor B. Silliman, Jun., and in 1846 was appointed chemist to the Geological Survey of Vermont. In 1847 he was appointed to similar duties on the Canadian Geological Survey at Montreal under Sir William Logan, and this post he held until 1872. In 1859 he was elected F.R.S., and he was one of the original members and president of the Royal Society of Canada. He was a frequent contributor to scientific journals, writing on the crystalline limestones, the origin of continents, the chemistry of the primeval earth, on serpentines, &c. He also wrote a notable "Essay on the History of the names Cambrian and Silurian" (*Canadian Naturalist*, 1872), in which the claims of Sedgwick, with respect to the grouping of the Cambrian strata, were forcibly advocated. He died in New York City on the 12th of February 1892.

His publications include *Chemical and Geological Essays* (1875, ed. 2, 1879); *Mineral Physiology and Physiography* (1886); *A New Basis for Chemistry* (1887, ed. 3, 1891); *Systematic Mineralogy* (1891). See an obituary notice by Persifor Frazer, *Amer. Geologist* (xi. Jan. 1893), with portrait.

HUNT, WILLIAM HENRY (1790-1864), English water-colour painter, was born near Long Acre, London, on the 28th of March 1790. He was apprenticed about 1805 to John Varley, the landscape-painter, with whom he remained five or six years, exhibiting three oil pictures at the Royal Academy in 1807. He was early connected with the Society of Painters in Water-colour, of which body, then in a transition state, he was elected associate in 1824, and full member in 1827. To its exhibitions he was until the year of his death one of the most prolific contributors. Many years of Hunt's uneventful and industrious life were passed at Hastings. He died of apoplexy on the 10th of February 1864. Hunt was one of the creators of the English school of water-colour painting. His subjects, especially those of his later life, are extremely simple; but, by the delicacy, humour and fine power of their treatment, they rank second to works of the highest art only. Considered technically, his works exhibit all the resources of the water-colour painter's craft, from the purest transparent tinting to the boldest use of body-colour, rough paper and scraping for texture. His sense of colour is perhaps as true as that of any English artist. "He was," says Ruskin, "take him for all in all, the finest painter of still life that ever existed." Several characteristic examples of Hunt's work, as the "Boy and Goat," "Brown Study" and "Plums, Primroses and Birds' Nests" are in the Victoria and Albert Museum.

HUNT, WILLIAM HOLMAN (1827-1910), English artist, was born in London on the 2nd of April 1827. An ancestor on his father's side bore arms against Charles I., and went over to Holland, where he fought in the Protestant cause. He returned with William III., but the family failed to recover their property. Holman Hunt's father was the manager of a city warehouse, with tastes superior to his position in life. He loved books and pictures, and encouraged his son to pursue art as an amusement, though not as a profession. At the age of twelve and a half Holman Hunt was placed in a city office, but he employed his leisure in reading, drawing and painting, and at sixteen began an independent career as an artist. When he was between seventeen and eighteen he entered the Royal Academy schools, where he soon made acquaintance with his lifelong friend John Everett Millais, then a boy of fifteen. In 1846 Holman Hunt sent to the Royal Academy his first picture ("Hark!"), which was followed by "Dr Rochecliffe performing Divine Service in the Cottage of Joceline Joliffe at Woodstock," in 1847, and "The Flight of Madeline and Porphyrio" (from Keats's *Eve of St Agnes*) in 1848. In this year he and Millais, with the co-operation of Dante Gabriel Rossetti and others, initiated the famous Pre-Raphaelite movement in art. Typical examples of the new creed were

furnished in the next year's Academy by Millais's "Isabella" and Holman Hunt's "Rienzi vowing to obtain Justice for the Death of his Young Brother." This last pathetic picture, which was sold to Mr Gibbons for £105, was followed in 1850 by "A Converted British Family sheltering a Christian Missionary from the Persecution of the Druids" (bought by Mr Combe, of the Clarendon Press, Oxford, for £150), and in 1851 by "Valentine protecting Sylvia from Proteus." This scene from *The Two Gentlemen of Verona* was very warmly praised by Ruskin (in letters to *The Times*), who declared that as studies both of drapery and of every minor detail there had been nothing in art so earnest and complete since the days of Albert Dürer. It gained a prize at Liverpool, and is reckoned as the finest of Holman Hunt's earlier works. In 1852 he exhibited "A Hireling Shepherd." "Claudio and Isabella," from *Measure for Measure*, and a brilliant study of the Downs near Hastings, called in the catalogue "Our English Coasts, 1852" (since generally known as "Strayed Sheep"), were exhibited in 1853. For three of his works Holman Hunt was awarded prizes of £50 and £60 at Liverpool and Birmingham, but in 1851 he had become so discouraged by the difficulty of selling his pictures, that he had resolved to give up art and learn farming, with a view to emigration. In 1854 he achieved his first great success by the famous picture of "The Light of the World," an allegorical representation of Christ knocking at the door of the human soul. This work produced perhaps the greatest effect of any religious painting of the century. "For the first time in England," wrote William Bell Scott, "a picture became a subject of conversation and general interest from one end of the island to the other, and indeed continued so for many years." "The Awakening Conscience," exhibited at the same time, depicted a tragic moment in a life of sin, when a girl, stricken with memories of her innocent childhood, rises suddenly from the knees of her paramour. The inner meaning of both these pictures was explained by Ruskin in letters to *The Times* in May 1854. "The Light of the World" was purchased by Mr Combe, and was given by his wife to Keble College. In 1904 Holman Hunt completed a second "Light of the World," slightly altered from the original, the execution of which was due to his dissatisfaction with the way in which the Keble picture was shown there; and he intended the second edition of it for as wide public exhibition as possible. It was acquired by Mr Charles Booth, who arranged for the exhibition of the new "Light of the World" in all the large cities of the colonies.

In January 1854 Holman Hunt left England for Syria and Palestine with the desire to revivify on canvas the facts of Scripture history, "surrounded by the very people and circumstances of the life in Judaea of old days." The first fruit of this idea, which may be said to have dominated the artist's life, was "The Scapegoat," a solitary outcast animal standing alone on the salt-encrusted shores of the Dead Sea, with the mountains of Edom in the distance, seen under a gorgeous effect of purple evening light. It was exhibited at the Royal Academy in 1856, together with three Eastern landscapes. His next picture (1860), one of the most elaborate and most successful of his works, was "The Finding of our Saviour in the Temple." Like all his important pictures, it was the work of years. Many causes contributed to the delay in its completion, including a sentence of what was tantamount to excommunication (afterwards revoked) passed on all Jews acting as models. Thousands crowded to see this picture, which was exhibited in London and in many English provincial towns. It was purchased for £5500, and is now in the Birmingham Municipal Art Gallery. Holman Hunt's next great religious picture was "The Shadow of Death" (exhibited separately in 1873), an imaginary incident in the life of our Lord, who, lifting His arms with weariness after labour in His workshop, throws a shadow on the wall as of a man crucified, which is perceived by His mother. This work was presented to Manchester by Sir William Agnew. Meanwhile there had appeared at the Royal Academy in 1861 "A Street in Cairo: The Lanternmaker's Courtship," and in 1863 "The King of Hearts," and a portrait of the Right Hon. Stephen Lushington, D.C.L. In 1866 came "Isabella and the Pot of Basil," "London Bridge on the Night of the Marriage of the Prince of Wales," and "The Afterglow." In 1867 Holman Hunt sent a charming head of "A Tuscan Girl" to the Grosvenor Gallery and two pictures to the Royal Academy. These were "Il dolce far niente" and a lifelike study of pigeons in rain called "The Festival of St Swithin," now in the Taylor Building, Oxford, with many others of this artist's work. After two years' absence Holman Hunt returned to Jerusalem in 1875, where he was engaged upon his great picture of "The Triumph of the Innocents," which proved to be the most serious labour of his life. The subject is an imaginary episode of the flight into Egypt, in which the Holy Family are attended by a procession of the Holy Innocents, marching along the waters of life and illuminated with unearthly light. Its execution was delayed by an extraordinary chapter of accidents. For months Holman Hunt waited in vain for the arrival of his materials, and at last he unfortunately began on an unsuitable piece of linen procured in despair at Jerusalem. Other troubles supervened, and when he arrived in England he found his picture in such a state that he was compelled to abandon it and begin again. The new version of the work, which is somewhat larger and changed in several points, was not completed till 1885. Meanwhile the old picture was relined and so skilfully treated that the artist was able to complete it

satisfactorily, and there are now two pictures entitled “The Triumph of the Innocents,” one in the Liverpool, the other in the Birmingham Art Gallery. The pictures exhibited between 1875 and 1885 included “The Ship,” a realistic picture of the deck of a passenger ship by night (1878), and portraits of his son (1880), Sir Richard Owen (1881) and Dante Gabriel Rossetti (1884). All of these were exhibited at the Grosvenor Gallery, where they were followed by “The Bride of Bethlehem” (1885), “Amaryllis” and a portrait of his son (tracing a drawing on a window) in 1886. His most important later work is “May-Day, Magdalen Tower,” a record of the service of song which has been held on the tower of Magdalen, Oxford, at sunrise on May-Day from time immemorial. The subject had interested the artist for a great many years, and, after “The Triumph of the Innocents” was completed, he worked at it with his usual devotion, climbing up the tower for weeks together in the early morning to study the sunrise from the top. This radiant poem of the simplest and purest devotion was exhibited at the Gainsborough Gallery in Old Bond Street in 1891. He continued to send occasional contributions to the exhibitions of the Royal Water-Colour Society, to the New Gallery and to the New English Art Club. One of the most remarkable of his later works (New Gallery, 1899) is “The Miracle of Sacred Fire in the Church of the Sepulchre, Jerusalem.”

By his strong and constant individuality, no less than by his peculiar methods of work, Holman Hunt holds a somewhat isolated position among artists. He remained entirely unaffected by all the various movements in the art-world after 1850. His ambition was always “to serve as high priest and expounder of the excellence of the works of the Creator.” He spent too much labour on each work to complete many; but perhaps no painter of the 19th century produced so great an impression by a few pictures as the painter of “The Light of the World,” “The Scapegoat,” “The Finding of our Saviour in the Temple” and “The Triumph of the Innocents”; and his greatness was recognized by his inclusion in the Order of Merit. His *History of Pre-Raphaelitism*, a subject on which he could speak as a first authority, but not without dissent from at least one living member of the P.R.B., was published in 1905. On the 7th of September 1910 he died in London, and on September 12th his remains, after cremation at Golder’s Green, were buried in St Paul’s Cathedral, with national honours.

See Archdeacon Farrar and Mrs Alice Meynell, “William Holman Hunt, his Life and Work” (*Art Annual*) (London, 1893); John Ruskin, *Modern Painters*; *The Art of England* (Lecture) [consult Gordon Crauford’s *Ruskin’s Notes on the Pictures of Mr Holman Hunt*, 1886]; Robert de la Sizeranne, *La Peinture anglaise contemporaine* (Paris, 1895); W. B. Scott, *Autobiographical Notes*; W. M. Rossetti, *Pre-Raphaelite Diaries and Letters*; Percy H. Bate, *The Pre-Raphaelite Painters* (1899); Sir W. Bayliss, *Five Great Painters of the Victorian Era* (1902).

(C. Mo.)

HUNT, WILLIAM MORRIS (1824-1879), American painter, was born at Brattleboro, Vermont, on the 31st of March 1824. His father’s family were large landowners in the state. He was for a time (1840) at Harvard, but his real education began when he accompanied his mother and brother to Europe, where he studied with Couture in Paris and then came under the influence of Jean François Millet. The companionship of Millet had a lasting influence on Hunt’s character and style, and his work grew in strength, in beauty and in seriousness. He was the real introducer of the Barbizon school to America, and he more than any other turned the rising generation of American painters towards Paris. On his return in 1855 he painted some of his most beautiful pictures, all reminiscent of his life in France and of Millet’s influence. Such are “The Belated Kid,” “Girl at the Fountain,” “Hurdy-Gurdy Boy,” &c. But the public called for portraits, and it became the fashion to sit to him, among his best paintings in this kind being those of William M. Evarts, Mrs Charles Francis Adams, the Rev. James Freeman Clarke, William H. Gardner, Chief Justice Shaw and Judge Horace Gray. Unfortunately many of his paintings and sketches, together with five large Millets and other art treasures collected by him in Europe, were destroyed in the great Boston fire of 1872. Among his later works American landscapes predominated. They also include the “Bathers”—twice painted—and the allegories for the senate chamber of the State Capitol at Albany, N.Y., now lost by the disintegration of the stone panels on which they were painted. Hunt was drowned at the Isles of Shoals on the 8th of September 1879. His book, *Talks about Art* (London, 1878), is well known.

His brother, Richard Morris Hunt (1828-1895), the famous architect, was born in Brattleboro, Vermont, on the 31st of October 1828. He studied in Europe (1843-1854), mainly

in the École des Beaux Arts at Paris, and in 1854 was appointed inspector of works on the buildings connecting the Tuileries with the Louvre. Under Hector Lefuel he designed the Pavilion de la Bibliothèque, opposite the Palais Royal. In 1855 he returned to New York, and was employed on the extension of the Capitol at Washington. He designed the Lenox Library, the Stuyvesant and the *Tribune* buildings in New York; the theological library, and Marquand chapel at Princeton; the Divinity College and the Scroll and Key building at Yale; the Vanderbilt mausoleum on Staten Island, and the Yorktown monument. For the Administration Building at the World's Columbian Exposition at Chicago in 1893 Hunt received the gold medal of the Institute of British Architects. Among the most noteworthy of his domestic buildings were the residences of W. K. Vanderbilt and Henry G. Marquand in New York City; George W. Vanderbilt's country house at Biltmore, and several of the large "cottages" at Newport, R.I., including "Marble House" and "The Breakers." He was one of three foreign members of the Italian Society of St Luke, an honorary and corresponding member of the Académie des Beaux Arts and of the Royal Institute of British Architects, and a Chevalier of the Legion of Honour. He was the first to command respect in foreign countries for American architecture, and was the leader of a school that has established in the United States the manner and the traditions of the Beaux Arts. He took a prominent part in the founding of the American Institute of Architects, and, from 1888, was its president. His talent was eminently practical; and he was almost equally successful in the ornate style of the early Renaissance in France, in the picturesque style of his comfortable villas, and the monumental style of the Lenox Library. There is a beautiful memorial to Hunt in the wall of Central Park, opposite this building, erected in 1898 by the associated art and architectural societies of New York, from designs by Daniel C. French and Bruce Price. He died on the 31st of July 1895.

HUNTER, JOHN (1728-1793), British physiologist and surgeon, was born on the 13th[1] of February 1728, at Long Calderwood, in the parish of East Kilbride, Lanarkshire, being the youngest of the ten children of John and Agnes Hunter. His father, who died on the 30th of October 1741,[2] aged 78, was descended from the old Ayrshire family of Hunter of Hunterston, and his mother was the daughter of a Mr Paul, treasurer of Glasgow. Hunter is said to have made little progress at school, being averse to its restraints and pursuits, and fond of country amusements. When seventeen years old he went to Glasgow, where for a short time he assisted his brother-in-law, Mr Buchanan, a cabinetmaker. Being desirous at length of some settled occupation, he obtained from his brother William (*q.v.*) permission to aid, under Mr Symonds, in making dissections in his anatomical school, then the most celebrated in London, intending, should he be unsuccessful there, to enter the army. He arrived accordingly in the metropolis in September 1748, about a fortnight before the beginning of his brother's autumnal course of lectures. After succeeding beyond expectation with the dissection of the muscles of an arm, he was entrusted with a similar part injected, and from the excellence of his second essay Dr Hunter predicted that he would become a good anatomist. Seemingly John Hunter had hitherto received no instruction in preparation for the special course of life upon which he had entered.

Hard-working, and singularly patient and skilful in dissection, Hunter had by his second winter in London acquired sufficient anatomical knowledge to be entrusted with the charge of his brother's practical class. In the summer months of 1749-1750, at Chelsea Military Hospital, he attended the lectures and operations of William Cheselden, on whose retirement in the following year he became a surgeon's pupil at St Bartholomew's, where Percivall Pott was one of the senior surgeons. In the summer of 1752 he visited Scotland. Sir Everard Home and, following him, Drewry Ottley state that Hunter began in 1754 to assist his brother as his partner in lecturing; according, however, to the *European Magazine* for 1782, the office of lecturer was offered to Hunter by his brother in 1758, but declined by him on account of the "insuperable embarrassments and objections" which he felt to speaking in public. In 1754 he became a surgeon's pupil at St George's Hospital, where he was appointed house-surgeon in 1756.[3] During the period of his connexion with Dr Hunter's school he, in addition to other labours, solved the problem of the descent of the testis in the foetus, traced the ramifications of the nasal and olfactory nerves within the nose, experimentally tested the question whether veins could act as absorbents, studied the formation of pus and the nature of the placental circulation, and with his brother earned the chief merit of practically proving the function and importance of the lymphatics in the animal economy. On the 5th of June 1755,[4] he was induced to enter as a gentleman commoner at St Mary's Hall, Oxford, but his instincts would not permit him, to use his own expression, "to stuff Latin and Greek at the university." Some

three and thirty years later he thus significantly wrote of an opponent: “Jesse Foot accuses me of not understanding the dead languages; but I could teach him that on the dead body which he never knew in any language dead or living.”[5] Doubtless, however, linguistic studies would have served to correct in him what was perhaps a natural defect—a difficulty in the presentation of abstract ideas not wholly attributable to the novelty of his doctrines.

An attack of inflammation of the lungs in the spring of 1759 having produced symptoms threatening consumption, by which the promising medical career of his brother James had been cut short, Hunter obtained in October 1760 the appointment of staff-surgeon in Hodgson and Keppel’s expedition to Belleisle. With this he sailed in 1761. In the following year he served with the English forces on the frontier of Portugal. Whilst with the army he acquired the extensive knowledge of gunshot wounds embodied in his important treatise (1794) on that subject, in which, amongst other matters of moment, he insists on the rejection of the indiscriminate practice of dilating with the knife followed almost universally by surgeons of his time. When not engaged in the active duties of his profession, he occupied himself with physiological and other scientific researches. Thus, in 1761, off Belleisle, the conditions of the coagulation of the blood were among the subjects of his inquiries.[6] Later, on land, he continued the study of human anatomy, and arranged his notes and memoranda on inflammation; he also ascertained by experiment that digestion does not take place in snakes and lizards during hibernation, and observed that enforced vigorous movement at that season proves fatal to such animals, the waste so occasioned not being compensated, whence he drew the inference that, in the diminution of the power of a part attendant on mortification, resort to stimulants which increase action without giving real strength is inadvisable.[7] A MS. catalogue by Hunter, probably written soon after his return from Portugal, shows that he had already made a collection of about two hundred specimens of natural and morbid structures.

On arriving in England early in 1763, Hunter, having retired from the army on half-pay, took a house in Golden Square, and began the career of a London surgeon. Most of the metropolitan practice at the time was held by P. Pott, C. Hawkins, Samuel Sharp, Joseph Warner and Robert Adair; and Hunter sought to eke out his at first slender income by teaching practical anatomy and operative surgery to a private class. His leisure was devoted to the study of comparative anatomy, to procure subjects for which he obtained the refusal of animals dying in the Tower menagerie and in various travelling zoological collections. In connexion with his rupture of a tendo Achillis,[8] in 1767, he performed on dogs several experiments which, with the illustrations in his museum of the reunion of such structures after division, laid the foundation of the modern practice of cutting through tendons (tenotomy) for the relief of distorted and contracted joints. In the same year he was elected F.R.S. His first contribution to the *Philosophical Transactions*, with the exception of a supplement to a paper by J. Ellis in the volume for 1766, was an essay on post-mortem digestion of the stomach, written at the request of Sir J. Pringle, and read on the 18th of June 1772, in which he explained that phenomenon as a result of the action of the gastric juice.[9] On the 9th of December 1768 he was elected a surgeon to St George’s Hospital, and, soon after, a member of the Corporation of Surgeons. He now began to take house-pupils. Among these were Edward Jenner, who came to him in 1770, and until the time of Hunter’s death corresponded with him on the most intimate and affectionate terms, W. Guy, Dr P. S. Physick of Philadelphia, and Everard Home, his brother-in-law. William Lynn and Sir A. Carlisle, though not inmates of his house, were frequent visitors there. His pupils at St George’s included John Abernethy, Henry Cline, James Earle and Astley Cooper. In 1770 he settled in Jermyn Street, in the house which his brother William had previously occupied; and in July 1771 he married Anne, the eldest daughter of Robert Home, surgeon to Burgoyne’s regiment of light horse.[10]

From 1772 till his death Hunter resided during autumn at a house built by him at Earl’s Court, Brompton, where most of his biological researches were carried on. There he kept for the purpose of study and experiment the fishes, lizards, blackbirds, hedgehogs and other animals sent him from time to time by Jenner; tame pheasants and partridges, at least one eagle, toads, silkworms, and many more creatures, obtained from every quarter of the globe. Bees he had under observation in his conservatory for upwards of twenty years; hornets and wasps were also diligently studied by him. On two occasions his life was in risk from his pets —once in wrestling with a young bull, and again when he fearlessly took back to their dens two leopards which had broken loose among his dogs.

Choosing intuitively the only true method of philosophical discovery, Hunter, ever cautious of confounding fact and hypothesis, besought of nature the truth through the medium of manifold experiments and observations. “He had never read Bacon,” says G. G. Babington, “but his mode of studying nature was as strictly Baconian as if he had.”[11] To Jenner, who had offered a conjectural explanation of a phenomenon, he writes, on the 2nd of August 1775: “I

think your solution is just; but why think? why not try the experiment? Repeat all the experiments upon a hedgehog[12] as soon as you receive this, and they will give you the solution." It was his axiom however, "that experiments should not be often repeated which tend merely to establish a principle already known and admitted, but that the next step should be the application of that principle to useful purposes" ("Anim. Oecon.," *Works*, iv. 86). During fifteen years he kept a flock of geese simply in order to acquaint himself with the development of birds in eggs, with reference to which he remarked: "It would almost appear that this mode of propagation was intended for investigation." In his toxicological and other researches, in which his experience had led him to believe that the effects of noxious drugs are nearly similar in the brute creation and in man, he had already, in 1780, as he states, "poisoned some thousands of animals."[13]

By inserting shot at definite distances in the leg-bones of young pigs, and also by feeding them with madder, by which all fresh osseous deposits are tinged,[14] Hunter obtained evidence that bones increase in size, not by the intercalation of new amongst old particles, as had been imagined by H. L. Duhamel du Monceau, but by means of additions to their extremities and circumference, excess of calcareous tissue being removed by the absorbents. Some of his most extraordinary experiments were to illustrate the relation of the strength of constitution to sex. He exchanged the spurs of a young cock and a young pullet, and found that on the former the transplanted structure grew to a fair size, on the latter but little; whereas a spur from one leg of a cock transferred to its comb, a part well supplied with blood, grew more than twice as fast as that left on the other leg. Another experiment of his, which required many trials for success, was the engrafting of a human incisor on the comb of a cock.[15] The uniting of parts of different animals when brought into contact he attributed to the production of adhesive instead of suppurative inflammation, owing to their possession of "the simple living principle."[16] The effects of habit upon structure were illustrated by Hunter's observation that in a sea-gull which he had brought to feed on barley the muscular parietes of the gizzard became greatly thickened. A similar phenomenon was noticed by him in the case of other carnivorous birds fed on a vegetable diet.

