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Coquelin to Costume

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COSTUME

COQUELIN, BENOÎT CONSTANT (1841-1909), French actor, known as Coquelin *aîné*, was born at Boulogne on the 23rd of January 1841. He was originally intended to follow his father's trade of baker (he was once called *un boulanger manqué* by a hostile critic), but his love of acting led him to the Conservatoire, where he entered Regnier's class in 1859. He won the first prize for comedy within a year, and made his début on the 7th of December 1860 at the Comédie Française as the comic valet, Gros-René, in Molière's *Dépit amoureux*, but his first great success was as Figaro, in the following year. He was made *sociétaire* in 1864, and during the next twenty-two years he created at the Français the leading parts in forty-four new plays, including Théodore de Banville's *Gringoire* (1867), Paul Ferrier's *Tabarin* (1871), Émile Augier's *Paul Forestier* (1871), *L'Étrangère* (1876) by the younger Dumas, Charles Lomon's *Jean Dacier* (1877), Edward Pailleron's *Le Monde où l'on s'ennuie* (1881), Erckmann and Chatrian's *Les Rantzau* (1884). In consequence of a dispute with the authorities over the question of his right to make provincial tours in France he resigned in 1886. Three years later, however, the breach was healed; and after a successful series of tours in Europe and the United States he rejoined the Comédie Française as *pensionnaire* in 1890. It was during this period that he took the part of Labussière, in the production of Sardou's' *Thermidor*, which was interdicted by the government after three performances. In 1892 he broke definitely with the Comédie Française, and toured for some time through the capitals of Europe with a company of his own. In 1895 he joined the Renaissance theatre in Paris, and played there until he became director of the Porte Saint Martin in 1897. Here he won successes in Edmond Rostand's *Cyrano de Bergerac* (1897), Émile Bergerat's *Plus que reine* (1899), Catulle Mendès' *Scarron* (1905), and Alfred Capus and Lucien Descaves' *L'Attentat* (1906). In 1900 he toured in America with Sarah Bernhardt, and on their return continued with his old colleague to appear in *L'Aiglon*, at the Théâtre Sarah Bernhardt. He was rehearsing for the creation of the leading part in Rostand's *Chantecler*, which he was to produce, when he died suddenly in Paris, on the 27th of January 1909. Coquelin was an Officier de l'Instruction Publique and of the Legion of Honour. He published *L'Art et le comédien* (1880), *Molière et le misanthrope* (1881), essays on *Eugène Manuel* (1881) and *Sully-Prudhomme* (1882), *L'Arnolphe de Molière* (1882), *Les Comédiens* (1882), *L'Art de dire le monologue* (with his brother, 1884), *Tartuffe* (1884), *L'Art du comédien* (1894).

His brother, Ernest Alexandre Honoré Coquelin (1848-1909), called Coquelin *cadet*, was born on the 16th of May 1848 at Boulogne, and entered the Conservatoire in 1864. He graduated with the first prize in comedy and made his début in 1867 at the Odéon. The next year he appeared with his brother at the Théâtre Francais and became a *sociétaire* in 1879. He played a great many parts, in both the classic and the modern répertoire, and also had much success in reciting monologues of his own composition. He wrote *Le Livre des convalescents* (1880),

Le Monologue moderne (1881), *Fairiboles* (1882), *Le Rire* (1887), *Pirouettes* (1888). He died on the 8th of February 1909.

Jean Coquelin (1865-), son of Coquelin *aîné*, was also an actor, first at the Théâtre Francais (début, 1890), later at the Renaissance, and then at the Porte Saint Martin, where he created the part of Raigoné in *Cyrano de Bergerac*.

COQUEREL, ATHANASE JOSUÉ (1820-1875), French Protestant divine, son of A. L. C. Coquerel (q.v.), was born at Amsterdam on the 16th of June 1820. He studied theology at Geneva and at Strassburg, and at an early age succeeded his uncle, C. A. Coquerel, as editor of *Le Lien*, a post which he held till 1870. In 1852 he took part in establishing the *Nouvelle Revue de théologie*, the first periodical of scientific theology published in France, and in the same year helped to found the "Historical Society of French Protestantism." Meanwhile he had gained a high reputation as a preacher, and especially as the advocate of religious freedom; but his teaching became more and more offensive to the orthodox party, and on the appearance (1864) of his article on Renan's *Vie de Jésus* in the *Nouvelle Revue de théologie* he was forbidden by the Paris consistory to continue his ministerial functions. He received an address of sympathy from the consistory of Anduze, and a provision was voted for him by the Union Protestante Libérale, to enable him to continue his preaching. He received the cross of the Legion of Honour in 1862. He died at Fismes (Marne), on the 24th of July 1875. His chief works were *Jean Calas et sa famille* (1858); *Des Beaux-Arts en Italie* (Eng. trans. 1859); *La Saint Barthélemy* (1860); *Précis de l'église réformée* (1862); *Le Catholicisme et le protestantisme considérés dans leur origine et leur développement* (1864); *Libres études, and La Conscience et la foi* (1867).

COQUEREL, ATHANASE LAURENT CHARLES (1795-1868), French Protestant divine, was born in Paris on the 17th of August 1795. He received his early education from his aunt, Helen Maria Williams, an Englishwoman, who at the close of the 18th century gained a reputation by various translations and by her *Letters from France*. He completed his theological studies at the Protestant seminary of Montauban, and in 1816 was ordained minister. In 1817 he was invited to become pastor of the chapel of St Paul at Jersey, but he declined, being unwilling to subscribe to the Thirty-nine Articles of the Church of England. During the following twelve years he resided in Holland, and preached before Calvinistic congregations at Amsterdam, Leiden and Utrecht. In 1830, at the suggestion of Baron Georges de Cuvier, then minister of Protestant worship, Coquerel was called to Paris as pastor of the Reformed Church. In the course of 1833 he was chosen a member of the consistory, and rapidly acquired the reputation of a great pulpit orator, but his liberal views brought him into antagonism with the rigid Calvinists. He took a warm interest in all matters of education, and distinguished himself so much by his defence of the university of Paris against a sharp attack, that in 1835 he was chosen a member of the consistory of the Legion of Honour. In 1841 appeared his *Réponse* to the *Leben Jesu* of Strauss. After the revolution of February 1848, Coquerel was elected a member of the National Assembly, where he sat as a moderate republican, subsequently becoming a member of the Legislative Assembly. He supported the first ministry of Louis Napoleon, and gave his vote in favour of the expedition to Rome and the restoration of the temporal power of the pope. After the *coup d'état* of the 2nd of December 1851, he confined himself to the duties of his pastorate. He was a prolific writer, as well as a popular and eloquent speaker. He died at Paris on the 10th of January 1868. A large collection of his sermons was published in 8 vols. between 1819 and 1852. Other works were *Biographie sacrée* (1825-1826); *Histoire sainte et analyse de la Bible* (1839); *Orthodoxie moderne* (1842); *Christologie* (1858), &c.

His brother, Charles Augustin Coquerel (1797-1851), was the author of a work on English literature (1828), an *Essai sur l'histoire générale du christianisme* (1828) and a *Histoire des églises du désert, depuis la revocation de l'édit de Nantes* (1841). A liberal in his views, he was the founder and editor of the *Annales protestantes*, *Le Lien*, and the *Revue protestante*.

COQUES (or Cocx), **GONZALEZ** (1614-1684), Flemish painter, son of Pieter Willemsen Cocx, a respectable Flemish citizen, and not, as his name might imply, a Spaniard, was born at Antwerp. At the age of twelve he entered the house of Pieter, the son of “Hell” Breughel, an obscure portrait painter, and at the expiration of his time as an apprentice became a journeyman in the workshop of David Ryckaert the second, under whom he made accurate studies of still life. At twenty-six he matriculated in the gild of St Luke; he then married Ryckaert’s daughter, and in 1653 joined the literary and dramatic club known as the “Retorijkerkamer.” After having been made president of his gild in 1665, and in 1671 painter in ordinary to Count Monterey, governor-general of the Low Countries, he married again in 1674, and died full of honours in his native place. One of his canvases in the gallery at the Hague represents a suite of rooms hung with pictures, in which the artist himself may be seen at a table with his wife and two children, surrounded by masterpieces composed and signed by several contemporaries. Partnership in painting was common amongst the small masters of the Antwerp school; and it has been truly said of Coques that he employed Jacob von Arthois for landscapes, Ghering and van Ehrenberg for architectural backgrounds, Steenwijck the younger for rooms, and Pieter Gysels for still life and flowers; but the model upon which Coques formed himself was Van Dyck, whose sparkling touch and refined manner he imitated with great success. He never ventured beyond the “cabinet,” but in this limited field the family groups of his middle time are full of life, brilliant from the sheen of costly dress and sparkling play of light and shade, combined with finished execution and enamelled surface.

COQUET (pronounced Cócket), a river of Northumberland, draining a beautiful valley about 40 m. in length. It rises in the Cheviot Hills. Following a course generally easterly, but greatly winding, it passes Harbottle, near which relics of the Stone Age are seen, and Holystone, where it is recorded that Bishop Paulinus baptized a great body of Northumbrians in the year 627. Several earthworks crown hills above this part of the valley, and at Cartington, Fosson and Whitton are relics of medieval border fortifications. The small town of Rothbury is beautifully situated beneath the ragged Simonside Hills. The river dashes through a narrow gully called the Thrum, and then passes Brinkburn priory, of which the fine Transitional Norman church was restored to use in 1858, while there are fragments of the monastic buildings. This was an Augustinian foundation of the time of Henry I. The dale continues well wooded and very beautiful until Warkworth is reached, with its fine castle and remarkable hermitage. A short distance below this the Coquet has its mouth in Alnwick Bay (North Sea), with the small port of Amble on the south bank, and Coquet Island a mile out to sea. The river is frequented by sportsmen for salmon and trout fishing. No important tributary is received, and the drainage area does not exceed 240 sq. m.

COQUET (pronounced co-kétte), to simulate the arts of love-making, generally from motives of personal vanity, to flirt; in a figurative sense, to trifle or dilly-dally with anything. The word is derived from the French *coqueter*, which originally means, “to strut about like a cock-bird,” i.e. when it desires to attract the hens. The French substantive *coquet*, in the sense of “beau” or “lady-killer,” was formerly commonly used in English; but the feminine form, *coquette*, now practically alone survives, in the sense of a woman who gratifies her vanity by using her powers of attraction in a frivolous or inconstant fashion. Hence “to coquet,” the original and more correct form, has come frequently to be written “to coquette.” Coquetry (Fr. *coquetterie*), primarily the art of the coquette, is used figuratively of any dilly-dallying or “coquetting” and, by transference of idea, of any superficial qualities of attraction in persons or things. “Coquet” is still also occasionally used adjectivally, but the more usual form is “coquettish”; e.g. we speak of a “coquettish manner,” or a “coquettish hat.” The crested humming-birds of the genus *Lophornis* are known as coquettes (Fr. *coquets*).

COQUIMBO, an important city and port of the province and department of Coquimbo, Chile, in 29° 57′ 4″ S., 71° 21′ 12″ W. Pop. (1895) 7322. The railway connexions are with Ovalle to the S., and Vicuña (or Elqui) to the E., but the proposed extension northward of Chile's longitudinal system would bring Coquimbo into direct communication with Santiago. The city has a good well-sheltered harbour, reputed the best in northern Chile, and is the port of La Serena, the provincial capital, 9 m. distant, with which it is connected by rail. There are large copper-smelting establishments in the city, which exports a very large amount of copper, some gold and silver, and cattle and hay to the more northern provinces.

The province of Coquimbo, which lies between those of Aconcagua and Atacama and extends from the Pacific inland to the Argentine frontier, has an area of 13,461 sq. m. (official estimate) and a population (1895) of 160,898. It is less arid than the province of Atacama, the surface near the coast being broken by well-watered river valleys, which produce alfalfa, and pasture cattle for export. Near the mountains grapes are grown, from which wine of a good quality is made. The mineral resources include extensive deposits of copper, and some less important mines of gold and silver. The climate is dry and healthy, and there are occasional rains. Several rivers, the largest of which is the Coquimbo (or Elqui) with a length of 125 m., cross the province from the mountains. The capital is La Serena, and the principal cities are Coquimbo, Ovalle (pop. 5565), and Illapel (3170).

CORACLE (Welsh *corwg-l*, from *corwg*, cf. Irish and mod. Gaelic *curach*, boat), a species of ancient British fishing-boat which is still extensively used on the Severn and other rivers of Wales, notably on the Towy and Teifi. It is a light boat, oval in shape, and formed of canvas stretched on a framework of split and interwoven rods, and well-coated with tar and pitch to render it water-tight. According to early writers the framework was covered with horse or bullock hide (*corium*). So light and portable are these boats that they can easily be carried on the fisherman's shoulders when proceeding to and from his work. Coracle-fishing is performed by two men, each seated in his coracle and with one hand holding the net while with the other he plies his paddle. When a fish is caught, each hauls up his end of the net until the two coracles are brought to touch and the fish is then secured. The coracle forms a unique link between the modern life of Wales and its remote past; for this primitive type of boat was in existence amongst the Britons at the time of the invasion of Julius Caesar, who has left a description of it, and even employed it in his Spanish campaign.

CORAËS (Koraïs), **ADAMANTIOS** [in French, Diamant Coray] (1748-1833), Greek scholar and patriot, was born at Smyrna, the son of a merchant. As a schoolboy he distinguished himself in the study of ancient Greek, but from 1772 to 1779 he was occupied with the management of his father's business affairs in Amsterdam. In 1782, on the collapse of his father's business, he went to Montpellier, where for six years he studied medicine, supporting himself by translating German and English medical works into French. He then settled in Paris, where he lived until his death on the 10th of April 1833. Inspired by the ideals of the French Revolution, he devoted himself to furthering the cause of Greek independence both among the Greeks themselves and by awakening the interest of the chief European Powers against the Turkish rule. His great object was to rouse the enthusiasm of the Greeks for the idea that they were the true descendants of the ancient Hellenes by teaching them to regard as their own inheritance the great works of antiquity. He sought to purify the ordinary written language by eliminating the more obvious barbarisms, and by enriching it with classical words and others invented in strict accordance with classical tradition (see further Greek Language: *modern*). Under his influence, though the common patois was practically untouched, the language of literature and intellectual intercourse was made to approximate to the pure Attic of the 5th and 4th centuries B.C. His chief works are his editions of Greek authors contained in his Ἑλληνικὴ Βιβλιοθήκη and his Πάρεργα; his editions of the *Characters* of Theophrastus, of the *De aëre, aquis, et locis* of Hippocrates, and of the *Aethiopica* of Heliodorus, elaborately annotated.

His literary remains have been edited by Mamoukas and Damalas (1881-1887); collections of

letters written from Paris at the time of the French Revolution have been published (in English, by P. Ralli, 1898; in French, by the Marquis de Queux de Saint-Hilaire, 1880). His autobiography appeared at Paris (1829; Athens, 1891), and his life has been written by D. Thereianos (1889-1890); see also A. R. Rhangabé, *Histoire littéraire de la Grèce moderne* (1877).

CORAL, the hard skeletons of various marine organisms. It is chiefly carbonate of lime, and is secreted from sea-water and deposited in the tissues of Anthozoan polyps, the principal source of the coral-reefs of the world (see ANTHOZOA), of Hydroids (see HYDROMEDUSAE), less important in modern reef-building, but extremely abundant in Palaeozoic times, and of certain Algae. The skeletons of many other organisms, such as Polyzoa and Mollusca, contribute to coral masses but cannot be included in the term "coral." The structure of coral animals (sometimes erroneously termed "coral insects") is dealt within the articles cited above; for the distribution and formation of reefs see CORAL-REEFS.

Beyond their general utility and value as sources of lime, few of the corals present any special feature of industrial importance, excepting the red or precious coral (*Corallium rubrum*) of the Mediterranean Sea. It, however, is and has been from remote times very highly prized for jewelry, personal ornamentation and decorative purposes generally. About the beginning of the Christian era a great trade was carried on in coral between the Mediterranean and India, where it was highly esteemed as a substance endowed with mysterious sacred properties. It is remarked by Pliny that, previous to the existence of the Indian demand, the Gauls were in the habit of using it for the ornamentation of their weapons of war and helmets; but in his day, so great was the Eastern demand, that it was very rarely seen even in the regions which produced it. Among the Romans branches of coral were hung around children's necks to preserve them from danger, and the substance had many medicinal virtues attributed to it. A belief in its potency as a charm continued to be entertained throughout medieval times; and even to the present day in Italy it is worn as a preservative from the evil eye, and by females as a cure for sterility.

The precious coral is found widespread on the borders and around the islands of the Mediterranean Sea. It ranges in depth from shallow water (25 to 50 ft.) to water over 1000 ft., but the most abundant beds are in the shallower areas. The most important fisheries extend along the coasts of Tunisia, Algeria and Morocco; but red coral is also obtained in the vicinity of Naples, near Leghorn and Genoa, and on the coasts of Sardinia, Corsica, Catalonia and Provence. It occurs also in the Atlantic off the north-west of Africa, and recently it has been dredged in deep water off the west of Ireland. Allied species of small commercial value have been obtained off Mauritius and near Japan. The black coral (*Antipathes abies*), formerly abundant in the Persian Gulf, and for which India is the chief market, has a wide distribution and grows to a considerable height and thickness in the tropical waters of the Great Barrier Reef of Australia.

From the middle ages downwards the securing of the right to the coral fisheries on the African coasts was an object of considerable rivalry among the Mediterranean communities of Europe. Previous to the 16th century they were controlled by the Italian republics. For a short period the Tunisian fisheries were secured by Charles V. to Spain; but the monopoly soon fell into the hands of the French, who held the right till the Revolutionary government in 1793 threw the trade open. For a short period (about 1806) the British government controlled the fisheries, and now they are again in the hands of the French authorities. Previous to the French Revolution much of the coral trade centred in Marseilles; but since that period, both the procuring of the raw material and the working of it up into the various forms in which it is used have become peculiarly Italian industries, centring largely in Naples, Rome and Genoa. On the Algerian coast, however, boats not flying the French flag have to pay heavy dues for the right to fish, and in the early years of the 20th century the once flourishing fisheries at La Calle were almost entirely neglected. Two classes of boats engage in the pursuit—a large size of from 12 to 14 tons, manned by ten or twelve hands, and a small size of 3 or 4 tons, with a crew of five or six. The large boats, dredging from March to October, collect from 650 to 850 ℔ of coral, and the small, working throughout the year, collect from 390 to 500 ℔. The Algerian reefs are divided into ten portions, of which only one is fished annually—ten years being considered sufficient for the proper growth of the coral.

The range of value of the various qualities of coral, according to colour and size, is exceedingly wide, and notwithstanding the steady Oriental demand its price is considerably

affected by the fluctuations of fashion. While the price of the finest tints of rose pink may range from £80 to £120 per oz., ordinary red-coloured small pieces sell for about £2 per oz., and the small fragments called *collette*, used for children's necklaces, cost about 5s. per oz. In China large spheres of good coloured coral command high prices, being in great requisition for the button of office worn by the mandarins. It also finds a ready market throughout India and in Central Asia; and with the negroes of Central Africa and of America it is a favourite ornamental substance.

CORALLIAN (Fr. *Corallien*), in geology, the name of one of the divisions of the Jurassic rocks. The rocks forming this division are mainly calcareous grits with oolites, and rubbly coral rock—often called "Coral Rag"; ferruginous beds are fairly common, and occasionally there are beds of clay. In England the Corallian strata are usually divided into an upper series, characterized by the ammonite *Perisphinctes plicatilis*, and a lower series with *Aspidoceras perarmatus* as the zonal fossil. When well developed these beds are seen to lie above the Oxford Clay and below the Kimeridge Clay; but it will save a good deal of confusion if it is recognized that the Corallian rocks of England are nothing more than a variable, local lithological phase of the two clays which come respectively above and below them. This caution is particularly necessary when any attempt is being made to co-ordinate the English with the continental Corallian.

The Corallian rocks are nowhere better displayed than in the cliffs at Weymouth. Here Messrs Blake and Huddleston recognized the following beds:—

Upper Corallian	Upper Coral Rag and Abbotsbury Iron Ore. Sandsfoot Grits. Sandsfoot Clay. Sandsfoot Clay. Trigonia Beds. Osmington Oolite (quarried at Marnhull and Todbere).
Lower Corallian	Bencliff Grits. Nothe Clay. Nothe Clay. Nothe Grit.

In Dorsetshire the Corallian rocks are 200 ft. thick, in Wiltshire 100 ft., but N.E. of Oxford they are represented mainly by clays, and the series is much thinner. (At Upware, the "Upware limestone" is the only known occurrence of beds that correspond in character with the Coralline oolite between Wiltshire and Yorkshire). In Yorkshire, however, the hard rocky beds come on again in full force. They appear once more at Brora in Sutherlandshire. Corallian strata have been proved by boring in Sussex (241 ft.). In Huntingdon, Bedfordshire, parts of Buckinghamshire, Cambridgeshire and Lincolnshire the Corallian series is represented by the "Ampthill Clay," which has also been called "Bluntesham" or "Tetworth" Clay. Here and there in this district hard calcareous inconstant beds appear, such as the Elsworth rock, St Ives rock and Boxworth rock.

In Yorkshire the Corallian rocks differ in many respects from their southern equivalents. They are subdivided as follows:—

Kimeridge Clay				
.....	Corallian Rock	"Coralline Oolite"	Upper Calcareous Grit Coral Rag and Upper Limestone Middle Calcareous Grit	*A. plicatilis.*
Oxford Clay			Lower Limestone Passage Beds Lower Calcareous Grit	*A. perarmatus.*

These rocks play an important part in the formation of the Vale of Pickering, and the

Hambleton and Howardian Hills; they are well exposed in Gristhorpe Bay.

The passage beds, highly siliceous, flaggy limestones, are known locally as “Greystone” or “Wall stones”; some portions of these beds have resisted the weathering agencies and stand up prominently on the moors—such are the “Bridestones.” Cement stone beds occur in the upper calcareous grit at North Grimstone; and in the middle and lower calcareous grits good building stones are found.

Among the fossils in the English Corallian rocks corals play an important part, frequently forming large calcareous masses or “doggers”; *Thamnastrea*, *Thecosmilia* and *Isastrea* are prominent genera. Ammonites and belemnites are abundant and gasteropods are very common (*Nerinea*, *Chemnitzia*, *Bourgetia*, &c.). *Trigonias* are very numerous in certain beds (*T. perlata* and *T. mariani*). *Astarte ovata*, *Lucina aliena* and other pelecypods are also abundant. The echinoderms *Echinobrissus scutatus* and *Cidaris florigemma* are characteristic of these beds.

Rocks of the same age as the English Corallian are widely spread over Europe, but owing to the absence of clearly-marked stratigraphical and palaeontological boundaries, the nomenclature has become greatly involved, and there is now a tendency amongst continental geologists to omit the term Corallian altogether. According to A. de Lapparent’s classification the English Corallian rocks are represented by the *Séquanien* stage, with two substages, an upper *Astartien* and lower *Rauracien*; but this does not include the whole Corallian stage as defined above, the lower part being placed by the French author in his *Oxfordien* stage. For the table showing the relative position of these stages see the article JURASSIC.

See also “The Jurassic Rocks of Great Britain,” vol. i. (1892) and vol. v. (1895) (*Memoirs of the Geological Survey*); Blake and Huddleston, “On the Corallian Rocks of England,” *Q.J.G.S.* vol. xxxiii. (1877).

(J. A. H.)

CORAL-REEFS. Many species of coral (q.v.) are widely distributed, and are found at all depths both in warmer and colder seas. *Lophohelia prolifera* and *Dendrophyllia ramea* form dense beds at a depth of from 100 to 200 fathoms off the coasts of Norway, Scotland and Portugal, and the “Challenger” and other deep-sea dredging expeditions have brought up corals from great depths in the Pacific and Atlantic oceans. But the larger number of species, particularly the more massive kinds, occur only in tropical seas in shallow waters, whose mean temperature does not fall below 68° Fahr., and they do not flourish unless the temperature is considerably higher. These conditions of temperature are found in a belt of ocean which may roughly be indicated as lying between the 28th N. and S. parallels. Within these limits there are numerous reefs and islands formed of coral intermixed with the calcareous skeletons of other animals, and their formation has long been a matter of dispute among naturalists and geologists.

Coral formations may be classed as fringing or shore reefs, barrier reefs and atolls. *Fringing reefs* are platforms of coral rock extending no great distance from the shores of a continent or island. The seaward edge of the platform is usually somewhat higher than the inner part, and is often awash at low water. It is intersected by numerous creeks and channels, especially opposite those places where streams of fresh water flow down from the land, and there is usually a channel deep enough to be navigable by small boats between the edge of the reef and the land. The outer wall of the reef is rather steep, but descends into a comparatively shallow sea. Since corals are killed by fresh water or by deposition of mud or sand, it is obvious that the outer edge of the reef is the region of most active coral growth, and the boat channel and the passages leading into it from the open sea have been formed by the suppression of coral growth by one of the above-mentioned causes, assisted by the scour of the tides and the solvent action of sea-water. *Barrier reefs* may be regarded as fringing reefs on a large scale. The great Australian barrier reef extends for no less a distance than 1250 m. from Torres Strait in 9.5° S. lat. to Lady Elliot island in 24° S. lat. The outer edge of a barrier reef is much farther from the shore than that of a fringing reef, and the channel between it and the land is much deeper. Opposite Cape York the seaward edge of the great Australian barrier reef is nearly 90 m. distant from the coast, and the maximum depth of the channel at this point is nearly 20 fathoms. As is the case in a fringing reef, the outer edge of a barrier reef is in many places awash at low tides, and masses of dead coral and sand may be piled up on it by the action of the waves, so that islets are formed which in time are covered with

vegetation. These islets may coalesce and form a strip of dry land lying some hundred yards or less from the extreme outer edge of the reef, and separated by a wide channel from the mainland. Where the barrier reef is not far from the land there are always gaps in it opposite the mouths of rivers or considerable streams. The outer wall of a barrier reef is steep, and frequently, though not always, descends abruptly into great depths. In many cases in the Pacific Ocean a barrier reef surrounds one or more island peaks, and the strips of land on the edge of the reef may encircle the peaks with a nearly complete ring. An *atoll* is a ring-shaped reef, either awash at low tide or surmounted by several islets, or more rarely by a complete strip of dry land surrounding a central lagoon. The outer wall of an atoll generally descends with a very steep but irregular slope to a depth of 500 fathoms or more, but the lagoon is seldom more than 20 fathoms deep, and may be much less. Frequently, especially to the leeward side of an atoll, there may be one or more navigable passages leading from the lagoon to the open sea.