It was in 1772 that Hunter, in order effectually to gauge the extent of his own knowledge, and also correctly to express his views, which had been repeatedly misstated or ascribed to others, began his lectures on the theory and practice of surgery, at first delivered free to his pupils and a few friends, but subsequent to 1774 on the usual terms, four guineas. Though Pott, indeed, had perceived that the only true system of surgery is that which most closely accords with the curative efforts of nature, a rational pathology can hardly be said to have had at this time any existence; and it was generally assumed that a knowledge of anatomy alone was a sufficient foundation for the study of surgery. Hunter, unlike his contemporaries, to most of whom his philosophic habit of thought was a mystery, and whose books contained little else than relations of cases and modes of treatment, sought the reason for each phenomenon that came under his notice. The principles of surgery, he maintained, are not less necessary to be understood than the principles of other sciences; unless, indeed, the surgeon should wish to resemble "the Chinese philosopher whose knowledge consisted only in facts." Too much attention, he remarked, cannot be paid to facts; yet a multitude of facts overcrowd the memory without advantage if they do not lead us to establish principles, by an acquaintance with which we learn the causes of diseases. Hunter's course, which latterly comprised eighty-six lectures, delivered on alternate evenings between the hours of seven and eight, lasted from October to April. Some teachers of his time were content to dismiss the subjects of anatomy and surgery in a course of only six weeks' duration. His class was usually small and never exceeded thirty. He was deficient in the gifts of a good extempore speaker, being in this respect a remarkable contrast to his brother William; and he read his lectures, seldom raising his eyes from the manuscript. His manner with his auditory is stated to have been embarrassed and awkward, or, as Adams puts it (*Obs. on Morbid Pois.*, p. 272), "frequently ungraceful," and his language always unadorned; but that his "expressions for the explaining of his new theories rendered his lectures often unintelligible" is scarcely evident in his pupils' notes still extant. His own and others' errors and fallacies were exposed with equal freedom in his teaching. Occasionally he would tell his pupils, "You had better not write down that observation, for very likely I shall think differently next year"; and once in answer to a question he replied, "Never ask me what I have said or what I have written; but, if you will ask me what my present opinions are, I will tell you."

In January 1776 Hunter was appointed surgeon-extraordinary to the king. He began in the same year his Croonian lectures on muscular motion, continued annually, except in 1777, till 1782: they were never published by him, being in his opinion too incomplete. In 1778 appeared the second part of his *Treatise on the Natural History of the Human Teeth*, the first part of which was published in 1771. It was in the waste of the dental alveoli and of the fangs of shedding teeth that in 1754-1755, as he tells us, he received his first hint of the use of the

absorbents. Abernethy (*Physiological Lectures*, p. 196) relates that Hunter, being once asked how he could suppose it possible for absorbents to do such things as he attributed to them, replied, “Nay, I know not, unless they possess powers similar to those which a caterpillar exerts when feeding on a leaf.” Hunter in 1780 read before the Royal Society a paper in which he laid claim to have been the first to make out the nature of the utero-placental circulation. His brother William, who had five years previously described the same in his *Anatomy of the Gravid Uterus*, thereupon wrote to the Society attributing to himself this honour. John Hunter in a rejoinder to his brother’s letter, dated the 17th of February 1780, reiterated his former statement, viz. that his discovery, on the evening of the day in 1754 that he had made it in a specimen injected by a Dr Mackenzie, had been communicated by him to Dr Hunter. Thus arose an estrangement between the two Hunters, which continued until the time of William’s last illness, when his brother obtained permission to visit him.

In 1783 Hunter was elected a member of the Royal Society of Medicine and of the Royal Academy of Surgery at Paris, and took part in the formation of “A Society for the Improvement of Medical and Chirurgical Knowledge.”[17] It appears from a letter by Hunter that in the latter part of 1783, he, with Jenner, had the subject of colour-blindness under consideration. As in that year the lease of his premises in Jermyn Street was to expire, he purchased the twenty-four years’ leasehold of two houses, the one on the east side of Leicester Square, the other in Castle Street with intervening ground. Between the houses he built in 1783-1785, at an expense of above £3000, a museum for his anatomical and other collections which by 1782 had cost him £10,000. The new edifice consisted of a hall 52 ft. long by 28 ft. wide, and lighted from the top, with a gallery all round, and having beneath it a lecture theatre. In April 1785 Hunter’s collections were removed into it under the superintendence of Home and William Bell,[18] and another assistant, André. Among the foreigners of distinction who inspected the museum, which was now shown by Hunter twice a year—in October to medical men, and in May to other visitors—were J. F. Blumenbach, P. Camper and A. Scarpa. In the acquisition of subjects for his varied biological investigations and of specimens for his museum, expense was a matter of small moment with Hunter. Thus he endeavoured, at his own cost, to obtain information respecting the Cetacea by sending out a surgeon to the North in a Greenland whaler. He is said, moreover, to have given, in June 1783, £500 for the body of O’Brien, or Byrne, the Irish giant, whose skeleton, 7 ft. 7 in. high, is so conspicuous an object in the museum of the College of Surgeons of London.[19]

Hunter, who in the spring of 1769-1772 had suffered from gout, in spring 1773 from spasm apparently in the pyloric region, accompanied by failure of the heart’s action (Ottley, *Life*, p. 44), and in 1777 from vertigo with symptoms of angina pectoris, had in 1783 another attack of the last mentioned complaint, to which he was henceforward subject when under anxiety or excitement of mind.

In May 1785,[20] chiefly to oblige William Sharp the engraver, Hunter consented to have his portrait taken by Sir Joshua Reynolds. He proved a bad sitter, and Reynolds made little satisfactory progress, till one day Hunter, while resting his somewhat upraised head on his left hand, fell into a profound reverie—one of those waking dreams, seemingly, which in his lectures he has so well described, when “the body loses the consciousness of its own existence.”[21] The painter had now before him the man he would fain depict, and, turning his canvas upside down, he sketched out the admirable portrait which, afterwards skilfully restored by H. Farrar, is in the possession of the Royal College of Surgeons. A copy by Jackson, acquired from Lady Bell, is to be seen at the National Portrait Gallery, and St Mary’s Hall, Oxford, also possesses a copy. Sharp’s engraving of the original, published in 1788, is one of the finest of his productions. The volumes seen in Reynolds’ picture are a portion of the unpublished records of anatomical researches left by Hunter at his death, which, with other manuscripts, Sir Everard Home in 1812 removed from his museum, and eventually, in order, it has been supposed, to keep secret the source of many of his papers in the *Philosophical Transactions*, and of facts mentioned in his lectures, committed to the flames.[22]

Among the subjects of Hunter’s physiological investigation in 1785 was the mode of growth of deer’s antlers. As he possessed the privilege of making experiments on the deer in Richmond Park, he in July of that year had a buck there caught and thrown, and tied one of its external carotid arteries. He observed that the antler which obtained its blood supply therefrom, then half-grown, became in consequence cold to the touch. Hunter debated with himself whether it would be shed in due time, or be longer retained than ordinarily. To his surprise he found, on re-examining the antler a week or two later, when the wound around the ligatured artery was healed, that it had regained its warmth, and was still increasing in size. Had, then, his operation been in some way defective? To determine this question, the buck was killed and sent to Leicester Fields. On examination Hunter ascertained that the external carotid had been duly tied, but that certain small branches of the artery above and

below the ligature had enlarged, and by their anastomoses had restored the blood supply of the growing part. Thus it was evident that under “the stimulus of necessity,” to use a phrase of the experimenter, the smaller arterial channels are capable of rapid increase in dimensions to perform the offices of the larger.[23] It happened that, in the ensuing December, there lay in one of the wards of St George’s Hospital a patient admitted for popliteal aneurism. The disease must soon prove fatal unless by some means arrested. Should the surgeon, following the usual and commonly fatal method of treatment, cut down upon the tumour, and, after tying the artery above and below it, evacuate its contents? Or should he adopt the procedure, deemed by Pott generally advisable, of amputating the limb above it? It was Hunter’s aim in his practice, even if he could not dispense with the necessity, at least to diminish the severity of operations, which he considered were an acknowledgment of the imperfection of the art of healing, and compared to “the acts of the armed savage, who attempts to get that by force which a civilized man would get by stratagem.” Since, he argued, the experiment with the buck had shown that collateral vessels are capable of continuing the circulation when passage through a main trunk is arrested, why should he not, in the aneurism case, leaving the absorbents to deal with the contents of the tumour, tie the artery in the sound parts, where it is tied in amputation, and preserve the limb? Acting upon this idea, he ligatured his patient’s femoral artery in the lower part of its course in the thigh, in the fibrous sheath enclosing the space since known as “Hunter’s canal.”[24] The leg was found, some hours after the operation, to have acquired a temperature even above the normal.[25] At the end of January 1786, that is, in six weeks’ time, the patient was well enough to be able to leave the hospital. Thus it was that Hunter inaugurated an operation which has been the means of preserving to hundreds life with integrity of limb—an operation which, as the Italian P. Assalini, who saw it first performed, testifies, “excited the greatest wonder, and awakened the attention of all the surgeons in Europe.”

Early in 1786 Hunter published his *Treatise on the Venereal Disease*, which, like some of his previous writings, was printed in his own house. Without the aid of the booksellers, 1000 copies of it were sold within a twelvemonth. Although certain views therein expressed with regard to the relationship of syphilis have been proved erroneous, the work is a valuable compendium of observations of cases and modes of treatment (cf. John Hilton, *Hunt. Orat.* p. 40). Towards the end of the year appeared his *Observations on certain parts of the Animal Oeconomy*, which, besides the more important of his contributions to the *Philosophical Transactions*, contains nine papers on various subjects. In 1786 Hunter became deputy surgeon-general to the army; his appointment as surgeon-general and as inspector-general of hospitals followed in 1790. In 1787 he received the Royal Society’s Copley medal, and was also elected a member of the American Philosophical Society. On account of the increase in his practice and his impaired health, he now obtained the services of Home as his assistant at St George’s Hospital. The death of Pott in December 1788 secured to him the undisputed title of the first surgeon in England. He resigned to Home, in 1792, the delivery of his surgical lectures, in order to devote himself more fully to the completion of his *Treatise on the Blood, Inflammation and Gunshot Wounds*, which was published by his executors in 1794. In this, his masterpiece, the application of physiology to practice is especially noticeable. Certain experiments described in the first part, which demonstrate that arterialization of the blood in respiration takes place by a process of diffusion of “pure air” or “vital air” (*i.e.* oxygen) through membrane, were made so early as the summer of 1755.

Hunter in 1792 announced to his colleagues at St George’s, who, he considered, neglected the proper instruction of the students under their charge, his intention no longer to divide with them the fees which he received for his hospital pupils. Against this innovation, however, the governors of the hospital decided in March 1793. Subsequently, by a committee of their appointing, a code of rules respecting pupils was promulgated, one clause of which, probably directed against an occasional practice of Hunter’s, stipulated that no person should be admitted as a student of the hospital without certificates that he had been educated for the medical profession. In the autumn two young Scotchmen, ignorant of the new rule, came up to town and applied to Hunter for admission as his pupils at St George’s. Hunter explained to them how he was situated, but promised to advance their request at the next board meeting at the hospital on the 16th of October. On that day, having finished a difficult piece of dissection, he went down to breakfast in excellent spirits and in his usual health. After making a professional call, he attended the board meeting. There the interruption of his remarks in behalf of his applicants by a flat contradiction from a colleague brought on one of the old spasmodic heart attacks; he ceased speaking, and retired into an adjoining room only to fall lifeless into the arms of Dr Robertson, one of the hospital physicians. After an hour had been spent in vain attempts to restore animation, his body was conveyed to his house in a sedan chair.[26] His remains were interred privately on the 22nd of October 1793, in the vaults of St Martin’s in the Fields. Thence, on the 28th of March 1859, through the instrumentality of F.

T. Buckland, they were removed to Abbot Islip's chapel in Westminster Abbey, to be finally deposited in the grave in the north aisle of the nave, close to the resting-place of Ben Jonson.

Hunter was of about medium height, strongly built and high-shouldered and short-necked. He had an open countenance, and large features, eyes light-blue or grey, eyebrows prominent, and hair reddish-yellow in youth, later white, and worn curled behind; and he dressed plainly and neatly. He rose at or before six, dissected till nine (his breakfast hour), received patients from half-past nine till twelve, at least during the latter part of his life, and saw his outdoor and hospital patients till about four, when he dined, taking, according to Home, as at other meals in the twenty years preceding his death, no wine. After dinner he slept an hour; he then superintended experiments, read or prepared his lectures, and made, usually by means of an amanuensis, records of the day's dissections. "I never could understand," says W. Clift, "how Mr Hunter obtained rest: when I left him at midnight, it was with a lamp fresh trimmed for further study, and with the usual appointment to meet him again at six in the morning." H. Leigh Thomas records[27] that, on his first arrival in London, having by desire called on Hunter at five o'clock in the morning, he found him already busily engaged in the dissection of insects. Rigidly economical of time, Hunter was always at work, and he had always in view some fresh enterprise. To his museum he gave a very large share of his attention, being fearful lest the ordering of it should be incomplete at his death, and knowing of none who could continue his work for him. "When I am dead," said he one day to Dr Maxwell Garthshore, "you will not soon meet with another John Hunter." At the time of his death he had anatomized over 500 different species of animals, some of them repeatedly, and had made numerous dissections of plants. The manuscript works by him, appropriated and destroyed by Home, among which were his eighty-six surgical lectures, all in full, are stated to have been "literally a cartload"; and many pages of his records were written by Clift under his directions "at least half a dozen times over, with corrections and transpositions almost without end."

To the kindness of his disposition, his fondness for animals, his aversion to operations, his thoughtful and self-sacrificing attention to his patients, and especially his zeal to help forward struggling practitioners and others in any want abundantly testify. Pecuniary means he valued no further than they enabled him to promote his researches; and to the poor, to non-beneficed clergymen, professional authors and artists his services were rendered without remuneration. His yearly income in 1763-1774 was never £1000; it exceeded that sum in 1778, for several years before his death was £5000, and at the time of that event had reached above £6000. All his earnings not required for domestic expenses were, during the last ten years of his life, devoted to the improvement of his museum; and his property, this excepted, was found on his decease to be barely sufficient to pay his debts. By his contemporaries generally Hunter was respected as a master of the art and science of anatomy, and as a cautious and trustworthy if not an elegant or very dexterous operator. Few, however, perceived the drift of his biological researches. Although it was admitted, even by Jesse Foot,[28] that the idea after which his unique museum had been formed—namely, that of morphology as the only true basis of a systematic zoological classification—was entirely his own, yet his investigations into the structure of the lower orders of animals were regarded as works of unprofitable curiosity. One surgeon, of no inconsiderable repute, is said to have ventured the remark that Hunter's preparations were "just as valuable as so many pig's pettitoes";[29] and the president of the Royal Society, Sir Joseph Banks, writing in 1796, plainly expressed his disbelief as to the collection being "an object of importance to the general study of natural history, or indeed to any branch of science except to that of medicine." It was "without the solace of sympathy or encouragement of approbation, without collateral assistance,"[30] and careless of achieving fame—for he held that "no man ever was a great man who wanted to be one"—that Hunter laboured to perfect his designs, and established the science of comparative anatomy, and principles which, however neglected in his lifetime, became the ground-work of all medical study and teaching.

In accordance with the directions given by Hunter in his will, his collection was offered for purchase to the British government. But the prime minister, Pitt, on being asked to consider the matter, exclaimed: "What! buy preparations! Why, I have not money enough to purchase gunpowder." He, however, consented to the bestowal of a portion of the king's bounty for a couple of years on Mrs Hunter and her two surviving children. In 1796 Lord Auckland undertook to urge upon the government the advisability of acquiring the collection, and on the 13th of June 1799, parliament voted £15,000 for this purpose. Its custodianship, after refusal by the College of Physicians, was unanimously accepted by the Corporation of Surgeons on the terms proposed. These were in brief—that the collection be open four hours in the forenoon, two days every week, for the inspection and consultation of the fellows of the College of Physicians, the members of the Company of Surgeons and persons properly introduced by them, a catalogue of the preparations and an official to explain it being at those times always at hand; that a course of not less than twenty-four lectures[31] on comparative anatomy and other subjects illustrated by the collection be given every year by some member of the Company; and that the preparations be kept in good preservation at the expense of the

Corporation, and be subject to the superintendence of a board of sixteen trustees.[32] The fulfilment of these conditions was rendered possible by the receipt of fees for examinations and diplomas, under the charter by which, in 1800, the Corporation was constituted the Royal College of Surgeons. In 1806 the collection was placed in temporary quarters in Lincoln's Inn Fields, and the sum of £15,000 was voted by parliament for the erection of a proper and commodious building for its preservation and extension. This was followed by a grant of £12,500 in 1807. The collection was removed in 1812 to the new museum, and opened to visitors in 1813. The greater part of the present edifice was built in 1835, at an expense to the college of about £40,000; and the combined Hunterian and collegiate collections, having been rearranged in what are now termed the western and middle museums, were in 1836 made accessible to the public. The erection of the eastern museum in 1852, on premises in Portugal Street, bought in 1847 for £16,000, cost £25,000, of which parliament granted £15,000; it was opened in 1855.

The scope of Hunter's labours may be defined as the explication of the various phases of life exhibited in organized structures, both animal and vegetable, from the simplest to the most highly differentiated. By him, therefore, comparative anatomy was employed, not in subservience to the classification of living forms, as by Cuvier, but as a means of gaining insight into the principle animating and producing these forms, by virtue of which he perceived that, however different in form and faculty, they were all allied to himself. In what does life consist? is a question which in his writings he frequently considers, and which seems to have been ever present in his mind. Life, he taught, was a principle independent of structure,[33] most tenaciously held by the least highly organized beings, but capable of readier destruction as a whole, as, *e.g.*, by deprivation of heat or by pain, in young than in old animals. In life he beheld an agency working under the control of law, and exercising its functions in various modes and degrees. He perceived it, as Abernethy observes, to be "a great chemist," a power capable of manufacturing a variety of substances into one kind of generally distributed nutriment, and of furnishing from this a still greater variety of dissimilar substances. Like Harvey, who terms it the *anima vegetiva*, he regarded it as a principle of self-preservation, which keeps the body from dissolution. Life is shown, said he, in renovation and action; but, although facilitated in its working by mechanical causes, it can exist without action, as in an egg new-laid or undergoing incubation. It is not simply a regulator of temperature; it is a principle which resists cold, conferring on the structures which it endows the capacity of passing some degrees below the freezing-point of ordinary inanimate matter without suffering congelation. Hunter found, in short, that there exists in animals a latent heat of life, set free in the process of death (see *Treatise on the Blood*, p. 80). Thus he observed that sap if removed from trees froze at 32° F., but within them might be fluid even at 15°; that a living snail placed in a freezing mixture acquired first a temperature of 28°, and afterwards of 32° ere it froze; and that, whereas a dead egg congealed immediately at 32°, a living egg did so only when its temperature had risen to that point after a previous fall to 29¼°. The idea that the fluid and semifluid as well as the solid constituents of the body contain the vital principle diffused through them he formed in 1755-1756, when, in making drawings illustrative of the changes that take place in the incubated egg, he noted specially that neither the white nor the yolk undergoes putrefaction. The blood he, with Harvey, considered to possess a vitality of its own, more or less independent of that of the animal in which it circulates. Life, he held, is preserved by the compound of the living body and the source of its solid constituents, the living blood. It is to the susceptibility of the latter to be converted into living organized tissue that the union of severed structures by the first intention is due. He even inclined to the belief that the chyle has life, and he considered that food becomes "animalized" in digestion. Coagulation of the blood he compared to the contraction of muscles, and believed to be an operation of life distinct from chemical coagulation, adducing in support of his opinion the fact that, in animals killed by lightning, by violent blows on the stomach, or by the exhaustion of hunting, it does not take place. "Breathing," said Hunter, "seems to render life to the blood, and the blood continues it in every part of the body."[34] Life, he held, could be regarded as a fire, or something similar, and might for distinction's sake be called "animal fire." Of this the process of respiration might afford a constant supply, the fixed life supplied to the body in the food being set free and rendered active in the lungs, whilst the air carried off that principle which encloses and retains the animal fire.[35] The living principle, said Hunter, is coeval with the existence of animal or vegetable matter itself, and may long exist without sensation. The principle upon which depends the power of sensation regulates all our external actions, as the principle of life does our internal, and the two act mutually on each other in consequence of changes produced in the brain. Something (the "materia vitae diffusa") similar to the components of the brain (the "materia vitae coacervata") may be supposed to be diffused through the body and even contained in the blood; between these a communication is kept up by the nerves (the "chordae internunciae").[36] Neither a material nor a chemical theory of life, however, formed a part of Hunter's creed. "Mere composition of matter," he remarked, "does not give life; for the dead body has all the composition it ever had; life is a property we do not understand; we can only see the necessary leading steps towards it."[37] As from life only, said he in one of his lectures, we can gain an idea of death, so

from death only we gain an idea of life. Life, being an agency leading to, but not consisting of, any modification of matter, "either is something superadded to matter, or else consists in a peculiar arrangement of certain fine particles of matter, which being thus disposed acquire the properties of life." As a bar of iron may gain magnetic virtue by being placed for a time in a special position, so perhaps the particles of matter arranged and long continued in a certain posture eventually gain the power of life. "I enquired of Mr Hunter," writes one of his pupils,[38] "if this did not make for the Exploded Doctrine of Equivocal Generation: he told me perhaps it did, and that as to Equivocal Generation all we c[d] have was negative Proofs of its not taking Place. He did not deny that Equivocal Generation happened; there were neither positive proofs for nor against its taking place."

To exemplify the differences between organic and inorganic growth, Hunter made and employed in his lectures a collection of crystallized specimens of minerals, or, as he termed them, "natural or native fossils." Of fossils, designated by him "extraneous fossils," because extraneous respecting the rocks in which they occur, he recognized the true nature, and he arranged them according to a system agreeing with that adopted for recent organisms. The study of fossils enabled him to apply his knowledge of the relations of the phenomena of life to conditions, as exhibited in times present, to the elucidation of the history of the earth in geological epochs. He observed the non-occurrence of fossils in granite, but with his customary scientific caution and insight could perceive no reason for supposing it to be the original matter of the globe, prior to vegetable or animal, or that its formation was different from that of other rocks. In water he recognized the chief agent in producing terrestrial changes (cf. *Treatise on the Blood*, p. 15, note); but the popular notion that the Noachian deluge might account for the marine organisms discovered on land he pointed out was untenable. From the diversity of the situations in which many fossils and allied living structures are found, he was led to infer that at various periods not only repeated oscillations of the level of the land, lasting thousands of centuries, but also great climatic variations, perhaps due to a change in the ecliptic, had taken place in geological times. Hunter considered that very few fossils of those that resemble recent forms are identical with them. He conceived that the latter might be varieties, but that if they are really different species, then "we must suppose that a new creation must have taken place." It would appear, therefore, that the origin of species in variation had not struck him as possible. That he believed varieties to have resulted from the influence of changes in the conditions of life in times past is shown by a somewhat obscure passage in his "Introduction to Natural History" (*Essays and Observations*, i. 4), in which he remarks, "But, I think, we have reason to suppose that there was a period of time in which every species of natural production was the same, there being then no variety in any species," and adds that "civilization has made varieties in many species, which are the domesticated." Modern discoveries and doctrines as to the succession of life in time are again foreshadowed by him in the observation in his introduction to the description of drawings relative in incubation (quoted in Pref. to *Cat. of Phys. Ser.* i. p. iv., 1833) that: "If we were capable of following the progress of increase of the number of the parts of the most perfect animal, as they first formed in succession, from the very first, to its state of full perfection, we should probably be able to compare it with some one of the incomplete animals themselves, of every order of animals in the creation, being at no stage different from some of those inferior orders; or, in other words, if we were to take a series of animals from the more imperfect to the perfect, we should probably find an imperfect animal corresponding with some stage of the most perfect."

In pathological phenomena Hunter discerned the results of the perturbation of those laws of life by which the healthy organism subsists. With him pathology was a science of vital dynamics. He afforded principles bearing not on single complaints only, but on the effects of injury and disease in general. To attempt to set forth what in Hunter's teaching was new to pathology and systematic surgery, or was rendered so by his mode of treatment, would be well-nigh to present an epitome of all that he wrote on those subjects. "When we make a discovery in pathology," says Adams, writing in 1818, "we only learn what we have overlooked in his writings or forgotten in his lectures." Surgery, which only in 1745 had formally ceased to be associated with "the art and mystery of barbers," he raised to the rank of a scientific profession. His doctrines were, necessarily, not those of his age: while lesser minds around him were still dim with the mists of the ignorance and dogmatism of times past, his lofty intellect was illumined by the dawn of a distant day.

Authorities.—See, besides the above quoted publications, *An Appeal to the present Parliament ... on the subject of the late J. Hunter's Museum* (1795); Sir C. Bell, *A Lecture ... being a Commentary on Mr J. Hunter s preparations of the Diseases of the Urethra* (1830); The President of the Royal College of Surgeons of England, *Address to the Committee for the Erection of a Statue of Hunter* (Lond., March 29, 1859); Sir R. Owen, "Sketch of Hunter's Scientific Character and Works," in Tom Taylor's *Leicester Square* (1874), also in Hunter's Works, ed. by Palmer, vol. iv. (1837), and in *Essays and Observations*; the invaluable catalogues of the Hunterian Collection issued by the Royal College of Surgeons; and numerous Hunterian Orations. In the *Journal of a Voyage to New South Wales*, by John White,

is a paper containing directions for preserving animals, printed separately in 1809, besides six zoological descriptions by Hunter; and in the *Natural History of Aleppo*, by A. Russell, are remarks of Hunter's on the anatomy of the jerboa and the camel's stomach. Notes of his lectures on surgery, edited by J. W. K. Parkinson, appeared in 1833 under the title of *Hunterian Reminiscences*. Hunter's *Observations and Reflections on Geology*, intended to serve as an introduction to the catalogue of his collection of extraneous fossils, was published in 1859, and his *Memoranda on Vegetation* in 1860.

(F. H. B.)

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1 The date is thus entered in the parish register, see Joseph Adams, *Memoirs*, Appendix, p. 203. The Hunterian Oration, instituted in 1813 by Dr Matthew Baillie and Sir Everard Home, is delivered at the Royal College of Surgeons on the 14th of February, which Hunter used to give as the anniversary of his birth.

2 Ottley's date, 1738, is inaccurate, see S. F. Simmons, *Account of ... W. Hunter*, p. 7. Hunter's mother died on the 3rd of November 1751, aged 66.

3 So in Home's *Life*, p. xvi., and Ottley's, p. 15. Hunter himself (*Treatise on the Blood*, p. 62) mentions the date 1755.

4 Ottley incorrectly gives 1753 as the date. In the buttery book for 1755 at St Mary's Hall his admission is thus noted: "Die Junii 5to 1755 Admissus est Johannes Hunter superioris ordinis Commensalis." Hunter apparently left Oxford after less than two months' residence, as the last entry in the buttery book with charges for battels against his name is on July 25, 1755. His name was, however, retained on the books of the Hall till December 10, 1756. The record of Hunter's matriculation runs: "Ter° Trin. 1755.—Junii 5to Aul. S. Mar. Johannes Hunter 24 Johannis de Kilbride in Com. Clidesdale Scotiae Arm. fil."

5 Ottley, *Life of J. Hunter*, p. 22.

6 *Treatise on the Blood*, p. 21.

7 See Adams, *Memoirs*, pp. 32, 33. Cf. Hunter's *Treatise on the Blood*, p. 8, and *Works*, ed. Palmer, i. 604.—On the employment of Hunter's term "increased action" with respect to inflammation, see Sir James Paget, *Lect. on Surg. Path.*, 3rd ed., p. 321 sqq.

8 According to Hunter, as quoted in Palmer's edition of his lectures, p. 437, the accident was "after dancing, and after a violent fit of the cramp"; W. Clift, however, who says he probably never danced, believed that he met with the accident "in getting up from the dissecting table after being cramped by long sitting" (see W. Lawrence, *Hunt. Orat.*, 1834, p. 64).

9 The subjects and dates of his subsequent papers in the *Transactions*, the titles of which give little notion of the richness of their contents, are as follows: The torpedo (1773); air-receptacles in birds, and the Gillaroo trout (1774); the *Gymnotus electricus*, and the production of heat by animals and vegetables (supplemented in 1777), (1775); the recovery of people apparently drowned (1776); the free martin (1779); the communication of smallpox to the foetus in utero, and the occurrence of male plumage in old hen pheasants (1780); the organ of hearing in fishes (1782); the anatomy of a "new marine animal" described by Home (1785); the specific identity of the wolf, jackal and dog (supplemented in 1789), the effect on fertility of extirpation of one ovarium, and the structure and economy of whales (1787); observations on bees (1793); and some remarkable caves in Bayreuth and fossil bones found therein (1794). With these may be included a paper by Home, from materials supplied by Hunter, on certain horny excrescences of the human body.

10 Mrs Hunter died on the 7th of January 1821, in Holles Street, Cavendish Square, London, in her seventy-ninth year. She was a handsome and accomplished woman, and well fulfilled the social duties of her position. The words for Haydn's English canzonets were supplied by her, and were mostly original poems; of these the lines beginning "My mother bids me bind my hair" are, from the beauty of the accompanying music, among the best known. (See R. Nares in *Gent. Mag.* xci. pt. 1, p. 89, quoted in Nichols's *Lit. Anec.*, 2nd ser., vii. 638.)

11 *Hunt. Orat.*, 1842, p. 15.

12 The condition of this animal during hibernation was a subject of special interest to Hunter, who thus introduces it, even in a letter of condolence to Jenner in 1778 on a disappointment in love: "But let her go, never mind her. I shall employ you with hedgehogs, for I do not know how far I may trust mine."

13 See his evidence at the trial of Captain Donellan, *Works*, i. 195.

14 On the discovery of the dyeing of bones by madder, see Belchier, Phil. Trans., vol. xxxix., 1736, pp. 287 and 299.

15 *Essays and Observations*, i. 55, 56. "May we not claim for him," says Sir Wm. Fergusson, with reference to these experiments, "that he anticipated by a hundred years the scientific data on which the present system of human grafting is conducted?" (*Hunt. Orat.*, 1871, p. 17).

16 *Essays and Observations*, i. 115; cf. *Works*, i. 391.

17 The *Transactions* of the Society contain papers by Hunter on inflammation of veins (1784),

intussusception (1789), a case of paralysis of the muscles of deglutition (1790), and a case of poisoning during pregnancy (1794), with others written by Home, from materials supplied by him, on Hunter's operation for the cure of popliteal aneurism, on loose cartilages in joints, on certain horny excrescences of the human body, and on the growth of bones.

18 Bell lived with Hunter fourteen years, *i.e.* from 1775 to 1789, and was employed by him chiefly in making and drawing anatomical preparations for the museum. He died in 1792 at Sumatra, where he was assistant-surgeon to the East India Company.

19 O'Brien, dreading dissection by Hunter, had shortly before his death arranged with several of his countrymen that his corpse should be conveyed by them to the sea, and sunk in deep water; but his undertaker, who had entered into a pecuniary compact with the great anatomist, managed that while the escort was drinking at a certain stage on the march seawards, the coffin should be locked up in a barn. There some men he had concealed speedily substituted an equivalent weight of paving-stones for the body, which was at night forwarded to Hunter, and by him taken in his carriage to Earl's Court, and, to avoid risk of a discovery, immediately after suitable division boiled to obtain the bones. See Tom Taylor, *Leicester Square*, ch. xiv. (1874); cf. *Annual Register*, xxvi. 209 (1783).

20 See C. R. Leslie and Tom Taylor, *Life and Times of Sir J. Reynolds*, ii. 474 (1865).

21 *Works*, i. 265-266.

22 A transcript of a portion of Hunter's MSS., made by Clift in 1793 and 1800, was edited by Sir Richard Owen, in two volumes with notes, in 1861, under the title of *Essays and Observations in Natural History, Anatomy, Physiology, Psychology and Geology*. On the destruction of Hunter's papers see Clift's "Appendix" in vol. ii. p. 497, also W. H. Flower, *Introd. Lect.*, pp. 7-9 (1870).

23 In his *Treatise on the Blood*, p. 288, Hunter observes: "We find it a common principle in the animal machine, that every part increases in some degree according to the action required. Thus we find ... vessels become larger in proportion to the necessity of supply, as for instance, in the gravid uterus; the external carotids in the stag, also, when his horns are growing, are much larger than at any other time."

24 See Sir R. Owen, "John Hunter and Vivisection," *Brit. Med. Journ.* (February 22, 1879, p. 284). In the fourth of his operations for popliteal aneurism, Hunter for the first time did not include the vein in the ligature. His patient lived for fifty years afterwards. The results on the artery of this operation are to be seen in specimen 347^{2A} (Path. Ser.) in the Hunterian Museum.

25 Home, *Trans. of Soc. for Impr. of Med. and Chirurg. Knowl.* i. 147 (1793). Excess of heat in the injured limb was noticed also in Hunter's second case on the day after the operation; and in his fourth case it reached 4°-5° on the first day, and continued during a fortnight.

26 The record of Hunter's death in the *St James Chronicle* for October 15-17, 1793, p. 4, col. 4, makes no allusion to the immediate cause of Hunter's death, but gives the following statement: "John Hunter.—This eminent Surgeon and valuable man was suddenly taken ill, yesterday, in the Council-room of St George's Hospital. After receiving the assistance which could be afforded by two Physicians and a Surgeon, he was removed in a close chair to his house, in Leicester Fields, where he expired about two o'clock." Examination of the heart revealed disease involving the pericardium, endocardium and arteries, the coronary arteries in particular showing ossific change.

27 *Hunt. Orat.*, 1827, p. 5.

28 See p. 266 of his malicious so-called *Life of John Hunter* (1794).

29 Cf. J. H. Green, *Hunt. Orat.*, 1840, p. 27.

30 Abernethy, *Physiological Lectures*, p. 11 (1817).

31 Instituted in 1806.

32 Increased to seventeen in 1856.

33 How clearly he held this view is seen in his remark (*Treatise on the Blood*, p. 28, cf. p. 46) that, as the coagulating lymph of the blood is probably common to all animals, whereas the red corpuscles are not, we must suppose the lymph to be the essential part of that fluid. Hunter was the first to discover that the blood of the embryos of red-blooded animals is at first colourless, resembling that of invertebrates. (See Owen, Preface to vol. iv. of *Works*, p. xiii.)

34 *Treatise on the Blood*, p. 63.

35 *Essays and Observations*, i. 113.

36 *Treatise on the Blood*, p. 89.

37 *Ib.* p. 90.

38 P. P. Staple, with the loan of whose volume of MS. notes of Hunter's "Chirurgical Lectures," dated, on the last page, Sept. 20th, 1787, the writer was favoured by Sir W. H. Broadbent.

HUNTER, ROBERT MERCER TALIAFERRO (1809-1887), American statesman, was born in Essex county, Virginia, on the 21st of April 1809. He entered the university of Virginia in his seventeenth year and was one of its first graduates; he then studied law at the Winchester (Va.) Law School, and in 1830 was admitted to the bar. From 1835 to 1837 he was a member of the Virginia house of delegates; from 1837 to 1843 and from 1845 to 1847 was a member of the national house of representatives, being Speaker from 1839 to 1841; and from 1847 to 1861 he was in the senate, where he was chairman of the finance committee (1850-1861). He is credited with having brought about a reduction of the quantity of silver in the smaller coins; he was the author of the Tariff Act of 1857 and of the bonded-warehouse system, and was one of the first to advocate civil service reform. In 1853 he declined President Fillmore's offer to make him secretary of state. At the National Democratic Convention at Charleston, S.C., in 1860 he was the Virginia delegation's choice as candidate for the presidency of the United States, but was defeated for the nomination by Stephen A. Douglas. Hunter did not regard Lincoln's election as being of itself a sufficient cause for secession, and on the 11th of January 1861 he proposed an elaborate but impracticable scheme for the adjustment of differences between the North and the South, but when this and several other efforts to the same end had failed he quietly urged his own state to pass the ordinance of secession. From 1861 to 1862 he was secretary of state in the Southern Confederacy; and from 1862 to 1865 was a member of the Confederate senate, in which he was, at times, a caustic critic of the Davis administration. He was one of the commissioners to treat at the Hampton Roads Conference in 1865 (see LINCOLN, ABRAHAM), and after the surrender of General Lee was summoned by President Lincoln to Richmond to confer regarding the restoration of Virginia in the Union. From 1874 to 1880 he was treasurer of Virginia, and from 1885 until his death near Lloyds, Virginia, on the 18th of July 1887, was collector of the Port of Tappahannock, Virginia.

See Martha T. Hunter, *A Memoir of Robert M. T. Hunter* (Washington, 1903) for his private life, and D. R. Anderson, *Robert Mercer Taliaferro Hunter*, in the John P. Branch Historical Papers of Randolph Macon College (vol. ii. No. 2, 1906), for his public career.

HUNTER, WILLIAM (1718-1783), British physiologist and physician, the first great teacher of anatomy in England, was born on the 23rd of May 1718, at East Kilbride, Lanark. He was the seventh child of his parents, and an elder brother of the still more famous John Hunter (*q.v.*). When fourteen years of age, he was sent to the university of Glasgow, where he studied for five years. He had originally been intended for the church, but, scruples concerning subscription arising in his mind, he followed the advice of his friend William Cullen, and resolved to devote himself to physic. During 1737-1740 he resided with Cullen at Hamilton, and then, to increase his medical knowledge before settling in partnership with his friend, he spent the winter of 1740-1741 at Edinburgh. Thence he went to London, where Dr James Douglas (1675-1742), an anatomist and obstetrician of some note, to whom he had been recommended, engaged his services as a tutor to his son and as a dissector, and assisted him to enter as a surgeon's pupil at St George's Hospital and to procure the instruction of the anatomist Frank Nicholls (1699-1778). When Dr Douglas died Hunter still continued to live with his family. In 1746 he undertook, in place of Samuel Sharp, the delivery, for a society of naval practitioners, of a series of lectures on operative surgery, so satisfactorily that he was requested to include anatomy in his course. It was not long before he attained considerable fame as a lecturer; for not only was his oratorical ability great, but he differed from his contemporaries in the fullness and thoroughness of his teaching, and in the care which he took to provide the best possible practical illustrations of his discourses. We read that the syllabus of Edward Nourse (1701-1761), published in 1748, *totam rem anatomicam complectens*, comprised only twenty-three lectures, exclusive of a short and defective "Syllabus Chirurgicus," and that at "one of the most reputable courses of anatomy in Europe," which Hunter had himself attended, the professor was obliged to demonstrate all the parts of the body, except the nerves and vessels (shown in a foetus) and the bones, on a single dead subject, and for the explanation of the operations of surgery used a dog! In 1747 Hunter became a member of the Corporation of Surgeons. In the course of a tour through Holland to Paris with his pupil, J. Douglas, in 1728, he visited Albinus at Leiden, and inspected with admiration his injected preparations. By degrees Hunter renounced surgical for obstetric practice, in which he excelled. He was appointed a surgeon-accoucheur at the Middlesex Hospital in 1748, and at the British Lying-in Hospital in the year following. The degree of M.D. was conferred upon him by the university of Glasgow on the 24th of October 1750. About the same time he left his old abode at Mrs Douglas's, and settled as a physician in

Jermyn Street. He became a licentiate of the College of Physicians on the 30th of September 1756. In 1762 he was consulted by Queen Charlotte, and in 1764 was made physician-extraordinary to her Majesty.

On the departure of his brother John for the army, Hunter engaged as an assistant William Hewson (1739-1774), whom he subsequently admitted to partnership in his lectures. Hewson was succeeded in 1770 by W. C. Cruikshank (1745-1800). Hunter was elected F.R.S. in 1767; F.S.A. in 1768, and third professor of anatomy to the Royal Academy of Arts; and in 1780 and 1782 respectively an associate of the Royal Medical Society and of the Royal Academy of Sciences of Paris. During the closing ten years of his life his health failed greatly. His last lecture, at the conclusion of which he fainted, was given, contrary to the remonstrances of friends, only a few days before his death, which took place in London on the 30th of March 1783. He was buried in the rector's vault at St James's, Piccadilly.

Hunter had in 1765 requested of the prime minister, George Grenville, the grant of a plot of ground on which he might establish "a museum in London for the improvement of anatomy, surgery, and physics" (see "Papers" at end of his *Two Introductory Lectures*, 1784), and had offered to expend on its erection £7000, and to endow in perpetuity a professorship of anatomy in connexion with it. His application receiving no recognition, he after many months abandoned his scheme, and built himself a house, with lecture and dissecting-rooms, in Great Windmill Street, whither he removed in 1770. In one fine apartment in this house was accommodated his collection, comprising anatomical and pathological preparations, ancient coins and medals, minerals, shells and corals. His natural history specimens were in part a purchase, for £1200, of the executors of his friend, Dr John Fothergill (1712-1780). Hunter's whole collection, together with his fine library of Greek and Latin classics, and an endowment of £8000, by his will became, after the lapse of twenty years, the property of the university of Glasgow.

Hunter was never married, and was a man of frugal habits. Like his brother John, he was an early riser, and a man of untiring industry. He is described as being in his lectures, which were of two hours' duration, "both simple and profound, minute in demonstration, and yet the reverse of dry and tedious"; and his mode of introducing anecdotal illustrations of his topic was most happy. Lecturing was to him a pleasure, and, notwithstanding his many professional distractions, he regularly continued it, because, as he said, he "conceived that a man may do infinitely more good to the public by teaching his art than by practising it" (see "Memorial" appended to *Introd. Lect.* p. 120).

Hunter was the author of several contributions to the *Medical Observations and Enquiries* and the *Philosophical Transactions*. In his paper on the structure of cartilages and joints, published in the latter in 1743, he anticipated what M. F. X. Bichat sixty years afterwards wrote concerning the structure and arrangement of the synovial membranes. His *Medical Commentaries* (pt. i., 1762, supplemented 1764) contains, among other like matter, details of his disputes with the Monros as to who first had successfully performed the injection of the *tubuli testis* (in which, however, both he and they had been forestalled by A. von Haller in 1745), and as to who had discovered the true office of the lymphatics, and also a discussion on the question whether he or Percivall Pott ought to be considered the earliest to have elucidated the nature of *hernia congenita*, which, as a matter of fact, had been previously explained by Haller. In the *Commentaries* is exhibited Hunter's one weakness—an inordinate love of controversy. His impatience of contradiction he averred to be a characteristic of anatomists, in whom he once jocularly condoned it, on the plea that "the passive submission of dead bodies" rendered the crossing of their will the less bearable. His great work, *The Anatomy of the Gravid Uterus, exhibited in Figures*, fol., was published in 1774. His posthumous works are *Two Introductory Lectures* (1784), and *Anatomical Description of the Human Gravid Uterus* (1794), which was re-edited by Dr E. Rigby in 1843.

See *Gent. Mag.* liii. pt. 1, p. 364 (1783); S. F. Simmons, *An Account of the Life of W. Hunter* (1783); Adams's and Ottley's Lives of J. Hunter; Sir B. C. Brodie, *Hunterian Oration* (1837); W. Munk, *The Roll of the Royal College of Physicians of London*, ii. 205 (1878).

(F. H. B.)