Though corals flourish everywhere under suitable conditions in tropical seas, coral reefs and atolls are by no means universal in the torrid zone. The Atlantic Ocean is remarkably free from coral formations, though there are numerous reefs in the West Indian islands, off the south coast of Florida, and on the coast of Brazil. The Bermudas also are coral formations, their high land being formed by sand accumulated by the wind and cemented into rock, and are remarkable for being the farthest removed from the equator of any recent reefs, being situated in 32° N. lat. In the Pacific Ocean there is a vast area thickly dotted with coral formations, extending from 5° N. lat. to 25° S. lat., and from 130° E. long, to 145° W. long. There are also extensive reefs in the westernmost islands of the Hawaiian group in about 25° N. lat. In the Indian Ocean, the Laccadive and Maldive islands are large groups of atolls off the west and south-west of India. Still farther south is the Chagos group of atolls, and there are numerous reefs off the north coast of Madagascar, at Mauritius, Bourbon and the Seychelles. The Cocos-Keeling Islands, in 12° S. lat. and 96° E. long., are typical atolls in the eastern part of the Indian Ocean.

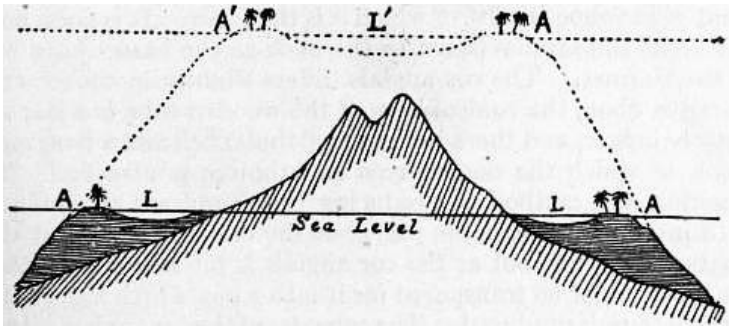


Diagram showing the formation of an atoll during subsidence. (After C. Darwin.) The lower part of the figure represents a barrier reef surrounding a central peak.

A, A, outer edges of the barrier reef at the sea-level; the coco-nut trees indicate dry land formed on the edges of the reef.

L, L, lagoon channel.

A', A', outer edges of the atoll formed by upgrowth of the coral during the subsidence of the peak.

L', lagoon of the atoll.

The vertical scale is considerably exaggerated as compared with the horizontal scale.

The remarkable characters of barrier reefs and atolls, their isolated position in the midst of the great oceans the seemingly unfathomable depths from which they rise their peaceful and shallow lagoons and inner channels, their narrow strips of land covered with coco-nut palms and other vegetation, and rising but a few feet above the level of the ocean, naturally attracted the attention of the earlier navigators, who formed sundry speculations as to their origin. The poet-naturalist, A. von Chamisso, was the first to propound a definite theory of the origin of atolls and encircling reefs, attributing their peculiar features to the natural growth of corals and the action of the waves. He pointed out that the larger and more massive species of corals flourish best on the outer sides of a reef, whilst the more interior corals are killed or stunted in growth by the accumulation of coral and other debris. Thus the outer edge of a submerged reef is the first to reach the surface, and a ring of land being formed by materials piled up by the waves, an atoll with a central lagoon is produced. Chamisso's theory necessarily assumed the existence of a great number of submerged banks reaching nearly, but not quite, to the surface of the sea in the Pacific and Indian oceans, and the difficulty of accounting for the existence of so many of these led C. Darwin to reject his views and bring

forward an explanation which may be called the theory of *subsidence*. Starting from the well-known premise that reef-building species of corals do not flourish in a greater depth of water than 20 fathoms, Darwin argued that all coral islands must have a rocky base, and that it was inconceivable that, in such large tracts of sea as occur in the Pacific and Indian oceans, there should be a vast number of submarine peaks or banks all rising to within 20 or 30 fathoms of the surface and none emerging above it. But on the supposition that the atolls and encircling reefs were formed round land which was undergoing a slow movement of subsidence, their structure could easily be explained. Take the case of an island consisting of a single high peak. At first the coral growth would form a fringing reef clinging to its shores. As the island slowly subsided into the ocean the upward growth of coral would keep the outer rim of the reef level with or within a few fathoms of the surface, so that, as subsidence proceeded, the distance between the outer rim of the reef and the sinking land would continually increase, with the result that a barrier-reef would be formed separated by a wide channel from the central peak. As corals and other organisms with calcareous skeletons live in the channel, their remains, as well as the accumulation of coral and other debris thrown over the outer edge of the reef, would maintain the channel at a shallower depth than that of the ocean outside. Finally, if the subsidence continued, the central peak would disappear beneath the surface, and an atoll would be left consisting of a raised margin of reef surrounding a central lagoon, and any pause during the movement of subsidence would result in the formation of raised islets or a strip of dry land along the margin of the reef. Darwin’s theory was published in 1842, and found almost universal acceptance, both because of its simplicity and its applicability to every known type of coral-reef formation, including such difficult cases as the Great Chagos Bank, a huge submerged atoll in the Indian Ocean.

Darwin’s theory was adopted and strengthened by J. D. Dana, who had made extensive observations among the Pacific coral reefs between 1838 and 1842, but it was not long before it was attacked by other observers. In 1851 Louis Agassiz produced evidence to show that the reefs off the south coast of Florida were not formed during subsidence, and in 1863 Karl Semper showed that in the Pelew islands there is abundant evidence of recent upheaval in a region where both atolls and barrier-reefs exist. Latterly, many instances of recently upraised coral formations have been described by H. B. Guppy, J. S. Gardiner and others, and Alexander Agassiz and Sir J. Murray have brought forward a mass of evidence tending to shake the subsidence theory to its foundations. Murray has pointed out that the deep-sea soundings of the “Tuscarora” and “Challenger” have proved the existence of a large number of submarine elevations rising out of a depth of 2000 fathoms or more to within a few hundred fathoms of the surface. The existence of such banks was unknown to Darwin, and removes his objections to Chamisso’s theory. For although they may at first be too far below the surface for reef-building corals, they afford a habitat for numerous echinoderms, molluscs, crustacea and deep-sea corals, whose skeletons accumulate on their summits, and they further receive a constant rain of the calcareous and silicious skeletons of minute organisms which teem in the waters above. By these agencies the banks are gradually raised to the lowest depth at which reef-building corals can flourish, and once these establish themselves they will grow more rapidly on the periphery of the bank, because they are more favourably situated as regards food-supply. Thus the reef will rise to the surface as an atoll, and the nearer it approaches the surface the more will the corals on the exterior faces be favoured, and the more will those in the centre of the reef decrease, for experiment has shown that the minute pelagic organisms on which corals feed are far less abundant in a lagoon than in the sea outside. Eventually, as the margin of the reef rises to the surface and material is accumulated upon it to form islets or continuous land, the coral growth in the lagoon will be feeble, and the solvent action of sea-water and the scour of the tide will tend to deepen the lagoon. Thus the considerable depth of some lagoons, amounting to 40 or 50 fathoms, may be accounted for. The observations of Guppy in the Solomon islands have gone far to confirm Murray’s conclusions, since he found in the islands of Ugi, Santa Anna and Treasury and Stirling islands unmistakable evidences of a nucleus of volcanic rock, covered with soft earthy bedded deposits several hundred feet thick. These deposits are highly fossiliferous in parts, and contain the remains of pteropods, lamellibranchs and echinoderms, embedded in a foraminiferous deposit mixed with volcanic debris, like the deep-sea muds brought up by the “Challenger.” The flanks of these elevated beds are covered with coralline limestone rocks varying from 100 to 16 ft. in thickness. One of the islands, Santa Anna, has the form of an upraised atoll, with a mass of coral limestone 80 ft. in vertical thickness, resting on a friable and sparingly argillaceous rock resembling a deep-sea deposit. A. Agassiz, in a number of important researches on the Florida reefs, the Bahamas, the Bermudas, the Fiji islands and the Great Barrier Reef of Australia, has further shown that many of the peculiar features of these coral formations cannot be explained on the theory of subsidence, but are rather attributable to the natural growth of corals on banks formed by prevailing currents, or on extensive shore platforms or submarine flats formed by the erosion of pre-existing land surfaces.

In face of this accumulated evidence, it must be admitted that the subsidence theory of Darwin is inapplicable to a large number of coral reefs and islands, but it is hardly possible to assert, as Murray does, that no atolls or barrier reefs have ever been developed after the manner indicated by Darwin. The most recent research on the structure of coral reefs has also been the most thorough and most convincing. It is obvious that, if Murray's theory were correct, a bore hole sunk deep into an atoll would pass through some 100 ft. of coral rock, then through a greater or less thickness of argillaceous rock, and finally would penetrate the volcanic rock on which the other materials were deposited. If Darwin's theory is correct, the boring would pass through a great thickness of coral rock, and finally, if it went deep enough, would pass into the original rock which subsided below the waters. An expedition sent out by the Royal Society of London started in 1896 for the island of Funafuti, a typical atoll of the Ellice group in the Pacific Ocean, with the purpose of making a deep boring to test this question. The first attempt was not successful, for at a depth of 105 ft. the refractory nature of the rock stopped further progress. But a second attempt, under the management of Professor Edgeworth David of Sydney, proved a complete success. With improved apparatus, the boring was carried down to a depth of 697 ft. (116 fathoms), and a third attempt carried it down to 1114 ft. (185 fathoms). The boring proves the existence of a mass of pure limestone of organic origin to the depth of 1114 ft., and there is no trace of any other rock. The organic remains found in the core brought up by the drill consist of corals, foraminifera, calcareous algae and other organisms. A boring was also made from the deck of a ship into the floor of the lagoon, which shows that under 100 ft. of water there exists at the bottom of the lagoon a deposit more than 100 ft. thick, consisting of the remains of a calcareous alga, *Halimeda opuntia*, mixed with abundant foraminifera. At greater depths, down to 245 ft., the same materials, mixed with the remains of branching madrepores, were met with, and further progress was stopped by the existence of solid masses of coral, fragments of porites, madrepora and heliopora having been brought up in the core. These are shallow-water corals, and their existence at a depth of nearly 46 fathoms, buried beneath a mass of *Halimeda* and foraminifera, is clear evidence of recent subsidence. *Halimeda* grows abundantly over the floor of the lagoon of Funafuti, and has been observed in many other lagoons. The writer collected a quantity of it in the lagoon of Diego Garcia in the Chagos group. The boring demonstrates that the lagoon of Funafuti has been filled up to an extent of at least 245 ft. (nearly 41 fathoms), and this fact accords well with Darwin's theory, but is incompatible with that of Murray. In the present state of our knowledge it seems reasonable to conclude that coral reefs are formed wherever the conditions suitable for growth exist, whether in areas of subsidence, elevation or rest. A considerable number of reefs, at all events, have not been formed in areas of subsidence, and of these the Florida reefs, the Bermudas, the Solomon islands, and possibly the Great Barrier Reef of Australia are examples. Funafuti would appear to have been formed in an area of subsidence, and it is quite probable that the large groups of low-lying islands in the Pacific and Indian oceans have been formed under the same conditions. At the same time, it must be remembered that the atoll or barrier reef shape is not necessarily evidence of formation during subsidence, for the observations of Karl Semper, A. Agassiz, and Guppy are sufficient to prove that these forms of reefs may be produced by the natural growth of coral, modified by the action of waves and currents in regions in which subsidence has certainly not taken place.

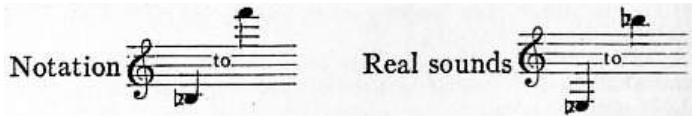
See A. Agassiz, many publications in the *Mem. Amer. Acad.* (1883) and *Bull. Mus. Comp. Zool.* (Harvard, 1889-1899); J. D. Dana, *Corals and Coral Islands* (1853; 2nd ed., 1872; 3rd ed., 1890); C. Darwin, *The Structure and Distribution of Coral Reefs* (3rd ed., 1889); H. B. Guppy, "The Recent Calcareous Formations of the Solomon Group," *Trans. Roy. Soc. Edinb.* xxxii. (1885); R. Langenbeck, "Die neueren Forschungen über die Korallenriffe," *Hettner geogr. Zeitsch.* iii. (1897); J. Murray, "On the Structure and Origin of Coral Reefs and Islands," *Proc. Roy. Soc. Edinb.* x. (1879-1880); J. Murray and Irvine, "On Coral Reefs and other Carbonate of Lime Formations in Modern Seas," *Proc. Roy. Soc. Edinb.* (1889); W. Savile Kent, *The Great Barrier Reef of Australia* (London, W. H. Allen & Co., 1893); Karl Semper, *Animal Life*, "Internat. Sci. Series," vol. xxxi. (1881); J. S. Gardiner, *Nature*, lxix. 371.

(G. C. B.)

CORAM, THOMAS (1668-1751), English philanthropist, was born at Lyme Regis, Dorset. He began life as a seaman, and rose to the position of merchant captain. He settled at Taunton, Massachusetts, for several years engaging there in farming and boat-building, and in 1703 returned to England. His acquaintance with the destitute East End of London, and the miserable condition of the children there, inspired him with the idea of providing a refuge for

such of them as had no legal protector; and after seventeen years of unwearied exertion, he obtained in 1739 a royal charter authorizing the establishment of his hospital for foundling infants (see Foundling Hospitals). It was opened in Hatton Garden, on the 17th of October 1740, with twenty inmates. For fifteen years it was supported by voluntary contributions; but in 1756 it was endowed with a parliamentary grant of £10,000 for the support of all that might be sent to it. Children were brought, however, in such numbers, and so few (not one-third, it is said) survived infancy, that the grant was stopped, and the charity, which had been removed to Guilford Street, was from that time only administered under careful restrictions. Coram's later years were spent in watching over the interests of the hospital; he was also one of the promoters of the settlement of Georgia and Nova Scotia; and his name is honourably connected with various other charities. In carrying out his philanthropic schemes he spent nearly all his private means; and an annuity of £170 was raised for him by public subscription. He died on the 29th of March 1751.

COR ANGLAIS, or English Horn (Ger. *englisches Horn* or *alt Hoboe*; Ital. *corno inglese*), a wood-wind double-reed instrument of the oboe family, of which it is the tenor. It is not a horn, but bears the same relation to the oboe as the basset horn does to the clarinet. The cor anglais differs slightly in construction from the oboe; the conical bore of the wooden tube is wider and slightly longer, and there is a larger globular bell and a bent metal crook to which the double reed mouthpiece is attached. The fingering and method of producing the sound are so similar in both instruments that the player of the one can in a short time master the other, but as the cor anglais is pitched a fifth lower, the music must be transposed for it into a key a fifth higher than the real sounds produced. The compass of the cor anglais extends over two octaves and a fifth:



The true quality of the cor anglais is penetrating like that of the oboe, but mellower and more melancholy.

The cor anglais is the alto Pommer (q.v.) or *haute-contre de hautbois* (see Oboe), gradually developed, improved and provided with key-work. It is not known exactly when the change took place, but it was probably during the 17th century, after the Schalmey or Shawm had been transformed into the oboe. In a 17th century MS. (Add. 30,342, f. 145) in the British Museum, written in French, giving pen and ink sketches of many instruments, is an "accord de hautbois" which comprises a *pédalle* (bass oboe or Pommer), a *sacquebute* (sackbut) as *basse-contre*, a *taille* (tenor) with a note that the *haute-contre* (the cor anglais) *est de mesme sinon plus petite*. The tubes of all the members of the hautbois family are straight in this drawing. Before 1688 the French hoboy, made in four parts and having two keys, was known in England.[1] It is probable that in France, where the hautbois played such an important part in court music, the cor anglais, under the name of *haute-contre de hautbois*, was also provided with keys. At the end of the 17th century there were two players of the *haute-contre de hautbois* among the musicians of the Grande Écurie du Roi.[2]

> The origin of the name of the instrument is also a matter of conjecture. Two theories exist—one that cor anglais is a corruption of *cor anglé*, a name given on account of the angular bend of the early specimens. In that case the name, but not necessarily the instrument, probably originated in France early in the 18th century, for Gluck scored for two cors anglais in his Italian version of *Alceste* played in Vienna in 1767. When a French version of this opera was given in Paris two years later, the cor anglais, not being known or available there, was replaced by oboes. It was not until 1808 that the cor anglais was heard at the Paris Opera, when it was played by the oboist Vogt in Catel's *Alexandre chez*

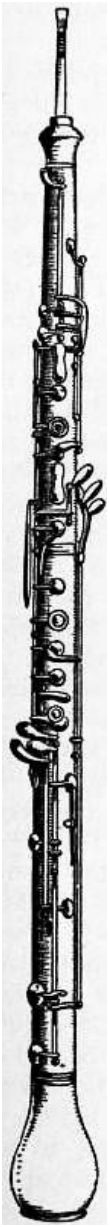
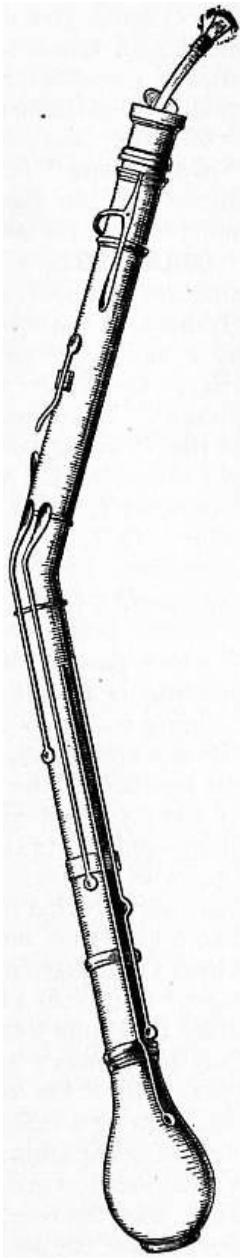


Fig. 1. — Modern Cor anglais. (Besson & Co.)

Apelle. This, however, proves only that the name was not familiar in France, where the oboe of the same pitch was called *haute-contre de hautbois*. The bending of the tube and the development of the cor anglais as solo instrument originated in Germany, unless the *oboe da caccia* was identical with the cor anglais, in which case Italy would be the country of origin. Thomas Stanesby, junior, made an oboe da caccia in 1740 of straight pattern in four pieces, having a bent metal crook for the insertion of the reed and two saddle keys; but the bell was like the bell of the oboe, not globular like that of the cor anglais, a form to which the veiled quality of its *timbre* is due. It is interesting in this connexion to recall some experiments in bending the cor anglais, which do not appear to have led to any practical result. A French broadside (c. 1650), "La Musique," preserved in the British Museum, contains drawings of many musical instruments in use in the 17th century; among them are an oboe with keys in a perforated case, and two other wood wind instruments of the same family, which may be taken to represent attempts to dispose of the inconvenient length of the *haute-contre* (1) by bending the tube at right angles for about one quarter of its length from the mouthpiece, which contains a large double reed, (2) by bending the tube in the elongated "S" shape of the *corno torto* or bass Zinke, for which the drawing in question might be mistaken but for the bent crook inserted in the end for the reception of the reed, which, however, is missing. The other hypothesis is that when the cor anglais was given a bend in order to facilitate the handling, the name was adopted to mark its resemblance to a kind of hunting-horn said to be in use in England at the time. This suggestion does not seem to be a happy one; for if the reference be to the crescent-shaped horn, that instrument was in use in all countries at various periods before the 17th century, while if it be to the angular form, then a reproduction of such a horn should be forthcoming to support the statement.



From Richard Hofmann's *Katechismus der Musikinstrumente*. Fig. 2.—Cor anglé, 18th century.

The idea of bending the instrument is attributed to Giovanni or Giuseppe Ferlendis of Bergamo,[3] brothers and virtuosi on the oboe. One of these had settled in Salzburg, and both were equally renowned as performers on the English horn. They visited Venice, Brescia, Trieste, Vienna, London (in 1795) and Lisbon, where Giuseppe died. In this case we might expect the name to have been given in Italian, *corno inglese*; yet Gluck in his Italian edition used the French name already in 1767, when Giuseppe was but twelve years old. We must await some more conclusive explanation, but we may suppose that the new name was bestowed when the instrument assumed a form entirely new to the family of hautbois or oboes. The cor anglais was well known in England before 1774, for in a quaint book of travels through England, published in that year, we read that Signor Sougelder,[4] "an eminent surgeon of Bristol," was a performer "on the English horn."

The experiment of bending the cor anglais did not prove satisfactory, for the tube instead of being bored had to be cut out of two pieces of wood which were then glued together and covered with leather. Even the most skilful craftsman did not succeed in making the inside of the tube quite smooth; the roughness of the wood was detrimental to the tone and gave the cor anglais a veiled, somewhat hoarse quality, and makers before long reverted to the direct or vertical form.

(K. S.)

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1 See Harleian MS. 2034, f. 207b, British Museum, in the third part of Randle Holme's *Academy of Armoury*, written before 1688, where an outline sketch in ink is also given.

2 See J. Écorcheville, "Quelques documents sur la musique de la Grande Écurie du Roi," *Sammelband intern. Musikges.* ii. 4, pp. 609 and 625. Deeds exist creating charges for four hautbois and musettes de Poitou in the hand of King John, middle of 14th century, see p. 633.

3 See Henri Lavoix, *Histoire de l'instrumentation*, p. 111; Gerber, *Lexikon*, "Giuseppe Ferlendis"; Robert Eitner, *Quellen-Lexikon der Tonkünstler*, "Gioseffo Ferlendis." Fétis and Pohl also refer to

him.

4 See *Musical Travels thro' England* (London, 1774), p. 56.

CORATO, a city of Apulia, Italy, in the province of Bari, 26 m. W. of Bari by steam tramway. Pop. (1901) 41,573. It is situated in the centre of an agricultural district. It contains no buildings of great interest, but is a clean and well-kept town.

CORBAN (קרבן), an Aramaic word meaning "a consecrated gift." Josephus uses the word of Nazirites and of the temple treasure of Jerusalem. Such a votive offering lay under a curse if it were diverted to ordinary purposes, like the spoil of Jericho which Achan appropriated (Josh. vii.), or the temple treasure of Delphi which was seized by the Phocians, 356 B.C. The word is found in Mark vii. 11, the usual interpretation of which is that Jesus refers to an abuse—a man might declare that any part of his property which came into his parents' hands was *corban*, consecrated, i.e. that a curse rested on any benefit they might get from it. The Jewish scribes thus fenced the law of vows with a traditional interpretation which made men break the most binding injunctions of the Mosaic Law, in this case the fifth commandment. A totally different explanation of the passage is put forward by J. H. A. Hart in *The Jewish Quarterly Review* for July 1907, the gist of which is that Jesus commends the Pharisees for insisting that when a man has vowed a vow to God he should pay it even though his parents should suffer.

CORBEIL, WILLIAM OF (d. 1136), archbishop of Canterbury, was born probably at Corbeil on the Seine, and was educated at Laon. He was soon in the service of Ranulf Flambard, bishop of Durham; then, having entered the order of St Augustine, he became prior of the Augustinian foundation at St Osyth in Essex. At the beginning of 1123 he was chosen from among several candidates to be archbishop of Canterbury, and as he refused to admit that Thurstan, archbishop of York, was independent of the see of Canterbury, this prelate refused to consecrate him, and the ceremony was performed by his own suffragan bishops. Proceeding to Rome the new archbishop found that Thurstan had anticipated his arrival in that city and had made out a strong case against him to Pope Calixtus II.; however, the exertions of the English king Henry I. and of the emperor Henry V. prevailed, and the pope gave William the pallium. The archbishop's next dispute was with the papal legate. Cardinal John of Crema, 136
who had arrived in England and was acting in an autocratic manner. Again travelling to Rome, William gained another victory, and was himself appointed papal legate (*legatus natus*) in England and Scotland, a precedent of considerable importance in the history of the English Church. The archbishop had sworn to Henry I. that he would support the claim of his daughter Matilda to the English crown, but nevertheless he crowned Stephen in December 1135. He died at Canterbury on the 21st of November 1136. William built the keep of Rochester Castle, and finished the building of the cathedral at Canterbury, which was dedicated with great pomp in May 1130.

See W. F. Hook, *Lives of the Archbishops of Canterbury* (1860-1884); and W. R. W. Stephens, *History of the English Church* (1901).

CORBEIL, a town of northern France, capital of an arrondissement in the department of Seine-et-Oise, at the confluence of the Essonne with the Seine, 21 m. S. by E. of Paris on the Orléans railway to Nevers. Pop. (1906) 9756. A bridge across the Seine unites the main part of

the town on the left bank with a suburb on the other side; handsome boulevards lead to the village of Essonnes (pop. 7255), about a mile to the south-west. St Spire, the only survivor of the formerly numerous churches of Corbeil, dates from the 12th to the 15th centuries. Behind the church there is a Gothic gateway. A monument has been erected to the brothers Galignani, publishers of Paris, who gave a hospital and orphanage to the town. Corbeil is the seat of a sub-prefect, and has tribunals of first instance and commerce and a chamber of commerce. It has important flour-mills, tallow-works, printing-works, large paper-works at Essonnes, and carries on boat and carriage-building, and the manufacture of plaster. The Decauville engineering works are in the vicinity. There is trade in grain and flour.