HUNTER, WILLIAM ALEXANDER (1844-1898), Scottish jurist and politician, was born in Aberdeen on the 8th of May 1844, and educated at Aberdeen grammar school and university. He entered the Middle Temple, and was called to the English bar in 1867, but then was occupied mainly with teaching. In 1869 he was appointed professor of Roman law at

University College, London, and in 1878 professor of jurisprudence, resigning that chair in 1882. His name became well known during this period as the author of a standard work on Roman law, *Roman Law in the Order of a Code*, together with a smaller introductory volume for students, *Introduction to Roman Law*. After 1882 Hunter took up politics and was elected to parliament for Aberdeen as a Liberal in 1885. In the House of Commons he was a prominent supporter of Charles Bradlaugh, he was the first to advocate old age pensions, and in 1890 carried a proposal to free elementary education in Scotland. In 1895 his health broke down; he retired from parliament in 1896 and died on the 21st of July 1898.

HUNTER, SIR WILLIAM WILSON (1840-1900), British publicist, son of Andrew Galloway Hunter, a Glasgow manufacturer, was born at Glasgow on the 15th of July 1840. He was educated at Glasgow University (B.A. 1860), Paris and Bonn, acquiring a knowledge of Sanscrit, and passing first in the final examination for the Indian Civil Service in 1862. Posted in the remote district of Birbhum in the lower provinces of Bengal, he began collecting local traditions and records, which formed the materials for his novel and suggestive publication, entitled *The Annals of Rural Bengal*, a book which did much to stimulate public interest in the details of Indian administration. He also compiled *A Comparative Dictionary of the Non-Aryan Languages of India*, a glossary of dialects based mainly upon the collections of Brian Houghton Hodgson, which testifies to the industry of the writer but contains much immature philological speculation. In 1872 he brought out two attractive volumes on the province of Orissa and its far-famed temple of Jagannath. In 1869 Lord Mayo asked Hunter to submit a scheme for a comprehensive statistical survey of the Indian empire. The work involved the compilation of a number of local gazetteers, in various stages of progress, and their consolidation in a condensed form upon a single and uniform plan. The conception was worthy of the gigantic projects formed by Arthur Young and Sir John Sinclair at the close of the 18th century, and the fact that it was successfully carried through between 1869 and 1881 was owing mainly to the energy and determination of Hunter. The early period of his undertaking was devoted to a series of tours which took him into every corner of India. He himself undertook the supervision of the statistical accounts of Bengal (20 vols., 1875-1877) and of Assam (2 vols., 1879). The various statistical accounts, when completed, comprised no fewer than 128 volumes. The immense task of condensing this mass of material proceeded concurrently with their compilation, an administrative feat which enabled *The Imperial Gazetteer of India* to appear in 9 volumes in 1881 (2nd ed., 14 vols., 1885-1887; 3rd ed., 26 vols., including atlas, 1908). Hunter adopted a transliteration of vernacular place-names, by which means the correct pronunciation is ordinarily indicated; but hardly sufficient allowance was made for old spellings consecrated by history and long usage. Hunter’s own article on India was published in 1880 as *A Brief History of the Indian Peoples*, and has been widely translated and utilized in Indian schools. A revised form was issued in 1895, under the title of *The Indian Empire: its People, History and Products*. In 1882 Hunter, as a member of the governor-general’s council, presided over the commission on Indian Education; in 1886 he was elected vice-chancellor of the university of Calcutta. In 1887 he retired from the service, was created K.C.S.I., and settled at Oaken Holt, near Oxford. He arranged with the Clarendon Press to publish a series of *Rulers of India*, to which he himself contributed volumes on Dalhousie (1890) and Mayo (1892). He had previously, in 1875, written an official *Life of Lord Mayo*, in two volumes. He also wrote a weekly article on Indian affairs for *The Times*. But the great task to which he applied himself on his settlement in England was a history upon a large scale of the *British Dominion in India*, two volumes of which only had appeared when he died, carrying the reader barely down to 1700. He was much hindered by the confused state of his materials, a portion of which he arranged and published in 1894 as *Bengal Manuscript Records*, in three volumes. A delightful story, *The Old Missionary* (1895), and *The Thackerays in India* (1897), a gossipy volume which appeals to all readers of *The Newcomes*, may be regarded as the relaxations of an Anglo-Indian amid the stress of severer studies. In the winter of 1898-1899, in consequence of the fatigue incurred in a journey to the Caspian and back, on a visit to the sick-bed of one of his two sons, Hunter was stricken down by a severe attack of influenza, which affected his heart. He died at Oaken Holt on the 6th of February 1900.

HUNTING (the verbal substantive from "hunt"; O. Eng. *huntian*, *hunta*; apparently connected with O. Eng. *hentan*, Gothic *hinpan*, to capture, O.H.G. *hunda*, booty), the pursuit of game and wild animals, for profit or sport; equivalent to "chase" (like "catch," from Lat. *captare*, Fr. *chasse*, Ital. *caccia*). The circumstances which render necessary the habitual pursuit of wild animals, either as a means of subsistence or for self-defence, generally accompany a phase of human progress distinctly inferior to the pastoral and agricultural stages; resorted to as a recreation, however, the practice of the chase in most cases indicates a considerable degree of civilization, and sometimes ultimately becomes the almost distinctive employment of the classes which are possessed of most leisure and wealth. It is in some of its latter aspects, viz. as a "sport," pursued on fixed rules and principles, that hunting is dealt with here.

Historic Field Sports.

Information as to the field sports of the ancients is in many directions extremely fragmentary. With regard to the ancient Egyptians, however, we learn that the huntsmen constituted an entire sub-division of the great second caste; they either followed the chase on their own account, or acted as the attendants of the chiefs in their hunting excursions, taking charge of the dogs, and securing and bringing home the game. The game was sought in the open deserts which border on both sides the valley of the Nile; but (by the wealthy) sometimes in enclosed spaces into which the animals had been driven or in preserves. Besides the noose and the net, the arrow, the dart and the hunting pole or *venabulum* were frequently employed. The animals chiefly hunted were the gazelle, ibex, oryx, stag, wild ox, wild sheep, hare and porcupine; also the ostrich for its plumes, and the fox, jackal, wolf, hyaena and leopard for their skins, or as enemies of the farm-yard. The lion was occasionally trained as a hunting animal instead of the dog. The sportsman appears, occasionally at least, in the later periods, to have gone to cover in his chariot or on horseback; according to Wilkinson, when the dogs threw off in a level plain of great extent, it was even usual for him "to remain in his chariot, and, urging his horses to their full speed, endeavour to turn or intercept them as they doubled, discharging a well-directed arrow whenever they came within its range."[1] The partiality for the chase which the ancient Egyptians manifested was shared by the Assyrians and Babylonians, as is shown by the frequency with which hunting scenes are depicted on the walls of their temples and palaces; it is even said that their dresses and furniture were ornamented with similar subjects.[2] The game pursued included the lion, the wild ass, the gazelle and the hare, and the implements chiefly employed seem to have been the javelin and the bow. There are indications that hawking was also known. The Assyrian kings also maintained magnificent parks, or "paradises," in which game of every kind was enclosed; and perhaps it was from them that the Persian sovereigns borrowed the practice mentioned both by Xenophon in the *Cyropaedia* and by Curtius. According to Herodotus, Cyrus devoted the revenue of four great towns to meet the expenses of his hunting establishments. The circumstances under which the death of the son of Croesus is by the same writer (i. 34-45) related to have occurred, incidentally show in what high estimation the recreation of hunting was held in Lydia. In Palestine game has always been plentiful, and the Biblical indications that it was much sought and duly appreciated are numerous. As means of capture, nets, traps, snares and pitfalls are most frequently alluded to; but the arrow (Isa. vii. 24), the spear and the dart (Job. xli. 26-29) are also mentioned. There is no evidence that the use of the dog (Jos. *Ant.* iv. 8, 10, notwithstanding) or of the horse in hunting was known among the Jews during the period covered by the Old Testament history; Herod, however, was a keen and successful sportsman, and is recorded by Josephus (*B.J.* i. 21, 13, compare *Ant.* xv. 7, 7; xvi. 10, 3) to have killed no fewer than forty head of game (boar, wild ass, deer) in one day.

The sporting tastes of the ancient Greeks, as may be gathered from many references in Homer (*Il.* ix. 538-545; *Od.* ix. 120, xvii. 295, 316, xix. 429 seq.), had developed at a very early period; they first found adequate literary expression in the work of Xenophon entitled *Cynegeticus*,[3] which expounds his principles and embodies his experience in his favourite art of hunting. The treatise chiefly deals with the capture of the hare; in the author's day the approved method was to find the hare in her form by the use of dogs; when found she was either driven into nets previously set in her runs or else run down in the open. Boar-hunting is also described; it was effected by nets into which the animal was pursued, and in which when fairly entangled he was speared. The stag, according to the same work, was taken by means of a kind of wooden trap (ποδοστράβη), which attached itself to the foot. Lions, leopards, lynxes, panthers and bears are also specially mentioned among the large game; sometimes they were taken in pitfalls, sometimes speared by mounted horsemen. As a writer on field sports Xenophon was followed by Arrian, who in his *Cynegeticus*, in avowed dependence on his predecessor, seeks to supplement such deficiencies in the earlier treatise as arose from its author's unacquaintance with the dogs of Gaul and the horses of Scythia and Libya. Four books of *Cynegetica*, extending to about 2100 hexameters, by Oppian have also been

preserved; the last of these is incomplete, and it is probable that a fifth at one time existed. The poem contains some good descriptive passages, as well as some very curious indications of the state of zoological knowledge in the author's time. Hunting scenes are frequently represented in ancient works of art, especially the boar-hunt, and also that of the hare. In Roman literature allusions to the pleasures of the chase (wild ass, boar, hare, fallow deer being specially mentioned as favourite game) are not wanting (Virg. *Georg.* iii. 409-413; *Ecl.* iii. 75; Hor. *Od.* i. 1, 25-28); it seems to have been viewed; however, with less favour as an occupation for gentlemen, and to have been chiefly left to inferiors and professionals. The immense *vivaria* or *theriotropheia*, in which various wild animals, such as boars, stags and roe-deer, were kept in a state of semi-domestication, were developments which arose at a comparatively late period; as also were the *venationes* in the circus, although these are mentioned as having been known as early as 186 B.C. The bald and meagre poem of Grattius Faliscus on hunting (*Cynegetica*) is modelled upon Xenophon's prose work; a still extant fragment (315 lines) of a similar poem with the same title, of much later date, by Nemesianus, seems to have at one time formed the introduction to an extended work corresponding to that of Oppian.

That the Romans had borrowed some things in the art of hunting from the Gauls may be inferred from the name *canis gallicus* (Spanish *galgo*) for a greyhound, which is to be met with both in Ovid and Martial; also in the words (*canis*) *vertragus* and *segusius*, both of Celtic origin.[4] According to Strabo (p. 200) the Britons also bred dogs well adapted for hunting purposes. The addiction of the Franks in later centuries to the chase is evidenced by the frequency with which not only the laity but also the clergy were warned by provincial councils against expending so much of their time and money on hounds, hawks and falcons; and we have similar proof with regard to the habits of other Teutonic nations subsequent to the introduction of Christianity.[5] Originally among the northern nations sport was open to every one[6] except to slaves, who were not permitted to bear arms; the growth of the idea of game-preserving kept pace with the development of feudalism. For its ultimate development in Britain see Forest Law, where also the distinction between beasts of forest or venery, beasts of chase and beasts and fowls of warren is explained. See also Game Laws.

Modern Hunting.—The term "hunting" has come to be applied specially to the pursuit of such quarries as the stag or fox, or to following an artificially laid scent, with horse and hound. It thus corresponds to the Fr. *chasse au courre*, as distinguished from *chasse au tir*, *à l'oiseau*, &c., and to the Ger. *hetzjagd* as distinguished from *birsch*. In the following article the English practice is mainly considered.

Doubtless the early inhabitants of Britain shared to a large extent in the habits of the other Celtic peoples; the fact that they kept good hunting dogs is vouched for by Strabo; and an interesting illustration of the manner in which these were used is given in the inscription quoted by Orelli (*n.* 1603)—"Silvano Invicto Sacrum—ob aprum eximiae formae captum, quem multi antecessores praedari non potuerunt." Asser, the biographer of Alfred the Great, states that before the prince was twelve years of age he "was a most expert and active hunter, and excelled in all the branches of that noble art, to which he applied with incessant labour and amazing success."[7] Of his grandson Athelstan it is related by William of Malmesbury that after the victory of Brunanburgh he imposed upon the vanquished king of Wales a yearly tribute, which included a certain number of "hawks and sharp-scented dogs fit for hunting wild beasts." According to the same authority, one of the greatest delights of Edward the Confessor was "to follow a pack of swift hounds in pursuit of game, and to cheer them with his voice." It was under the Anglo-Saxon kings that the distinction between the higher and lower chase first came to be made—the former being expressly for the king or those on whom he had bestowed the pleasure of sharing in it, while only the latter was allowed to the proprietors of the land. To the reign of Cnut belong the "Constitutiones de Foresta," according to which four thanes were appointed in every province for the administration of justice in all matters connected with the forests; under them were four inferior thanes to whom was committed immediate care of the vert and venison.[8] The severity of the forest laws which prevailed during the Norman period is sufficient evidence of the sporting ardour of William and his successors. The Conqueror himself "loved the high game as if he were their father"; and the penalty for the unauthorized slaughter of a hart or hind was loss of both eyes.

Stag hunting.

At an early period stag hunting was a favourite recreation with English royalty. It seems probable that in the reign of Henry VIII. the royal pack of buckhounds was kennelled at Swinley, where, in the reign of Charles II. (1684), a deer was found that went away to Lord Petre's seat in Essex; only five got to the end of this 70 m. run, one being the king's brother, the duke of York. George III. was a great stag hunter, and met the royal pack as often as possible.

In *The Chase of the Wild Red Deer*, Mr Collyns says that the earliest record of a pack of staghounds in the Exmoor district is in 1598, when Hugh Polland, Queen Elizabeth's ranger, kept one at Simonsbath. The succeeding rangers of Exmoor forest kept up the pack until some 200 years ago, the hounds subsequently passing into the possession of Mr Walter of Stevenstone, an ancestor of the Rolle family. Successive masters continued the sport until 1825, when the fine pack, descended probably from the bloodhound crossed with the old southern hound, was sold in London. It is difficult to imagine how the dispersion of such a pack could have come about in such a sporting country, but in 1827 Sir Arthur Chichester got a pack together again. Stag hunting begins on the 12th of August, and ends on the 8th of October; there is then a cessation until the end of the month, when the hounds are unkennelled for hind hunting, which continues up to Christmas; it begins again about Ladyday, and lasts till the 10th of May. The mode of hunting with the Devon and Somerset hounds is briefly this: the whereabouts of a warrantable stag is communicated to the master by that important functionary the harbourer; two couple of steady hounds called tufters are then thrown into cover, and, having singled out a warrantable deer, follow him until he is forced to make for the open, when the body of the pack are laid on. Very often two or three hours elapse before the stag breaks, but a run over the wild country fully atones for the delay.

Fox hunting.

It is only within comparatively recent times that the fox has come to be considered as an animal of the higher chase. William Twici, indeed, who was huntsman-in-chief to Edward II., and who wrote in Norman French a treatise on hunting,[9] mentions the fox as a beast of venery, but obviously as an altogether inferior object of sport. Strutt also gives an engraving, assigned by him to the 14th century, in which three hunters, one of whom blows a horn, are represented as unearthing a fox, which is pursued by a single hound. The precise date of the establishment of the first English pack of hounds kept entirely for fox hunting cannot be accurately fixed. In the work of "Nimrod" (C. J. Apperley), entitled *The Chase*, there is (p. 4) an extract from a letter from Lord Arundel, dated February 1833, in which the writer says that his ancestor, Lord Arundel, kept a pack of foxhounds between 1690 and 1700, and that they remained in the family till 1782, when they were sold to the celebrated Hugh Meynell, of Quorndon Hall, Leicestershire. Lord Wilton again, in his *Sports and Pursuits of the English*, says that "about the year 1750 hounds began to be entered solely to fox." The *Field* of November 6, 1875, p. 512, contains an engraving of a hunting-horn then in the possession of the late master of the Cheshire hounds, and upon the horn is the inscription:—"Thomas Boothby, Esq., Tooley Park, Leicester. With this horn he hunted the first pack of foxhounds then in England fifty-five years. Born 1677. Died 1752. Now the property of Thomas d'Avenant, Esq., county Salop, his grandson." These extracts do not finally decide the point, because both Mr Boothby's and Lord Arundel's hounds may have hunted other game besides fox, just as in Edward IV.'s time there were "fox dogs" though not kept exclusively for fox. On the whole, it is probable that Lord Wilton's surmise is not far from correct. Since fox hunting first commenced, however, the system of the sport has been much changed. In our great-grandfathers' time the hounds met early, and found the fox by the drag, that is, by the line he took to his kennel on his return from a foraging expedition. Hunting the drag was doubtless a great test of nose, but many good runs must have been lost thereby, for the fox must often have heard the hounds upwind, and have moved off before they could get on good terms with him. At the present day, the woodlands are neither so large nor so numerous as they formerly were, while there are many more gorse covers; therefore, instead of hunting the drag up to it, a much quicker way of getting to work is to find a fox in his kennel; and, the hour of the meeting being later, the fox is not likely to be gorged with food, and so unable to take care of himself at the pace at which the modern foxhound travels.

Cub hunting carried out on a proper principle is one of the secrets of a successful season. To the man who cares for hunting, as distinct from riding, September and October are not the least enjoyable months of the whole hunting season. As soon as the young entry have recovered from the operation of "rounding," arrangements for cub hunting begin. The hounds must have first of all walking, then trotting and fast exercise, so that their feet may be hardened, and all superfluous fat worked off by the last week in August. So far as the hounds are concerned, the object of cub hunting is to teach them their duty; it is a dress rehearsal of the November business. In company with a certain proportion of old hounds, the youngsters learn to stick to the scent of a fox, in spite of the fondness they have acquired for that of a hare, from running about when at walk. When cubbing begins, a start is made at 4 or 5 A.M., and then the system is adopted of tracking the cub by his drag. A certain amount of blood is of course indispensable for hounds, but it should never be forgotten that a fox cub of seven or eight months old, though tolerably cunning, is not so very strong; the huntsman should not, therefore, be over-eager in bringing to hand every cub he can find.

Hare hunting, which must not be confounded with Coursing (*q.v.*), is an excellent school both for men and for horses. It is attended with the advantages of being cheaper than any

Hare.

other kind, and of not needing so large an area of country. Hare hunting requires considerable skill; Beckford even goes so far as to say: “There is more of true hunting with harriers than with any other description of hounds.... In the first place, a hare, when found, generally describes a circle in her course which naturally brings her upon her foil, which is the greatest trial for hounds. Secondly, the scent of the hare is weaker than that of any other animal we hunt, and, unlike some, it is always the worse the nearer she is to her end.” Hare hunting is essentially a quiet amusement; no hallooing at hounds nor whip-cracking should be permitted; nor should the field make any noise when a hare is found, for, being a timid animal, she might be headed into the hounds’ mouths. Capital exercise and much useful knowledge are to be derived by running with a pack of beagles. There are the same difficulties to be contended with as in hunting with the ordinary harrier, and a very few days’ running will teach the youthful sportsman that he cannot run at the same pace over sound ground and over a deep ploughed field, up hill and down, or along and across furrows.

Otter.

Otter hunting, which is less practised now than formerly, begins just as all other hunting is drawing to a close. When the waterside is reached an attempt is made to hit upon the track by which the otter passed to his “couch,” which is generally a hole communicating with the river, into which the otter often dives on first hearing the hounds. When the otter “vents” or comes to the surface to breathe, his muzzle only appears above water, and when he is viewed or traced by the mud he stirs up, or by air bubbles, the hounds are laid on. Notwithstanding the strong scent of the otter, he often escapes the hounds, and then a cast has to be made. When he is viewed an attempt is made to spear him by any of the field who may be within distance; if their spears miss, the owners must wade to recover them. Should the otter be transfixed by a spear, the person who threw it goes into the water and raises the game over his head on the spear’s point. If instead of being speared, he is caught by the hounds, he is soon worried to death by them, though frequently not before he has inflicted some severe wounds on one or more of the pack.

Packs.

When railways were first started in England dismal prophecies were made that the end of hunting would speedily be brought about. The result on the whole has been the reverse. While in some counties the sport has suffered, townsmen who formerly would have been too far from a meet can now secure transport for themselves and their horses in all directions; and as a consequence, meets of certain packs are not advertised because of the number of strangers who would be induced to attend. The sport has never been so vigorously pursued as it was at the beginning of the 20th century, 19 packs of staghounds being kept in England and 4 in Ireland, over 170 packs of foxhounds in England, 10 in Scotland and 23 in Ireland, with packs of harriers and beagles too numerous to be counted. The chase of the wild stag is carried on in the west country by the Devon and Somerset hounds, which hunt three or four days a week from kennels at Dunster; by the Quantock; and by a few other local packs. In other parts of England staghound packs are devoted to the capture of the carted deer, a business which is more or less of a parody on the genuine sport, but is popular for the reason that whereas with foxhounds men may have a blank day, they are practically sure of a gallop when a deer is taken out in a cart to be enlarged before the hounds are laid on. Complaints are often raised about the cruelty of what is called tame stag hunting, and it became a special subject of criticism that a pack should still be kept at the Royal kennels at Ascot (it was abolished in 1901) and hunted by the Master of the Buckhounds; but it is the constant endeavour of all masters and hunt servants to prevent the infliction of any injury on the deer. Their efforts in this direction are seldom unsuccessful; and it appears to be a fact that stags which are hunted season after season come to understand that they are in no grave danger. Packs of foxhounds vary, from large establishments in the “Shires,” the meets of which are attended by hundreds of horsemen, some of whom keep large stables of hunters in constant work—for though a man at Melton, for instance, may see a great deal of sport with half-a-dozen well-seasoned animals, the number is not sufficient if he is anxious to be at all times well mounted—to small kennels in the north of England, where the field follow on foot. The “Shires” is a recognized term, but is nevertheless somewhat vague. The three counties included in the expression are Leicestershire, Rutlandshire and Northamptonshire. Several packs which hunt within these limits are not supposed, however, to belong to the “Shires,” whereas a district of the Belvoir country is in Lincolnshire, and to hunt with the Belvoir is certainly understood to be hunting in the “Shires.” The Shire hounds include the Belvoir, the Cottesmore, the Quorn and the Pytchleys; for besides the Pytchley proper, there is a pack distinguished as the Woodland. It is generally considered that the cream of the sport lies here, but with many of the packs which are generally described as “provincial” equally good hunting may be obtained. Round about London a man who is bent on the pursuit of fox or stag may gratify his desire in many

directions. The Essex and the Essex Union, the Surrey and the Surrey Union, the Old Berkeley, the West Kent, the Burstow, the Hertfordshire, the Crawley and Horsham, the Puckeridge, as regards foxhounds; the Berkhampstead, the Enfield Chase, Lord Rothschild's, the Surrey, the West Surrey and the Warnham, as regards staghounds—as well as the Bucks and Berks, which was substituted for the Royal Buckhounds—are within easy reach of the capital.

Questions are constantly raised as to whether horse and hounds have improved or deteriorated in modern times. It is probable that the introduction of scientific agriculture has brought about an increase of pace. Hounds hunt as well as ever they did, are probably faster on the whole, and in the principal hunts more thoroughbred horses are employed. For pace and endurance no hunter approaches the English thoroughbred; and for a bold man who "means going," a steeplechase horse is often the best animal that could be obtained, for when he has become too slow to win races "between the flags," he can always gallop much faster, and usually lasts much longer, than animals who have not his advantage of blood. The quondam "'chaser" is, however, usually apt to be somewhat impetuous at his fences. But it must by no means be supposed that every man who goes out hunting desires to gallop at a great pace and to jump formidable obstacles, or indeed any obstacles at all. A large proportion of men who follow hounds are quite content to do so passively through gates and gaps, with a canter along the road whenever one is available. A few of the principal packs hunt five days a week, and sometimes even six, and for such an establishment not fewer than seventy-five couples of hounds are requisite. A pack which hunts four days a week will be well supplied with anything between fifty and sixty couples, and for two days a week from twenty-five to thirty will suffice. The young hound begins cub-hunting when he is some eighteen months old, and as a rule is found to improve until his third or fourth season, though some last longer than this. Often, however, when a hound is five or six years old he begins to lack speed. Exceptional animals naturally do exceptional things, and a famous hound called Potentate is recorded by the 8th duke of Beaufort to have done notable service in the hunting field for eleven seasons.

Modern horses and hounds.

Servants necessary for a pack include the huntsman, the duties of whose office a master sometimes fulfils himself; two whippers-in, an earth-stopper and often a kennel huntsman is also employed, though the 18th Lord Willoughby de Broke (d. 1902), a great authority, laid it down that "the man who hunts the hounds should always feed them." In all but the largest establishments the kennel huntsman is generally called the "feeder." It is his business to look after the pack which is not hunting, to walk them out, to prepare the food for the hunting pack so that it is ready when they return, and in the spring to attend to the wants of the matrons and whelps. A kennel huntsman proper may be described as the man who does duty when the master hunts his own hounds, undertaking all the responsibilities of the huntsman except actually hunting the pack. It may be said that the first duty of a huntsman is to obtain the confidence of his hounds, to understand them and to make himself understood; and the intelligence of hounds is remarkable. If, for example, it is the habit of the huntsman to give a single note on his horn when hounds are drawing a covert, and a double note when a fox is found, the pack speedily understand the significance. The mysteries of scent are certainly no better comprehended now than they were more than a hundred years ago when Peter Beckford wrote his *Thoughts on Hunting*. The subject of scent is full of mysteries. The great authority already quoted, the 8th duke of Beaufort, noted as a very extraordinary but well-known fact, for example, "that in nine cases out of ten if a fox is coursed by a dog during a run all scent ceases afterwards, even when you get your hounds to the line of the fox beyond where the dog has been." This is one of many phenomena which have always remained inexplicable. The duties of the whipper-in are to a great extent explained by his title. Whilst the huntsman is drawing the cover the whipper-in is stationed at the spot from which he can best see what is going on, in order to view the fox away; and it is his business to keep the hounds together when they have found and got away after the fox. There are many ways in which a whipper-in who is not intelligent and alert may spoil sport; indeed, the duke of Beaufort went so far as to declare that "in his experience, with very few exceptions, nine days out of ten that the whipper-in goes out hunting he does more harm than good." In woodland countries, however, a good whipper-in is really of almost as much importance as the huntsman himself; if he is not alert the hounds are likely to divide, as when running a little wide they are apt to put up a fresh fox. The earth-stopper "stops out" and "puts to"—the first expression signifying blocking, during the night, earths and drains to which foxes resort, the second performing the same duties in the morning so as to prevent the fox from getting to ground when he has been found. In the interests of humanity care should be taken that the earth-stopper always has with him a small terrier, as it is often necessary to "stop-out" permanently; and unless a dog is run through the

Hunt servants.

drain some unfortunate creature in it, a fox, cat or rabbit, may be imprisoned and starved to death. This business is frequently performed by a gamekeeper, a sum being paid him for any litter of cubs or fox found on his beat.

Cost of hunting.

With regard to the expenses of hunting, it is calculated that a master of hounds should be prepared to spend at the rate of £500 a year for every day in the week that his hounds are supposed to hunt. Taking one thing with another, this is probably rather under than over the mark, and the cost of hunting three days a week, if the thing be really properly done, will most likely be nearer £2000 than £1500. The expenses to the individual naturally vary so much that no figures can be given. As long ago as 1826 twenty-seven hunters and hacks were sold for 7500 guineas, an average of over £290; and when Lord Stamford ceased to hunt the Quorn in 1853, seventy-three of his horses fetched at auction an average of close on £200. Early in the 19th century, when on the whole horses were much cheaper than they are at present, 700 and 800 guineas are prices recorded as having been occasionally paid for hunters of special repute. A man may see some sport on an animal that cost him £40; others may consider it necessary to keep an expensive establishment at Melton Mowbray or elsewhere in the Shires, with a dozen or more 500-guinea hunters, some covert-hacks, and a corresponding staff of servants. Few people realize what enormous sums of money are annually distributed in connexion with hunting. Horses must be fed; the wages of grooms and helpers be paid; saddlery, clothing, shoeing, &c., are items; farmers, innkeepers, railway companies, fly-men and innumerable others benefit more or less directly.

(A. E. T. W.)

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1 See on this whole subject ch. viii. of Wilkinson's *Ancient Egyptians* (ii. 78-92, ed. Birch, 1878).

2 See Layard (*Nineveh*, ii. 431, 432), who cites Ammian. Marcell. xxvi. 6, and Athen. xii. 9.

3 Engl. transl. by Blane.

4 Hehn, *Kulturpflanzen u. Hausthiere*, p. 327.

5 References will be found in Smith's *Dictionary of Christian Antiquities*—art. on "Hunting."

6 "Vita omnis in venationibus ... consistit," Caes. *B.G.*, vi. 21. "Quoties bella non ineunt, multum venatibus, plus per otium transigunt," Tacitus, *Germ.* 15.

7 See Strutt, *Sports and Pastimes*, who also gives an illustration, "taken from a manuscriptal painting of the 9th century in the Cotton Library," representing "a Saxon chieftain, attended by his huntsman and a couple of hounds, pursuing the wild swine in a forest."

8 See Lappenberg, *Hist. of England under the Anglo-Saxon Kings* (ii. 361, Thorpe's trans.).

9 *Le Art de venerie*, translated with preface and notes by Sir Henry Dryden (1893), new edition by Miss A. Dryden (1909), including *The Craft of Venerie* from a 15th-century MS. and a 13th-century poem *La Chasse d'on cerf*.

HUNTING DOG (*Lycaon pictus*), an African wild dog, differing from the rest of the family in having only four toes on each foot, and its blotched coloration of ochery yellow, black and white. The species is nearly as large as a mastiff, with long limbs, broad flat head, short muzzle and large erect ears, and presents a superficial resemblance to the spotted hyena on which account it is sometimes called the hyena-dog. "Mimicry" has been suggested as an explanation of this likeness; but it is difficult to see what advantage a strong animal hunting in packs like the present species can gain by being mistaken for a hyena, as it is in every respect fully qualified to take care of itself. These wild dogs are found in nearly the whole of Africa south and east of the Sahara. The statement of Gordon Cumming that a pack "could run into the swiftest or overcome the largest and most powerful antelope," is abundantly confirmed, and these dogs do great damage to sheep flocks. Several local races of the species have been named.

Cape Hunting Dog (*Lycaon pictus*).

HUNTINGDON, EARLS OF. George Hastings, 1st earl of Huntingdon[1] (*c.* 1488-1545), was the son and successor of Edward, 2nd Baron Hastings (d. 1506), and the grandson of William, Baron Hastings, who was put to death by Richard III. in 1483. Being in high favour with Henry VIII., he was created earl of Huntingdon in 1529, and he was one of the royalist leaders during the suppression of the rising known as the Pilgrimage of Grace in 1536. His eldest son Francis, the 2nd earl (*c.* 1514-1561), was a close friend and political ally of John Dudley, duke of Northumberland, sharing the duke's fall and imprisonment after the death of Edward VI. in 1553; but he was quickly released, and was employed on public business by Mary. His brother Edward (*c.* 1520-1572) was one of Mary's most valuable servants; a stout Roman Catholic, he was master of the horse and then lord chamberlain to the queen, and was created Baron Hastings of Loughborough in 1558, this title becoming extinct when he died.

The 2nd earl's eldest son Henry, the 3rd earl (*c.* 1535-1595), married Northumberland's daughter Catherine. His mother was Catherine Pole (d. 1576), a descendant of George, duke of Clarence; and, asserting that he was thus entitled to succeed Elizabeth on the English throne, Huntingdon won a certain amount of support, especially from the Protestants and the enemies of Mary, queen of Scots. In 1572 he was appointed president of the council of the north, and during the troubled period between the flight of Mary to England in 1568 and the defeat of the Spanish armada twenty years later he was frequently employed in the north of England. It was doubtless felt that the earl's own title to the crown was a pledge that he would show scant sympathy with the advocates of Mary's claim. He assisted George Talbot, earl of Shrewsbury, to remove the Scottish queen from Wingfield to Tutbury, and for a short time in 1569 he was one of her custodians. Huntingdon was responsible for the compilation of an elaborate history of the Hastings family, a manuscript copy of which is now in the British Museum. As he died childless, his earldom passed to his brother George. Another brother, Sir Francis Hastings (d. 1610), was a member of parliament and a prominent puritan during Elizabeth's reign, but is perhaps more celebrated as a writer. George, the 4th earl (*c.* 1540-1604), was the grandfather of Henry, the 5th earl (1586-1643), and the father of Henry Hastings (*c.* 1560-1650), a famous sportsman, whose character has been delineated by the 1st earl of Shaftesbury (see L. Howard, *A Collection of Letters*, &c., 1753). The 6th earl was the 5th earl's son Ferdinando (*c.* 1608-1656). His brother Henry, Baron Loughborough (*c.* 1610-1667), won fame as a royalist during the Civil War, and was created a baron in 1643.

Theophilus, the 7th earl (1650-1701), was the only surviving son of the 6th earl. In early life he showed some animus against the Roman Catholics and a certain sympathy for the duke of Monmouth; afterwards, however, he was a firm supporter of James II., who appointed him to several official positions. He remained in England after the king's flight and was imprisoned, but after his release he continued to show his hostility to William III. One of his daughters, Lady Elizabeth Hastings (1682-1739), gained celebrity for her charities and her piety. Her beauty drew encomiums from Congreve and from Steele in the pages of the *Tatler*, and her

other qualities were praised by William Law. She was a benefactor to Queen's College, Oxford.

The 7th earl's sons, George and Theophilus, succeeded in turn to the earldom. George (1677-1705) was a soldier who served under Marlborough, and Theophilus (1696-1746) was the husband of the famous Selina, countess of Huntingdon (*q.v.*). Theophilus was succeeded by his son Francis (1729-1789), on whose death unmarried the baronies passed to his sister Elizabeth (1731-1808), wife of John Rawdon, earl of Moira, and the earldom became dormant.

The title of earl of Huntingdon was assumed by Theophilus Henry Hastings (1728-1804), a descendant of the 2nd earl, who, however, had taken no steps to prove his title when he died. But, aided by his friend Henry Nugent Bell (1792-1822), his nephew and heir, Hans Francis Hastings (1779-1828), was more energetic, and in 1818 his right to the earldom was declared proved, and he took his seat in the House of Lords. He did not, however, recover the estates. Before thus becoming the 11th (or 12th) earl, Hastings had served for many years in the navy, and after the event he was appointed governor of Dominica. He died on the 9th of December 1828 and was succeeded by his son Francis Theophilus Henry (1808-1875), whose grandson, Warner Francis, became 14th or 15th earl of Huntingdon in 1885. Another of the 11th earl's sons was Vice-admiral George Fowler Hastings (1814-1876).

See H. N. Bell, *The Huntingdon Peerage* (1820).

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1 The title of earl of Huntingdon had previously been held in other families (see Huntingdonshire). The famous Robin Hood (?1160-?1247) is said to have had a claim to the earldom.

HUNTINGDON, SELINA HASTINGS, Countess of (1707-1791), English religious leader and founder of a sect of Calvinistic Methodists, known as the Countess of Huntingdon's Connexion, was the daughter of Washington Shirley, 2nd Earl Ferrers. She was born at Stanton Harold, a mansion near Ashby-de-la-Zouch in Leicestershire, on the 24th of August 1707, and in her twenty-first year was married to Theophilus Hastings, 9th earl of Huntingdon. In 1739 she joined the first Methodist society in Fetter Lane, London. On the death of her husband in 1746 she threw in her lot with Wesley and Whitefield in the work of the great revival. Isaac Watts, Philip Doddridge and A. M. Toplady were among her friends. In 1748 she gave Whitefield a scarf as her chaplain, and in that capacity he frequently preached in her London house in Park Street to audiences that included Chesterfield, Walpole and Bolingbroke. In her chapel at Bath there was a curtained recess dubbed "Nicodemus's corner" where some of the bishops sat incognito to hear him. Lady Huntingdon spent her ample means in building chapels in different parts of England, *e.g.* at Brighton (1761), London and Bath (1765), Tunbridge Wells (1769), and appointed ministers to officiate in them, under the impression that as a peeress she had a right to employ as many chaplains as she pleased. It is said that she expended £100,000 in the cause of religion. In 1768 she converted the old mansion of Trevecca, near Talgarth, in South Wales, into a theological seminary for young ministers for the connexion. Up to 1779 Lady Huntingdon and her chaplains continued members of the Church of England, but in that year the prohibition of her chaplains by the consistorial court from preaching in the Pantheon, a large building in London rented for the purpose by the countess, compelled her, in order to evade the injunction, to take shelter under the Toleration Act. This step, which placed her legally among dissenters, had the effect of severing from the connexion several eminent and useful members, among them William Romaine (1714-1795) and Henry Venn (1725-1797). Till her death in London on the 17th of June 1791, Lady Huntingdon continued to exercise an active, and even autocratic, superintendence over her chapels and chaplains. She successfully petitioned George III. in regard to the gaiety of Archbishop Cornwallis's establishment, and made a vigorous protest against the anti-Calvinistic minutes of the Wesleyan Conference of 1770, and against relaxing the terms of subscription in 1772. Her sixty-four chapels and the college were bequeathed to four trustees. In 1792 the college was removed to Cheshunt, Hertfordshire, where it remained till 1905, when it was transferred to Cambridge. The college is remarkable for the number of men it has sent into the foreign mission field.

The connexion in 1910 consisted of 44 churches and mission stations, with a roll of about 2400 communicants under 26 ordained pastors. The government is vested by the trust deed, sanctioned by the court of Chancery on the 1st of January 1899, in nine trustees assisted by a conference of delegates from each church in the trust. The endowments of the trust produce

£1500 per annum, and are devoted to four purposes: grants in aid of the ministry; annuities to ministers over sixty years of age who have given more than twenty years' continuous service in the connexion, or to their widows; grants for the maintenance and extension of the existing buildings belonging to the trust; grants to assist in purchasing chapels and chapel sites. In addition the trustees may grant loans for the encouragement of new progressive work from a loan fund of about £8000.

See *The Life of the Countess of Huntingdon* (London, 2 vols., 1844); A. H. New, *The Coronet and the Cross, or Memorials of Selina, Countess of Huntingdon* (1857); Sarah Tytler, *The Countess of Huntingdon and her Circle* (1907).

HUNTINGDON, a market town and municipal borough and the county town of Huntingdonshire, England, on the left bank of the Ouse, on the Great Northern, Great Eastern and Midland railways, 59 m. N. of London. Pop. (1901) 4261. It consists principally of one street, about a mile long, in the centre of which is the market-place. Of the ancient religious houses in Huntingdon few traces remain. The parish church of St Mary occupies the site of the priory of Augustinian Canons already existing in the 10th century, in which David Bruce, Scottish earl of Huntingdon, was afterwards buried. The church, which was restored by Sir A. W. Blomfield, in 1876, contains portions of the earlier building which it replaced in 1620. All Saints' church, rebuilt about a century earlier, has slight remains of the original Norman church and some good modern, as well as ancient, carved woodwork. The church registers dating from 1558 are preserved, together with those of the old parish of St John, which date from 1585 and contain the entry of Oliver Cromwell's baptism on the 29th of April 1599, the house in which he was born being still in existence. Some Norman remains of the hospice of St John the Baptist founded by David, king of Scotland, at the end of the 12th century were incorporated in the buildings of Huntingdon grammar school, once attended by Oliver Cromwell and by Samuel Pepys. Hinchingbrooke House, on the outskirts of the town, an Elizabethan mansion chiefly of the 16th century, was the seat of the Cromwell family, others of the Montagus, earls of Sandwich. It occupies the site of a Benedictine nunnery granted by Henry VIII. at the Dissolution, together with many other manors in Huntingdonshire, to Sir Richard Williams, alias Cromwell, whose son, Sir Henry Cromwell, entertained Queen Elizabeth here in 1564. His son, Sir Oliver Cromwell, was the uncle and godfather of the Protector. Among the buildings of Huntingdon are the town hall (1745), county gaol, barracks, county hospital and the Montagu Institute (1897). A racecourse is situated in the bend of the Ouse to the south of the town, and meetings are held here in August. The town is governed by a mayor, 4 aldermen and 12 councillors. Area, 1074 acres.

Huntingdon (*Huntandun*, *Huntersdune*) was taken by the Danes in King Alfred's reign but recovered *c.* 919 by Edward the Elder, who raised a castle there, probably on the site of an older fortress. In 1010 the Danes destroyed the town. The castle was strengthened by David, king of Scotland, after the Conquest, but was among the castles destroyed by order of Henry II. At the time of the Domesday Survey Huntingdon was divided into four divisions, two containing 116 burgesses and the other two 140. Most of the burgesses belonged to the king and paid a rent of £10 yearly. King John in 1205 granted them the liberties and privileges held by the men of other boroughs in England and increased the farm to £20. Henry III. further increased it to £40 in 1252. The borough was incorporated by Richard III. in 1483 under the title of bailiffs and burgesses, and in 1630 Charles I. granted a new charter, appointing a mayor and 12 aldermen, which remained the governing charter until the Municipal Corporations Act of 1835 changed the corporation to a mayor, 4 aldermen and 12 councillors. The burgesses were represented in parliament by two members from 1295 to 1867, when the number was reduced to one, and in 1885 they ceased to be separately represented. Huntingdon owed its prosperity to its situation on the Roman Ermine Street. It has never been noted for manufactures, but is the centre of an agricultural district. The market held on Saturday was granted to the burgesses by King John. During the Civil Wars Huntingdon was several times occupied by the Royalists.

See *Victoria County History, Huntingdon*; Robert Carruthers, *The History of Huntingdon from the Earliest to the Present Times* (1824); Edward Griffith, *A Collection of Ancient Records relating to the Borough of Huntingdon* (1827).

HUNTINGDON, a borough and the county-seat of Huntingdon county, Pennsylvania, U.S.A., on the Juniata river, about 150 m. E. of Pittsburg, in the S. central part of the state. Pop. (1890) 5729; (1900) 6053 (225 foreign-born); (1910) 6861. It is served by the Pennsylvania and the Huntingdon & Broad Top Mountain railways, the latter running to the Broad Top Mountain coal-fields in the S.W. part of the county. The borough is built on ground sloping gently towards the river, which furnishes valuable water power. The surrounding country is well adapted to agriculture, and abounds in coal, iron, fire clay, limestone and white sand. Huntingdon's principal manufactures are stationery, flour, knitting-goods, furniture, boilers, radiators and sewer pipe. It is the seat of Juniata College (German Baptist Brethren), opened in 1876 as the Brethren's Normal School and Collegiate Institute, and rechartered as Juniata College in 1896, and of the State Industrial Reformatory, opened in 1888. Indians (probably Oneidas) settled near the site of Huntingdon, erected here a tall pillar, known as "Standing Stone"; the original was removed by the Indians, but another has been erected by the borough on the same spot. The place was laid out as a town in 1767 under the direction of Dr William Smith (1727-1803), at the time provost of the college of Pennsylvania (afterwards the university of Pennsylvania); and it was named in honour of the countess of Huntingdon, who had contributed liberally toward the maintenance of that institution. It was incorporated as a borough in 1796.

HUNTINGDONSHIRE (HUNTS), an east midland county of England, bounded N. and W. by Northamptonshire, S.W. by Bedfordshire and E. by Cambridgeshire. Among English counties it is the smallest with the exception of Middlesex and Rutland, having an area of 366 sq. m. The surface is low, and for the most part bare of trees. The south-eastern corner of the county, bounded by the Ouse valley, is traversed by a low ridge of hills entering from Cambridgeshire, and continued over the whole western half of the county, as well as in a strip about 6 m. broad north of the Ouse, between Huntingdon and St Ives. These hills never exceed 300 ft. in height, but form a pleasantly undulating surface. The north-eastern part of the county, comprising 50,000 acres, belongs to that division of the great Fen district called the Bedford Levels. The principal rivers are the Ouse and Nene. The Ouse from Bedfordshire skirts the borders of the county near St Neots, and after flowing north to Huntingdon takes an easterly direction past St Ives into Cambridgeshire on its way to the Wash. The Kym, from Northamptonshire, follows a south-easterly course and joins the Ouse at St Neots, while the Alconbury brook, flowing in a parallel direction, falls into it at Huntingdon. The Nene forms for 15 m. the north-western border of the county, and quitting it near Peterborough, enters the Wash below Wisbech, in Cambridgeshire. The course of the Old River Nene is eastward across the county midway between Huntingdon and Peterborough, and about 1½ m. N. by E. of Ramsey it is intersected by the Forty Foot, or Vermuyden's Drain, a navigable cut connecting it with the Old Bedford river in Cambridgeshire.