From the 10th to the 12th century Corbeil was the chief town of a powerful countship, but it was united to the crown by Louis VI.; it continued for a long time to be an important military post in connexion with the commissariat of Paris. In 1258 St Louis concluded a treaty here with James I. of Aragon. Of the numerous sieges to which it has been exposed the most important were those by the Huguenots in 1562, and by Alexander Farnese, prince of Parma, in 1590.

CORBEL (Lat. *corbellus*, a diminutive of *corvus*, a raven, on account of the beak-like appearance; Ital. *mensola*, Fr. *corbeau*, *cul-de-lampe*, Ger. *Kragstein*), the name in medieval architecture for a piece of stone jutting out of a wall to carry any super-incumbent weight. A piece of timber projecting in the same way was called a tassel or a bragger. Thus the carved ornaments from which the vaulting shafts spring at Lincoln are corbels. Norman corbels are generally plain. In the Early English period they are sometimes elaborately carved, as at Lincoln above cited, and sometimes more simply so, as at Stone. They sometimes end with a point apparently growing into the wall, or forming a knot, as at Winchester, and often are supported by angels and other figures. In the later periods the foliage or ornaments resemble those in the capitals. The corbels carrying the arches of the corbel tables in Italy and France were often elaborately moulded, and sometimes in two or three courses projecting over one another; those carrying the machicolations of English and French castles had four courses. The corbels carrying balconies in Italy and France were sometimes of great size and richly carved, and some of the finest examples of the Italian Cinquecento style are found in them. Throughout England, in half-timber work, wood corbels abound, carrying window-sills or oriels in wood, which also are often carved. A “corbel table” is a projecting moulded string course supported by a range of corbels. Sometimes these corbels carry a small arcade under the string course, the arches of which are pointed and trefoiled. As a rule the corbel table carries the gutter, but in Lombard work the arcaded corbel table was utilized as a decoration to subdivide the storeys and break up the wall surface. In Italy sometimes over the corbels will be a moulding, and above a plain piece of projecting wall forming a parapet (see also Masonry).

CORBET, RICHARD (1582-1635), English bishop and poet, was born in 1582, the son of a nurseryman at Ewell, Surrey. At Oxford, to which he proceeded from Westminster school in 1597, he was noted as a wit. On taking orders he continued to display this talent from the pulpit, and James I., in consideration of his “fine fancy and preaching,” made him one of the royal chaplains. In 1620 he became vicar of Stewkley, Berkshire, and in the same year was made dean of Christchurch, Oxford. In 1628 he was made bishop of Oxford, and in 1632 translated thence to the see of Norwich. Corbet was the author of many poems, for the most part of a lively, satirical order, his most serious production being the *Fairies’ Farewell*. His verses were first collected and published in 1647. His conviviality was famous, and many stories are told of his youthful merrymaking in London taverns in company with Ben Jonson, who always remained his close friend, and other dramatists. He died at Norwich on the 28th of July 1635.

CORBIE (Lat. *corvus*), a crow or raven. In architecture, “corbie steps” is a Scottish term (cf. Corbel) for the steps formed up the sides of the gable by breaking the coping into short horizontal beds.

CORBRIDGE, a small market town in the Hexham parliamentary division of Northumberland, England; 3½ m. E. of Hexham, on the north bank of the river Tyne, which is here crossed by a fine seven-arched bridge dating from 1674. Pop. (1901) 1647. Corbridge was formerly of greater importance than at present. Its name, derived from the small river Cor, a tributary of the Tyne, is said to be associated with the Brigantian tribe of Corionototai. About 760 it became the capital of Northumbria; later it was a borough and was long represented in parliament. In 1138 David of Scotland made it a centre of military operations, and it was ravaged by Wallace in 1296, by Bruce in 1312, and by David II. in 1346. Its chief remains of antiquity are a square peel-tower and the cruciform church of St Andrew, of which part of the fabric is of pre-Conquest date, though the building is mainly Early English. Extensive use is made of building materials from the Roman station of *Corstopitum* (also called Corchester), which lay half a mile west of Corbridge at the junction of the Cor with the Tyne. This site has from time to time yielded many valuable relics, notably a silver dish, discovered in 1734, 148 oz. in weight and ornamented with figures of deities; but the first-rate importance of the station was only revealed by careful excavations undertaken in 1907 seq. There were then unearthed remains of several buildings fronting a broad thoroughfare, one of which is the largest Roman building, except the baths at Bath, yet discovered in England. Two of these buildings were granaries, and indicate the importance of Corstopitum as a base of the northward operations of Antoninus Pius. After his conquests had been lost, and Corstopitum ceased to be a military centre, its military buildings passed into civilian occupation, of which many evidences have been found. A fine hoard of gold coins, wrapped in lead-foil and hidden in a wall, was discovered in 1908. Corstopitum ceased to exist early in the 5th century, and the site was never again occupied.

CORBULO, GNAEUS DOMITIUS (1st century A.D.), Roman general, was the half-brother of Caesonia, one of the wives of the emperor Caligula. In the reign of Tiberius he held the office of praetor, and was appointed to the superintendence of the roads and bridges. Under Claudius he was governor of lower Germany (A.D. 47). He punished the Frisii who refused to pay the tribute, and was on the point of advancing against the Chauci, but was recalled by the emperor and ordered to withdraw behind the Rhine. In order to provide employment for his soldiers, Corbulo made them cut a canal from the Mosa (Meuse) to the northern branch of the Rhine, which still forms one of the chief drains between Leiden and Sluys, and before the introduction of railways was the ordinary traffic road between Leiden and Rotterdam. Soon after the accession of Nero, Vologaeses (Vologasus), king of Parthia, overran Armenia, drove out Rhadamistus, who was under the protection of the Romans, and set his own brother Tiridates on the throne. Corbulo was thereupon sent out to the East with full military powers. After some delay, he took the offensive in 58, and, reinforced by troops from Germany, attacked Tiridates. Artaxata and Tigranocerta were captured, and Tigranes, who had been brought up in Rome and was the obedient servant of the government, was installed king of Armenia. In 61 Tigranes invaded Adiabene, an integral portion of the Parthian kingdom, and a conflict between Rome and Parthia seemed unavoidable. Vologaeses, however, thought it better to come to terms. It was agreed that both the Roman and Parthian troops should evacuate Armenia, that Tigranes should be dethroned, and the position of Tiridates recognized. The Roman government declined to accede to these arrangements, and L. Caesennius Paetus, governor of Cappadocia, was ordered to settle the question by bringing Armenia under direct Roman administration. The protection of Syria in the meantime claimed all Corbulo’s attention. Paetus, a weak and incapable man, suffered a severe defeat at Rhandea (62), where he was surrounded and forced to capitulate and to evacuate Armenia. The command of the troops was again entrusted to Corbulo. In 63, with a strong army, he crossed the Euphrates, but Tiridates declined to give battle and concluded peace. At Rhandea he laid down his diadem at the foot of the emperor’s statue, promising not to resume it until

he received it from the hand of Nero himself in Rome. In 67 disturbances broke out in Judaea, but Nero, jealous of Corbulo's success and popularity, ordered Vespasian to take command of the forces and summoned Corbulo to Greece. On his arrival at Cenchreae, the port of Corinth, messengers from Nero met Corbulo, and ordered him to commit suicide. Without hesitation he obeyed, exclaiming, "I have deserved it." Whether he had really given any grounds for suspicion is unknown; but there is no doubt, so great was his popularity with the soldiers and such the hatred felt for Nero, that he could easily have seized the throne. Corbulo wrote an account of his Asiatic experiences, which is lost.

See Tacitus, *Annals*, xii.-xv.; Dio Cassius lix. 15, lx. 30, lxii. 19-23, lxiii. 6, 17, lxvi. 3; H. Schiller, *Geschichte des römischen Kaiserreichs unter der Regierung des Nero* (1872); E. Egli, "Feldzüge in Armenien von 41-63," in M. Büdinger's *Untersuchungen zur römischen Kaisergeschichte*, i. (1868); Mommsen, *Hist. of the Roman Provinces*, ii. (1886); for the Armenian campaigns see B. W. Henderson in *Classical Review* (April, May, June, 1901); in general D. T. Schoonover, *A Study of Cn. Domitius Corbulo* (Chicago, 1909).

CORD (derived through the Fr. *corde*, from the Lat. *chorda*, Gr. χορδή, the string of a musical instrument), a length of twisted or woven strands, in thickness coming between a rope and a string, a smaller kind of rope (q.v.). From the use of such a cord for measuring, the word is applied to a quantity of cut wood, differing according to locality. The variant "chord," which, in spelling, reverts to the original Latin, is used in particular senses, as, in physiology, for such cord-like structures as the vocal chords; in the case of the "umbilical cord," the other spelling is usually retained. In mathematics a "chord" is a straight line joining any two points on the same curve, and, in music, the word is used of several musical notes sounded simultaneously and in harmony (q.v.). In this last sense, "chord" is properly a shortened form of "accord," agreement, from Late Lat. *accordare*, and the spelling with *h* is due to a confusion.

CORDAY D'ARMONT, MARIE ANNE CHARLOTTE (1768-1793), French revolutionary heroine, the murderess of Marat, born at St Saturnin des Lignerets, near Séez in Normandy, was descended from a noble but poor family, and numbered among her ancestors the dramatist Corneille. Charlotte Corday was educated in the convent of the Holy Trinity at Caen, and then sent to live with an aunt. Here she saw hardly any one but her relative, and passed her lonely hours in reading the works of the *philosophes*, especially Voltaire and the Abbé Raynal. Another of her favourite authors was Plutarch, from whose pages she doubtless imbibed the idea of classic heroism and civic virtue which prompted the act that has made her name famous. On the outbreak of the Revolution she began to study current politics, chiefly in the papers issued by the party afterwards known as the Girondins. On the downfall of this party, on May 31, 1793, many of the leaders took refuge in Normandy, and proposed to make Caen the headquarters of an army of volunteers, at the head of whom Félix de Wimpffen, who commanded the army assembled for the defence of the coasts at Cherbourg, was to have marched upon Paris. Charlotte attended their meetings, and heard them speak; but we have no reason to believe that she saw any of them privately, till the day when she went to ask for introductions to friends of theirs in Paris. She saw that their efforts in Normandy were doomed to fail. She had heard of Marat as a tyrant and the chief agent in their overthrow, and she had conceived the idea of going alone to Paris and assassinating him,—doubtless thinking that this would break up the party of the Terrorists and be the signal of a counter-revolution, and ignorant of the fact that Marat was ill almost to the point of death, and that others were more influential than he.

Apparently she had thought of going to Paris in April, before the fall of the Girondins, for she had then procured a passport which she used in July. It contained the usual description of the bearer, and ran thus: *Laissez passer la citoyenne Marie, &c., Corday, âgée de 24 ans, taille de 5 pieds 1 pouce, cheveux et sourcils châtains, yeux gris, front élevé, nez long, bouche moyenne, menton rond fourchu, visage ovale.* Arrived in Paris she first attended to some business for a friend at Caen, and then she wrote to Marat: "Citizen, I have just arrived from Caen. Your love for your native place doubtless makes you desirous of learning the events which have occurred in that part of the republic. I shall call at your residence in about an

hour; have the goodness to receive me and to give me a brief interview. I will put you in a condition to render great service to France." On calling she was refused admittance, and wrote again, promising to reveal important secrets, and appealing to Marat's sympathy on the ground that she herself was persecuted by the enemies of the republic. She was again refused an audience, and it was only when she called a third time (July 13) that Marat, hearing her voice in the antechamber, consented to see her. He lay in a bathing tub, wrapped in towels, for he was suffering from a horrible disease which had almost reduced him to a state of putrefaction. Our only source of information as to what followed is Charlotte's own confession. She spoke to Marat of what was passing at Caen, and his only comment on her narrative was that all the men she had mentioned should be guillotined in a few days. As he spoke she drew from her bosom a dinner-knife (which she had bought the day before for two francs) and plunged it into his left side. It pierced the lung and the aorta. He cried out, "*À moi, ma chère amie!*" and expired. Two women rushed in, and prevented Charlotte from escaping. A crowd collected round the house, and it was with difficulty that she was escorted to the prison of the Abbaye. On being brought before the Revolutionary Tribunal she gloried in her act, and when the indictment against her was read, and the president asked her what she had to say in reply, her answer was, "Nothing, except that I have succeeded." Her advocate, Claude François Chauveau Lagarde, put forward in vain the plea of insanity. She was sentenced to death, and calmly thanked her counsel for his efforts on her behalf, adding that the only defence worthy of her was an avowal of the act. She was then conducted to the Conciergerie, where at her own desire her portrait (now in the museum of Versailles) was painted by the artist Jean Jacques Hauer. She preserved her perfect calmness to the last. When she saw the guillotine, she placed herself in position under the fatal blade without assistance from any one. The knife fell, and one of the executioners held up her head by the hair, and had the brutality to strike it with his fist. Many believed they saw the dead face blush,—probably an effect of the red stormy sunset. It was the 17th of July 1793. It is difficult to analyse the character of Charlotte Corday; but there was in it much that was noble and exalted. Her mind had been formed by her studies on a pagan type. To C. J. M. Barbaroux and the Girondins of Caen she wrote from her prison, anticipating happiness "with Brutus in the Elysian Fields" after her death, and with this letter she sent a simple loving farewell to her father, revealing a tender side to her character that otherwise we would hardly have looked for in such a woman. Lamartine called her *l'ange de l'assassinat*, and Vergniaud said, "*Elle nous perd, mais elle nous apprend à mourir.*"

See *Œuvres politiques de Charlotte Corday* (Caen, 1863; some letters and an *Adresse aux Français amis des lois el de la paix*), with a supplement printed in the same year; Louvet de Couvrai, *Mémoires* (ed. Aulard, Paris, 1889); Alphonse Esquiros, *Charlotte Corday* (2nd ed., 2 vols., Paris, 1841); Cheron de Villiers, *Marie Anne Charlotte Corday* (Paris, 1865); Casimir Périer, "La Jeunesse de Charlotte Corday" (*Revue des deux mondes*, 1862); C. Vatel, *Dossiers du procès criminel de Charlotte de Corday ... extraits des archives impériales* (Paris, 1861), and *Dossier historique de Charlotte Corday* (Paris, 1872); Austin Dobson, *Four Frenchwomen* (London, 1890); A. Ducos, *Les Trois Girondines, Mme Roland, Charlotte Corday ...* (Paris, 1896); Dr Cabanès, "La vraie Charlotte Corday," in *Le Cabinet secret de l'histoire* (4 vols., 1897-1900). Her tragic history was the subject of two anonymous tragedies, *Charlotte Corday* (1795), said to be by the Conventional F. J. Gamon, and *Charlotte Corday* (Caen, 1797), neither of which have any merit; another by J. B. Salles is published by C. Vatel in *Charlotte de Corday et les Girondins* (1864-1872). See further bibliographical articles in M. Tourneux, *Bibl. de l'hist. de Paris ...* (vol. iv., 1906), and in the *Bibliographie des femmes célèbres* (3 vols., Turin and Rome, 1892-1905); and also E. Defrance, *Charlotte Corday et la mort de Marat* (1909).

CORDELIERS, CLUB OF THE, or Society of the Friends of the Rights of Man and of the Citizen, a popular society of the French Revolution. It was formed by the members of the district of the Cordeliers, when the Constituent Assembly suppressed the 60 districts of Paris to replace them with 48 sections (21st of May 1790). It held its meetings at first in the church of the monastery of the Cordeliers,—the name given in France to the Franciscan Observantists,—now the Dupuytren museum of anatomy in connexion with the school of medicine. From 1791, however, the Cordeliers met in a hall in the rue Dauphine. The aim of the society was to keep an eye on the government; its emblem on its papers was simply an open eye. It sought as well to encourage revolutionary measures against the monarchy and the old régime, and it was it especially which popularized the motto "Liberty, Equality, Fraternity." It took an active part in the movement against the monarchy of the 20th of June and the 10th of August 1792; but after that date the more moderate leaders of the club,

Danton, Fabre d'Eglantine, Camille Desmoulins, seem to have ceased attending, and the "*enragés*" obtained control, such as J. R. Hébert, F. N. Vincent, C. P. H. Ronsin and A. F. Momoro. Its influence was especially seen in the creation of the revolutionary army destined to assure provisions for Paris, and in the establishment of the worship of Reason. The Cordeliers were combated by those revolutionists who wished to end the Terror, especially by Danton, and by Camille Desmoulins in his journal *Le Vieux Cordelier*. The club disowned Danton and Desmoulins and attacked Robespierre for his "moderation," but the new insurrection which it attempted failed, and its leaders were guillotined on the 24th of March 1794, from which date nothing is known of the club. We know little of its composition.

The papers emanating from the Cordeliers are enumerated in M. Tourneux, *Bibliographie de l'histoire de Paris pendant la Révolution* (1894), i. (on the trial of the Hebertists) Nos. 4204-4210, ii. Nos. 9795-9834 and 11,813. See also A. Bougeart, *Les Cordeliers, documents pour servir à l'histoire de la Révolution* (Caen, 1891); G. Lenotre, *Paris révolutionnaire* (Paris, 1895); G. Tridon, *Les Hébertists, plainte contre une calomnie de l'histoire* (Paris, 1864). The last-named author was condemned to four months' prison; his work was reprinted in 1871. The inventory of the pictures found in 1790 in the monastery of the Cordeliers was published by J. Guiffrey in *Nouvelles archives de l'art français*, viii., 2nd series, iii. (1880).

(R. A.*)

CORDERIUS, the Latinized form of name used by Mathurin Cordier (c. 1480-1564), French schoolmaster, a native of Normandy or Perche. He possessed special tact and liking for teaching children, and taught first at Paris, where Calvin was among his pupils, and, after a number of changes, finally at Geneva, where he died on the 8th of September 1564. He wrote several books for children; the most famous is his *Colloquia* (*Colloquiorum scholasticorum libri quatuor*), which has passed through innumerable editions, and was used in schools for three centuries after his time. He also wrote: *Principia Latine loquendi scribendique, sive selecta quaedam ex Epistolis Ciceronis*; *De corrupti sermonis apud Gallos emendatione et Latine loquendi Ratione*; *De syllabarum quantitate*; *Conciones sacrae viginti sex Galliae*; *Catonis disticha de moribus* (with Latin and French translation); *Remontrances et exhortations au roi et aux grands de son royaume*.

See monograph by E. A. Berthault, *De M. Corderio et creatis apud Protestantes litterarum studiis* (1875).

CORDES, a town of southern France, in the department of Tarn, 15 m. N.W. of Albi by road. Pop. (1906) 1619. Cordes, which covers the summit and slopes of an isolated hill, was a bastide founded by Raymond VII., count of Toulouse, in the first half of the 13th century. It preserves its medieval aspect to a remarkable degree, a large number of houses of the 13th and 14th centuries, with decorated fronts, forming its chief attraction. A church of the same periods and remains of the original ramparts are also to be seen.

CORDILLERA, a Spanish term for a range or chain of mountains, derived from the Old Spanish *cordilla*, the diminutive of *cuerda*, a cord or rope. The name was first given to the Andes ranges of South America, *Las Cordilleras de los Andes*, and applied to the extension of the system into Mexico. In North America the parallel ranges of mountains running between and including the Rocky Mountains and the Sierra Nevada are known as the "Cordilleras," and that part of the western continent crossed by them has been termed the "Cordilleran region." Although the name has been applied to the eastern mountain system of Australia, the word is not, outside America, used as a generic term for parallel ranges of mountains.

CORDITE, the name given to the smokeless propellant in use in the British army and navy. The material is produced in the form of cylindrical rods or strings of varying thicknesses by pressing the material, whilst in a soft and pasty state, through dies or perforations in a steel plate by hydraulic or screw pressure, hence the name cordite. The thickness or size of the rods varies from about 1 mm. diameter to 5 or more mm. according to the nature of the charge for which it is intended. The smallest diameter is used for revolver cartridge and the largest for heavy guns. When first devised by the Ordnance Committee, presided over by Sir Frederick Abel, in 1891, this explosive consisted of 58% of nitro-glycerin, 37% of gun-cotton, and 5% of mineral jelly. This variety is now known as Cordite Mark 1. At the present time a modification is made which contains gun-cotton 65%, nitro-glycerin 30%, and mineral jelly 5%. This is known as Cordite M.D. The advantages of Cordite M.D. over Mark 1 are slightly reduced rate of burning, higher velocities and more regular pressure in the gun, and lower temperature.

Cordite of either mark is a perfectly waterproof substance, containing only traces of water remaining from the manufacturing processes. It has a density of about 1.56 at the ordinary temperature (15° C.), and, as its coefficient of expansion is small, this density does not change to any serious extent under climatic temperature variations. A rod may be bent to a moderate extent without breaking, and Cordite M.D. especially shows considerable elasticity. It can be impressed by the nail and cut with a knife, but is not in the least sticky, nor does the nitro-glycerin exude to any appreciable extent. It can be obtained in a finely-divided state by scraping with a sharp knife, or on a new file, or by grinding in a mill, such as a coffee-mill, but can scarcely be pounded in a mortar. Cordite is of a brownish colour in mass, but is much paler when finely ground or scraped. The rods easily become electrified by gentle friction with a dry substance. Like all colloidal substances it is an exceedingly bad conductor of heat. A piece ignited in air burns with a yellowish flame. With the smaller sizes, about 2 mm. diameter or less, this flame may be blown out, and the rod will continue to burn in a suppressed manner without actual flame, fumes containing oxides of nitrogen being emitted. Temperature appears to have an effect on the rate of burning. When much cooled it certainly burns more slowly than when at the ordinary air temperature, and is also more difficult to ignite. Rods of moderate thickness, say from 5 mm. diameter, will continue to burn under water if first ignited in air and the burning portion slowly immersed. The end of a rod of cordite may be struck a moderately heavy blow on an anvil without exploding or igniting. The rod will first flatten out. A *sharp* blow will then detonate or explode the portion immediately under the hammer, the remainder of the rod remaining quite intact. Bullets may be fired through a bundle or package of cordite without detonating or inflaming it. This is of course a valuable quality. The exact temperature at which substances ignite or take fire is in all cases difficult to determine with any exactness. Cordite is not *instantly* ignited on contact with a flame such as that of a candle, because, perhaps, of the condensation of some moisture from the products of burning of the candle upon it. A blow-pipe flame or a red-hot wire is more rapid in action. The ignition temperature may be somewhere in the region of 180° C.

All the members of this class of explosive when kept for some time at (for them) moderately high temperatures, such as the boiling-point of water (100° C.), show signs of decomposition; oxides of nitrogen are liberated, and some complex oxidation processes are started. Carefully prepared gun-cotton and nitro-glycerin will, however, withstand this temperature for a long time without serious detriment, excepting that nitro-glycerin is slightly volatilized. When incorporated in cordite, however, the nitro-glycerin appears to be much less volatile than when free at this temperature. Under reduced pressure (3 or 4 in. only of mercury instead of 30) it is possible to distil away a considerable amount of nitro-glycerin from cordite at 100° C. It is very doubtful whether at ordinary temperatures and pressures any nitro-glycerin whatever evaporates.

Cordite may be kept in contact with clean, dry metals, wood, paper, and a number of ordinary substances without deterioration. In contact with damp and easily oxidizable metals all the substances of the gun-cotton class are liable to a slight local action, but the colloid nature, and probably also the contained mineral jelly, protect cordite considerably in these circumstances. Ammonia has a deleterious action, but even this proceeds but slowly. Cordite does not appear to change when kept under water.

The manufacturing processes comprise: drying the gun-cotton and nitro-glycerin; melting and filtering the mineral jelly; weighing and mixing the nitro-glycerin with the gun-cotton; moistening this mixture with acetone until it becomes a jelly; and then incorporating in a special mixing mill for about three hours, after which the weighed amount of mineral jelly is added and the incorporation continued for about one hour or until judged complete. The incorporating or mixing machine is covered as closely as possible to prevent too great evaporation of the very volatile acetone. Before complete incorporation the mixture is termed,

in the works, “paste,” and, when finally mixed, “dough.”

The right consistency having been produced, the material is placed in a steel cylinder provided with an arrangement of dies or holes of regulated size at one end, and a piston or plunger at the other. The plunger is worked either by hydraulic power or by a screw (driven from ordinary shafting). Before reaching and passing through the holes in the die, the material is filtered through a disk of fine wire gauze to retain any foreign substances, such as sand, bits of wood or metal, or unchanged fibres of cellulose, &c., which might choke the dies or be otherwise dangerous. The material issues from the cylinders in the form of cord or string of the diameter of the holes of the die. The thicker sizes are cut off, as they issue, into lengths (of about 3 ft.), it being generally arranged that a certain number of these—say ten—should have, within narrow limits, a definite weight. The small sizes, such as those employed for rifle cartridges, are wound on reels or drums, as the material issues from the press cylinders, in lengths of many yards.

Some of the solvent or gelatinizing material (acetone) is lost during the incorporating, and more during the pressing process and the necessary handling, but much still remains in the cordite at this stage. It is now dried in heated rooms, where it is generally spread out on shelves, a current of air passing through carrying the acetone vapour with it. In the more modern works this air current is drawn, finally, through a solution of a substance such as sodium bisulphite; a fixed compound is thus formed with the acetone, which by suitable treatment may be recovered. The time taken in the drying varies with the thickness of the cordite from a few days to several weeks. For several reasons it is desirable that this process should go on gradually and slowly.