Geology.—The geological structure is very simple. All the stratified rocks are of Jurassic age, with the exception of a small area of Lower Greensand which extends for a short distance along the border, north of Potton. The Greensands form low, rounded hills. Phosphatic nodules are obtained from these beds. On the north-western border is a narrow strip of Inferior Oolite, reaching from Thrapston by Oundle to Wansford near Peterborough. It is represented about Wansford by the Northampton sands and by a feeble development of the Lincolnshire limestone. The Great Oolite Series has at the base the Upper Estuarine clays; in the middle, the Great Oolite limestone, which forms the escarpment of Alwalton Lynch; and at the top, the Great Oolite clay. The Cornbrash is exposed along part of the Billing brook, and in a small inlier near Yaxley. Over the remainder of the county the lower rocks are covered by the Oxford clay. It is about 600 ft. thick. This clay cannot be distinguished from the Kimmeridge clay except by the fossils; the two formations probably graduate into one another, but thin limestones are found in places, and at St Ives a patch of the intermediate Corallian rock is present. All the stratified rocks have a general dip towards the south-east.

Much glacial drift clay with stones covers the older rocks over a good deal of the county; it is a bluish clay, often containing masses of chalk, some of them being of considerable size, *e.g.* the one at Catworth. The Fens on the eastern side of the county are underlain by Oxford clay, which here and there projects through the prevailing newer deposit of silt and loam. There are usually two beds of peat or peaty soil observable in the numerous drains; they are separated by a bed of marine warp. Black loamy alluvium and valley gravels, the most recent deposits, occur in the valleys of the Ouse and Nene. Calcareous tufa is formed by the springs near Alwalton. Oxford clay is dug on a considerable scale for brick-making at Fletton, also at

Agriculture.—Huntingdonshire is almost wholly an agricultural county; nearly nine-tenths of its total area is under cultivation, and much improvement has been effected by drainage. On account of the tenacity of the clay the drains often require to be placed very close. Much of the soil is, however, undrained, and only partly used for pasturage. On the drained pasturage a large number of cattle are fed. The district comprising the gravel of the Ouse valley embraces an area of 50,000 acres. On the banks of the Ouse it consists of fine black loam deposited by the overflow of the river, and its meadows form very rich pasture grounds. The upland district is under arable culture. Wheat is much more extensively grown than any other grain. Barley is more widely cultivated than oats, but its quality on many soils is lean and inferior, and unsuitable for malting purposes. Beans and pease are largely grown, while mangold and cabbage and similar green crops are chiefly used for the feeding of sheep. During the last quarter of the 19th century there was a large decrease in the areas of grain crops and of fallow, and an increase in that of permanent pasture. Market-gardening and fruit-farming, however, greatly increased in importance. Willows are largely grown in the fen district. Good drinking water is deficient in many districts, but there are three natural springs, once famous for the healing virtues their waters were thought to possess, namely, at Hail Weston near St Neots, at Holywell near St Ives and at Somersham in the same district. Bee-farming is largely practised. Dairy-farming is not much followed, the milk being chiefly used for rearing calves. The village of Stilton, on the Great North Road, had formerly a large market for the well-known cheese to which it has given its name. Large numbers of cattle are fattened in the field or the fold-yard, and are sold when rising three years old. They are mostly of the shorthorn breed, large numbers of Irish shorthorns being wintered in the fens. Leicesters and Lincolns are the most common breeds of sheep; they usually attain great weights at an early age. Pigs include Berkshire, Suffolk and Neapolitan breeds, and a number of crosses. Their fattening and breeding are extensively practised.

Other Industries.—There is no extensive manufacture, but the chief is that of paper and parchment. Madder is obtained in considerable quantities, and in nearly every part of the county lime burning is carried on. Lace-making is practised by the female peasantry; and the other industries are printing, iron-founding, tanning and currying, brick and tile making, malting and brewing.

Communications.—The middle of the county is traversed from south to north by the Great Northern railway, which enters it at St Neots and passing by Huntingdon leaves it at Peterborough. A branch line running eastward to Ramsey is given off at Holme junction, midway between Huntingdon and Peterborough. From Huntingdon branch lines of the Midland and the Great Eastern run respectively west and east to Thrapston (Northamptonshire) and to Cambridge via St Ives. From St Ives Great Eastern lines also run N.E. to Ely (Cambridgeshire) via Earith Bridges on the county border, and N. to Wisbech (Cambridgeshire) with a branch line westward from Somersham to Ramsey. The north-western border is served by the Great Northern and the London and North-Western railways between Peterborough and Wansford, where they part.

Population and Administration.—The area of the ancient county is 234,218 acres, with a population in 1891 of 57,761, and in 1901 of 57,771. The area of the administrative county is 233,984 acres. The county contains 4 hundreds. The municipal boroughs are Godmanchester (pop. 2017), Huntingdon, the county town (4261) and St Ives (2910). The other urban districts are Old Fletton (4585), Ramsey (4823) and St Neots (3880). The county is in the south-eastern circuit, and assizes are held at Huntingdon. It has one court of quarter sessions, and is divided into five petty sessional divisions. There are 105 civil parishes. Huntingdonshire, which contains 87 ecclesiastical parishes or districts wholly or in part, is almost wholly in the diocese of Ely, but a small part is in that of Peterborough. The parliamentary divisions, each of which returns one member, are the Northern or Ramsey and the Southern or Huntingdon. Part of the parliamentary borough of Peterborough also falls within the county.

History.—The earliest English settlers in the district were the Gyrwas, an East Anglian tribe, who early in the 6th century worked their way up the Ouse and the Cam as far as Huntingdon. After their conquest of East Anglia in the latter half of the 9th century, Huntingdon became an important seat of the Danes, and the Danish origin of the shire is borne out by an entry in the Saxon Chronicle (918-921) referring to Huntingdon as a military centre to which the surrounding district owed allegiance, while the shire itself is mentioned in the *Historia Eliensis* in connexion with events which took place before or shortly after the death of Edgar. About 915 Edward the Elder wrested the fen-country from the Danes, repairing and fortifying Huntingdon, and a few years later the district was included in the earldom of East Anglia. Religious foundations were established at Ramsey, Huntingdon and St Neots in the 10th century, and that of Ramsey accumulated vast wealth and influence, owning

twenty-six manors in this county alone at the time of the Domesday Survey. In 1011 Huntingdonshire was again overrun by the Danes and in 1016 was attacked by Canute. A few years later the shire was included in the earldom of Thored (of the Middle Angles), but in 1051 it was detached from Mercia and formed part of the East Anglian earldom of Harold. Shortly before the Conquest, however, it was bestowed on Siward, as a reward for his part in Godwin's overthrow, and became an outlying portion of the earldom of Northumberland, passing through Waltheof and Simon de St Liz to David of Scotland. After the separation of the earldom from the crown of Scotland during the Bruce and Balliol disputes, it was conferred in 1336 on William Clinton; in 1377 on Guichard d'Angle; in 1387 on John Holand; in 1471 on Thomas Grey, afterwards marquess of Dorset; and in 1529 on George, Baron Hastings, whose descendants hold it at the present day.

The Norman Conquest was followed by a general confiscation of estates, and only four or five thanes retained lands which they or their fathers had held in the time of Edward the Confessor. Large estates were held by the church, and the rest of the county for the most part formed outlying portions of the fiefs of William's Norman favourites, that of Count Eustace of Boulogne, the sheriff, of whose tyrannous exactions bitter complaints are recorded, being by far the most considerable. Kimbolton was fortified by Geoffrey de Mandeville and afterwards passed to the families of Bohun and Stafford.

The hundreds of Huntingdon were probably of very early origin, and that of Norman Cross is referred to in 963. The Domesday Survey, besides the four existing divisions of Norman Cross, Toseland, Hurstingstone and Leightonstone, which from their assessment appear to have been double hundreds, mentions an additional hundred of Kimbolton, since absorbed in Leightonstone, while Huntingdon is assessed separately at fifty hides. The boundaries of the county have scarcely changed since the time of the Domesday Survey, except that parts of the Bedfordshire parishes of Everton, Pertenhall and Keysoe and the Northamptonshire parish of Hargrave were then assessed under this county. Huntingdonshire was formerly in the diocese of Lincoln, but in 1837 was transferred to Ely. In 1291 it constituted an archdeaconry, comprising the deaneries of Huntingdon, St Ives, Yaxley and Leightonstone, and the divisions remained unchanged until the creation of the deanery of Kimbolton in 1879.

At the time of the Domesday Survey Huntingdonshire had an independent shrievalty, but from 1154 it was united with Cambridgeshire under one sheriff, until in 1637 the two counties were separated for six years, after which they were reunited and have remained so to the present day. The shire-court was held at Huntingdon.

In 1174 Henry II. captured and destroyed Huntingdon Castle. After signing the Great Charter John sent an army to ravage this county under William, earl of Salisbury, and Falkes de Breauté. During the wars of the Roses Huntingdon was sacked by the Lancastrians. The county resisted the illegal taxation of Charles I. and joined in a protest against the arrest of the five members. In 1642 it was one of the seven associated counties in which the king had no visible party. Hinchingbrook, however, was held for Charles by Sir Sydney Montagu, and in 1645 Huntingdon was captured and plundered by the Royalist forces. The chief historic family connected with this county were the Cromwells, who held considerable estates in the 16th century.

Huntingdonshire has always been mainly an agricultural county, and at the time of the Domesday Survey contained thirty-one mills, besides valuable fisheries in its meres and rivers. The woollen industry flourished in the county from Norman times, and previous to the draining of its fens in the 17th century, by which large areas were brought under cultivation, the industries of turf-cutting, reed-cutting for thatch and the manufacture of horse-collars from rushes were carried on in Ramsey and the surrounding district. In the 17th century saltpetre was manufactured in the county. In the 18th century women and children were largely employed in spinning yarn, and pillow-lace making and the straw-plait industry flourished in the St Neots district, where it survives; pillow lace was also manufactured at Godmanchester. In the early 19th century there were two large sacking manufactures at Standground, and brewing and malting were largely carried on.

Huntingdonshire was represented by three members in parliament in 1290. From 1295 the county and borough of Huntingdon returned two members each, until in 1868 the representation of the borough was reduced to one member. By the act of 1885 the borough was disfranchised.

Antiquities.—Huntingdonshire early became famous on account of its great Benedictine abbey at Ramsey and the Cistercian abbey founded in 1146 at Sawtry, 7 m. W. of Ramsey; besides which there were priories at Huntingdon and Stonely, both belonging to the Augustinian canons, and at St Ives and St Neots belonging to the Benedictines, together with a Benedictine nunnery at Hinchingbrook, near Huntingdon. Of these buildings almost the only

remains are at Ramsey and St Ives. The most interesting churches for Norman architecture are Hartford near Huntingdon, Old Fletton near Peterborough (containing on the exterior some carved ornament said to have belonged to the original Saxon cathedral at Peterborough), Ramsey and Alwalton, a singular combination of Norman and Early English. Early English churches are Kimbolton, Alconbury, Warboys and Somersham, near Ramsey, and Hail Weston near St Neots, with a 15th-century wooden tower and spire. Decorated are Orton Longueville and Yaxley, both near Peterborough, the latter containing remains of frescoes on its walls; Perpendicular, St Neots, Connington near Ramsey and Godmanchester. At Buckden near Huntingdon are remains of a palace (15th century) of the bishops of Lincoln. There were two ancient castles in the county, at Huntingdon and at Kimbolton, of which only the second remains as a mansion. Hinchingbrook House, Huntingdon, was the seat of the Cromwell family. Connington Castle passed, like the title of earl of Huntingdon, through the hands of Waltheof, Simon de St Liz and the Scottish royal family, and was finally inherited by Sir Robert Cotton the antiquary, who was born in the neighbourhood, and is buried in Connington church. Elton Hall, on the north-west border of the county, was rebuilt about 1660, and contains, besides a good collection of pictures, chiefly by English masters, a library which includes many old and rare prayer-books, Bibles and missals.

Norman Cross, 13 m. N. of Huntingdon, on the Great North Road, marks the site of the place of confinement of several thousand French soldiers during the Napoleonic wars at the beginning of the 19th century. The village of Little Gidding, 9 m. N.W. of Huntingdon, is memorable for its connexion with Nicholas Ferrar in the reign of Charles I., when the religious community of which Ferrar was the head was organized. Relics connected with this community are preserved in the British Museum.

HUNTINGTON, DANIEL (1816-1906), American artist, was born in New York on the 14th of October 1816. In 1835 he studied with S. F. B. Morse, and produced “A Bar-Room Politician” and “A Toper Asleep.” Subsequently he painted some landscapes on the river Hudson, and in 1839 went to Rome. On his return to America he painted portraits and began the illustration of *The Pilgrim’s Progress*, but his eyesight failed, and in 1844 he went back to Rome. Returning to New York in 1846, he devoted his time chiefly to portrait-painting, although he has painted many genre, religious and historical subjects. He was president of the National Academy from 1862 to 1870, and again in 1877-1890. Among his principal works are: “The Florentine Girl,” “Early Christian Prisoners,” “The Shepherd Boy of the Campagna,” “The Roman Penitents,” “Christiana and Her Children,” “Queen Mary signing the Death-Warrant of Lady Jane Grey,” and “Feckenham in the Tower” (1850), “Chocorua” (1860), “Republican Court in the Time of Washington,” containing sixty-four careful portraits (1861), “Sowing the Word” (1869), “St Jerome,” “Juliet on the Balcony” (1870), “The Narrows, Lake George” (1871), “Titian,” “Clement VII. and Charles V. at Bologna,” “Philosophy and Christian Art” (1878), “Goldsmith’s Daughter” (1884). His principal portraits are: President Lincoln, in Union League Club, New York; Chancellor Ferris of New York University; Sir Charles Eastlake and the earl of Carlyle, the property of the New York Historical Society; President Van Buren, in the State Library at Albany; James Lenox, in the Lenox Library; Louis Agassiz (1856-1857), William Cullen Bryant (1866), John A. Dix (1880) and John Sherman (1881). He died on the 19th of April 1906 in New York City.

HUNTINGTON, FREDERIC DAN (1819-1904), American clergyman, first Protestant Episcopal bishop of central New York, was born in Hadley, Massachusetts, on the 28th of May 1819. He graduated at Amherst in 1839 and at the Harvard Divinity School in 1842. In 1842-1855 he was pastor of the South Congregational Church of Boston, and in 1855-1860 was preacher to the university and Plummer professor of Christian Morals at Harvard; he then left the Unitarian Church, with which his father had been connected as a clergyman at Hadley, resigned his professorship and became pastor of the newly established Emmanuel Church of Boston. He had refused the bishopric of Maine when in 1868 he was elected to the diocese of central New York. He was consecrated on the 9th of April 1869, and thereafter lived in Syracuse. He died in Hadley, Massachusetts, on the 11th of July 1904. His more important

publications were *Lectures on Human Society* (1860); *Memorials of a Quiet Life* (1874); and *The Golden Rule applied to Business and Social Conditions* (1892).

See *Memoir and Letters of Frederic Dan Huntington* (Boston, 1906), by Arria S. Huntington, his wife.

HUNTINGTON, a city and the county-seat of Huntington county, Indiana, U.S.A., on the Little river, about 25 m. S.W. of Fort Wayne. Pop. (1900) 9491, of whom 621 were foreign-born; (1910 census) 10,272. Huntington is served by three railways—the Wabash, the Erie (which has car shops and division headquarters here) and the Cincinnati, Bluffton & Chicago (which has machine shops here), and by the Fort Wayne & Wabash Valley Traction Company, whose car and repair shops and power station are in Huntington. The city has a public library, a business college and Central College (1897), controlled by the United Brethren in Christ (Old Constitution). Woodenware is the principal manufacture. The value of the factory product in 1905 was $2,081,019, an increase of 20.6% since 1900. The municipality owns and operates the waterworks and the electric-lighting plant. Huntington, named in honour of Samuel Huntington (1736-1796), of Connecticut, a signer of the Declaration of Independence, was first settled about 1829, was incorporated as a town in 1848 and was chartered as a city in 1873.

HUNTINGTON, a township of Suffolk county, New York, U.S.A., in the central part of the N. side of Long Island, bounded on the N. by Huntington Bay, a part of Long Island Sound. Pop. (1905, state census) 10,230; (1910) 12,004. The S. part of the township is largely taken up with market-gardening; but along the Sound are the villages of Huntington, Cold Spring Harbor, Centreport and Northport, which are famous for the fine residences owned by New York business men; they are served by the Wading river branch of the Long Island Railroad. Northport—pop. (1910 census) 2096—incorporated in 1894, is the most easterly of these; it has a large law-publishing house, shipbuilding yards and valuable oyster-fisheries. Cold Spring Harbor, 32 m. E. of Brooklyn, is a small unincorporated village, once famous for its whale-fisheries, and now best known for the presence here of the New York State Fish Hatchery, and of the Biological Laboratory of the Brooklyn Institute of Arts and Sciences and of the laboratory of the Department of Experimental Evolution of the Carnegie Institution of Washington. The village of Huntington, 3½ m. E. of Cold Spring, is unincorporated, but is the most important of the three and has the largest summer colony. There is a public park on the water-front. The Soldiers’ and Sailors’ Memorial Building is occupied by the public library, which faces a monument to Nathan Hale on Main Street. A big boulder on the shore of the bay marks the place of Hale’s capture by the British on the 21st of September 1776. Benjamin Thompson (Count Rumford) occupied the village and built a British fort here near the close of the American War of Independence. Huntington’s inhabitants were mostly strong patriots, notably Ebenezer Prime (1700-1779), pastor of the First Presbyterian Church, which the British used as a barracks, and his son Benjamin Young Prime (1733-1791), a physician, linguist and patriot poet, who was the father of Samuel Irenaeus Prime (1812-1885), editor of the New York *Observer*. Walt Whitman was born near the village of Huntington, and established there in 1836, and for three years edited, the weekly newspaper the *Long Islander*. The first settlement in the township was made in 1653; in 1662-1664 Huntington was under the government of Connecticut. The township until 1872 included the present township of Babylon to the S., along the Great South Bay.

HUNTINGTON, a city and the county-seat of Cabell county, West Virginia, U.S.A., about 50 m. W. of Charleston, W. Va., on the S. bank of the Ohio river, just below the mouth of the Guyandotte river. Pop. (1900) 11,923, of whom 1212 were negroes; (1910 census) 31,161. It

is served by the Baltimore & Ohio and the Chesapeake & Ohio railways, and by several lines of river steamboats. The city is the seat of Marshall College (founded in 1837; a State Normal School in 1867), which in 1907-1908 had 34 instructors and 1100 students; and of the West Virginia State Asylum for the Incurable Insane; and it has a Carnegie library and a city hospital. Huntington has extensive railway car and repair shops, besides foundries and machine shops, steel rolling mills, manufactories of stoves and ranges, breweries and glass works. The value of the city's factory product in 1905 was $4,407,153, an increase of 21% over that of 1900. Huntington dates from 1871, when it became the western terminus of the Chesapeake & Ohio railway, was named in honour of Collis P. Huntington (1821-1900), the president of the road, and was incorporated.

HUNTINGTOWER AND RUTHVENFIELD, a village of Perthshire, Scotland, on the Almond, 3 m. N.W. of Perth, and within 1 m. of Almondbank station on the Caledonian railway. Pop. (1901) 459. Bleaching, the chief industry, dates from 1774, when the bleaching-field was formed. By means of an old aqueduct, said to have been built by the Romans, it was provided with water from the Almond, the properties of which render it specially suited for bleaching. Huntingtower (originally Ruthven) Castle, a once formidable structure, was the scene of the Raid of Ruthven (pron. *Rivven*), when the Protestant lords, headed by William, 4th Lord Ruthven and 1st earl of Gowrie (1541-1584), kidnapped the boy-king James VI., on the 22nd of August 1582. The earl's sons were slain in the attempt (known as the Gowrie conspiracy) to capture James VI. (1600), consequent on which the Scots parliament ordered the name of Ruthven to be abolished, and the barony to be known in future as Huntingtower.

HUNTLY, EARLS AND MARQUESSES OF. This Scottish title, in the Gordon family, dates as to the earldom from 1449, and as to the marquessate (the premier marquessate in Scotland) from 1599. The first earl (d. 1470) was Alexander de Seton, lord of Gordon—a title known before 1408; and his son George (d. 1502), by his marriage with Princess Annabella (afterwards divorced), daughter of James I. of Scotland, had several children, including, besides his successor the 3rd earl (Alexander), a second son Adam (who became earl of Sutherland), a third son William (from whom the mother of the poet Byron was descended) and a daughter Katherine, who first married Perkin Warbeck and afterwards Sir Matthew Cradock (from whom the earls of Pembroke descended). Alexander, the 3rd earl (d. 1524), consolidated the position of his house as supreme in the north; he led the Scottish vanguard at Flodden, and was a supporter of Albany against Angus. His grandson George, 4th earl (1514-1562), who in 1548 was granted the earldom of Moray, played a leading part in the troubles of his time in Scotland, and in 1562 revolted against Queen Mary and was killed in fight at Corrichie, near Aberdeen. His son George (d. 1576) was restored to the forfeited earldom in 1565; he became Bothwell's close associate—he helped Bothwell, who had married his sister, to obtain a divorce from her; and he was a powerful supporter of Mary till he seceded from her cause in 1572.