After drying, all the various batches of cordite of the same size are carefully “blended,” so that any slight differences in the manufacture of one batch or one day’s output may be equalized as much as possible. Slight differences may arise from the raw materials, cotton waste or glycerin, or in the making of these into gun-cotton or nitro-glycerin respectively. To help in controlling the blending, each “make” of gun-cotton and nitro-glycerin is “marked” or numbered, and carries its mark to the cordite batch of which it is an ingredient. The history of each box of large-sized or reel of small-sized cordite is therefore known up to the operation of blending and packing. The final testing is by firing proofs, as in the case of the old gunpowders.

The gun-cotton employed for cordite is made in the usual way (see Gun-Cotton), with the exception of treating with alkali. It is also after complete washing with water gently pressed into small cylinders (about 3 in. diameter and 4 in. high) whilst wet, and these are carefully dried before the nitro-glycerin is added. The pressure applied is only sufficient to make the gun-cotton just hold together so that it is easily mixed with the nitro-glycerin. The mineral jelly or vaseline is obtained at a certain stage of distillation of petroleum, and is a mixture of hydrocarbons, paraffins, olefines and some other unsaturated hydrocarbons, possibly aromatic, which no doubt play a very important part as preservatives in cordite.

The stability of cordite, that is, its capability of keeping without chemical or ballistic changes, is judged of by certain “heat tests.” The Abel heat test consists in subjecting a weighed quantity, 2 grams, of the finely divided cordite contained in a test tube, to a temperature of 70° C. maintained constant by a water bath. The test tube is about 6×¾ in., and dips into the water sufficiently to immerse about 2 in., viz. the part containing the cordite. In the upper free portion a piece of filter-paper impregnated with a mixture of potassium iodide and starch paste is suspended by a platinum wire from the stopper of the tube. A portion of the test paper is moistened with a solution of glycerin to render it more sensitive than the dry part. A faint brown colour appearing on the moistened portion indicates that some oxides of nitrogen have been evolved from the cordite. This brown tint is compared with a standard, and the time taken before the standard tint appears is noted. The time fixed upon as a test of relative stability is an arbitrary one determined by examination of well-known specimens. Should the cordite or other explosive contain traces of mercury salts, such as mercuric chloride, which is sometimes added as a preservative, this test is rendered nugatory, and no coloration may appear (or only after a long exposure), although the sample may be of indifferent stability. It is now customary to examine specially for mercury, either by heating the explosive in contact with gold leaf or silver foil, or by burning the substance and examining the flame in the spectroscope.

The method of examination known as the vacuum silvered vessel process is probably not interfered with by the presence of very small quantities of mercury. It consists in heating 50 grams of the finely divided explosive in a Dewar’s silvered vacuum glass bulb to a rigidly constant temperature of 80° C. for many hours. A sensitive thermometer having its bulb immersed in the centre of the cordite shows when the temperature rises above 80°. Such a

rise indicates internal oxidation or decomposition of the explosive; it is accompanied by an evolution of nitrogen dioxide, NO_2, the depth of colour of which is noted through a side tube attached to the bulb. As all explosives of this class would in time decompose sufficiently to give these indications, time periods or limits have been fixed at which an appreciable and definite rise in temperature and production of red fumes indicate relative stability or instability.

(W. R. E. H.)

CÓRDOBA, GONZALO FERNANDEZ DE (1453-1515), Spanish general and statesman, usually spoken of by the Italianized form of his Christian name as Gonsalvo de Córdoba, or as "the Great Captain," was the second son of Don Pedro Fernandez de Córdoba, count of Aguilar, and of his wife Elvira de Herrera, who belonged to the family of Enriquez, the hereditary admirals of Castile, a branch of the royal house. Gonzalo was born at Montilla near the city of Córdova (Cordoba) on the 16th of March 1453. The father died when he and his elder brother, Don Alonso, were mere boys. The counts of Aguilar carried on an hereditary feud with the rival house of Cabra, and the children were carried by their vassals into the faction fights of the two families. As a younger son Gonzalo had his fortune to make, but he was generously aided by the affection of his elder brother, who was very wealthy. War and service in the king's court offered the one acceptable career outside the church to a gentleman of his birth.

He was first attached to the household of Don Alphonso, the king's brother, and upon his death devoted himself to Isabella, afterwards the queen. During the civil war, and the conflict with Portugal which disturbed the first years of her reign, he fought under the grand master of Santiago, Alonso de Cardenas. After the battle of Albuera, the grand master gave him especial praise, saying that he could always see Gonzalo to the front because he was conspicuous by the splendour of his armour. Indeed the future Great Captain, who, as a general, was above all things astute and patient, could, and habitually did, display the most reckless personal daring, going into a fight as if he loved it, and having a shrewd sense that a reputation for intrepidity, a free-handed profusion, and the personal magnificence which strikes the eye, would secure him the devotion of his soldiers. During the ten years' war for the conquest of Granada he completed his apprenticeship under his brother, the count of Aguilar, the grand master of Santiago, and the count of Tendilla, of whom he always spoke as his masters. It was a war of surprises and defences of castles or towns, of skirmishes, and of ambuscades in the defiles of the mountains. The military engineer and the "guerrillero" were about equally employed. Gonzalo's most distinguished single feat was the defence of the advanced post of Illora, but he commanded the queen's escort when she wished to take a closer view of Granada, and he beat back a sortie of the Moors under her eyes. When Granada surrendered, he was one of the officers chosen to arrange the capitulation, and on the peace he was rewarded by a grant of land.

So far he was only known as an able subordinate, but his capacity could not be hidden from such an excellent judge of character as Isabella, to whom as a woman he appealed by a chivalrous union of devotion and respect. When, therefore, the Catholic sovereigns decided to support the Aragonese house of Naples against Charles VIII. of France, Gonzalo was chosen by the influence of the queen, and in preference to older men, to command the Spanish expedition. It was in Italy that he won the title of the Great Captain; Guicciardini says that it was given him by the customary arrogance of the Spaniards, but it was certainly accepted as just by all the soldiers of the time of whatever nationality. A detailed account of his campaigns cannot be given here. He held the command in Italy twice. In 1495 he was sent with a small force of little more than five thousand men to aid Ferdinand of Naples to recover his kingdom, and he returned home after achieving success, in 1498. After a brief interval of service against the conquered Moors who had risen in revolt, he returned to Italy in 1501. Ferdinand of Spain had entered into his iniquitous compact with Louis XII. of France for the spoliation and division of the kingdom of Naples. The Great Captain was chosen to command the Spanish part of this robber coalition. As general and as viceroy of Naples he remained in Italy till 1507. During his first command he was mostly employed in Calabria in mountain warfare which bore much resemblance to his former experience in Granada. There was, however, a material difference in the enemy. The French forces, commanded by the Scotsman Stuart d'Aubigny, consisted largely of Swiss pikemen, and of their own men-at-arms. With his veterans of the Granadine war, foot soldiers armed with sword and buckler, or arquebuses and crossbows, and light cavalry, trained to unsleeping vigilance, capable of long marches, and of an

endurance unparalleled among the soldiers of the time, he could carry on a guerrillero warfare which wore down his opponents, who suffered far more than the Spaniards from the heat. But he saw clearly that this was not enough. His experience in Seminara showed him that something more was wanted on the battlefield. The action was lost mainly because King Ferdinand, disregarding the advice of Gonzalo, persisted in fighting a pitched battle with inferior numbers, some of whom were untrustworthy Neapolitans. The Spanish foot behaved excellently, but the result showed that in the open field their loose formation and their swords put them at a disadvantage as against a charge of heavy cavalry or pikemen. Gonzalo therefore introduced a much more strict formation, and adopted the pike as the weapon of a part of his foot. The division of the Spanish infantry into the "battle" or main central body of pikemen, and the wings (*alas*) of "shot" to be employed in outflanking the enemy, was primarily due to the Great Captain.

The French were expelled by 1498 without another battle. When the Great Captain reappeared in Italy he had first to perform the congenial task of driving the Turk from Cephalonia, then to aid in robbing the king of Naples, Frederick, brother of his old ally Ferdinand. When the king of Naples had been despoiled, the French and Spaniards quarrelled over the booty. The Great Captain now found himself with a much outnumbered army in the presence of the French. The war was divided into two phases very similar to one another. During the end of 1502 and the early part of 1503 the Spaniards stood at bay in the entrenched camp at Barletta near the Ofanto on the shores of the Adriatic. He resolutely refused to be tempted into battle either by the taunts of the French or the discontent of his own soldiers. Meanwhile he employed the Aragonese partisans in the country, and flying expeditions of his own men, to harass the enemy's communications. When he was reinforced, and the French committed the mistake of scattering their forces too much to secure supplies, he took the offensive, pounced on the enemy's depot of provisions at Cerignola, took a strong position, threw up hasty field works, and strengthened them with a species of wire entanglements. The French made a headlong front attack, were repulsed, assailed in flank, and routed. The later operations on the Garigliano were very similar, and led to the total expulsion of the French from Naples. Gonzalo remained as governor of Naples till 1507. But he had become too great not to arouse the jealousy of such a typical king of the Renaissance as Ferdinand the Catholic. The death of the queen in 1504 had deprived him of a friend, and it must be allowed that he was profuse in rewarding his captains and his soldiers out of the public treasury. Ferdinand loaded him with titles and fine words, but recalled him so soon as he could, and left him unemployed till his death on the 2nd of December 1515.

The Great Captain is sometimes spoken of as the first of modern generals. The expression is uncritical, for modern generalship arose from many sides, but he was emphatically a general. There is much in his methods which bears a curious likeness to those of the duke of Wellington; Barletta, for instance, has a distinct resemblance to the Torres Vedras campaign, and the battle on the Garigliano to Assaye. As an organizer he founded the Spanish infantry of the 16th and 17th centuries, and he gave the best proof of his influence by forming a school of officers. The best generals of Charles V. were either the pupils of the Great Captain or were trained by them.

There is no life of Gonzalo de Córdoba written by a scholar who was also a good judge of war. The dull *Cronica del Gran Capitan* gives the bare events of his campaigns rather wearisomely but fully. Paulus Govius, *Vitae illustrium virorum*, translated by Domenichi (Florence, 1550), is elegant and very readable. Don José Quintana includes him in his *Españoles celebres* (*Rivadeneyra Biblioteca de autores españoles*, vol. xix., Madrid, 1846-1880); and Prescott collected the authorities, and made good use of them in his *Ferdinand and Isabella*. See also P. du Poncet, *Histoire de Gonsalve de Cordoue* (Paris, 1714). The *Gonsalve de Cordoue, ou Grenade reconquise* of Florian (Paris, 1791) is a romance.

(D. H.)

CÓRDOBA, a large central province of the Argentine Republic, bounded N. by Santiago del Estero, E. by Santa Fé, S. by Buenos Aires and La Pampa, W. by San Luis and Rioja, and N.W. by Catamarca. Pop. (1895) 351,223; (1904, estimate) 465,464; area, 62,160 sq. m. The greater part of the province belongs to the pampas, though less fertile and grassy than the plains farther E. and S. It likewise includes large saline and swampy areas. The N.W. part of the province is traversed by an isolated mountain system made up of the Córdoba, Pocho and Ischilin sierras, which extend for a distance of some 200 m. in a N. and S. direction. These ranges intercept the moist winds from the Atlantic, and receive on their eastern slopes an

abundant rainfall, which gives them a strikingly verdant appearance in comparison with the surrounding plains. West and N.W. of the sierras are extensive saline basins called Las Salinas Grandes, which extend into the neighbouring provinces and are absolutely barren. In the N.E. the land is low and swampy; here are the large saline lagoons of Mar Chiquita and Los Porongos. The principal rivers, which have their sources in the sierras and flow eastward, are the Primero and Segundo, which flow north-easterly into the lacustrine basin of Mar Chiquita; the Tercero and Quarto, which unite near the Santa Fé frontier to form the Carcarañа, a tributary of the Paraná; and the Quinto, which flows south-easterly into the swamps of the Laguna Amarga in the S. part of the province. Countless small streams also descend the eastern slopes of the sierras and are lost in the great plains. The eastern districts are moderately fertile, and are chiefly devoted to cattle-breeding, though cereals are also produced. In the valleys and well-watered foothills of the sierras, however, cereals, alfalfa and fruit are the principal products. The rainfall is limited throughout the province, and irrigation is employed in but few localities. The mineral resources include gold, silver, copper, lead and iron, but mining is carried on only to a very limited extent. Salt and marble are also produced. Córdoba is traversed by several railway lines—those running westward from Buenos Aires and Rosario to Mendoza and the Chilean frontier, those connecting the city of Córdoba with the same cities, and with Tucuman on the N. and Catamarca and Rioja on the N.W. The chief towns are Córdoba, the capital, Rio Quarto, Villa Maria, an important railway centre 82 m. S.E. of Córdoba, and Cruz del Eje on the W. slopes of the sierras, 110 m. N.W. of Córdoba.

CÓRDOBA, a city in the central part of the Argentine Republic, capital of the above province, on the Rio Primero, 435 m. by rail N.W. of Buenos Aires by way of Rosario, 246 m. from the latter. Pop. (1895) 42,783—the suburbs having 11,679 more—(1905, estimate) 60,000. The city is connected by railway with Buenos Aires and Rosario, and with the capitals of all the surrounding provinces. Córdoba stands on a high eastward-sloping plain called the “Altos,” 1240 ft. above sea-level, and is built in a broad river bottom washed out by periodical inundations and the action of the rains on the alluvial banks. The inundations have been brought under control by the construction of barriers and dams, but the banks are constantly broken down. The city is regularly laid out, and contains many fine edifices and dwellings. Several suburban settlements surround the city, the more important of which are served by the urban tramway lines. The streets are lighted by gas and electricity, and an excellent telephone service is maintained. The noteworthy public buildings include the cathedral, a handsome edifice curiously oriental in appearance, a massive old Jesuit church with a ceiling of richly carved and gilded cedar, the old university, founded in 1613, which still occupies the halls built by the Jesuits around a large quadrangle, the fine old *cabildo*, or government house, of Moorish appearance, and the national observatory on the *barranca* overlooking the city. There are, also, two national normal schools, a national college, an episcopal seminary, an endowed Carmelite orphanage, a national meteorological station, a national academy of sciences, and a good public library. Among the attractive features of the city is an alameda of about six acres, within which is a square artificial lake of 4 acres, surrounded by shrubbery and shaded walks; the alameda dates from the time when the Jesuits ruled the city, and to them also are due the tiled baths, supplied with running water. A short avenue connects the alameda with the principal *plaza*, a pretty garden and promenade. The water supply of Córdoba is derived from the Rio Primero, 12 m. above the city, where an immense dam (Dique San Roque), one of the largest of its kind in South America, has been built across the river valley. This dam also serves to irrigate the valley below, and to furnish power for the electric plant which provides Córdoba with light and electric power. In and about the city there are several industrial establishments which have sprung into existence since the opening of the first railway in 1870. The surrounding country is irrigated and well cultivated, and produces an abundance of fruit and vegetables.

The city was founded in 1573 by Luis Geronimo de Cabrera and was for a long time distinguished for its learning and piety. It was the headquarters of the Jesuits in this part of South America for two centuries, and for a time the capital of the Spanish *intendencia* of Tucuman. The expulsion of the Jesuits in 1767 proved to be a serious blow to the academic reputation of the city, from which it did not recover until 1870, when President Sarmiento engaged some eminent scientific men from Europe to teach modern science in the university.

CÓRDOBA, a town of the state of Vera Cruz, Mexico, 55 m. W.S.W. of the port of Vera Cruz, in a highly fertile valley, near the volcano of Orizaba, and 2880 ft. above sea-level. Pop. (1895) 7974. The surrounding district produces sugar, tobacco and coffee, Córdoba being one of the principal coffee-producing centres of Mexico. It also manufactures cotton and woollen fabrics. The town is regularly laid out and built of stone, and contains several handsome edifices, chief of which is the old cathedral. Córdoba was a town of considerable importance in colonial times, but fell into decay after the revolution. The railway from Vera Cruz to Mexico, which passes through it, and the development of coffee production, have helped the city to recover a part of its lost trade.

CORDON (a French derivative of *corde*, cord), a word used in many applications of its meaning of "line" or "cord," and particularly of a cord of gold or silver lace worn in military and other uniforms. The word is especially used of the sash or ribbon worn by members of an order of knighthood, crossing from one shoulder to the opposite hip. The *cordon bleu*, the sky-blue ribbon of the knight's grand cross of the order of the Holy Spirit, the highest order of the Bourbon kings of France, was, like the "blue ribbon" of the English Garter, taken as a type of the highest reward or prize to which any one can attain (see also Cookery). In heraldry, "cordons" are the ornamental cords which, with the hats to which they are attached, ensign the shields of arms of certain ecclesiastical dignitaries; they are interlaced to form a mesh or network and terminate in rows of tassels. A cardinal's cordon is *gules* with five rows of fifteen tassels, an archbishop's *vert* with four rows of ten, and a bishop's also *vert*, with three rows of six. In architecture a "cordon" is a projecting band of stone along the outside of a building, a string-course. The word is frequently used in a transferred sense of a line of posts or stations to guard an enclosed area from unauthorized passage, e.g. a military or police cordon, and especially a sanitary cordon, a line of posts to prevent communication from or with an area infected with disease.

CORDOVA (Span. *Córdoba*), an inland province of southern Spain, bounded on the N.E. by Ciudad Real, E. by Jaén, S.E. by Granada, S. by Málaga, S.W. and W. by Seville, and N.W. by Badajoz. Pop. (1900) 455,859; area, 5299 sq. m. The river Guadalquivir divides the province into two very dissimilar portions. On the right bank is the mountainous region of the Sierra Morena, less peopled and fertile than the left bank, with its great plains (*La Campiña*) and slightly undulating country towards the south and south-east, where the surface again becomes mountainous with the outlying ridges of the Sierra Nevada. The Guadalquivir, flowing from E.N.E. to W.S.W., waters the richest districts of Cordova, and has many tributaries, notably the Bembezar, Guadiato and Guadamellato, on the right, and the Genil and Guadajoz on the left. The northern districts (*Los Pedroches*) are drained by several small tributaries of the Guadiana. The climate is much varied. Snow is to be found for months on the highest peaks of the mountains; mild temperature in the plains, except in the few torrid summer months, when rain seldom falls. The peasantry are chiefly occupied in various branches of husbandry; sheep-farming and the culture of the olive employ large numbers. The agricultural wealth of Cordova is, however, not fully exploited, owing to the conservatism and backward education of the peasantry. There are no great manufacturing towns, but mining is an industry of some importance. In 1903 coal was obtained in considerable quantities in the Belmez district; argentiferous lead and zinc near Pozoblanco and elsewhere; iron ore at Luque, near Baena. A small amount of bismuth is also obtained. Mining is facilitated by a fairly complete and well-kept system of communication by road and railway. The main line Madrid-Liná res-Seville follows the Guadalquivir valley throughout the province, passing through the capital, Cordova. Here it meets the line from Almorchón, on the north, to Málaga, on the south, which has three important branches—Belmez-Fuente del Arco, Cordova-Utrera, and Puente Genil-Jaén. After the capital, the principal towns are Aguilar de la Frontera (13,236), Baena (14,539), Cabra (13,127), Fuente Ovejuna (11,777), Lucena (21,179), Montilla (13,603), Montoro (14,581), Pozoblanco (12,792), Priego de Cordoba (16,904) and Puente Genil (12,956). These are described under separate headings. Other towns of less importance are Adamuz (6974), Belalcázar (7682), Belmez (8978), Bujalance (10,756), Castro del Río (11,821),

Hinojosa del Duque (10,673), Palma del Río (7914), Rute (10,740) and Villafranca de Córdoba (9771).

CORDOVA (Span. *Córdoba*; Lat. *Corduba*), the capital of the Spanish province of Cordova, on the southern slopes of the Sierra de Cordova, and the right bank of the river Guadalquivir. Pop. (1900) 58,275. At Cordova the Madrid-Seville railway meets the branch line from Almorchón to Málaga. The city is an episcopal see. Few fragments remain of its Moorish walls, which were erected on Roman foundations and enclosed a very wide area, now largely occupied by garden-ground cleared from the ruins of ancient buildings. On the outskirts are many modern factories in striking contrast with the surrounding orange, lemon and olive plantations, and with the pastures which belong to the celebrated Cordovan school of bull-fighting. Nearer the centre the streets are for the most part narrow and crooked. Almost every building, however, is profusely covered with whitewash, and thus there is little difference on the surface between the oldest and the most modern houses. The southern suburb communicates with the town by means of a bridge of sixteen arches across the river, exhibiting the usual combination of Roman and Moorish masonry and dominated at the one end by an elevated statue of the patron saint, St Raphael, whose effigy is to be seen in various other quarters of the city. The most important of the public buildings are the cathedral, the old monastic establishments, the churches, the bishop’s palace, the city hall, the hospitals and the schools and colleges, including the academy for girls founded in 1590 by Bishop Pacheco of Cordova, which is empowered to grant degrees. The Alcázar, or royal palace, stands on the south-west amid the gardens laid out by its builder, the caliph Abd-ar-Rahman III. (912-961). Its older parts are in ruins, and even the so-called New Alcázar, erected by Alphonso XI. of Castile in 1328, and long used as the offices of the Holy Inquisition, has only one wing in good repair, which serves as a prison.

But the glory of Cordova, surpassing all its other Moorish or Christian buildings, is the *mezquita*, or mosque, now a cathedral, but originally founded on the site of a Roman temple and a Visigothic church by Abd-ar-Rahman I. (756-788), who wished to confirm the power of his caliphate by making its capital a great religious centre. Immigration from all the lands of Islam soon rendered a larger mosque necessary, owing to the greatly increased multitude of worshippers, and, by orders of Abd-ar-Rahman II. (822-852) and Al-Hakim II. (961-976), the original size was doubled. After various minor additions, Al-Mansur, the vizier of the caliph Hisham II. (976-1009), again enlarged the *Zeca*, or House of Purification, as the mosque was named, to twice its former size, rendering it the largest sacred building of Islam, after the Kaaba at Mecca. The ground plan of the completed mosque forms a rectangle, measuring 570 ft. in length and 425 in breadth, or little less than St Peter’s in Rome. About one-third of this area is occupied by the courtyard, and the cloisters which surround it on the north, west and east. The exterior, with the straight lines of its square buttress towers, has a heavy and somewhat ungainly appearance; but the interior is one of the most beautiful specimens of Moorish architecture. Passing through a grand courtyard about 500 ft. in length, shady with palm and cypress and orange trees and watered by five fountains, the visitor enters on the south a magnificent and bewildering labyrinth of pillars in which porphyry, jasper and many-coloured marbles are boldly combined. Part came from the spoils of Nîmes or Narbonne, part from Seville or Tarragona, some from the older ruins of Carthage, and others as a present to Abd-ar-Rahman I. from the East Roman emperor Leo IV., who sent also from Constantinople his own skilled workmen, with 16 tons of tesserae for the mosaics. Originally of different heights, the pillars have been adjusted to their present standard of 12 ft. either by being sunk into the soil or by the addition of Corinthian capitals. Twelve hundred was the number of the columns in the original building, but many have been destroyed. The pillars divide the area of the building from north to south, longitudinally into nineteen and transversely into twenty-nine aisles—each row supporting a tier of open Moorish arches of the same height (12 ft.) with a third and similar tier superimposed upon the second. The full height of the ceiling is thus about 35 ft. The Moorish character of the building was unfortunately impaired in the 16th century by the formation in the interior of a *crucero*, or high altar and cruciform choir, by the addition of numerous chapels along the sides of the vast quadrangle, and by the erection of a belfry 300 ft. high in room of the old minaret. The *crucero* in itself is no disgrace to the architect Hernan Ruiz, but every lover of art must sympathize with the rebuke administered by the emperor Charles V. (1500-1558) to the cathedral authorities: “You have built here what could have been built as well anywhere else; and you have destroyed what was unique in the world.” Magnificent, indeed, as the cathedral still is, it is almost impossible to realize what the

mosque must have been when the worshippers thronged through its nineteen gateways of bronze, and its 4700 lamps, fed with perfumed oil, illuminated its brilliant aisles. Of the exquisite elaboration bestowed on the more sacred portions abundant proof is afforded by the third *Mihrab*, or prayer-recess, a small 10th-century chapel, heptagonal in shape, roofed with a single shell-like block of snow-white marble, and inlaid with Byzantine mosaics of glass and gold.

Cordova was celebrated in the time of the Moors for its silversmiths, who are said to have come originally from Damascus; and it exported a peculiar kind of leather which took its name from the city, whence is derived the word *cordwainer*. Fine silver filigree ornaments are still produced; and Moorish work in leather is often skilfully imitated, although this handicraft almost disappeared in the 15th century. The chief modern industries of Cordova are distillation of spirits and the manufacture of woollen, linen and silken goods.

Corduba, probably of Carthaginian origin, was occupied by the Romans under Marcus Marcellus in 152 B.C.. and shortly afterwards became the first Roman *colonia* in Spain. From the large number of men of noble rank among the colonists, the city obtained the title of *Patricia*; and to this day the Cordovese pride themselves on the purity and antiquity of their descent. In the 1st century B.C. Cordova aided the sons of Pompey against Caesar; but after the battle of Munda, in 45 B.C., it fell into the hands of Caesar, who avenged the obstinacy of its resistance by massacring 20,000 of the inhabitants. Under Augustus, if not before, it became a municipality, and was the capital of the thoroughly Romanized province of Baetica. In the lifetime of Strabo, however (c. 63 B.C.-A.D. 21), it still ranked as the largest city of Spain. Its prosperity was due partly to its position on the Baetis, and on the Via Augusta, the great commercial road from northern Spain built by Augustus, and partly to its proximity to mines and rich grazing and grain-producing districts. Hosius, its bishop, presided over the first council of Nicaea in 345; and its importance was maintained by the Visigothic kings, whose rule lasted from the 5th to the beginning of the 8th century. Under the Moors, Cordova was at first an appanage of the caliphate of Damascus; but after 756 Abd-ar-Rahman I. made it the capital of Moorish Spain, and the centre of an independent caliphate (see Abd-ar-Rahman). It reached its zenith of prosperity in the middle of the 10th century, under Abd-ar-Rahman III. At his death, it is recorded by native chroniclers, probably with Arabic exaggeration, that Cordova contained within its walls 200,000 houses, 600 mosques, 900 baths, a university, and numerous public libraries; whilst on the bank of the Guadalquivir, under the power of its monarch, there were eight cities, 300 towns and 12,000 populous villages. A period of decadence began in 1016, owing to the claims of the rival dynasties which aimed at succeeding to the line of Abd-ar-Rahman; the caliphate never won back its position, and in 1236 Cordova was easily captured by Ferdinand III. of Castile. The substitution of Spanish for Moorish supremacy rather accelerated than arrested the decline of art, industry and population; and in the 19th century Cordova never recovered from the disaster of 1808, when it was stormed and sacked by the French. Few cities of Spain, however, can boast of so long a list of illustrious natives in the Moorish and Roman periods, and even, to a less extent, in modern times. It was the birthplace of the rhetorician Marcus Annaeus Seneca, and his more famous son Lucius (c. 3 B.C.-A.D. 65); of the poet Lucan (A.D. 39-65); of the philosophers Averroes (1126-1198) and Maimonides (1135-1204); of the Spanish men of letters Juan de Mena (c. 1411-1456), Lorenzo de Sepúlveda (d. 1574) and Luis de Gongora y Argote (1561-1627); and the painters Pablo de Céspedes (1538-1608) and Juan de Valdés Leal (1630-1691). The celebrated captain Gonzalo Fernandez de Córdoba (q.v.), the conqueror of Naples (1495-1498), was born in the neighbouring town of Montilla.

See *Estudio descriptivo de los monumentos árabes de Granada y Córdoba*, by R. Contreras (Madrid, 1885); *Córdoba*, a large illustrated volume of the series *España*, by P. de Madrazo (Barcelona, 1884); *Inscripciones árabes de Córdoba*, by R. Amador de los Ríos y Villalta (Madrid, 1886).

CORDUROY, a cotton cloth of the fustian kind, made like a ribbed velvet. It is generally a coarse heavy material and is used largely for workmen’s clothes, but some finer kinds are used for ladies’ dresses, &c. According to the *New English Dictionary* the word is understood to be of English invention, “either originally intended, or soon after assumed, to represent a supposed French *corde du roi*.” It is said that a coarse woollen fabric called *duroy*, made in Somerset during the 18th century, has no apparent connexion with it. From the ribbed appearance of the cloth the name *corduroy* is applied, particularly in America, to a rough road

of logs laid transversely side by side, usually across swampy ground.

CORDUS, AULUS CREMUTIUS, Roman historian of the later Augustan age. He was the author of a history (perhaps called *Annales*) of the events of the civil wars and the reign of Augustus, embracing the period from at least 43-18 B.C. In A.D. 25 he was brought to trial for having eulogized Brutus and spoken of Cassius as the last of the Romans. His real offence was a witticism at the expense of Sejanus, who put up two of his creatures to accuse him in the senate. Seeing that nothing could save him, Cordus starved himself to death. A decree of the senate ordered that his works should be confiscated and burned by the aediles. Some copies, however, were saved by the efforts of Cordus's daughter Marcia, and after the death of Tiberius the work was published at the express wish of Caligula. It is impossible to form an opinion of it from the scanty fragments (H. Peter, *Historicorum Romanorum Fragmenta*, 1883). According to ancient authorities, the writer was very outspoken in his denunciations, and his relatives considered it necessary to strike out the most offensive passages of the work before it was widely circulated (Quintilian, *Instit.* x. 1, 104). Two passages in Pliny (*Nat. Hist.* x. 74 [37], xvi. 108 [45]) seem to refer to a work of a different nature from the history—perhaps a treatise on *Admiranda* or remarkable things.

See Tacitus, *Annals*, iv. 34, 35; Suetonius, *Tiberius*, 61, *Caligula*, 16; Seneca, *Suasoriae*, vii., esp. the *Consolatio* to Cordus's daughter Marcia; Dio Cassius lvii. 24. There are monographs by J. Held (1841) and C. Rathlef (1860). Also H. Peter, *Die geschichtliche Literatur über die römische Kaiserzeit* (1897); Teuffel-Schwabe, *Hist. of Roman Lit.*, Eng. trans., 277, 1.

CORELLI, ARCANGELO (1653-1713), Italian violin-player and composer, was born on the 12th or 13th of February 1653, at Fusignano near Imola, and died in 1713. Of his life little is known. His master on the violin was Bassani. Matteo Simonelli, the well-known singer of the pope's chapel, taught him composition. His first decided success was gained in Paris at the age of nineteen. To this he owed his European reputation. From Paris Corelli went to Germany. In 1681 he was in the service of the electoral prince of Bavaria; between 1680 and 1685 he spent a considerable time in the house of his friend Farinelli. In 1685 he was certainly in Rome, where he led the festival performances of music for Queen Christine of Sweden and was also a favourite of Cardinal Ottoboni. From 1689 to 1690 he was in Modena, the duke of which city made him handsome presents. In 1708 he went once more to Rome, living in the palace of Cardinal Ottoboni. His visit to Naples, at the invitation of the king, took place in the same year. The style of execution introduced by Corelli and preserved by his pupils, such as Geminiani, Locatelli, and many others, has been of vital importance for the development of violin-playing, but he employed only a limited portion of his instrument's compass, as may be seen by his writings, wherein the parts for the violin never proceed above D on the first string, the highest note in the third position; it is even said that he refused to play, as impossible, a passage which extended to A in altissimo in the overture to Handel's *Trionfo del Tempo*, and took serious offence when the composer played the note in evidence of its practicability. His compositions for the instrument mark an epoch in the history of chamber music; for his influence was not confined to his own country. Even Sebastian Bach submitted to it. Musical society in Rome owed much to Corelli. He was received in the highest circles of the aristocracy, and arranged and for a long time presided at the celebrated Monday concerts in the palace of Cardinal Ottoboni. Corelli died possessed of a sum of 120,000 marks and a valuable collection of pictures, the only luxury in which he had indulged. He left both to his benefactor and friend, who, however, generously made over the money to Corelli's relations. Corelli's compositions are distinguished by a beautiful flow of melody and by a masterly treatment of the accompanying parts, which he is justly said to have liberated from the strict rules of counterpoint. Six collections of concerti, sonatas and minor pieces for violin, with accompaniment of other instruments, besides several concerted pieces for strings, are authentically ascribed to this composer. The most important of these is the XII. *Suonati a violino e violone o cimbalo* (Rome, 1700).

CORELLI, MARIE (1864-), English novelist, was the daughter of an Italian father and a Scottish mother, but in infancy was adopted by Charles Mackay (q.v.), the song-writer and journalist, whose son Eric, at his death, became her guardian. She was sent to be educated in a French convent with the object of training her for the musical profession, and while still a girl composed various pieces of music. But her journalistic connexion proved a stronger stimulus to expression, and editors who were friends of her adopted father printed some of her early poetry. Then she produced what was at least a clever, if not a remarkably well written, romantic story, on the theme of a self-revelation connecting the Christian Deity with a world force in the form of electricity, which was published in 1886 under the title of *A Romance of Two Worlds*. It had an immediate and large sale, which resulted, naturally, in her devoting her inventive faculty to satisfy the public demand for similar work. Thus she wrote in succession a series of melodramatic romantic novels, original in some aspects of their treatment, daring in others, but all combining a readable plot with enough *au fond* of what the majority demanded in ethical and religious correctness to suit a widespread contemporary taste; these were *Vendetta* (1886), *Thelma* (1887), *Ardath* (1889), *The Soul of Lilith* (1892), *Barabbas* (1893), *The Sorrows of Satan* (1895),—the very titles were catching,—*The Mighty Atom* (1896),—which appealed to all who knew enough of modern science to wish to think it wicked,—and others, down to *The Master Christian* (1900), again satisfying the socio-ethico-religious demand, and *Temporal Power* (1902), with its contemporary suggestion from the accession of Edward VII. Miss Corelli had the advantage of writing quite sincerely and with conviction, amid what superior critics sneered at as bad style and sensationalism, on themes which conventional readers nevertheless enjoyed, and round plots which were dramatic and vigorous. Her popular success was great and advertised itself. It was helped by a well-spread belief that Queen Victoria preferred her novels to any other. Reviewers wrote sarcastically, and justly, of her obvious literary lapses and failings; she retorted by pitying the poor reviewers and letting it be understood that no books of hers were sent to the Press for criticism. When she went to live at Stratford-on-Avon, her personality, and her importance in the literary world, became further allied with the historic associations of the place; and in the public life of women writers her utterances had the *réclame* which is emphasized by journalistic publicity. Such success is not to be gauged by purely literary standards; the popularity of Miss Corelli's novels is a phenomenon not so much of literature as of literary energy—entirely creditable to the journalistic resource of the writer, and characteristic of contemporary pleasure in readable fiction.

CORENZIO, BELISARIO (c. 1558-1643), Italian painter, a Greek by birth, studied at Venice under Tintoretto, and then settled at Naples, where he became famous for unscrupulous conduct as a man and rapid execution as an artist. Though careless in composition and a mannerist in style, he possessed an acknowledged fertility of invention and readiness of hand; and these qualities, allied to a certain breadth of conception, seem in the eyes of his contemporaries to have atoned for many defects. When Guido Reni came in 1621 to Naples to paint in the chapel of St Januarius, Corenzio suborned an assassin to take his life. The hired bravo killed Guido's assistant, and effectually frightened Reni, who prudently withdrew to Rome. Corenzio, however, only suffered temporary imprisonment, and lived long enough to supplant Ribera in the good graces of Don Pedro di Toledo, viceroy of Naples, who made him his court painter. Corenzio vainly endeavoured to fill Guido's place in the chapel of St Januarius. His work was adjudged to have been under the mark, and yet the numerous frescoes which he left in Neapolitan churches and palaces, and the large wall paintings which still cover the cupola of the church of Monte Casino are evidence of uncommon facility, and show that Corenzio was not greatly inferior to the *fa prestos* of his time. His florid style, indeed, seems well in keeping with the overladen architecture and full-blown decorative ornament peculiar to the Jesuit builders of the 17th century. Corenzio died, it is said, at the age of eighty-five by a fall from a scaffolding.

CO-RESPONDENT, in law, generally, a person made respondent to, or called upon to answer, along with another or others, a petition or other proceeding. More particularly, since

the Matrimonial Causes Act 1857, the term is applied to the person charged by a husband, when presenting a petition praying for the dissolution of his marriage on the ground of adultery, with misconduct with his wife, and made, jointly with her, a respondent to the suit. (See also DIVORCE.)

CORFE CASTLE, a town in the eastern parliamentary division of Dorsetshire, England, in the district called the Isle of Purbeck, 129½ m. S.W. by W. from London by the London & South-Western railway. Pop. (1901) 1440. The castle, through which the town is famous, guarded a gap in the line of considerable hills which rise in the centre of Purbeck. It is strongly placed on an eminence falling almost sheer on three sides. Its ruins are extensive, and date for the most part from the Norman period to the reign of Edward I. There is, however, a trace of early masonry which may have belonged to the Saxon house where, in 978, King Edward the Martyr was murdered. Corfe Castle was held for the empress Maud against King Stephen in 1139, was frequently the residence of King John, and was a stronghold of the barons against Henry III. Edward II. was imprisoned here for a short period. The castle withstood a protracted siege by the Parliamentarians in 1643, and fell to them by treachery in 1646, after which it was dismantled and wrecked. The church in the town, almost wholly rebuilt, is dedicated to St Edward the Martyr. The quarrying of Purbeck stone and the raising of potters' clay are the chief industries.

Probably Corfe Castle (*Corfes geat*, *Corf geat*, *Corve*, *Corph*) was an early Anglo-Saxon settlement. According to William of Malmesbury the church was founded by St Aldhelm in the 7th century. In 1086 the abbey of Shaftesbury held the manor, which afterwards passed to the Norman kings, who raised the castle. Its date is disputed, but the town dependent on it seems to have grown up during the 13th century, being first mentioned in 1290, when an inquisition states that the mayor has pesage of wool and cheese. The rights of the burgesses seem to have been undefined, for frequent commissions attest to encroachments on the rights of warren, forest and wreckage belonging to the royal manor. In 1380-1381 at an inquisition into the liberties of Corfe Castle, the jurors declared that from time immemorial the constable and his steward had held all pleas and amerciaments except those of the mayor's court of Pie Powder, but that the town had judgment by fire, water and combat. The tenants, or "barons," elected themselves a mayor and coroners, but the constable received the assize of ale. Elizabeth in 1577 gave exclusive admiralty jurisdiction within the island of Purbeck to Sir Christopher Hatton, and granted the mayor and "barons" of Corfe the rights they enjoyed by prescription and charter and that of not being placed on juries or assizes in matters beyond the island. Charles II. incorporated Corfe Castle in 1663, the mayor being elected at a court leet from three nominees of the lord of the manor. Corfe Castle first returned two representatives to parliament in 1572, but was disfranchised in 1832. A market for each Saturday was granted to Corfe in 1214, and in 1248 the town obtained a fair and a market on each Thursday, while Elizabeth granted fairs on the feasts of St Philip and St James and of St Luke; both of these still survive. As early as the 14th century the quarrying and export of marble gave employment to the men of Corfe, and during the 18th century the knitting of stockings was a flourishing industry.

See T. Bond, *History and Description of Corfe Castle* (London and Bournemouth, 1883).

CORFINIUM, in ancient Italy, the chief city of the Paeligni, 7 m. N. of Sulmona in the valley of the Aternus. The site of the original town is occupied by the village of Pentima. It probably became subject to Rome in the 4th century B.C., though it does not appear in Roman history before the Social War (90 B.C.), in which it was at first adopted by the allies as the capital and seat of government of their newly founded state under the name Italia (this form, not Italica, is vouched for by the coins). It appears also as a fortress of importance in the Civil War, though it only resisted Caesar's attack for a week (49 B.C.). Whether the Via Valeria ran as far as Corfinium before the time of Claudius is uncertain: he, however, certainly extended it to the Adriatic, and at the same time constructed a cross road, the Via Claudia Nova, which diverged from the Via Claudia Valeria at a point 6 m. farther north, and led past Peltuinum and Aveia to

Foruli on the Via Salaria. Another road ran S.S.E. past Sulmo to Aesernia. It was thus an important road centre, and must have been, in the imperial period, a town of some size, as may be gathered from the inscriptions that have been discovered there, and from the extent rather than the importance of the buildings visible on the site (among them may be noted the remains of two aqueducts), which has, however, never been systematically excavated. Short accounts of discoveries will be found in *Notizie degli Scavi*, *passim*, and a museum, consisting chiefly of the contents of tombs, has been formed at Pentima. In one corner of a large enclosed space (possibly a *palaestra*) was constructed the church of S. Pelino. The present building dates from the 13th century, though its origin may be traced to the end of the 5th when it was the cathedral of the see of Valva, which appears to have been the name of Corfinium at the close of the Roman period.

(T. As.)

CORFU (anc. and mod. Gr. Κέρκυρα or Κόρκυρα, Lat. *Corcyra*), an island of Greece, in the Ionian Sea, off the coast of Albania or Epirus, from which it is separated by a strait varying in breadth from less than 2 to about 15 m. The name Corfu is an Italian corruption of the Byzantine Κορυφώ, which is derived from the Greek Κορυφαί (crests). In shape it is not unlike the sickle (*drepanē*), to which it was compared by the ancients,—the hollow side, with the town and harbour of Corfu in the centre, being turned towards the Albanian coast. Its extreme length is about 40 m. and its greatest breadth about 20. The area is estimated at 227 sq. m., and the population in 1907 was 99,571, of whom 28,254 were in the town and suburbs of Corfu. Two high and well-defined ranges divide the island into three districts, of which the northern is mountainous, the central undulating and the southern low-lying. The most important of the two ranges is that of San Salvador, probably the ancient Istone, which stretches east and west from Cape St Angelo to Cape St Stefano, and attains its greatest elevation of 3300 ft. in the summit from which it takes its name. The second culminates in the mountain of Santi Deca, or Santa Decca, as it is called by misinterpretation of the Greek designation οἱ Ἅγιοι Δέκα, or the Ten Saints. The whole island, composed as it is of various limestone formations, presents great diversity of surface, and the prospects from the more elevated spots are magnificent.

Corfu is generally considered the most beautiful of all the Greek isles, but the prevalence of the olive gives some monotony to its colouring. It is worthy of remark that Homer names, as adorning the garden of Alcinous, seven plants only—wild olive, oil olive, pear, pomegranate, apple, fig and vine. Of these the apple and the pear are now very inferior in Corfu; the others thrive well and are accompanied by all the fruit trees known in southern Europe, with addition of the Japanese medlar (or loquat), and, in some spots, of the banana. When undisturbed by cultivation, the myrtle, arbutus, bay and ilex form a rich brushwood and the minor *flora* of the island is extensive.

The common form of laud tenure is the *colonia perpetua*, by which the landlord grants a lease to the tenant and his heirs for ever, in return for a rent, payable in kind, and fixed at a certain proportion of the produce. Of old, a tenant thus obtaining half the produce to himself was held to be co-owner of the soil to the extent of one-fourth; and if he had three-fourths of the crop, his ownership came to one-half. Such a tenant could not be expelled except for non-payment, bad culture or the transfer of his lease without the landlord’s consent. Attempts have been made to prohibit so embarrassing a system; but as it is preferred by the agriculturists, the existing laws permit it. The portion of the olive crop due to the landlord, whether by *colonia* or ordinary lease, is paid, not according to the actual harvest, but in keeping with the estimates of valuators mutually appointed, who, just before the fruit is ripe, calculate how much each tree will probably yield. The large old fiefs (*baronie*) in Corfu, as in the other islands, have left their traces in the form of quit-rents (known in Scotland by the name of feu-duties), generally equal to one-tenth of the produce. But they have been much subdivided, and the vassals may by law redeem them. Single olive trees of first quality yield sometimes as much as 2 gallons of oil, and this with little trouble or expense beyond the collecting and pressing of the fallen fruit. The trees grow unrestrained, and some are not less than three hundred years old. The vineyards are laboured by the broad heart-shaped hoe. The vintage begins on the festival of Santa Croce, or the 26th of September (O.S.). None of the Corfu wines is much exported. The capital is the only city or town of much extent in the island; but there are a number of villages, such as Benizze, Gasturi, Ipso, Glypho, with populations varying from 300 to 1000. Near Gasturi stands the Achilleion, the palace built for the Empress Elizabeth of Austria, and purchased in 1907 by the German emperor, William II.

The town of Corfu stands on the broad part of a peninsula, whose termination in the citadel is cut from it by an artificial fosse formed in a natural gully, with a salt-water ditch at the bottom. Having grown up within fortifications, where every foot of ground was precious, it is mostly, in spite of recent improvements, a labyrinth of narrow, tortuous, up-and-down streets, accommodating themselves to the irregularities of the ground, few of them fit for wheel carriages. There is, however, a handsome esplanade between the town and the citadel, and a promenade by the seashore towards Castrades. The palace, built by Sir Thomas Maitland (? 1759-1824; lord high commissioner of the Ionian Islands, 1815), is a large structure of white Maltese stone. In several parts of the town may be found houses of the Venetian time, with some traces of past splendour, but they are few, and are giving place to structures in the modern and more convenient French style. Of the thirty-seven Greek churches the most important are the cathedral, dedicated to Our Lady of the Cave (ἡ Παναγία Σπηλιώτισσα); St Spiridion's, with the tomb of the patron saint of the island; and the suburban church of St Jason and St Sosipater, reputed the oldest in the island. The city is the seat of a Greek and a Roman Catholic archbishop; and it possesses a gymnasium, a theatre, an agricultural and industrial society, and a library and museum preserved in the buildings formerly devoted to the university, which was founded by Frederick North, 5th earl of Guilford (1766-1827, himself the first chancellor in 1824,) in 1823, but disestablished on the cessation of the English protectorate. There are three suburbs of some importance—Castrades, Manduchio and San Rocco. The old fortifications of the town, being so extensive as to require a force of from 10,000 to 20,000 troops to man them, were in great part thrown down by the English, and a simpler plan adopted, limiting the defences to the island of Vido and the old citadel; these are now dismantled.

History.—According to the local tradition Corcyra was the Homeric island of Scheria, and its earliest inhabitants the Phaeacians. At a date no doubt previous to the foundation of Syracuse it was peopled by settlers from Corinth, but it appears to have previously received a stream of emigrants from Eretria. The splendid commercial position of Corcyra on the highway between Greece and the West favoured its rapid growth, and, influenced perhaps by the presence of non-Corinthian settlers, its people, quite contrary to the usual practice of Corinthian colonies, maintained an independent and even hostile attitude towards the mother city. This opposition came to a head in the early part of the 7th century, when their fleets fought the first naval battle recorded in Greek history (about 664 B.C.). These hostilities ended in the conquest of Corcyra by the Corinthian tyrant Periander (c. 600), who induced his new subjects to join in the colonization of Apollonia and Anactorium. The island soon regained its independence and henceforth devoted itself to a purely mercantile policy. During the Persian invasion of 480 it manned the second largest Greek fleet (60 ships), but took no active part in the war. In 435 it was again involved in a quarrel with Corinth and sought assistance from Athens. This new alliance was one of the chief immediate causes of the Peloponnesian War (q.v.), in which Corcyra was of considerable use to the Athenians as a naval station, but did not render much assistance with its fleet. The island was nearly lost to Athens by two attempts of the oligarchic faction to effect a revolution; on each occasion the popular party ultimately won the day and took a most bloody revenge on its opponents (427 and 425). During the Sicilian campaigns of Athens Corcyra served as a base for supplies; after a third abortive rising of the oligarchs in 410 it practically withdrew from the war. In 375 it again joined the Athenian alliance; two years later it was besieged by a Lacedaemonian armament, but in spite of the devastation of its flourishing countryside held out successfully until relief was at hand. In the Hellenistic period Corcyra was exposed to attack from several sides; after a vain siege by Cassander it was occupied in turn by Agathocles and Pyrrhus. It subsequently fell into the hands of Illyrian corsairs, until in 229 it was delivered by the Romans, who retained it as a naval station and gave it the rank of a free state. In 31 B.C. it served Octavian (Augustus) as a base against Antony.

Eclipsed by the foundation of Nicopolis, Corcyra for a long time passed out of notice. With the rise of the Norman kingdom in Sicily and the Italian naval powers, it again became a frequent object of attack. In 1081-1085 it was held by Robert Guiscard, in 1147-1154 by Roger II. of Sicily. During the break-up of the Later Roman Empire it was occupied by Genoese privateers (1197-1207) who in turn were expelled by the Venetians. In 1214-1259 it passed to the Greek despots of Epirus, and in 1267 became a possession of the Neapolitan house of Anjou. Under the latter's weak rule the island suffered considerably from the inroads of various adventurers; hence in 1386 it placed itself under the protection of Venice, which in 1401 acquired formal sovereignty over it. Corcyra remained in Venetian hands till 1797, though several times assailed by Turkish armaments and subjected to two notable sieges in 1536 and 1716-1718, in which the great natural strength of the city again asserted itself. The Venetian feudal families pursued a mild but somewhat enervating policy towards the natives, who began to merge their nationality in that of the Latins and adopted for the island the new name of Corfu. The Corfiotes were encouraged to enrich themselves by the cultivation of the

olive, but were debarred from entering into commercial competition with Venice. The island served as a refuge for Greek scholars, and in 1732 became the home of the first academy of modern Greece, but no serious impulse to Greek thought came from this quarter.

By the treaty of Campo Formio Corfu was ceded to the French, who occupied it for two years, until they were expelled by a Russo-Turkish armament (1799). For a short time it became the capital of a self-governing federation of the Hephtanesos ("Seven Islands"); in 1807 its faction-ridden government was again replaced by a French administration, and in 1809 it was vainly besieged by a British fleet. When, by the treaty of Paris of November 5, 1815, the Ionian Islands were placed under the protectorate of Great Britain, Corfu became the seat of the British high commissioner. The British commissioners, who were practically autocrats in spite of the retention of the native senate and assembly, introduced a strict method of government which brought about a decided improvement in the material prosperity of the island, but by its very strictness displeased the natives. In 1864 it was, with the other Ionian Islands, ceded to the kingdom of Greece, in accordance with the wishes of the inhabitants. The island has again become an important point of call and has a considerable trade in olive oil; under a more careful system of tillage the value of its agricultural products might be largely increased.

Corfu contains very few and unimportant remains of antiquity. The site of the ancient city of Corcyra (Κέρκυρα) is well ascertained, about 1½ m. to the south-east of Corfu, upon the narrow piece of ground between the sea-lake of Calichiopulo and the Bay of Castrades, in each of which it had a port. The circular tomb of Menecrates, with its well-known inscription, is on the Bay of Castrades. Under the hill of Ascension are the remains of a temple, popularly called of Neptune, a very simple Doric structure, which still in its mutilated state presents some peculiarities of architecture. Of Cassiope, the only other city of ancient importance, the name is still preserved by the village of Cassopo, and there are some rude remains of building on the site; but the temple of Zeus Cassius for which it was celebrated has totally disappeared. Throughout the island there are numerous monasteries and other buildings of Venetian erection, of which the best known are Paleocastrizza, San Salvador and Pelleka.