George Gordon, 1st marquess of Huntly (1562-1626), son of the 5th earl of Huntly, and of Anne, daughter of James Hamilton, earl of Arran and duke of Chatelherault, was born in 1562, and educated in France as a Roman Catholic. He took part in the plot which led to the execution of Morton in 1581 and in the conspiracy which delivered King James VI. from the Ruthven raiders in 1583. In 1588 he signed the Presbyterian confession of faith, but continued to engage in plots for the Spanish invasion of Scotland. On the 28th of November he was appointed captain of the guard, and while carrying out his duties at Holyrood his treasonable correspondence was discovered. James, however, who found the Roman Catholic lords useful as a foil to the tyranny of the Kirk, and was at this time seeking Spanish aid in case of Elizabeth's denial of his right to the English throne, and with whom Huntly was always a favourite, pardoned him. Subsequently in April 1589 he raised a rebellion in the north, but was obliged to submit, and after a short imprisonment in Borthwick Castle was again set at liberty. He next involved himself in a private war with the Grants and the Mackintoshes, who were assisted by the earls of Atholl and Murray; and on the 8th of February 1592 he set fire to Murray's castle of Donibristle in Fife, and stabbed the earl to death with his own hand. This

outrage, which originated the ballad “The Bonnie Earl of Moray,” brought down upon Huntly his enemies, who ravaged his lands. In December the “Spanish Blanks” were intercepted (see Errol, Francis Hay, 9th Earl of), two of which bore Huntly’s signature, and a charge of treason was again preferred against him, while on the 25th of September 1593 he was excommunicated. James treated him and the other rebel lords with great leniency. On the 26th of November they were freed from the charge of treason, being ordered at the same time, however, to renounce Romanism or leave the kingdom. On their refusal to comply they were attainted. Subsequently Huntly joined Erroll and Bothwell in a conspiracy to imprison the king, and the former two defeated the royal forces under Argyll at Glenlivat on the 3rd of October 1594, Huntly especially distinguishing himself. His victory, however, gained no real advantage; his castle of Strathbogie was blown up by James, and he left Scotland about March 1595. He returned secretly very soon afterwards, and his presence in Scotland was at first connived at by James; but owing to the hostile feeling aroused, and the “No Popery” riot in Edinburgh, the king demanded that he should abjure Romanism or go into permanent banishment. He submitted to the Kirk in June 1597, and was restored to his estates in December. On the 7th of April 1599 he was created a marquess, and on the 9th of July, together with Lennox, appointed lieutenant of the north. He was treated with great favour by the king and was reconciled with Murray and Argyll. Doubts, however, as to the genuineness of his abjuration again troubled the Kirk. On the 10th of December 1606 he was confined to 955
Aberdeen, and on the 19th of March 1607 he was summoned before the privy council. Huntly thereupon went to England and appealed to James himself. He was excommunicated in 1608, and imprisoned in Stirling Castle till the 10th of December 1610, when he signed again the confession of faith. Accused of Romanist intrigues in 1616, he was ordered once more to subscribe the confession, which this time he refused to do; imprisoned at Edinburgh, he was liberated by James’s order on the 18th of June, and having joined the court in London was absolved from excommunication by Abbot, archbishop of Canterbury; which absolution, after some heartburnings at the archbishop’s interference, and after a further subscription to the confession by Huntly, was confirmed by the Kirk. At the accession of Charles I. Huntly lost much of his influence at court. He was deprived in 1630 of his heritable sheriffships of Aberdeen and Inverness. The same year a feud broke out between the Crichtons and Gordons, in the course of which Huntly’s second son, Lord Melgum, was burnt to death either by treachery or by accident, while being entertained in the house of James Crichton of Frendraught. For the ravaging of the lands of the Crichtons Huntly was held responsible, and having been summoned before the privy council in 1635 he was imprisoned in Edinburgh Castle from December till June 1636. He left his confinement with shattered health, and died at Dundee while on his journey to Strathbogie on the 13th of June 1636, after declaring himself a Roman Catholic.

George Gordon, 2nd marquess of Huntly (d. 1649), his eldest son by Lady Henrietta, daughter of the duke of Lennox, was brought up in England as a Protestant, and created earl of Enzie by James I. On succeeding to his father’s title his influence in Scotland was employed by the king to balance that of Argyll in the dealings with the Covenanters, but without success. In the civil war he distinguished himself as a royalist, and in 1647 was excepted from the general pardon; in March 1649, having been captured and given up, he was beheaded by order of the Scots parliament at Edinburgh. His fourth son Charles (d. 1681) was created earl of Aboyne in 1660; and the eldest son Lewis was proclaimed 3rd marquess of Huntly by Charles II. in 1651. But the attainder was not reversed by parliament till 1661.

George Gordon, 4th marquess (1643-1716), served under Turenne, and was created 1st duke of Gordon by Charles II. in 1684 (see Gordon). On the death of the 5th duke of Gordon in 1836 the title of 9th marquess of Huntly passed to his relative George Gordon (1761-1853), son and heir of the 4th earl of Aboyne; who in 1815 was made a peer of the United Kingdom as Baron Meldrum, his descendants being the 10th and 11th marquesses.

HUNTLY, a police burgh, burgh of barony and parish of Aberdeenshire, Scotland, capital of the district of Strathbogie. Pop. (1901) 4136. It lies at the confluence of the rivers Deveron and Bogie, 41 m. N.W. of Aberdeen on the Great North of Scotland Railway. It is a market town and the centre of a large agricultural district, its chief industries including agricultural implement-making, hosiery weaving, weaving of woollen cloth, and the manufacture of lamps and boots. Huntly Castle, half a mile to the north, now in ruins, was once a fortalice of the Comyns. From them it passed in the 14th century to the Gordons, by whom it was rebuilt. It

was blown up in 1594, but was restored in 1602. It gradually fell into disrepair, some of its stones being utilized in the building of Huntly Lodge, the residence of the widow of the “last” duke of Gordon, who (in 1840) founded the adjoining Gordon schools to his memory. The Standing Stones of Strathbogie in Market Square have offered a permanent puzzle to antiquaries.

HUNTSMAN, BENJAMIN (1704-1776), English inventor and steel-manufacturer, was born in Lincolnshire in 1704. His parents were Germans. He started business as a clock, lock and tool maker at Doncaster, and attained a considerable local reputation for scientific knowledge and skilled workmanship. He also practised surgery in an experimental fashion, and was frequently consulted as an oculist. Finding that the bad quality of the steel then available for his products seriously hampered him, he began to experiment in steel-manufacture, first at Doncaster, and subsequently at Handsworth, near Sheffield, whither he removed in 1740 to secure cheaper fuel for his furnaces. After several years’ trials he at last produced a satisfactory cast steel, purer and harder than any steel then in use. The Sheffield cutlery manufacturers, however, refused to buy it, on the ground that it was too hard, and for a long time Huntsman exported his whole output to France. The growing competition of imported French cutlery made from Huntsman’s cast-steel at length alarmed the Sheffield cutlers, who, after vainly endeavouring to get the exportation of the steel prohibited by the British government, were compelled in self-defence to use it. Huntsman had not patented his process, and its secret was discovered by a Sheffield ironfounder, who, according to a popular story, obtained admission to Huntsman’s works in the disguise of a tramp. Benjamin Huntsman died in 1776, his business being subsequently greatly developed by his son, William Huntsman (1733-1809).

See Smiles, *Industrial Biography* (1879).

HUNTSVILLE, a city and the county-seat of Madison county, Alabama, U.S.A., situated on a plain 10 m. N. of the Tennessee river, 18 m. from the northern boundary of the state, at an altitude of about 617 ft. Pop. (1900) 8068, of whom 3909 were of negro descent; (1910 census) 7611. There is a considerable suburban population. Huntsville is served by the Southern and the Nashville, Chattanooga & St Louis railways. The public square is on a high bluff (about 750 ft. above sea-level), at the base of which a large spring furnishes the city with water, and also forms a stream once used for floating boats, loaded with cotton, to the Tennessee river. The surrounding country has rich deposits of iron, coal and marble, and cotton, Indian corn and fruit are grown and shipped from Huntsville. Natural gas is found in the vicinity. The principal industry is the manufacture of cotton. The value of the city’s factory products increased from $692,340 in 1900 to $1,758,718 in 1905, or 154%. At Normal, about 3½ m. N.E. of Huntsville, is the State Agricultural and Mechanical College for Negroes. Huntsville was founded in 1805 by John Hunt, a Virginian and a soldier in the War of Independence; in 1809 its name was changed to Twickenham, in memory of the home of the poet Alexander Pope, some of whose relatives were among the first settlers; but in 1811 the earlier name was restored, under which the town was incorporated by the Territorial Government, the first Alabama settlement to receive a charter. Huntsville was chartered as a city in 1844. Here, in 1819, met the convention that framed the first state constitution, and in 1820 the first state legislature. On the 11th of April 1862 Huntsville was seized by Federal troops, who were forced to retire in the following September, but secured permanent possession in July 1863.

HUNYADI, JÁNOS (*c.* 1387-1456), Hungarian statesman and warrior, was the son of Vojk, a Magyarized Vlach who married Elizabeth Morzsinay. He derived his family name from the

small estate of Hunyad, which came into his father's possession in 1409. The later epithet Corvinus, adopted by his son Matthias, was doubtless derived from another property, Piatra da Corvo or Raven's Rock. He has sometimes been confounded with an elder brother who died fighting for Hungary about 1440. While still a youth, he entered the service of King Sigismund, who appreciated his qualities and borrowed money from him; he accompanied that monarch to Frankfort in his quest for the imperial crown in 1410; took part in the Hussite War in 1420, and in 1437 drove the Turks from Semendria. For these services he got numerous estates and a seat in the royal council. In 1438 King Albert II. made him ban of Szöreny, the district lying between the Aluta and the Danube, a most dangerous dignity entailing constant warfare with the Turks. On the sudden death of Albert in 1439, Hunyadi, feeling acutely that the situation demanded a warrior-king on the throne of St Stephen, lent the whole weight of his influence to the candidature of the young Polish king Wladislaus III. (1440), and thus came into collision with the powerful Cilleis, the chief supporters of Albert's widow Elizabeth and her infant son, Ladislaus V. (see Cillei, Ulrich; and Ladislaus V.). He took a prominent part in the ensuing civil war and was rewarded by Wladislaus III. with the captaincy of the fortress of Belgrade and the voivodeship of Transylvania, which latter dignity, however, he shared with his rival Mihaly Ujlaki.

The burden of the Turkish War now rested entirely on his shoulders. In 1441 he delivered Servia by the victory of Semendria. In 1442, not far from Hermannstadt, on which he had been forced to retire, he annihilated an immense Turkish host, and recovered for Hungary the suzerainty of Wallachia and Moldavia; and in July he vanquished a third Turkish army near the Iron Gates. These victories made Hunyadi's name terrible to the Turks and renowned throughout Christendom, and stimulated him in 1443 to undertake, along with King Wladislaus, the famous expedition known as the *hosszu háboru* or "long campaign." Hunyadi, at the head of the vanguard, crossed the Balkans through the Gate of Trajan, captured Nish, defeated three Turkish pashas, and, after taking Sofia, united with the royal army and defeated Murad II. at Snaim. The impatience of the king and the severity of the winter then compelled him (February 1444) to return home, but not before he had utterly broken the sultan's power in Bosnia, Herzegovina, Servia, Bulgaria and Albania. No sooner had he regained Hungary than he received tempting offers from the pope, represented by the legate Cardinal Cesarini, from George Branković, despot of Servia, and George Castriota, prince of Albania, to resume the war and realize his favourite idea of driving the Turk from Europe. All the preparations had been made, when Murad's envoys arrived in the royal camp at Szeged and offered a ten years' truce on advantageous terms. Both Hunyadi and Branković counselled their acceptance, and Wladislaus swore on the Gospels to observe them. Two days later Cesarini received the tidings that a fleet of galleys had set off for the Bosporus to prevent Murad (who, crushed by his recent disasters, had retired to Asia Minor) from recrossing into Europe, and the cardinal reminded the king that he had sworn to co-operate by land if the western powers attacked the Turks by sea. He then, by virtue of his legatine powers, absolved the king from his second oath, and in July the Hungarian army recrossed the frontier and advanced towards the Euxine coast in order to march to Constantinople escorted by the galleys. Branković, however, fearful of the sultan's vengeance in case of disaster, privately informed Murad of the advance of the Christian host, and prevented Castriota from joining it. On reaching Varna, the Hungarians found that the Venetian galleys had failed to prevent the transit of the sultan, who now confronted them with fourfold odds, and on the 10th of November 1444 they were utterly routed, Wladislaus falling on the field and Hunyadi narrowly escaping.

At the diet which met in February 1445 a provisional government, consisting of five Magyar captain-generals, was formed, Hunyadi receiving Transylvania and the ultra-Theissian counties as his district; but the resulting anarchy became unendurable, and on the 5th of June 1446 Hunyadi was unanimously elected governor of Hungary in the name of Ladislaus V., with regal powers. His first act as governor was to proceed against the German king Frederick III., who refused to deliver up the young king. After ravaging Styria, Carinthia and Carniola and threatening Vienna, Hunyadi's difficulties elsewhere compelled him to make a truce with Frederick for two years. In 1448 he received a golden chain and the title of prince from Pope Nicholas V., and immediately afterwards resumed the war with the Turks. He lost the two days' battle of Kossovo (October 17th-19th) owing to the treachery of Dan, hospodar of Wallachia, and of his old enemy Branković, who imprisoned him for a time in the dungeons of the fortress of Semendria; but he was ransomed by the Magyars, and, after composing his differences with his powerful and jealous enemies in Hungary, led a punitive expedition against the Servian prince, who was compelled to accept most humiliating terms of peace. In 1450 Hunyadi went to Pressburg to negotiate with Frederick the terms of the surrender of Ladislaus V., but no agreement could be come to, whereupon the Cilleis and Hunyadi's other enemies accused him of aiming at the throne. He shut their mouths by resigning all his

dignities into the hands of the young king, on his return to Hungary at the beginning of 1453, whereupon Ladislaus created him count of Bestercze and captain-general of the kingdom.

Meanwhile the Turkish question had again become acute, and it was plain, after the fall of Constantinople in 1453, that Mahommed II. was rallying his resources in order to subjugate Hungary. His immediate objective was Belgrade, and thither, at the end of 1455, Hunyadi repaired, after a public reconciliation with all his enemies. At his own expense he provisioned and armed the fortress, and leaving in it a strong garrison under the command of his brother-in-law Mihály Szilágyi and his own eldest son László, he proceeded to form a relief army and a fleet of two hundred corvettes. To the eternal shame of the Magyar nobles, he was left entirely to his own resources. His one ally was the Franciscan friar, Giovanni da Capistrano (*q.v.*), who preached a crusade so effectually that the peasants and yeomanry, ill-armed (most of them had but slings and scythes) but full of enthusiasm, flocked to the standard of Hunyadi, the kernel of whose host consisted of a small band of seasoned mercenaries and a few *banderia* of noble horsemen. On the 14th of July 1456 Hunyadi with his flotilla destroyed the Turkish fleet; on the 21st Szilágyi beat off a fierce assault, and the same day Hunyadi, taking advantage of the confusion of the Turks, pursued them into their camp, which he captured after a desperate encounter. Mahommed thereupon raised the siege and returned to Constantinople, and the independence of Hungary was secured for another seventy years. The Magyars had, however, to pay dearly for this crowning victory, the hero dying of plague in his camp three weeks later (11th August 1456).

We are so accustomed to regard Hunyadi as the incarnation of Christian chivalry that we are apt to forget that he was a great captain and a great statesman as well as a great hero. It has well been said that he fought with his head rather than with his arm. He was the first to recognize the insufficiency and the unreliability of the feudal levies, the first to employ a regular army on a large scale, the first to depend more upon strategy and tactics than upon mere courage. He was in fact the first Hungarian general in the modern sense of the word. It was only late in life that he learnt to read and write, and his Latin was always very defective. He owed his influence partly to his natural genius and partly to the transparent integrity and nobility of his character. He is described as an undersized, stalwart man with full, rosy cheeks, long snow-white locks, and bright, smiling, black eyes.

See J. Teleki, *The Age of the Hunyadis in Hungary* (Hung.), (Pesth, 1852-1857; supplementary volumes by D. Csánki 1895); G. Fejér, *Genus, incunabula et virtus Joannis Corvini de Hunyad* (Buda, 1844); J. de Chassin, *Jean de Hunyad* (Paris, 1859); A. Pér, *Life of Hunyadi* (Hung.) (Budapest, 1873); V. Fraknói, *Cardinal Carjaval and his Missions to Hungary* (Hung.) (Budapest, 1889); P. Frankl, *Der Friede von Szegedin und die Geschichte seines Bruches* (Leipzig, 1904); R. N. Bain, "The Siege of Belgrade, 1456," (*Eng. Hist. Rev.*, 1892); A. Bonfini, *Rerum ungaricarum libri xlv, editio septima* (Leipzig, 1771).

(R. N. B.)

HUNYADI, LÁSZLÓ (1433-1457), Hungarian statesman and warrior, was the eldest son of János Hunyadi and Elizabeth Szilágyi. At a very early age he accompanied his father in his campaigns. After the battle of Kossovo (1448) he was left for a time, as a hostage for his father, in the hands of George Branković, despot of Servia. In 1452 he was a member of the deputation which went to Vienna to receive back the Hungarian king Ladislaus V. In 1453 he was already ban of Croatia-Dalmatia. At the diet of Buda (1455) he resigned all his dignities, because of the accusations of Ulrich Cillei and the other enemies of his house, but a reconciliation was ultimately patched up and he was betrothed to Maria, the daughter of the palatine, László Garai. After his father's death in 1456, he was declared by his arch-enemy Cillei (now governor of Hungary with unlimited power), responsible for the debts alleged to be owing by the elder Hunyadi to the state; but he defended himself so ably at the diet of Futak (October 1456) that Cillei feigned a reconciliation, promising to protect the Hunyadis on condition that they first surrendered all the royal castles entrusted to them. A beginning was to be made with the fortress of Belgrade, of which László was commandant, Cillei intending to take the king with him to Belgrade and assassinate László within its walls. But Hunyadi was warned betimes, and while admitting Ladislaus V. and Cillei, he excluded their army of mercenaries. On the following morning (9th of November 1456) Cillei, during a private interview, suddenly drew upon László, but was himself cut down by the commandant's friends, who rushed in on hearing the clash of weapons. The terrified young king, who had been privy to the plot, thereupon pardoned Hunyadi, and at a subsequent interview with his

mother at Temesvár swore that he would protect the whole family. As a pledge of his sincerity he appointed László lord treasurer and captain-general of the kingdom. Suspecting no evil, Hunyadi accompanied the king to Buda, but on arriving there was arrested on a charge of compassing Ladislaus's ruin, condemned to death without the observance of any legal formalities, and beheaded on the 16th of March 1457.

See I. Acsady, *History of the Hungarian Realm* (Hung.), vol. i. (Budapest, 1904).

(R. N. B.)

HUNZA (also known as KANJUT) and **NAGAR,** two small states on the North-west frontier of Kashmir, formerly under the administration of the Gilgit agency. The two states, which are divided by a river which runs in a bed 600 ft. wide between cliffs 300 ft. high, are inhabited generally by people of the same stock, speaking the same language, professing the same form of the Mahommedan religion, and ruled by princes sprung from the same family. Nevertheless they have been for centuries persistent rivals, and frequently at war with each other. Formerly Hunza was the more prominent of the two, because it held possession of the passes leading to the Pamirs, and could plunder the caravans on their way between Turkestan and India. But they are both shut up in a recess of the mountains, and were of no importance until about 1889, when the advance of Russia up to the frontiers of Afghanistan, and the great development of her military sources in Asia, increased the necessity for strengthening the British line of defence. This led to the establishment of the Gilgit agency, the occupation of Chitral, and the Hunza expedition of 1891, which asserted British authority over Hunza and Nagar. The country is inhabited by a Dard race of the Yeshkun caste speaking Burishki. For a description of the people see GILGIT. The Hunza-Nagar Expedition of 1891, under Colonel A. Durand, was due to the defiant attitude of the Hunza and Nagar chiefs towards the British agent at Gilgit. The fort at Nilt was stormed, and after a fortnight's delay the cliffs (1000 ft. high) beyond it were also carried by assault. Hunza and Nagar were occupied, the chief of Nagar was reinstated on making his submission, and the half-brother of the raja of Hunza was installed as chief in the place of his brother.

HUON OF BORDEAUX, hero of romance. The French *chanson de geste* of Huon de Bordeaux dates from the first half of the 13th century, and marks the transition between the epic *chanson* founded on national history and the *roman d'aventures*. Huon, son of Seguin of Bordeaux, kills Charlot, the emperor's son, who had laid an ambush for him, without being aware of the rank of his assailant. He is condemned to be hanged by Charlemagne, but reprieved on condition that he visits the court of Gaudisse, the amir of Babylon, and brings back a handful of hair from the amir's beard and four of his back teeth, after having slain the greatest of his knights and three times kissed his daughter Esclarmonde. By the help of the fairy dwarf Oberon, Huon succeeds in this errand, in the course of which he meets with further adventures. The Charlot of the story has been identified by A. Longnon (*Romania* viii. 1-11) with Charles l'Enfant, one of the sons of Charles the Bald and Irmintrude, who died in 866 in consequence of wounds inflicted by a certain Aubouin in precisely similar circumstances to those related in the romance. The epic father of Huon may safely be identified with Seguin, who was count of Bordeaux under Louis the Pious in 839, and died fighting against the Normans six years later. A Turin manuscript of the romance contains a prologue in the shape of a separate romance of *Auberon*, and four sequels, the *Chanson d'Esclarmonde*, the *Chanson de Clarisse et Florent*, the *Chanson d'Ide et d'Olive* and the *Chanson de Godin*. The same MS. contains in the romance of *Les Lorrains* a summary in seventeen lines of another version of the story, according to which Huon's exile is due to his having slain a count in the emperor's palace. The poem exists in a later version in alexandrines, and, with its continuations, was put into prose in 1454 and printed by Michel le Noir in 1516, since when it has appeared in many forms, notably in a beautifully printed and illustrated adaptation (1898) in modern French by Gaston Paris. The romance had a great vogue in England through the translation (*c.* 1540) of John Bourchier, Lord Berners, as *Huon of Burdeuxe*. The tale was dramatized and produced in Paris by the Confrérie de la Passion in 1557, and in Philip Henslowe's diary there is a note of a performance of a play, *Hewen of*

Burdoche, on the 28th of December 1593. For the literary fortune of the fairy part of the romance see Oberon.

The *Chanson de geste* of Huon de Bordeaux was edited by MM F. Guessard and C. Grandmaison for the *Anciens poètes de la France* in 1860; Lord Berners's translation was edited for the E.E.T.S. by S. L. Lee in 1883-1885. See also L. Gautier, *Les Épopées françaises* (2nd ed. vol. iii. pp. 719-773); A. Graf, *I complementi della Chanson de Huon de Bordeaux* (Halle, 1878); "Esclarmonde, &c.," by Max Schweigel, in *Ausg. u. Abhandl ... der roman. phil.* (Marburg, 1889); C. Voretzsch, *Epische Studien* (vol. i., Halle, 1900); *Hist. litt. de la France* (vol. xxvi., 1873).