AUTHORITIES.—Strabo vi. p. 269; vii. p. 329; Herodotus viii. 168; Thucydides i.-iii.; Xenophon, *Hellenica*, vi. 2; Polybius ii. 9-11; Plutarch, *Quaestiones Graecae*, ch. xi.; H. Jervis, *The Ionian Islands during the Present Century* (London, 1863); D. F. Ansted, *The Ionian Islands in the Year 1863* (London, 1863); Riemann, *Recherches archéologiques sur les Îles ioniennes* (Paris, 1879-1880); J. Partsch, *Die Insel Korfu* (Gotha, 1887); B. Schmidt, *Korkyräische Studien* (Leipzig, 1890); B. V. Head, *Historia Numorum* (Oxford, 1887), pp. 275-277; H. Lutz in *Philologus*, 56 (1897), pp. 71-77; also art. NUMISMATICS: *Greek*, § "Epirus."

(E. GR.; M. O. B. C.)

CORI (anc. *Cora*), a town and episcopal see of the province of Rome, Italy, 36 m. S.E. by rail from the town of Rome, on the lower slopes of the Volscian mountains, 1300 ft. above sea-level. Pop. (1901) 6463. It occupies the site of the ancient Volscian town of Cora, the foundation of which is by classical authors variously ascribed to Trojan settlers, to the Volscians (with a later admixture of Latins), and to the Latins themselves. The last is more probable (though in that case it was the only town of the Prisci Latini in the Volscian hills), as it appears among the members of the Latin league. Coins of Cora exist, belonging at latest to 350-250 B.C. It was devastated by the partisans of Marius during the struggle between him and Sulla. Before the end of the Republic it had become a *municipium*. It lay just above the older road from Velitrae to Terracina, which followed the foot of the Volscian hills, but was 6 m. from the Via Appia, and it is therefore little mentioned by classical writers. It is comparatively often spoken of in the 4th century, but from that time to the 13th we hear hardly anything of it, as though it had almost ceased to exist. The remains of the city walls are considerable: three different *enceintes*, one within the other, enclose the upper and lower town and the acropolis. They are built in Cyclopean work, and different parts vary considerably in the roughness or fineness of the jointing and hewing of the blocks; but explorations at Norba (q.v.) have proved that inferences as to their relative antiquity based upon such considerations are not to be trusted. There is a fine single-arched bridge, now called the Ponte della Catena, just outside the town on the way to Norba, to which an excessively early date is often assigned.

At the summit of the town is a beautiful little Doric tetrastyle temple, belonging probably to the 1st century B.C., built of limestone with an inscription recording its erection by the

duumviri. It is not known to what deity it was dedicated; and there is no foundation for the assertion that the porphyry statue of Minerva (or Roma) now in front of the Palazzo del Senatore, at Rome, was found here in the 16th century. Lower down are two columns of a Corinthian temple dedicated to Castor and Pollux, as the inscription records. The church of Santa Oliva stands upon the site of a Roman building. The cloister, constructed in 1466-1480, is in two storeys; the capitals of the columns are finely sculptured by a Lombard artist (G. Giovannoni in *L'Arte*, 1906, p. 108). There are remains of several other ancient buildings in the modern town, especially of a series of large cisterns probably belonging to the imperial period. Some interesting frescoes of the Roman school of the 15th century are to be found in the chapel of the Annunziata outside the town (F. Hermanin in *L'Arte*, 1906, p. 45).

See G. B. Piranesi, *Antichità di Cora* (Rome, n.d., c. 1770); A. Nibby, *Analisi della Carta dei Dintorni di Roma* (Rome, 1848), i. 487 seq.

(T. As.)

CORIANDER, the fruit, improperly called seed, of an umbelliferous plant (*Coriandrum sativum*), a native of the south of Europe and Asia Minor, but cultivated in the south of England, where it is also found as an escape, growing apparently wild. The name is derived from the Gr. κόρις (a bug), and was given on account of its foetid, bug-like smell. The plant produces a slender, erect, hollow stem rising 1 to 2 ft. in height, with bipinnate leaves and small flowers in pink or whitish umbels. The fruit is globular and externally smooth, having five indistinct ridges, and the mericarps, or half-fruits, do not readily separate from each other. It is used in medicine as an aromatic and carminative, the active principle being a volatile oil, obtained by distillation, which is isomeric with Borneo camphor, and may be given in doses of ½ to 3 minims. On account of its pleasant and pungent flavour it is a favourite ingredient in hot curries and sauces. The fruit is also used in confectionery, and as a flavouring ingredient in various liqueurs. The essential oil on which its aroma depends is obtained from it by distillation. The tender leaves and shoots of the young plant are used in soups and salads.

CORINGA, a seaport of British India, in the district of Godavari and presidency of Madras, on the estuary of a branch of the Godavari river. The harbour is protected from the swell of the sea by the southward projection of Point Godavari, and affords a shelter to vessels during the south-west monsoon; but though formerly the most important on this coast it has been silted up and lost its trade. The repairing and building of small coasting ships is an industry at Tallarevu in the vicinity. In 1787 a gale from the north-east occasioned an inundation which swept away the greater part of Coringa with its inhabitants; and in 1832 another storm desolated the place, carrying vessels into the fields and leaving them aground. Of Europeans the Dutch were the first to establish themselves at Coringa. In 1759 the English took possession of the town, and erected a factory 5 m. to the south of it.

CORINNA, surnamed "the Fly," a Greek poetess, born at Tanagra in Boeotia, flourished about 500 B.C. She is chiefly known as the instructress and rival of Pindar, over whom she gained the victory in five poetical contests. According to Pausanias (ix. 22. 3), her success was chiefly due to her beauty and her use of the local Boeotian dialect. The extant fragments of her poems, dealing chiefly with mythological subjects, such as the expedition of the Seven against Thebes, will be found in Bergk's *Poëtae Lyrici Graeci*.

Some considerable remains of two poems on a 2nd-century papyrus (*Berliner Klassikertexte*, v., 1907) have also been attributed to Corinna (W. H. D. Rouse's *Year's Work in Classical Studies*, 1907; J. M. Edmonds, *New Frags. of ... and Corinna*, 1910).

CORINTH, a city of Greece, situated near the isthmus (see CORINTH, ISTHMUS OF) which connects Peloponnesus and central Greece, and separates the Saronic and the Corinthian gulfs on E. and W. The ancient town stood 1½ m. from the latter, in a plain extending westward to Sicyon. The citadel, or Acrocorinthus, rising precipitously on the S. to a height of 1886 ft. was separated by a ravine from Oneium, a range of hills which runs E. to the isthmus entrance. Between this ridge and the offshoots of Geraneia opposite a narrow depression allowed of easy transit across the Isthmus neck. The territory of Corinth was mostly rocky and unfertile; but its position at the head of two navigable gulfs clearly marked it out as a commercial centre. Its natural advantages were enhanced by the "Diolcus" or tram-road, by which ships could be hauled across the Isthmus. It was connected in historic times with its western port of Lechaeum by two continuous walls, with Cenchreae and Schoenus on the east by chains of fortifications. The city walls attained a circuit of 10 m.

I. *History.*—In mythology, Corinth (originally named Ephyre) appears as the home of Medea, Sisyphus and Bellerophon, and already has over-sea connexions which illustrate its primitive commercial activity. Similarly the early presence of Phoenician traders is attested by the survival of Sidonian cults (Aphrodite Urania, Athena Phoenicice, Melicertes, i.e. Melkarth). In the Homeric poems Corinth is a mere dependency of Mycenae; nor does it figure prominently in the tradition of the Dorian migrations. Though ultimately conquered by the invaders it probably retained much of its former "Ionian" population, whose god Poseidon continued to be worshipped at the national Isthmian games throughout historic times; of the eight communal tribes perhaps only three were Dorian. Under the new dynasty of Aletes, which reigned according to tradition from 1074 to 747, Corinthian history continues obscure. The government subsequently passed into the hands of a small corporation of nobles descended from a former king Bacchis, and known as the Bacchidae, who nominated annually a Prytanis (president) from among their number. The maritime expansion of Corinth at this time is proved by the foundation of colonies at Syracuse and Corcyra, and the equipment of a fleet of triremes (the newly invented Greek men-of-war) to quell a revolt of the latter city.

But Corinth's real prosperity dates from the time of the tyranny (657-581), established by a disqualified noble Cypselus (q.v.). and continued under his son Periander (q.v.). Under these remarkable men, whose government was apparently mild, the city rapidly developed. She extended her sphere of influence throughout the coast-lands of the western gulf; by the settlement of numerous colonies in N.W. Greece she controlled the Italian and Adriatic trade-routes and secured a large share of the commerce with the western Greeks. In Levantine waters connexions grew up with the great marts of Chalcis and Miletus, with the rulers of Lydia, Phrygia, Cyprus and Egypt. As an industrial centre Corinth achieved pre-eminence in pottery, metal-work and decorative handicraft, and was the reputed "inventor" of painting and tiling; her bronze and her pottery, moulded from the soft white clay of Oneium, were widely exported over the Mediterranean. The chief example of her early art was the celebrated "chest of Cypselus" at Olympia, of carved cedar and ivory inlaid with gold. The city was enriched with notable temples and public works (see § *Archaeology*), and became the home of several Cyclic poets and of Arion, the perfecter of the dithyramb.

The tyranny was succeeded by an oligarchy based upon a graduated money qualification, which ruled with a consistency equalling that of the Venetian Council, but pursued a policy too purely commercial to the neglect of military efficiency. Late in the 6th century Corinth joined the Peloponnesian league under Sparta, in which her financial resources and strategic position secured her an unusual degree of independence. Thus the city successfully befriended the Athenians against Cleomenes I. (q.v.), and supported them against Aegina, their common commercial rival in eastern waters. In the great Persian war of 480 Corinth served as the Greek headquarters: her army took part at Thermopylae and Plataea and her navy distinguished itself at Salamis and Mycale. Later in the century the rapid development of Athenian trade and naval power became a serious menace. In 459 the Corinthians, in common with their former rivals the Aeginetans, made war upon Athens, but lost both by sea and land. Henceforward their Levantine commerce dwindled, and in the west the Athenians extended their rivalry even into the Corinthian Gulf. Though Syracuse remained friendly, and the colonies in the N.W. maintained a close commercial alliance with the mother-city, the disaffection of Corcyra hampered the Italian trade. The alliance of this latter power with Athens accentuated the rising jealousy of the Corinthians, who, after deprecating a federal war in 440, virtually forced Sparta's hand against Athens in 432. In the subsequent war Corinth displayed great activity in the face of heavy losses, and the support she gave to

Syracuse had no little influence on the ultimate issue of the war (see Peloponnesian War). In 395 the domineering attitude of Sparta impelled the Corinthians to conclude an alliance with Argos which they had previously contemplated on occasions of friction with the former city, as well as with Thebes and with Athens, whose commercial rivalry they no longer dreaded. In the ensuing "Corinthian War" the city suffered severely, and the war-party only maintained itself by the help of an Argive garrison and a formal annexation to Argos. Since 387 the Spartan party was again supreme, and after Leuctra Corinth took the field against the Theban invaders of Peloponnesus (371-366). In 344 party struggles between oligarchs and democrats led to a usurpation by the tyrant Timophanes, whose speedy assassination was compassed by his brother Timoleon (q.v.).

After the campaign of Chaeronea, Philip II. of Macedon summoned a Greek congress at Corinth and left a garrison on the citadel. This citadel, one of the "fetters of Greece," was eagerly contended for by the Macedonian pretenders after Alexander's death; ultimately it fell to Antigonus Gonatas, who controlled it through a tyrant. In 243 Corinth was freed by Aratus and incorporated into the Achaean league. After a short Spartan occupation in 224 it was again surrendered to Macedonia. T. Quinctius Flamininus, after proclaiming the liberty of Greece at the Isthmus, restored Corinth to the league (196). With the revival of its political and commercial importance the city became the centre of resistance against Rome. In return for the foolish provocation of war in 146 B.C. the Roman conquerors despoiled Corinth of its art treasures and destroyed the entire settlement: the land was partly made over to Sicyon and partly became public domain.

In 46 Julius Caesar repeopled Corinth with Italian freedmen and dispossessed Greeks. 148
Under its new name *Laus Julii* and an Italian constitution it rapidly recovered its commercial prosperity. Augustus made it the capital of Achaea; Hadrian enriched it with public works. Its prosperity, as also its profligacy, is attested by the New Testament, by Strabo and Pausanias. After the Gothic raids of 267 and 395 Corinth was secured by new fortifications at the Isthmus. Though restricted to the citadel, the medieval town became the administrative and ecclesiastical capital of Peloponnesus, and enjoyed a thriving trade and silk industry until in 1147 it was sacked by the Normans. In 1210 it was joined to the Latin duchy of the Morea, and subsequently was contended for by various Italian pretenders. Since the Turkish conquest (1459) the history of Corinth has been uneventful, save for a raid by the Maltese in 1611 and a Venetian occupation from 1687 to 1715.

Authorities.—Strabo, pp. 378-382; Pausanias ii. 1-4; Curtius, *Peloponnesos* (Gotha, 1851), ii., 514-556; E. Wilisch, *Die Altkorinthische Thonindustrie* (Leipzig, 1892) and *Geschichte Korinth's* (1887, 1896, 1901); G. Gilbert, *Griechische Staatsaltertümer* (Leipzig, 1885), li. pp. 87-91.

(M. O. B. C.)

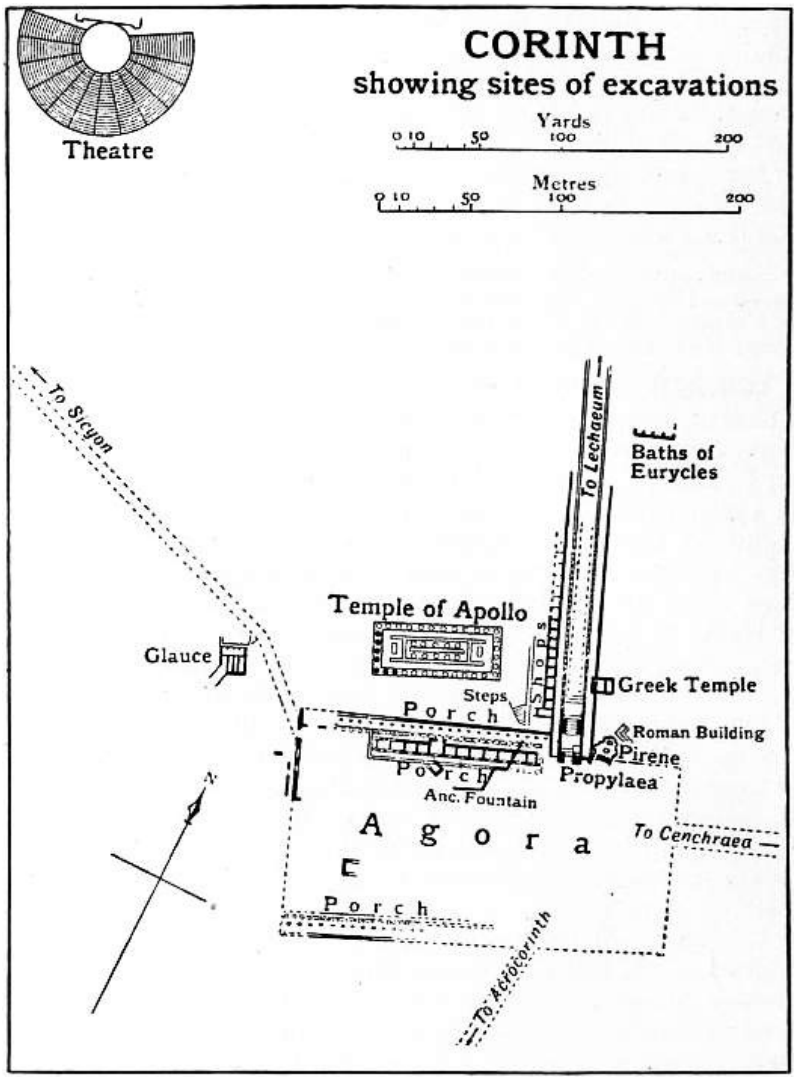
II. *Archaeology and Modern Town.*—The modern town of New Corinth, the head of a district in the province of Corinth (pop. 71,229), is situated on the Isthmus of Corinth near the south-eastern recess of the Gulf of Corinth, 3½ m. N.E. from the site of the ancient city. It was founded in 1858, when Old Corinth was destroyed by an earthquake. It is connected by railway with Athens (57 m.), with Patras (80 m.), and with Nauplia (40 m.), the capital of Argolis. Communication by sea with Athens, Patras, the Ionian Islands and the shores of the Ambracian Gulf, is constant since the opening of the Corinthian ship canal, in 1893. It has not, however, attained great prosperity. It has broad streets and low houses, but is architecturally unattractive, like most of the creations of the time of King Otto. Its chief exports are seedless grapes ("currants"), olive-oil, silk and cereals. Pop. (1905) about 4300.

Old Corinth passed through its various stages, Greek, Roman, Byzantine, Turkish. After the War of Liberation it was again Greek, and, being a considerable town, was suggested as the capital of the new kingdom of Greece. The earthquake of 1858 levelled it to the ground with the exception of about a dozen houses. A mere handful of the old inhabitants remained on the site. But fertile fields and running water made it attractive; and outsiders gradually came in. At present it is an untidy, poverty-stricken village of about 1000 inhabitants, mostly of Albanian blood. Like the ancient city, it spreads out over two terraces, one about 100 ft. above the other. These were formed in different geological ages by the gulf, which had in historical times receded to a distance of 1¼ m. from the city. At the nearest point to the city was laid out the harbour, Lechaeum, a basin dug far into the shore and joined with the city by long walls. At about the middle of the two terraces, 1½ m. long, the edge of the upper one was worn back into a deep indentation, probably by running water, possibly by quarrying. Here was the heart of the ancient city. At the lower end of the indentation is the modern public square, shaded by a gigantic and picturesque plane tree, nourished by the surplus water of Pirene. As the visitor looks from the square up the indentation he sees on a height to the right a venerable temple ruin, and, directly in front, Acro-Corinth, rising over 1500 ft. above the village. Even from the

village, the view over the gulf, including Parnassus with its giant neighbours on the N., Cyllene and its neighbours on the W., and Geraneia on the N.E., is very fine. But from Acro-Corinth the view is still finer, and is perhaps unsurpassed in Greece.

The excavations begun in 1896 by the American school of Classical Studies at Athens, under the direction of Rufus B. Richardson, have brought to light important monuments of the ancient city, both Greek and Roman.

The first object was the locating of the agora, or public square, first because Pausanias says that most of the important monuments of the city were either on or near the agora; and secondly because, beginning with the agora, he mentions, sometimes with a brief description, the principal monuments in order along three of the principal thoroughfares radiating from it. In the first year's work twenty-one trial trenches were dug in the hope of finding a clue to its position. Somewhat less than a quarter of a mile to the N.W. of the temple, set back into the edge of the upper terrace, there was found, under 20 ft. of soil, a ruined Roman theatre built upon the ruins of a Greek theatre. This theatre was, according to Pausanias, on the street leading from the agora towards Sicyon, and so to the west of the agora. Another trench dug across the deep indentation to the E. of the temple revealed a broad limestone pavement leading from the very northern edge of the city up through the indentation, in the direction of Acro-Corinth. It required little sagacity to identify it with the street mentioned by Pausanias as leading from the agora towards Lechaeum. It was practically certain that by following up this pavement to its point of intersection with the road from Sicyon the agora would be discovered.



The limestone pavement, with long porches on either side, was found to stop at the foot of a marble staircase of thirty-four steps of Byzantine construction, underneath which appeared a Roman arrangement of the two flights with a platform halfway up. The top flight led up to the propylaea. The remains of the propylaea above ground are few; but the foundations are massive and well laid, at the end of the upper terrace where it is farthest worn back. These foundations are clearly those of a Roman triumphal arch, which perhaps took the name "propylaea" from an ancient Greek structure on the same spot. This arch appears on Roman coins from Augustus to Commodus; according to Pausanias it bore two four-horse chariots,

one driven by Helios and the other by Phaethon, his son, all in gilded bronze.

Although a considerable part of the agora has been excavated, none of the statues which Pausanias saw in it have been discovered. On the upper (S.) side are excellent foundations of a long porch. On the N. side, stretching westward from the propylaea, are two porches of different periods. The older one, which still existed in Roman times, was backed up against the temple hill, which was cut away to make room for it. An ancient staircase, 15 ft. broad, led down from the temple hill into the lower area of the broad pavement, from which access to the agora and the Pirene was easy.

To the E. of the paved road and close up against the agora itself, only at a much lower level, was found, buried under 35 ft. of earth, the famous fountain Pirene, tallying exactly with the description of Pausanias, as “a series of chambers that are like caves, and bearing a façade of white marble.” This Pirene originally had a two-storey façade of Roman fashion made of limestone, but, before the time of Pausanias, it had received a covering of marble which has now fallen off, but has left traces of itself in the holes drilled into the limestone, in the rough hacking away of the half columns, and in the numerous marble fragments which lay in front of the façade. This was not, however, the earliest form of Pirene. It was built up in front of a more simple Greek fountain-structure which consisted of seven cross-walls placed under the edge of the stratum forming the upper terrace. Six chambers were thus formed which showed the chaste beauty of Greek workmanship, while the stratum of native rock which covered them gave a touch of nature and made them caves. The walls ended at the front in the form of an *anta* delicately carved. On a parapet at the rear of each chamber a single slender Ionic column between two *antae* supported an Ionic entablature. The stuccoed walls were striped horizontally and vertically with red on a blue field, on which appear fishes swimming. The chambers were really reservoirs, filled by the water which flowed along their backs.

We know nothing further about the Greek system, but in the Roman adjustment the water was led from this series of cisterns into a large rectangular basin which formed the centre of a quadrangle 50 ft. square. In the N.E. corner is a hole through which it was drained, and at the N. end a flight of five steps led down into it. Besides the four orifices through which water flowed into it there were two other holes about 4 in. lower down to keep the basin from overflowing. Two uses of water are mentioned by Pausanias, “The water,” he says, “was sweet to drink,” and also good for tempering bronze. It seems clear then, that the basin was at stated times used for the latter purpose, and was converted into a tank. The bronze was plunged into the water in a red hot condition, and thus acquired its peculiar excellence.

In Byzantine times five columns, of various diameters, with no two bases of the same size, bearing Corinthian capitals, were set up about 6 ft. in front of the façade. Blocks of marble which had seen use elsewhere ran from them back into the façade, which was hacked away in rough fashion to receive them. Probably these blocks formed the floor of a balcony, a tawdry marble addition.

Pirene was at all times the heart of the city. Here it was that Athena helped Bellerophon to bridle Pegasus; and hence she received the epithet of “the Bridler,” Chalinitis. The importance of the fountain is attested by the fact that the Greek poets and the Delphic oracle instead of saying Corinth said, “the city of Pirene.” That it was a place of common resort is shown by Euripides (*Medea*, 68 f.), where it is said that the elders were to be found “near the august waters of Pirene, playing draughts (πεσσί).” The quadrangle, with its walls 20 ft. high, and its three apses probably covered with half domes, provided considerable shade. There is reason for supposing that the marble coating of the façade, and perhaps the erection of the quadrangle, also covered with marble, were the work of Herodes Atticus, and therefore just completed when Pausanias saw them. A base on which stood a statue of Herodes’ wife, Regilla, was found close to the façade, inscribed with fulsome praise, stating that the statue was “set up by order of the Sisyphaean Senate at the outpouring of the streams.” Two inscriptions of Roman times make the identity of Pirene certain, if there could be any doubt in the face of the exact agreement of Pausanias’s description with the structure.

Of the surviving monuments of the Greek city the most important is the temple of Apollo. While it was probably badly wrecked by the Romans at the sack of the city, its massive columns with the entablature survived. That it was restored and was in use in Roman time is shown by the fact that both the seven columns still standing and two fallen columns discovered in the excavations, to say nothing of several fragments of others, have a thick coating of Roman stucco laid over the finer Greek. The style of the temple points to 600 B.C., when Periander was at the height of his power. According to Herodotus he made his doubtful adherents deposit pledges of faithfulness in the temple of Apollo. Quite near the W. end of the temple is the fountain Glaucē cut out of a cube of rock, apparently left standing when the material for the temple was quarried around it. In it were carved out four chambers or

reservoirs all connected and a porch consisting of three pillars between two *antae* in which the side walls ended. The water coming down from Acro-Corinth was introduced from behind. Approached by a flight of steps partly rock-cut, it had at the rear of the porch a balustrade with marble lions' heads through which the water overflowed. Two of these heads were found. The top of the system of reservoirs was too heavy for the slender cross walls and pillars, only the stumps of which remain; a collapse took place, by which the porch and the W. compartment were carried away. From its location only about 50 yds. from the temple it seems to have been the temple fountain. It was named after the second wife of Jason, Glaucē, who plunged into it to quench the fire of the poisoned bridal garments given her by Medea.

It is not surprising that monuments were found of which there is no record in ancient writings. Such was a very ancient fountain W. of the propylaea, 25 ft. below the surface. Under remains of the Roman city appeared a triglyphon of porous stone with an extent from N. to S. of about 30 ft. At the N. end it turned westward at an obtuse angle and extended about 10 ft. in that direction. The system is about 4 ft. high. While the colours on the metopes and triglyphs had faded somewhat, the border above them, topped with a cornice projecting 6 in., retained a most brilliant maeander pattern of red, blue and yellow, while below these were two bands of godroons of blue and red. On the top of this system as a foundation were set several statue bases, one bearing the signature of Lysippus, which shows that the system stood there at least as early as the 4th century B.C. Some parts of it may have been taken from older buildings, but not the cornice nor the corner metope block which formed an obtuse angle. Near the middle of the long side is an opening; and from it a flight of seven steps led down to a trapezoidal chamber, on the back wall of which are two lions' heads of bronze, through which water, conducted in long semi-cylindrical channels of bronze, from behind the wall, poured out into pitchers for which holes are cut in the floor. Channels for the overflow were cut along the back and sides of the chamber. All this was once approached from the front at the level of the floor, long before the triglyphon was set up, 7 ft. above it. Considering its depth this fountain must be dated back to the 5th century, probably near the beginning. The style of the lions' heads would hardly admit a later date. This is the only case of an ancient Greek fountain of such an early date, unaltered and intact. The pains taken to preserve it suggest that it was invested with a sacred character.

Sculptures in large numbers, both of the Greek city and the Roman, are collected in the new museum erected by the Greek government near the plane tree. The finest of the Greek sculptures is the head of a youth found in the orchestra of the theatre at a depth of 23 ft. It lacks only the lower part of the bridge of the nose, and has style and character, resembling Myron's heads in shape and in the hair. A large fragment of a relief also of early date, represents two dancing maenads half life-size. Most impressive is a colossal female figure of grand style and excellent drapery. If not an original of the 5th century it is one of the finest of copies. Of the great amount of Roman sculpture the best single piece is a head of Dionysus under the influence of wine, crowned with a wreath of ivy, his right hand thrown carelessly over his head. The fine execution is all that differentiates it from the numerous copies in various museums. The most important sculptures of the Roman period, however, are a group of colossal figures supporting an entablature, a large part of which has been recovered. One of the figures, a barbarian captive, effeminate like those which appear on Roman triumphal arches, is practically intact. Another, its counterpart, is preserved down to the hips. These differ from Caryatids, which bear the architrave on their heads. Here a pilaster forming the back of the figure receives a Corinthian capital, upon which the architrave rests; and the figures merely brace up the pilaster. Two of these figures stood at the end of a re-entrant curve, several pieces of which are preserved. Two female heads of like proportions belong to the system, since the backs of their heads are cut away in the same manner as the male heads. The building to which the figures belonged, a porch, extended westward from the propylaea; and may be traced for 45 ft. All that is left of it is the core of *opus incertum*.

The excavations brought to light vases and fragments of vases, of nearly every period except the Mycenaean. On the N. side of the hill on which stands the village schoolhouse, from which one looks across the indentation to the Apollo temple, several vertical shafts in the limestone stratum were found, and underneath it in horizontal passages were bodies surrounded with vases. These are pre-Mycenaean, and their only ornament is scratches, into which white matter has been pressed. There are over fifty of these vases, of multiform shapes. By the side of the Lechaeum road, near the steps leading to the propylaea, were found in deep diggings thirteen early Geometric vases. Proto-Corinthian vases also were everywhere strongly represented. The best find of pottery, however, was an Old Corinthian celebē (κελέβη, drinking vessel), about a foot high, in forty-six fragments, found in a well, 30 ft. below the surface. On one side are a boar and a leopard confronting each other, and on the other side two cocks in the same heraldic arrangement. On the projecting plates supported by the handles are palmettes.

Two inscriptions in the Old Corinthian alphabet came to light. But, on the whole, inscriptions before the Roman times were almost entirely lacking. One inscription, though of late date, deserves mention. On a marble block broken away at both ends, which in a second use was a lintel, we read ΑΓΩΓΗΕΒΡ, which can only be συναγωγὴ Ἑβραίων (synagogue of the Hebrews).

The excavations were confined to a small part of the city, but there is little doubt that it was the most important part. By good fortune the earth here was very deep. On the higher level of the agora and the Apollo temple, where the depth of earth is comparatively slight, there is little hope of important finds. There is no hope of finding the great bronze Athena, which stood in the middle of the agora. To the west, beyond the theatre, one might find the temple of Athena Chalinitis and the fountain Lerna, and somewhere near Glauce, the Odeum and the tomb of Medea's children; but it is more likely that they have disappeared. On the Lechaeum road, on which a bewildering wealth of fountains and statues is enumerated, only the Baths of Eurycles below the plane tree were found; deep diggings were made into them, and the foundations of the façade laid bare. This great complex was apparently supplied with water from Hadrian's aqueduct from Lake Stymphalus. On the street going eastward from the agora nothing is mentioned between it and the city wall. This level eastern part was probably given up to fine houses, all traces of which have perished. Outside the gate, apparently, was the famous Craneion, shaded by cypress trees, and near it the tombs of Lais and Diogenes, a precinct of Bellerophon and of Athena Melaenis. The number of temples and shrines enumerated by Pausanias along the road leading up to Acro-Corinth is bewildering. Here were represented Isis and Serapis, Helios, the Mother of the Gods, the Fates, Demeter and Persephone; but no trace of these temples remains. At the highest point of the road, according to Pausanias, there stood the famous temple of Aphrodite, but the remains excavated at this point seem to be those of a late tower, and the few foundations below it do not resemble those of a temple. We are equally unfortunate in regard to Strabo's splendid marble Sisyphaeum just below the summit. The fountain Pirene, "behind the temple," still exists, but so much earth has accumulated about it that one now approaches it by going down a ladder. The water is so crystal clear that one inadvertently steps into it. The identity of name with that of Pirene in the city is justified by the fact that the upper spring is the source of the Pirene below.

See, for details, the *American Journal of Archaeology* (from 1896).

(R. B. R.)

CORINTH, a city and the county-seat of Alcorn county, Mississippi, U.S.A., situated in the N.E. part of the state, about 90 m. E. by S. of Memphis, Tennessee. Pop.(1890) 2111; (1900) 3661 (1174 negroes); (1910) 5020. It is served by the Mobile & Ohio and the Southern railways; and by a branch of the Illinois Central connecting Jackson, Miss., and Birmingham, Ala. It has woollen mills, cotton compresses, clothing, furniture, and spoke and stave factories and machine shops, and is a cotton market. Because of its situation and its importance as a railway junction, Corinth played an important part in the western campaigns of the Civil War. After the first Confederate line of defence had been broken by the capture of Fort Henry and Fort Donelson (February 1862), Corinth was fortified by General P. G. T. Beauregard, and was made the centre of the new line along the Memphis & Charleston railway, "the great East and West artery of the Confederacy." Grant's advance on this centre, then defended by General A. S. Johnston, led to the battle of Shiloh, fought on April 6/7 about 20 m. N.E. of Corinth; after this engagement Beauregard withdrew to Corinth. General H. W. Halleck, with a greatly superior force, cautiously and slowly advanced upon the Confederate position, consuming more than a month in the operation. During the night of the 29th of May Beauregard evacuated the place (which was occupied by the Federals on the following day), and re-established his line at Tupelo. Corinth then became the headquarters of the Union forces under General W. S. Rosecrans, who on the 3/4 of October 1862 was fiercely attacked here by General Earl von Dorn, whom he repulsed, both sides suffering considerable losses in killed and wounded, and the Confederates leaving many prisoners behind.

CORINTH, ISTHMUS OF, an isthmus of Greece, dividing the Gulf of Corinth from the

Saronic Gulf. Ships were sometimes dragged across it in ancient times at a place called the Diolcus (διέλκειν, to pull or cut through). Nero, in A.D. 67, began cutting a canal through it; but the project was abandoned. In 1893 a ship canal was opened, with its western entrance about 1¼ m. N.E. of the little town of New Corinth. It was begun in 1881 by a French company, which ceased operations in 1889, a Greek company completing the undertaking. The canal is about 70 ft. broad, nearly 4 m. long, and 26 ft. deep. It shortens the journey from the Adriatic to the Peiraeus by 202 m., but foreign steamships seldom use it, as the narrowness of the canal and the strength of the current at times render the passage dangerous. About 1 m. from its western end it is crossed by the iron bridge of the Athens and Corinth railway. Traces of the Isthmian wall may still be seen parallel to the canal; it was constructed, at an unknown date, for the fortification of the Isthmus. Just to the S. of it, and about ½ m. from the sea are the remains of the Isthmian precinct of Poseidon and its stadium, where the Isthmian games were celebrated. This precinct served also as a fortress. Within it have been found traces of the temple of Poseidon and other buildings.

(E. Gr.)

CORINTHIANS, EPISTLES TO THE, two books of the Bible (New Testament). The two letters addressed to the Christian church at Corinth are, with Romans, the longest of the Pauline epistles. They possess a singular interest and value, due to the apostle's close acquaintance with the members of the church addressed and their circumstances. In consequence of this intimate character the First Epistle to the Corinthians presents a picture, unrivalled in fulness and colour, of the life of a Pauline church, while the Second Epistle, written out of strong feeling, gives a revelation of the innermost feelings and characteristic 151
temperament of Paul himself, such as is not elsewhere to be found. Dealing, as both epistles do, with concrete problems of morals and with such tendencies of thought and life as find their parallel in all times, they are full of instruction to the modern Church; and this instruction increases in effectiveness the better we come to understand ancient modes of thought in their diversity from our own.

Lofty and vivid expression of the apostle's thought on the highest themes is also to be found here—witness the "Hymn to Love" (1 Cor. xiii.), the declaration of the resurrection (1 Cor. xv. 51-57), or the list of signatures of the true servant of God (2 Cor. vi. 3-10). In important historical statements, also, these epistles stand second to none, not even to Galatians—as may be indicated by a reference to the words about the institution of the Lord's supper (1 Cor. xi. 23-26) and the death and resurrection of Jesus Christ (1 Cor. xv. 1-8); or to the autobiographical utterances in which Paul explains that he was once a persecutor of Christians (1 Cor. xv. 9), mentions his escape from Damascus (2 Cor. xi. 32 f.), describes his coming to Corinth (1 Cor. ii. 1 ff.), enumerates his sufferings for the Gospel (2 Cor. xi. 16-31), tells of his visions (2 Cor. xii. 1-9). In the Corinthian epistles we come in contact, as nowhere else, with the man Paul and his daily life.

The history of Paul's relations with Corinth can be made out from the Acts and the Epistles with considerable clearness. The chronology of Paul's life is not at any point surely determinable within a range of less than five years, but it must have been in the autumn of one of the years A.D. 49-53 (the usual chronology has fixed on A.D. 52) that the arrival of Paul in Corinth took place as described in Acts xviii. 1. In his so-called second missionary journey Paul had been driven by irresistible inner impulses to push on into Greece the missionary work already begun in Asia Minor. First he preached in the province of Macedonia, where the work opened auspiciously at Philippi, Thessalonica and Beroea; then, apparently driven out by the violent opposition of the Jews, he moved on to Achaea, and after rather unsuccessful attempts to secure converts among the philosophers of Athens came to Corinth.

This ancient city, taken and destroyed by the Romans in 146 B.C., had been refounded by Julius Caesar as a Roman colony in 46 B.C., settled with Italian colonists, and made a residence of the Roman governor. Its situation on the isthmus of Corinth made it a stage on the greatest of the trade routes between Rome and the East, and it was at this time the commercial capital of Greece. The traditions of licentiousness and sensuality associated with the worship of Aphrodite, which had given rise to the sinister word *corinthianize*, increased the natural tendencies of a great city to wickedness and wanton luxury. Here, as in all great centres of trade and industry, there was a body of Jews, with a synagogue. The conditions of life in Corinth—the heathen surroundings, the temptations to vice, the competition and disputes of trading life, the controversial arguments of Jews, the alertness of mind of a lively

city people, the haughty temper of the inhabitants of the capital—all these are to be seen reflected in the earnest paragraphs of Paul's two epistles.

The founding of the church in Corinth (cf. 1 Cor. iv. 15) and nearly everything important that we know of Paul's first visit there will be found, well told, in Acts xviii. 1-18, a passage for which, evidently, the writer of the history had excellent sources of information. Of the somewhat chastened spirit with which Paul came he himself tells in 1 Cor. ii. 1-5. His success was prompt and large, and in the year and six months of his stay a vigorous church was gathered, including Aquila and Priscilla, as well as Crispus, the ruler of the synagogue, of whom we hear again in 1 Cor. i. 14; whether Sosthenes, who seems to have succeeded Crispus in his office (Acts xviii. 17), was afterwards converted and became the Christian brother mentioned in i Cor. i. 1 cannot be known. The church evidently consisted mainly of Gentile converts, but with some Jews (i Cor. x. 14, "flee from idolatry"; xii. 2, "when ye were Gentiles "; vii. 18, "was any man called being circumcised?").

The apostle's next long stay was at Ephesus, whither he seems to have gone in the course of the same year in which he left Corinth (A.D. 51-55) and where he stayed three years. Before he arrived at Ephesus Aquila and Priscilla, who had settled there, made the acquaintance of Apollos, a Jew from Alexandria, well-educated and zealous, who with imperfect Christian knowledge was preaching the gospel of Jesus to his fellow-countrymen in the synagogue. He presently went to Corinth and carried on Christian work there with success (Acts xviii. 24-28), "I planted," says Paul (1 Cor. iii. 6), "Apollos watered." From this point on our information comes from the epistles, of which the first was written from Ephesus before Pentecost of the year in which Paul left that city, i.e. A.D. 54-58 (1 Cor. xvi. 8).

It appears that the church grew in numbers, for Paul refers in 2 Cor. i. 1 to "saints who are in all Achaea." Its membership was mostly of humble people (1 Cor. i. 26-29), but probably not exclusively so, for Crispus and Stephanas (who with his household was able to render services that may well have been costly, 1 Cor. xvi. 15), Gaius and Erastus (Rom. xvi. 23), would appear to have been persons of substance. The references to law-suits perhaps imply fairly prosperous traders, the tone of the letters suggests considerable education and a reasonable degree of property on the part of many (though not all) of the readers.

The first need of the church for help from Paul seems to have grown out of the dangers from surrounding heathenism. In 1 Cor. v. 9 we read of a letter in which Paul had directed the Christians "not to have company with fornicators." This letter, so far as we know, opened the correspondence which was maintained during the three years of Paul's stay in Ephesus, whence there was easy and frequent communication with Corinth. He refers to it in order to explain the injunction which had been (perhaps wilfully) misunderstood and exaggerated.[1]

While at Ephesus Paul was visited by persons of the household of Chloe (1 Cor. i. 11), and by Stephanas with Fortunatus and Achaicus (probably his slaves, xvi. 17). From them and from a letter (vii. 1), which was brought perhaps by Stephanas, he was able to gain the intimate knowledge which the epistles everywhere reveal. The letter from Corinth must have contained inquiries as to practical conduct with regard to marriage (vii. 1), meat offered to idols (viii. 1), and the "spiritual gifts" (xii. 1), and may well have related to other matters, such as the collection of money for Jerusalem (xvi. 1), the visit of Apollos (xvi. 12), the position of women (xi. 2). Paul's reply includes many other topics. When it was sent, his trusted helper Timothy had also started on his way (probably through Macedonia) to Corinth, to contribute there to the edification of the Christians (iv. 17, xvi. 10). The letter itself was doubtless sent by the hand of returning Corinthians, possibly by the unnamed brethren referred to in xvi. 11, and was expected to arrive before Timothy.

First Epistle.—The first epistle (in many respects the most systematic of all Paul's letters) is a pastoral letter, dealing both with positive evils that need correction, and with difficult questions of practice and of thought upon which advice may be valued. Through it all there is a genial undercurrent of confidence in the personal loyalty of the Corinthian church to Paul, its founder and father. We shall be aided to understand its contents by a brief summary of the tendencies and conditions at Corinth which it reflects.

First of all there was a lack of supreme devotion to the Cause itself, which led the Corinthians to forget that they were first, last and always Christians, and so to form factions and parties. Of these there were distinguished at least three, attached to the names respectively of the founder Paul, of the learned Apollos, and of the great pillar-apostle at Jerusalem, Peter, besides, as many hold, a fourth, which arrogantly claimed to be the party of Christ (i. 12). What were the precise motives and principles of these parties cannot be determined. They do not in any case seem to represent recognizable definite points of view with regard to the controverted matters that are taken up in the epistle. Yet some conjectures are possible. Paul and Apollos were personally on friendly terms (xvi. 12, cf. iii. 5-9, iv. 6), and

were understood to be in fundamental agreement. But doubtless the more elaborate discourses of Apollos were admired, and Paul's teaching seemed in contrast bare, plain and crude (cf. 2 Cor. x. 10). The contrast between the Hellenic and Jewish types of thought may well have played a part also. Paul seems to be replying to such criticisms brought against him when he declares that he deliberately chose to bring to Corinth not the "wisdom of men" but the "power of God" (i. 17, ii. 1-5), and informs them that he has a store of wisdom for those who are ready for it (ii. 6). On the other hand the party of Cephas must have had Jewish-Christian leanings. A little later, in the second epistle, such a tendency is seen breaking out into violent opposition to Paul. The "Christ-party," if, as is probable, it existed, must also have been a party with a Judaizing turn (cf. 2 Cor. x. 7, xi. 22 f.), perhaps of a more extreme character. The danger of shattering the solid front of the Christian church against surrounding heathenism was keenly felt by Paul, as nearly every one of his epistles testifies. How serious it was at Corinth is shown by the long passage (chaps, i.-iv.) in which he points out that sectarianism is a mark not of superior but of inferior maturity and devotion.

Other difficulties arose from various causes. The influences of the heathen world, from which most of the Corinthian Christians had come and to which their friends and neighbours belonged, were always with them, and the problems created by these relations were very numerous. Christianity had brought over and had even intensified the moral code of Judaism, and, especially in the relations of the sexes, this brought a strain upon the naturalistic impulses and lower standards of converts trained in a different system.

Again, there were law-suits in the ordinary courts, a natural result of the frictions and strains of an oriental trading community. To Paul this was abhorrent, and here too he urges a complete break with their past. With regard to the social customs of meals at which meat that had been offered in heathen sacrifices was a part, and of feasts actually at heathen temples, doubtful questions arose. Was it a denial of the faith to eat such food or not? Mixed marriages, too, had their problems; ought the believing wife to separate herself? Ought the believing husband to insist that his heathen wife stay with him against her will? And, further, in the case of slaves, does the consciousness of Christian manhood give a new motive for trying to gain worldly freedom? In all these matters Paul gives sensible advice. There were clearly two groups of Christians, the "weak," or scrupulous, whose principle was to abstain, and the "strong," or free, who maintained that the morally insignificant must not usurp a place to which it has no right. Paul sides with neither, but follows two principles, one that the church and its members must be kept pure, the other that the moral welfare not only of the individual but of his neighbour must be the controlling motive.

Not due so much to heathen influences as to the natural tendencies of imperfect and passionate human nature were other conditions. The most striking incident here, and one which gave Paul much concern, was the case of a man who after his father's death had married his own stepmother ("the case of incest"). That this was rare in the ancient world and generally abominated both by Jews and Greeks made it seem to Paul the more imperative that this stain on the Christian church should be removed. His language shows his indignation and grief that the Corinthians themselves have not already taken the matter in hand.

Besides these troubles from heathenism there were questions of asceticism; the Greek reaction against naturalism held that nature was vile and marriage wrong. Paul had a qualified tendency to asceticism, but he shows excellent good sense in his discussion of these delicate matters.

A different set of difficulties arose from the freedom into which Christianity had introduced persons from all classes of life. What degree of freedom was permissible to a Christian woman? How far must a woman of the lower classes who became a Christian subject herself to the restrictions of a higher class of society? Might a woman, as a free child of God, take part in the Christian public meeting?

Also in matters pertaining to the common religious life of the new society the new situation raised new problems. How should reasonable order be maintained in the wholly democratic forms of the church devotional meeting? What value should be assigned to the different religious functions or "spiritual gifts"? Did any of them confer the right to a consciousness of God's special favour? Again, the celebration of the Lord's supper, which was associated with a proper meal, was marred by exhibitions of selfishness and irreverence that needed correction.

The great variety of practical problems present to the anxious minds of the Corinthians themselves and of germinant abuses revealed to the paternal scrutiny of the apostle, opens to us some notion of the exciting times in which the Corinthian Christians stood, and explains the intensity and detailed concern of the apostle. From every side and at every moment new and often difficult questions were arising; to every one of them belonged remoter relations that made it profoundly important. It is by no accident that Paul is in the habit of treating the

simplest moral issues by reference to the highest principles of his theology. From the situation at Corinth we gain an idea of what was taking place in many cities, but in the seething life of so great a capital with more rapid and varied development.

Of strictly intellectual and theological problems or errors only one is treated systematically, although at many other points in the practical discussions we can detect the theoretical basis cf the errors combated and the theological foundations of Paul's own judgments. Questions about the resurrection, however, had appeared, of a rationalistic nature and evincing an Hellenic failure to understand the Jewish view. In his reply Paul shows that he too recognizes the significance of the Greek's difficulties and he presents a conception which, fortunately for the later Church, does some measure of justice to the superior scientific insight of their attitude.

Second Epistle.—After the despatch of First Corinthians there took place, it would appear, the riot in the theatre at Ephesus (Acts xix. 23 ff.), to which 2 Cor. i. 8 seems to refer. On leaving Ephesus Paul went to Troas (2 Cor. ii. 12), then to Macedonia, and from Macedonia (2 Cor. vii. 5, viii. 1, ix. 2) he wrote Second Corinthians. This must have been in the autumn of one of the years A.D. 54-58, nearly or quite a year after First Corinthians was written (cf, "a year ago," 2 Cor. viii. 10, ix. 2 and 1 Cor. xvi. 1-4). In the meantime there had been exciting developments in Paul's relations with Corinth, the course of which we can partly trace by the aid of the second epistle. These events explain the great difference in tone between the second epistle and the first.

Several allusions in Second Corinthians show that Paul had already twice visited Corinth (2 Cor. ii. 1, xii. 14, xii. 21, xiii. 2). The second of these visits is not mentioned in Acts; it is referred to by Paul as having a painful character. The most natural hypothesis is that, in consequence of a growing spirit of insubordination on the part of the Corinthians, Paul found it necessary to go to Corinth from Ephesus (probably by sea direct) at some time after First Corinthians was written. Of what happened on this visit, which the writer of Acts has naturally enough thought it unnecessary to mention, we seem to learn further from certain passages in the letter (2 Cor. ii. 5-11, vii. 9) which refer to some sort of an insult to Paul for which there has now been repentance and which the apostle heartily forgives. For the offender he entreats also the pardon of the church. It may well be that the sad affair had to do with the gross offender of the "case of incest" (1 Cor. v. 1-8), who with the support of his fellow Christians may have refused to conform to Paul's imperative commands. We may suppose an angry scene, possibly an attack of Paul's bodily ailment (especially if the "thorn in the flesh" be understood to be epilepsy), the immediate triumph of the adversaries, Paul's speedy departure in grief. If, as other scholars hold, the offender was not the same as in the first epistle, the general picture of the visit will not have to be much changed.

Besides making this visit it is probable that Paul also wrote to Corinth a letter, now lost, intended to secure the result of which the unfortunate visit had failed (ii. 3, 4, 9, vii. 8, 12). It, is, however, possible that the allusions merely refer to I Cor. v., in which case it is not necessary to assume this intermediate letter. The letter, if there was one, may have been sent by Titus, whom Paul in any case commissioned to go to Corinth and try to mend matters. Paul describes his anxiety over this last resource in touching language (ii. 12, 13). Disappointed that Titus did not meet him at Troas, he moved on to Macedonia, and there (vii. 5-9) was rejoiced by the coming of the envoy with good news of the complete return of the Corinthians to integrity and loyalty.

Second Corinthians was Paul's response to this friendly attitude reported by Titus. It went by the hand of Titus, who was promptly sent back to complete the work he had so well begun (viii. 6, 16-24). In company with him (viii. 18) was sent a brother (unnamed) who had already been appointed as the representative of the churches to accompany Paul in carrying to Jerusalem the great collection of money now nearly completed. The greater part of the epistle consists of the outpouring of Paul's thankful and loving heart (chaps, i.-vii.), together with directions and exhortations relating to the collection.

But the epistle contains evidence of another and a disagreeable side to the affairs of the Corinthian church. Especially the last four chapters, but also references in the earlier chapters, show that virulent personal opponents of Paul and his work had been exercising an evil activity. It is not easy to discover the precise relation of these persons to the parties at Corinth or to the series of events which have just been sketched, but we can well understand that their presence and efforts played a large part in the history. We learn that Jewish Christians (xi. 22) had come to Corinth, doubtless from Jerusalem, with letters of recommendation (iii. 1). They urged their own claims as apostles (though not of the twelve), and set themselves up as superior to Paul (xi. 5, xii. 11, v. 12, xi. 18). Paul calls them "false apostles" (xi. 13-15), and declares that they preach "another Jesus, another Spirit, another

Gospel" (xi. 4). That in Paul's judgment his influence with the Corinthian church depended on overthrowing the power of these disturbers of the peace is plain, and this accounts for the strenuous, and occasionally violent, tone of his polemic in chapters x.-xiii. As we compare them with the Judaizers of Galatia it seems that their polemic was less on the ground of principles and doctrines, and more a personal attack. Paul does not much argue, as he does in Galatians, against the inclination of Gentile Christians to subject themselves to the Law (yet note the contrast of the old veiled covenant and the new open revelation, iii. 4-18, esp. iii. 6); he is engaged in personal defence against charges of carnal motives (x. 2), perhaps even of embezzlement (xii. 16-18), and also of fickleness (i. 12-ii. 4). When he ironically calls himself a "fool" (xi. 1, 16, 17, 19, 21, xii. 6-11), he is doubtless taking up their term of abuse, and in many of the hard passages of this most difficult of all Paul's epistles we may suspect that half-quoted flings of the enemy glimmer through his retort. From 2 Cor. x. 7, xi. 22 it may be inferred that these Jewish Christians had something to do with the "Christ-party" of which we seem to hear in the first epistle.

To the tact and firmness of Titus must be ascribed much of the successful issue of these dealings with the Corinthians. Paul spent the following winter at Corinth (Acts xx. 2, 3); while there he wrote the Epistle to the Romans, which in its milder tone gives clear indication that the day of violent controversy with Judaizing emissaries like those who came to Galatia had passed. There was indeed, as might have been expected, trouble from enemies among the Jews, but Paul escaped the danger, and with the money for the mother church, the collection of which had so long lain near his heart, he was able to start for Jerusalem in the spring of one of the years 55-59 (See Paul).