HUON PINE, botanical name *Dacrydium Franklinii*, the most valuable timber tree of Tasmania, a member of the order Coniferae (see Gymnosperms). It is a fine tree of pyramidal outline 80 to 100 ft. high, and 10 to 20 ft. in girth at the base, with slender pendulous much-divided branchlets densely covered with the minute scale-like sharply-keeled bright green leaves. It occurs in swampy localities from the upper Huon river to Port Davey and Macquarie Harbour, but is less abundant than formerly owing to the demand for its timber, especially for ship-and boat-building. The wood is close-grained and easily worked.

HU-PEH, a central province of China, bounded N. by Ho-nan, E. by Ngan-hui, S. by Hu-nan, and W. by Shen-si and Szech'uen. It has an area of 70,450 sq. m. and contains a population of 34,000,000. Han-kow, Ich'ang and Shasi are the three open ports of the province, besides which it contains ten other prefectural cities. The greater part of the province forms a plain, and its most noticeable feature is the Han river, which runs in a south-easterly direction across the province from its northwesterly corner to its junction with the Yangtsze Kiang at Han-kow. The products of the Han valley are exclusively agricultural, consisting of cotton, wheat, rape seed, tobacco and various kinds of beans. Vegetable tallow is also exported in large quantities from this part of Hu-peh. Gold is found in the Han, but not in sufficient quantities to make working it more than barely remunerative. It is washed every winter from banks of coarse gravel, a little above I-ch'êng Hien, on which it is deposited by the river. Every winter the supply is exhausted by the washers, and every summer it is renewed by the river. Baron von Richthofen reckoned that the digger earned from 50 to 150 cash (*i.e.* about 1½d. to 4¼d.) a day. Only one waggon road leads northwards from Hu-peh, and that is to Nan-yang Fu in Ho-nan, where it forks, one branch going to Peking by way of K'ai-fêng Fu, and the other into Shan-si by Ho-nan Fu.

HUPFELD, HERMANN (1796-1866), German Orientalist and Biblical commentator, was born on the 31st of March 1796 at Marburg, where he studied philosophy and theology from 1813 to 1817; in 1819 he became a teacher in the gymnasium at Hanau, but in 1822 resigned that appointment. After studying for some time at Halle, he in 1824 settled as *Privatdocent* in philosophy at that university, and in the following year was appointed extraordinary professor of theology at Marburg. There he received the ordinary professorships of Oriental languages and of theology in 1827 and 1830 respectively; thirteen years later he removed as successor of Wilhelm Gesenius (1786-1842) to Halle. In 1865 he was accused by some theologians of the Hengstenberg school of heretical doctrines. From this charge, however, he successfully cleared himself, the entire theological faculty, including Julius Müller (1801-1878) and August Tholuck (1799-1877), bearing testimony to his sufficient orthodoxy. He died at Halle on the 24th of April 1866.

His earliest works in the department of Semitic philology (*Exercitationes Aethiopicae*, 1825, and *De emendanda ratione lexicographiae Semiticae*, 1827) were followed by the first part

(1841), mainly historical and critical, of an *Ausführliche Hebräische Grammatik*, which he did not live to complete, and by a treatise on the early history of Hebrew grammar among the Jews (*De rei grammaticae apud Judaeos initiis antiquissimisque scriptoribus*, Halle, 1846). His principal contribution to Biblical literature, the exegetical and critical *Übersetzung und Auslegung der Psalmen*, began to appear in 1855, and was completed in 1861 (2nd ed. by E. Riehm, 1867-1871, 3rd ed. 1888). Other writings are *Über Begriff und Methode der sogenannten biblischen Einleitung* (Marburg, 1844); *De primitiva et vera festorum apud Hebraeos ratione* (Halle, 1851-1864); *Die Quellen der Genesis von neuem untersucht* (Berlin, 1853); *Die heutige theosophische oder mythologische Theologie und Schrifterklärung* (1861).

See E. Riehm, *Hermann Hupfeld* (Halle, 1867); W. Kay, *Crisis Hupfeldiana* (1865); and the article by A. Kamphausen in Band viii. of Herzog-Hauck's *Realencyklopädie* (1900).

HURD, RICHARD (1720-1808), English divine and writer, bishop of Worcester, was born at Congreve, in the parish of Penkridge, Staffordshire, where his father was a farmer, on the 13th of January 1720. He was educated at the grammar-school of Brewood and at Emmanuel College, Cambridge. He took his B.A. degree in 1739, and in 1742 he proceeded M.A. and became a fellow of his college. In the same year he was ordained deacon, and given charge of the parish of Reymerston, Norfolk, but he returned to Cambridge early in 1743. He was ordained priest in 1744. In 1748 he published some *Remarks* on an *Enquiry into the Rejection of Christian Miracles by the Heathens* (1746), by William Weston, a fellow of St John's College, Cambridge. He prepared editions, which won the praise of Edward Gibbon,[1] of the *Ars poetica* and *Epistola ad Pisones* (1749), and the *Epistola ad Augustum* (1751) of Horace. A compliment in the preface to the edition of 1749 was the starting-point of a lasting friendship with William Warburton, through whose influence he was appointed one of the preachers at Whitehall in 1750. In 1765 he was appointed preacher at Lincoln's Inn, and in 1767 he became archdeacon of Gloucester. In 1768 he proceeded D.D. at Cambridge, and delivered at Lincoln's Inn the first Warburton lectures, which were published later (1772) as *An Introduction to the Study of the Prophecies concerning the Christian Church*. He became bishop of Lichfield and Coventry in 1774, and two years later was selected to be tutor to the prince of Wales and the duke of York. In 1781 he was translated to the see of Worcester. He lived chiefly at Hartlebury Castle, where he built a fine library, to which he transferred Alexander Pope's and Warburton's books, purchased on the latter's death. He was extremely popular at court, and in 1783, on the death of Archbishop Cornwallis, the king pressed him to accept the primacy, but Hurd, who was known, says Madame d'Arblay, as "The Beauty of Holiness," declined it as a charge not suited to his temper and talents, and much too heavy for him to sustain. He died, unmarried, on the 28th of May 1808.

Hurd's *Letters on Chivalry and Romance* (1762) retain a certain interest for their importance in the history of the romantic movement, which they did something to stimulate. They were written in continuation of a dialogue on the age of Queen Elizabeth included in his *Moral and Political Dialogues* (1759). Two later dialogues *On the Uses of Foreign Travel* were printed in 1763. Hurd wrote two acrimonious defences of Warburton: *On the Delicacy of Friendship* (1755), in answer to Dr J. Jortin; and a *Letter* (1764) to Dr Thomas Leland, who had criticized Warburton's *Doctrine of Grace*. He edited the *Works* of William Warburton, the *Select Works* (1772) of Abraham Cowley, and left materials for an edition (6 vols., 1811) of Addison. His own works appeared in a collected edition in 8 vols. in 1811.

The chief sources for Bishop Hurd's biography are "Dates of some occurrences in the life of the author," written by himself and prefixed to vol. i. of his works (1811); "Memoirs of Dr Hurd" in the *Ecclesiastical and University ... Register* (1809), pp. 399-452; John Nichols, *Literary anecdotes*, vol. vi. (1812), pp. 468-612; Francis Kilvert, *Memoirs of ... Richard Hurd* (1860), giving selections from Hurd's commonplace book, some correspondence, and extracts from contemporary accounts of the bishop. A review of this work, entitled "Bishop Hurd and his Contemporaries," appeared in the *North British Review*, vol. xxxiv. (1861), pp. 375-398.

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1 "Examination of Dr Hurd's Commentary on Horace's Epistles" (*Misc. Works*, ed. John, Lord Sheffield, 1837, pp. 403-427).

HURDLE (O. Eng. *hyrdel*, cognate with such Teutonic forms as Ger. *Hürde*, Dutch *horde*, Eng. “hoarding”; in pre-Teutonic languages the word appears in Gr. κυρτία, wickerwork, κύρτη, Lat. *cratis*, basket, cf. “crate,” “grate”), a movable temporary fence, formed of a framework of light timber, wattled with smaller pieces of hazel, willow or other pliable wood, or constructed on the plan of a light five-barred field gate, filled in with brushwood. Similar movable frames can be made of iron, wire or other material. A construction of the same type is used in military engineering and fortification as a foundation for a temporary roadway across boggy ground or as a backing for earthworks.

HURDLE RACING, running races over short distances, at intervals in which a number of hurdles, or fence-like obstacles, must be jumped. This has always been a favourite branch of track athletics, the usual distances being 120 yds., 220 yds. and 440 yds. The 120 yds. hurdle race is run over ten hurdles 3 ft. 6 in. high and 10 yds. apart, with a space of 15 yds. from the start to the first hurdle and a like distance from the last hurdle to the finish. In Great Britain the hurdles are fixed and the race is run on grass; in America the hurdles, although of the same height, are not fixed, and the races are run on the cinder track. The “low hurdle race” of 220 yds. is run over ten hurdles 2 ft. 6. in. high and 20 yds. apart, with like distances between the start and the first hurdle and between the last hurdle and the finish. The record time for the 120 yds. race on grass is 15⅗ secs., and on cinders 15⅕ secs., both of which were performed by A. C. Kraenzlein, who also holds the record for the 220 yds. low hurdle race, 23⅗ secs. For 440 yds. over hurdles the record time is 57⅘ secs., by T. M. Donovan, and by J. B. Densham at Kennington Oval in 1907.

HURDY-GURDY (Fr. *vielle à manivelle*, *symphonie* or *chyfonie à roue*; Ger. *Bauernleier*, *Deutscheleier*, *Bettlerleier*, *Radleier*; Ital. *lira tedesca*, *lira rustica*, *lira pagana*), now loosely used as a synonym for any grinding organ, but strictly a medieval drone instrument with strings set in vibration by the friction. of a wheel, being a development of the *organistrum* (*q.v.*) reduced in size so that it could be conveniently played by one person instead of two. It consisted of a box or soundchest, sometimes rectangular, but more generally having the outline of the guitar; inside it had a wheel, covered with leather and rosined, and worked by means of a crank at the tail end of the instrument. On the fingerboard were placed movable frets or keys, which, on being depressed, stopped the strings, at points corresponding to the diatonic intervals of the scale. At first there were 4 strings, later 6. In the organistrum three strings, acted on simultaneously by the keys, produced the rude harmony known as *organum*. When this passed out of favour, superseded by the first beginnings of polyphony over a pedal bass, the organistrum gave place to the hurdy-gurdy. Instead of acting on all the strings, the keys now affected the first string only, or “chanterelle,” though in some cases certain keys, made longer, also reached the third string or “trompette”; the result was that a diatonic melody could be played on the chanterelles. The other open strings always sounded simultaneously as long as the wheel was turned, like drones on the bag-pipe.

The hurdy-gurdy originated in France at the time when the Paris School or Old French School was laying the foundations of counterpoint and polyphony. During the 13th and 14th centuries it was known by the name of *Symphonia or Chyfonie*, and in Germany *Lira* or *Leyer*. Its popularity remained undiminished in France until late in the 18th century. Although the hurdy-gurdy never obtained recognition among serious musicians in Germany, the idea embodied in the mechanism stimulated ingenuity, the result being such musical curiosities as the *Geigenwerk* or *Geigen-Clavicymbel* of Hans Hayden of Nuremberg (*c.* 1600), a harpsichord in which the strings, instead of being plucked by quills, were set in vibration by friction of one of the little steel wheels, covered with parchment and well rosined, which were kept rotating by means of a large wheel and a series of cylinders worked by treadles. Other instruments of similar type were the *Bogenclavier* invented by Joh. Hohlfeld of Berlin in 1751 and the Bogenflügel by C. A. Meyer of Görlitz in 1794. In Adam Walker’s *Celestina* (1772) the friction was provided by a running band instead of a bow.

(K. S.)

HURLSTONE, FREDERICK YEATES (1800-1869), English painter, was born in London, his father being a proprietor of the *Morning Chronicle*. His grand-uncle, Richard Hurlstone, had been a well-known portrait-painter a generation earlier. F. Y. Hurlstone studied under Sir W. Beechey, Sir T. Lawrence and B. R. Haydon, and in 1820 became a student at the Royal Academy, where he soon began to exhibit. In 1823 he won the Academy's gold medal for historical painting. In 1831 he was elected to the Society of British Artists, of which in 1835 he became president; it was to their exhibitions that he sent most of his pictures, as he became a pronounced critic of the management of the Academy. He died in London on the 10th of June 1869. His historical paintings and portraits were very numerous. Some of the most representative are "A Venetian Page" (1824), "The Enchantress Armida" (1831), "Eros" (1836), "Prisoner of Chillon" (1837), "Girl of Sorrento" (1847), "Boabdil" (1854), and his portrait of the 7th earl of Cavan (1833).

HURON (a French term, from *huré*, bristled, early used as an expression of contempt, signifying "lout"), a nickname given by the French when first in Canada to certain Indian tribes of Iroquoian stock, occupying a territory, which similarly was called Huronia, in Ontario, and constituting a confederation called in their own tongue Wendat ("islanders"), which was corrupted by the English into Yendat, Guyandotte and then Wyandot. The name persists for the small section of "Hurons of Lorette," in Quebec, but the remnant of the old Huron Confederacy which after its dispersal in the 17th century settled in Ohio and was afterwards removed to Oklahoma is generally called Wyandot. For their history see WYANDOT, and INDIANS, NORTH AMERICAN (under "Indian Wars"; *Algonkian* and *Iroquoian*).

See *Handbook of American Indians* (Washington, 1907), s.v. "Huron."

HURON, the second largest of the Great Lakes of North America, including Georgian Bay and the channel north of Manitoulin Island, which are always associated with it. It lies between the parallels of 43° and 46° 20′ N. and between the meridians of 80° and 84° W., and is bounded W. by the state of Michigan, and N. and E. by the province of Ontario, Georgian Bay and North Channel being wholly within Canadian territory. The main portion of the lake is 235 m. long from the Strait of Mackinac to St Clair river, and 98 m. wide on the 45th parallel of latitude. Georgian Bay is 125 m. long, with a greatest width of 60 m., while North Channel is 120 m. long, with an extreme width of 16 m., the whole lake having an area of 23,200 sq. m. The surface is 581 ft. above the sea. The main lake reaches a depth of 802 ft.; Georgian bay shows depths, especially near its west shore, of over 300 ft.; North Channel has depths of 180 ft. Lake Huron is 20 ft. lower than Lake Superior, whose waters it receives at its northern extremity through St. Mary river, is on the same level as Lake Michigan, which connects with its north-west extremity through the Strait of Mackinac, and is nearly 9 ft. higher than Lake Erie, into which it discharges at its south extremity through St Clair river.

On the mainland, the north and east shores are of gneisses and granites of archaean age, with a broken and hilly surface rising in places to 600 ft. above the lake and giving a profusion of islands following the whole shore line from the river St Mary to Waubaushene at the extreme east end of Georgian bay. Manitoulin Island and the Saugeen Peninsula are comparatively flat and underlaid by a level bed of Trenton limestone. The southern shores, skirting the peninsula of Michigan, are flat. The rock formations are of sandstone and limestone, while the forests are either a tangled growth of pine and spruce or a scattered growth of small trees on a sandy soil. This shore is indented by Thunder bay, 78 sq. m. in area, and Saginaw bay, 50 m. deep and 26 m. wide across its mouth.

The chief tributaries of the lake on the U.S. side are Thunder bay river, Au Sable river and Saginaw river. On the Canadian side are Serpent river, Spanish river, French river, draining Lake Nipissing, Muskoka river, Severn river, draining lake Simcoe, and Nottawasaga river, all

emptying into Georgian bay and North Channel, and Saugeen and Maitland rivers, flowing into the main lake. These have been or are largely used in connexion with pine lumbering operations. They, with smaller streams, drain a basin of 75,300 sq. m.

There is a slight current in Lake Huron skirting the west shore from inlet to outlet. At the south end it turns and passes up the east coast. There is also a return current south of Manitoulin Island and a current, sometimes attaining a strength of half a knot, passes into Georgian bay through the main entrance. Ice and navigation conditions and yearly levels are similar to those on the other Great Lakes (*q.v.*).

Practically all the United States traffic is confined to vessels passing through the main lake between Lakes Superior and Michigan and Lake Erie, but on the Canadian side are several railway termini which receive grain mostly from Lake Superior, and deliver mixed freight to ports on that lake. The chief of these are Parry Sound, Midland, Victoria Harbour, Collingwood, Owen Sound, Southampton, Kincardine, Goderich and Sarnia, at the outlet of the lake. The construction of a ship canal to connect Georgian bay with Montreal by way of French river, Lake Nipissing and Ottawa river began in 1910. A river and lake route with connecting canals, in all about 440 m. long, will be opened for vessels of 20 ft. draught at a cost estimated at £20,000,000 saving some 340 miles in the distance from Lake Superior or Lake Michigan to the sea.

There is a large fishing industry in Lake Huron, the Canadian catch being valued at over a quarter million dollars per annum. Salmon trout (*Salvelinus namaycush*, Walb.) and whitefish (*Coregonus clupeiformis*, Mitchill) are the most numerous and valuable. Amongst the islands on the east shore of Georgian bay, which are greatly frequented as a summer resort, black bass (*micropterus*) and maskinonge (*Esox nobilior*, Le Sueur) are a great attraction to anglers.

See *Georgian Bay and North Channel Pilot*, Department of Marine and Fisheries (Ottawa, 1903); *Sailing Directions for Lake Huron, Canadian Shore*, Department of Marine and Fisheries (Ottawa, 1905); *Bulletin No. 17, Survey of Northern and North-Western Lakes*, United States, War Department (Washington, 1907); *U.S. Hydrographic Office Publication, No. 108 C. Sailing Directions for Lake Huron*, &c. U.S. Navy Department (Washington, 1901).

HURRICANE, a wind-storm of great force and violence, originally as experienced in the West Indies; it is now used to describe similar storms in other regions, except in the East Indies and the Chinese seas, where they are generally known as “typhoons.” Hurricane is the strongest force of wind in the Beaufort scale. The Caribbean word *huracan* was introduced by the Portuguese, Spanish and Dutch explorers of the 15th and 16th centuries into many European languages, as in Span. *huracan*, Portu. *furacao*, Ital. *uracane*, Fr. *ouragan*, and in Swed., Ger. and Dutch as *orkan*, or *orkaan*. A “hurricane-deck” is an upper deck on a steamer which protects the lower one, and incidentally serves as a promenade.

HURRY (or URRY), **SIR JOHN** (d. 1650), British soldier, was born in Aberdeenshire, and saw much service as a young man in Germany. In 1641 he returned home and became Lieut.-Colonel in a Scottish regiment. At the end of the same year he was involved in the plot known as the “Incident.” At the outbreak of the Civil War Hurry joined the army of the earl of Essex, and was distinguished at Edgehill and Brentford. Early in 1643 he deserted to the Royalists, bringing with him information on which Rupert acted at once. Thus was brought about the action of Chalgrove Field, where Hurry again showed conspicuous valour; he was knighted on the same evening. In 1644 he was with Rupert at Marston Moor, where with Lucas he led the victorious left wing of horse. But a little later, thinking the King’s cause lost, he again deserted, and eventually was sent with Baillie against Montrose in the Highlands. His detached operations were conducted with great skill, but his attempt to surprise Montrose’s camp at Auldearn ended in a complete disaster, partly on account of the accident of the men discharging their pieces before starting on the march. Soon afterwards he once more joined Charles’s party, and he was taken prisoner in the disastrous campaign of Preston (1648). Sir John Hurry was Montrose’s Major-General in the last desperate attempt of the Scottish

Royalists. Taken at Carbisdale, he was beheaded at Edinburgh, May 29th, 1650. A soldier of fortune of great bravery, experience and skill, his frequent changes of front were due rather to laxity of political principles than to any calculated idea of treason.

HURST, JOHN FLETCHER (1834-1903), American Methodist Episcopal bishop, was born in Salem, Dorchester county, Maryland, on the 17th of August 1834. He graduated at Dickinson College in 1854, and in 1856 went to Germany and studied at Halle and Heidelberg. From 1858 to 1867 he was engaged in pastoral work in America, and from 1867 to 1871 he taught in Methodist mission institutes in Germany. In 1871-1873 he was professor of historical theology at Drew Theological Seminary, Madison, New Jersey, of which he was president from 1873 till 1880, when he was made a bishop. He died at Bethesda, Maryland, on the 4th of May 1903. Bishop Hurst, by his splendid devotion in 1876-1879, recovered the endowment of Drew Theological Seminary, lost by the failure in 1876 of Daniel Drew, its founder; and with McClintock and Crooks he improved the quality of Methodist scholarship. The American University (Methodist Episcopal) at Washington, D.C., for postgraduate work was the outcome of his projects, and he was its chancellor from 1891 to his death.

He published *A History of Rationalism* (1866); Hagenbach's *Church History of the Eighteenth and Nineteenth Centuries* (2 vols., 1869); von Oosterzee's *John's Gospel: Apologetical Lectures* (1869); Lange's *Commentary on the Epistle to the Romans* (1869); *Martyrs to the Tract Cause: A Contribution to the History of the Reformation* (1872), a translation and revision of Thelemann's *Märtyrer der Traktatsache* (1864); *Outlines of Bible History* (1873); *Outlines of Church History* (1874); *Life and Literature in the Fatherland* (1875), brilliant sketches of Germany; a brief pamphlet, *Our Theological Century* (1877); *Bibliotheca Theologica* (1883), a compilation by his students, revised by G. W. Gillmore in 1895 under the title *Literature of Theology; Indika: the Country and People of India and Ceylon* (1891), the outgrowth of his travels in 1884-1885 when he held the conferences of India; and several church histories (Chautauqua text-books) published together as *A Short History of the Christian Church* (1893).

HURSTMONCEAUX (also HERSTMONCEAUX), a village in the Eastbourne parliamentary division of Sussex, England, 9 m. N.E. of Eastbourne. Pop. (1901) 1429. The village takes its name from Waleran de Monceux, lord of the manor after the Conquest, but the castle, for the picturesque ruins of which the village is famous, was built in the reign of Henry VI. by Sir Roger de Fiennes. It is moated, and is a fine specimen of 15th-century brickwork, the buildings covering an almost square quadrangle measuring about 70 yds. in the side. Towers flank the corners, and there is a beautiful turreted entrance gate, but only the foundations of most of the buildings ranged round the inner courts are to be traced. The church of All Saints is in the main Early English, and contains interesting monuments to members of the Fiennes family and others. In the churchyard is the tomb of Archdeacon Julius Charles Hare, the theologian (1855). Much material from the castle was used in the erection of Hurstmonceaux Place, a mansion of the 18th century.

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