In later time (circ. A.D. 95) we hear from the epistle of Clement of Rome that the Corinthian church paid full honour to Paul's memory; and circ. A.D. 139, the excellent Catholic (though Hebrew) Christian Hegesippus found himself deeply refreshed by the honest life and the fidelity to Christian truth of the descendants and successors of the Christians over whom Paul had laboured with such faithful oversight and so many anxious tears.

Critical Questions.—The manuscript evidence for the Corinthian epistles is the same as for the other epistles of Paul (see Bible: *New Testament*). Of early attestation the amount is rather greater for First Corinthians than for other epistles. Not only were both epistles included without question in the Pauline canon of Marcion (circ. A.D. 150) and in the Muratorian list (end of 2nd century), and known to various Gnostic sects of the 2nd century, but Clement of Rome (circ. A.D. 95) makes a specific reference (xlvii. 1) to the fact that the Corinthians "received the Epistle of the blessed Apostle Paul," and proceeds with an unmistakable quotation from 1 Cor. i. 11-13. Other quotations from First Corinthians are found in Clement, Ignatius, Polycarp, Athenagoras, Theophilus, Irenaeus, Clement of Alexandria, Tertullian, while use of the epistle can probably be detected in Hermas. Second Corinthians was, and still remains, less quotable, but it is probably used by Polycarp, perhaps by Ignatius, and by the presbyters known to Irenaeus, and it was freely used by Theophilus, Irenaeus, Clement of Alexandria and Tertullian.

The only serious doubt of the genuineness of First and Second Corinthians has been that of the so-called Dutch school of critics, in the latter part of the 19th century, and forms a part of their attempt (the first since that of Baur) entirely to reconstruct the history of early Christianity. Their view that the Corinthian epistles are the product of a body of progressive Christians in the 2nd century, who ascribed to a legendary Paul the advanced views they had themselves developed, has not commended itself to critics, and seems to be burdened by nearly all possible difficulties. The genuineness of both epistles is, in fact, amply attested not only by early writers, but by the surer proof of complicated and consistent concreteness, with perfect adaptation to all we know of Paul and of the passing circumstances of the earliest days of Christianity in Greece. For a writer a century later to have composed the Corinthian epistles and then successfully passed them off as the work of Paul could be explained only by an hypothesis of inspiration! It would have been as difficult as to forge a daily newspaper. It is to be observed that the two epistles are so intimately connected by their contents with Romans and Galatians that the four together support one another's genuineness.

In Second Corinthians two important questions of integrity have been much discussed. (1) 2 Cor. vi. 14-vii. 1 is a passage somewhat distinct from its context, and introduced by a seemingly abrupt break in the sequence of thought. It is, therefore, held by some (including G. Heinrici) to be an interpolation by another writer, by others (as A. Hilgenfeld) to be a part of the letter referred to in 1 Cor. v. 9. But the arguments against Pauline authorship are not convincing; there is after all a certain real connexion to be traced between the section and vi. I; and the resemblance to the substance of 1 Cor. v. 9 is natural in any case. (2) More important is the question as to 2 Cor. x.-xiii. Since J. S. Semler (1776) it has been held by careful scholars that these chapters are written in a tone of excited irritation which is out of

accord with the genial tone of gratified affection and confidence that pervades chaps, i.-ix. Hence such scholars as A. Hausrath, R. A. Lipsius, O. Pfleiderer, P. W. Schmiedel, A. C. M'Giffert have adopted the view that these four chapters were not written as part of Second Corinthians, but, while unquestionably from Paul's hand, were from a separate letter (the "Vier-kapitel-Brief"), probably the same as that supposed to be referred to in 2 Cor. ii. 3-9, vii. 8-12. This theory is, however, probably not correct, for while, on the one hand, it is based on an exaggeration of the differences and a neglect of certain lines of connexion between the chaps, x.-xiii. and chaps, i.-ix., on the other hand the identification supposed is made difficult by several facts. Thus these chapters contain no mention whatever of the offender of 2 Cor. ii. 5-11, of whose case the intervening letter must have mainly treated; again, x. 1, 9, 10, 11 imply a previous sharp rebuke already administered, such as is hardly accounted for merely by First Corinthians; and finally, xii. 18 implies that these four chapters were not written until after Titus's visit, that is, that they were written at just the same time as Second Corinthians. 154

An apocryphal correspondence of Paul and the church at Corinth, consisting of the church's letter and Paul's reply, had canonical authority in the Syrian church in the 4th century (Aphraates, Ephraem). It is preserved in Armenian and Latin manuscripts, and is now known to have been a part of the Acts of Paul, written in the 2nd century. The letters relate to the condemnation of certain Gnostic views. For a translation see Stanley's *Epistles of St Paul to the Corinthians* (4th ed., 1876), PP. 593-598. See Harnack, *Geschichte der altchristlichen Literatur*, i. pp. 37-39, ii. 1, pp. 506-508; Bardenhewer, *Geschichte der altkirchlichen Literatur*, i. pp. 463-467; Hennecke, *Neutestamentliche Apokryphen*, pp. 362-364, 378-380.

BIBLIOGRAPHY.—On the Corinthian Epistles consult the *Introduction to the New Testament* of H. Holtzmann (1885, 3rd ed. 1892); B. Weiss (1886, 3rd ed. 1897, Eng. trans. 1887); G. Salmon (1887); A. Jülicher (1894, 5th and 6th ed. 1906, Eng. trans. 1904); T. Zahn (1897-1899, 2nd ed. 1900); and the articles in the Bible dictionaries, especially those by A. Robertson in Hastings's *Dictionary*. See also *Lives of Paul*; and the general works on the *Apostolic Age* of C. von Weizsäcker (1886, 2nd ed. 1892); O. Pfleiderer, *Das Urchristentum* (1887, 2nd ed. 1902, Eng. trans. 1906); and A. C. M'Giffert (1897). Especially valuable for 1 and 2 Corinthians is E. von Dobschütz, *Christian Life in the Primitive Church* (1902, Eng. trans. 1904).

In English, Dean Stanley's work (1855, 4th ed. 1876) is now out of date. On First Corinthians reference may be made to the works of T. Evans in *Speaker's Commentary* (1881); T. C. Edwards (1885); C. J. Ellicott (1887); Fr. Godet (1886-1887, Eng. trans. 1887); on both epistles to those of H. A. W. Meyer (5th ed. 1870, Eng. trans. 1877-1879) and J. J. Lias, in *Cambridge Greek Testament* (1886-1892). F. W. Robertson's classic *Sermons on St Paul's Epistles to the Corinthians* (1859) should not be neglected. In German there are commentaries of much value by G. Heinrici (1880—1887) and in Heinrici's revision of Meyer's *Kommentar* (8th ed., 1896-1900), and by P. W. Schmiedel in *Hand-Commentar* (1891, 2nd ed. 1892). For further literature see Robertson's art, "Corinthians, First Epistle to the," in Hastings's *Dictionary of the Bible*. On early attestation see A. H. Charteris, *Canonicity* (1880), and the Oxford Committee's *New Testament in the Apostolic Fathers* (1905).

(J. H. Rs.)

1 Hilgenfeld, Bacon and others hold that this letter is partly preserved in 2 Cor. vi. 14-vii. 1, but the evidence for removing those verses from their present position is insufficient.

CORINTO, a seaport on the Pacific coast of Nicaragua, in the department of Chinandega, built on the small island of Asserradores or Corinto, at the entrance to Realejo Bay, 65 m. by rail N.W. of Managua. Pop. (1900) about 3000. The town, which was founded in 1849, and first came into prominence as a port in 1863, has a spacious and sheltered harbour, the best in Nicaragua. It possesses no docks or wharves, and vessels anchor some 500 yds. off-shore to load or discharge cargo by means of lighters. On the mainland is the terminus of a railway to Leon, Managua and other commercial centres. Coffee, gold, mahogany, rubber and cattle are largely exported; and more than half the foreign trade of Nicaragua passes through this port, which has completely superseded the roadstead of Realejo, now partly filled with sandbanks, but from 1550 to 1850 the principal seaport of the country. About 450 ocean-going ships, of some 450,000 tons, annually enter the port. Most of the foreign vessels are owned in Germany or the United States. The coasting trade is restricted to Nicaraguan boats.

CORIOLANUS, GAIUS (or GNAEUS) **MARCIUS,** Roman legendary hero of patrician descent. According to tradition, his surname was due to the bravery displayed by him at the siege of Corioli (493 B.C.) during the war against the Volscians (but see below). In 492, when there was a famine in Rome, he advised that the people should not be relieved out of the supplies obtained from Sicily, unless they would consent to the abolition of their tribunes. For this he was accused by the tribunes, and, being condemned to exile, took refuge with his friend Attius Tullius, king of the Volscians. A pretext for a quarrel with Rome was found, and Coriolanus, in command of the Volscian army, advanced against his native city. In vain the first men of Rome prayed for moderate terms. He would agree to nothing less than the restoration to the Volscians of all their land, and their admission among the Roman citizens. A mission of the chief priests also failed. At last, persuaded by his mother Veturia and his wife Volumnia, he led back the Volscian army, and restored the conquered towns. He died at an advanced age in exile amongst the Volscians; according to others, he was put to death by them as a traitor; a third tradition (mentioned, but ridiculed, by Cicero) represents him as having taken his own life.

The whole legend is open to serious criticism. At the traditional date (493 B.C.) Corioli was not a Volscian possession, but one of the Latin cities which had concluded a treaty of alliance with Rome; further, Livy himself states that the chroniclers knew nothing of a campaign carried on by the consul Postumus Cominius Auruncus (under whom Coriolanus is said to have served) against the Volscians. Only one of the consuls was mentioned as having concluded the treaty; the absence of the other was consequently assumed, and a reason for it found in a Volscian war. The bestowal of a cognomen from a captured city was unknown at the time, the first instance being that of Scipio; in any case, it would have been conferred upon the commander-in-chief, Postumus Cominius Auruncus, not upon a subordinate. The conquest of Corioli by Coriolanus is invented to explain the surname. The details of the famine are borrowed from those of later years, especially 433 and 411. The incident of Coriolanus taking refuge with the Volscian king, who, according to Plutarch, was his bitter enemy, curiously resembles the appeal of Themistocles to the Molossian king Admetus. Further, the tradition that Coriolanus, like Themistocles, committed suicide, renders it a probable conjecture that these incidents are derived from a Greek source. The contradictions in the accounts of the campaign against Rome and its inherent improbability give further ground for suspicion. Twelve important towns are taken in a single summer apparently without resistance on the part of the Romans, and after the retirement of Coriolanus they are immediately abandoned by the conquerors. It is strange that the Volscians should have entrusted a stranger with the command of their army, and it is possible that the attribution of their successes to a Roman general was intended to gratify the national pride and obliterate the memory of a disastrous war. It is suggested that Coriolanus never commanded the Volscian army at all, but that, like Appius Herdonius—the Sabine chieftain who in 460, with a band of fugitives and slaves, obtained possession of the capital—he appeared at the gates of Rome at the head of a body of exiles (but at a much later date, c. 443), at a time when the city was in great distress, perhaps as the result of a pestilence, and only desisted from making himself master of Rome at the earnest entreaty of his mother. This seems to be the historical nucleus of the tradition, which accentuates the great influence exercised by and the respect shown to the Roman matrons in early times.

ANCIENT AUTHORITIES.—Plutarch's *Life*; Livy ii. 34-40; Dion. Halic. vi. 92-94, vii. 21-27, 41-47, viii. 1-60; Cicero, *Brutus*, x. 42. The story is the subject of Shakespeare's *Coriolanus*. For a critical examination of the story see Schwegler, *Römische Geschichte*, bk. xxiv.; Sir G. Cornewall Lewis, *Credibility of Early Roman History*, ch. xii. 19-23; W. Ihne, *History of Rome*, i.; T. Mommsen, "Die Erzählung von Cn. Marcius Coriolanus," in *Hermes*, iv. (1869); E. Pais, *Storia di Roma*, i. ch. 4 (1898).

CORIOLI, an ancient Volscian city in *Latium adiectum*, taken, according to the Roman annals in 493 B.C., with Longula and Pollusca, and retaken (but see above) for the Volsci by Gaius Marcius Coriolanus, its original conqueror, who, in disgust at his treatment by his countrymen, had deserted to the enemy. After this it does not appear in history, and we hear soon afterwards (443 B.C.) of a dispute between Ardea and Aricia about some land which had been part of the territory of Corioli, but had at an unknown date passed to Rome with Corioli. The site is apparently to be sought in the N.W. portion of the district between the sea, the river Astura and the Alban Hills; but it cannot be more accurately fixed (the identification with Monte Giove, S. of the Valle-Aricciana, rests on no sufficient evidence), and even in the time of

Pliny it ranked among the lost cities of Latium.

CORIPPUS, FLAVIUS CRESCONIUS, Roman epic poet of the 6th century A.D. He was a native of Africa, and in one of the MSS. is called *grammaticus* (teacher). He has been identified, but on insufficient grounds, with Cresconius, an African bishop (7th century), author of a *Concordia Canonum*, or collection of the laws of the church. Nothing is known of Corippus beyond what is contained in his own poems. He appears to have held the office of tribune or notary (*scriniarius*) under Anastasius, imperial treasurer and chamberlain of Justinian, at the end of whose reign he left Africa for Constantinople, in consequence of having lost his property during the Moorish and Vandal wars. He was the author of two poems, of considerable importance for the history of the times, one of which was not discovered till the beginning of the 19th century. The latter poem, dedicated to the nobles of Carthage, which comes first in point of time, is called *Johannis* or *De bellis Libycis*, and relates the overthrow of the Moors by a certain Johannes, *magister militum* in 546; it is in eight books (the last is unfinished) and contains about 5000 hexameters. The narrative commences with the despatch of Johannes to the theatre of war by Justinian, and ends with the decisive victory near Carthage (548). The other poem (*In laudem Justini minoris*), in four books, contains the death of Justinian, the coronation of his successor Justin II. (14th of November 565), and the early events of his reign. It is preceded by a preface, and a short and fulsome panegyric on Anastasius, the poet's patron. The *Laus* was published at Antwerp in 1581 by Michael Ruyz Azagra, secretary to the emperor Rudolf II., from a 9th or 10th century MS. The preface contains a reference to a previous work by the author on the wars in Africa, and although Johannes Cuspinianus (1473-1529) in his *De Caesaribus et Imperatoribus* professed to have seen a MS. of it in the library at Buda (destroyed by Suleiman II. in 1527), it was not till 1814 that it was discovered at Milan by Cardinal Mazzucchelli, librarian of the Ambrosian library, from the codex Trivultianus (in the library of the marquis Trivulzi), the only MS. of the *Johannis* still extant.

The *Johannis* is of great value, not only from a purely historical point of view, but also as giving a description of the land and people of Africa, which conscientiously records the impressions of an intelligent native observer; many of his statements as to manners and customs are confirmed both by independent ancient authorities (such as Procopius) and by our knowledge of the modern Berbers. Virgil, Lucan, and Claudian were the poet's chief models. The *Laus*, which was written when he was advanced in years, although marred by Byzantine servility and gross flattery of a by no means worthy object, throws much light upon Byzantine court ceremony, as in the account of the accession of Justin and the reception of the embassy of the Avars. On the whole the language and metre of Corippus, considering the age in which he lived and the fact that he was not a native Italian, is remarkably pure. That he was a Christian is rendered probable by negative indications, such as the absence of all the usual mythological accessories of an epic poem, positive allusions to texts of Scripture, and the highly orthodox passage *Laus* iv. 294 ff.

The editions of the *Johannis* by P. Mazzucchelli (1820) and of the *Laus* by P. F. Foggini (1777) are still valuable for their commentaries. They are both included in the 28th volume of the Bonn *Corpus scriptorum historiae Byzantinae*. The best modern editions are by J. Partsch (in *Monumenta Germaniae historica*, 1879), with very valuable prolegomena, and M. Petschenig (*Berliner Studien für klassische Philologie*, iv., 1886); see also Gibbon, *Decline and Fall*, ch. xlv.

CORISCO, the name of a bay and an island on the Guinea Coast, West Africa. The bay is bounded N. by Cape San Juan (1° 10′ N.) and S. by Cape Esterias (0° 36′ N.), and is about 31 m. across, while it extends inland some 15 m. The bay is much encumbered with sandbanks, which impair its value as a harbour. Whereas the Muni river or estuary, which enters the bay on its northern side, has a maximum depth of over 100 ft., vessels entering it have to come by a channel with an average depth of six fathoms. The entrance to the southern part of the bay is obstructed by the Bana Bank, which extends for 9 m., rendering navigation dangerous. The bay encloses many small islands and islets, some hardly distinguishable from sandbanks and

submerged at high water, giving rise to a native saying that “half the islands live under water.” The principal islands are four, Bana, Great and Little Elobey, and Corisco, the last-named lying farthest to seaward and giving its name to the bay.

Corisco Island, the largest of the group, is some 3 m. long by 1¾ m. in breadth and has an area of about 5½ sq. m. The surface of the island is very diversified. On a miniature scale it possesses mountains and valleys, rivers, lakes, forests and swamps, grassland and bushland, moorland and parkland. The forests supply ebony and logwood for export. The natives are a Bantu-Negro tribe called Benga. There are among them many converts to Roman Catholicism and a few Protestants. Corisco and the other islands named are Spanish possessions and are governed as dependencies of Fernando Po.

See Mary H. Kingsley, *Travels in West Africa*, ch. xvii. (London, 1897); E. L. Perea, “Guinea española: La isla de Corisco,” in *Revista de geog. colon. y mercantil* (Madrid, 1906).

CORK, RICHARD BOYLE, 1st Earl of (1566-1643), Irish statesman, second son of Roger Boyle of Faversham in Kent, a descendant of an ancient Herefordshire family, and of Joan, daughter of Robert Naylor of Canterbury, was born at Canterbury on the 3rd of October 1566, and was educated at the King’s school and at Bennet (Corpus Christi) College, Cambridge, where he was admitted in 1583. He afterwards studied law at the Middle Temple and became clerk to Sir Richard Manwood, chief baron of the exchequer; but finding his position offered little opportunity for advancement he determined to make a new start in Ireland. He landed in Dublin on the 23rd of June 1588, as he relates himself, with £27, 3s. in money, a gold bracelet worth £10, and a diamond ring, besides some fine wearing apparel. He began to make his fortune almost immediately. In 1590 he obtained the appointment of deputy escheator to John Crofton, the escheator-general, and in 1595 he married Joan, daughter and co-heiress of William Appsley of Limerick, who died in 1599, having brought him an estate of £500 a year.

Meanwhile he had been the object of the attacks of Sir Henry Wallop and others, incited, according to his own account, by envy at his success and increasing prosperity, and was apprehended on various charges of fraud in his office, being more than once thrown into prison. He was on the point of leaving for England to justify himself to the queen, when the rebellion in Munster in October 1598 again reduced him to poverty and obliged him to return to London to his chambers at the Temple. He was, however, almost immediately taken by Essex into his service, when Sir Henry Wallop again renewed his prosecution, with the result that Boyle was summoned before the star chamber. His enemies appear to have failed in substantiating their accusations, and in the course of the inquiry, at which he had secured the presence of the queen herself, he was able to expose several instances of malversation on the part of his opponent, who was dismissed in consequence from his office of treasurer, while Boyle himself, who had favourably impressed the queen, was declared by her as “a man fit to be employed by ourselves” and was at once made clerk of the council of Munster. He brought to Elizabeth the news of the victory near Kingsale in December 1601, and in October 1602 was again sent over by Sir George Carew, the president of Munster, on Irish affairs; and on this occasion, at the instance of Carew, he bought for £1000 the whole of Sir Walter Raleigh’s lands in Cork, Waterford and Tipperary, consisting of 12,000 acres with immense capabilities of development. This offered a splendid opportunity for the exercise of his genius for business and administration. Manufactures were established, the breeding of cattle and fish introduced, mines opened, colonists from England encouraged to come over, the natural resources of the land developed, bridges, harbours and roads constructed, and towns settled, order being maintained by 13 castles garrisoned by retainers.

While himself quickly accumulating vast riches, the services which Boyle rendered to the government and to the nation at such a time of disorder and transition were incalculable. He soon became the most powerful subject in Ireland. On the 25th of July 1603 he married, as his second wife, Catherine, daughter of Sir Geoffrey Fenton, secretary of state, and was knighted. In 1606 he became a privy councillor for Munster and in 1613 for Ireland. On the 6th of September 1616 he was raised to the peerage as Lord Boyle, baron of Youghal, and on the 26th of October 1620 was created earl of Cork and Viscount Dungarvan. He was appointed on the 26th of October 1629 a lord justice, and on the 9th of November 1631 lord high treasurer. Though no peer of England, he was “by writ called into the Upper House by His Majesty’s great grace,” and took his place as an “assistant sitting on the inside of the Woolsack.”[1] The appointment of Wentworth (Lord Strafford), however, as lord deputy in 1633 put an end to the

predominant power and influence of Cork in Ireland. “A most cursed man,” he writes in his diary on Wentworth’s arrival, “to all Ireland and to me in particular.” In reality these two great men had much in common, held similar views of administration, and had the same talents for practical statesmanship. Cork had already carried out in Munster the policy which Strafford desired to see extended to the whole of Ireland. But Cork belonged to the “spacious days of great Elizabeth,” and for such a man there was no room within the narrow despotism and intolerance of the government of Charles. The subjection of the great was part of Strafford’s settled policy, and consequently, instead of seeking his collaboration in developing the country and in maintaining order, he studied merely to diminish his influence. He subjected him to various humiliations. He forced him to remove his wife’s tomb from the choir in St Patrick’s at Dublin, and deprived him arbitrarily of the greater part of the revenues of Youghal, a portion of the Raleigh estates. “No physic,” wrote Laud, delighted, “better than a vomit if it be given in time, and therefore you have taken a very judicious course to administer one so early to my Lord of Cork. I hope it will do him good....”[2] Cork, however, refrained from any systematic or retaliatory resistance, and even simulated an admiration for Strafford’s rule. At the latter’s trial he was an important witness, but took no active part in the prosecution, though he thoroughly approved of his condemnation and execution. Scarcely had he returned to Ireland from witnessing his rival’s destruction when the rebellion broke out, but his influence and preparations, supported by the military prowess of his sons, were sufficient to offer a successful resistance to the rebels in Munster and to save the province from ruin. This was his last great service to the state. He died about the 15th of September 1643, leaving a large and illustrious family by his second wife.

Four of his seven sons received independent peerages,—Richard, created Baron Clifford and earl of Burlington; Lewis, Viscount Kinalmeaky, killed in 1642 at the battle of Liscarrol; Roger, baron of Broghill and earl of Orrery; and Francis, Viscount Shannon. Another son was Robert Boyle (q.v.), the famous natural philosopher and chemist.

The title passed to the eldest surviving son, Richard Boyle, 1st earl of Burlington and 2nd earl of Cork (1612-1698), who matriculated at Christ Church, Oxford, and was knighted in 1624. Returning home after travelling abroad he married in 1635 Elizabeth, daughter and heir of Henry, Lord Clifford, later earl of Cumberland. On the outbreak of the rebellion he supported his father in Munster, fought at the battle of Liscarrol, and raised forces for the first war with the Scots. In 1640 he represented Appleby in the Long Parliament, and in the civil war he supported zealously the royal cause, being created in 1643 Baron Clifford of Lanesborough in the peerage of England, in addition to the earldom of Cork which he inherited from his father the same year. At the Restoration he obtained also the earldom of Burlington (or Bridlington), and was appointed lord-lieutenant of the West Riding of Yorkshire, resigning this office through opposition to the government of James II. He held the office of lord treasurer of Ireland from 1680 till 1695. He died on the 15th of January 1698. His two sons having predeceased him, he was succeeded in his titles by his grandson Charles, issue of his eldest son Charles, as 2nd earl of Burlington and 3rd earl of Cork; and on the extinction of the direct male line in the person of Richard, the 4th earl, in 1753 the earldom of Cork fell to the younger branch of the Boyle family, in the person of John, 5th earl of Orrery, he and later earls being “of Cork and Orrery.”

John Boyle, 5th earl of Cork and Orrery (1707-1762), only son of the 4th earl of Orrery, was born on the 2nd of January 1707. He was educated at Christ Church, Oxford, and was led by indifferent health and many untoward accidents to cultivate in retirement his talents for literature and poetry. His translation of the *Letters of Pliny the Younger*, with various notes, for the use of his eldest son, was published in 1751. He also published *Remarks on the Life and Writings of Jonathan Swift* (1751), in several letters addressed to his second son, and *Memoirs of Robert Carey, earl of Monmouth*, from the original manuscript, with preface and notes. He died on the 16th of November 1762. His *Letters from Italy* appeared in 1774, edited, with memoir, by the Rev. J. Duncombe. The earldom continued in later years in the Boyle family, being held in 1909 by the 10th earl (b. 1861). The wife of the 7th earl (see Cork and Orrery, Mary, Countess of) was a famous figure in society in the early 19th century.

Bibliography for 1st Earl.—*True Remembrances*, written by himself and printed by Birch in his edition of the works of Robert Boyle; *Lismore Papers*, ed. by A. B. Grosart (10 vols., 1886-1887), 1st series consisting of the diary from 1611 to his death and of autobiographical notes, and 2nd series of correspondence; *Life of Lord Cork*, by Dorothea Townshend (1904); article in the *Dict. of Nat. Biog.*, with authorities there given; *Egerton* MSS. 80 (copies of correspondence); *Add. MSS.*, Brit. Mus., 19831-19832 (rebellion in Munster, examination before the Star Chamber, correspondence) and 18023; Strafford’s *Letters*; *Calendars of State Papers, Domestic and Irish*, and *Carew Papers*; E. Lodge’s *Irish Peerage*, i. 144; E. Budgell’s *Memoirs of the Boyles* (1737); Ed. Edwards’s *Life of Raleigh*; Gardiner’s *Hist. of England*; Charles Smith’s *History of Cork* (1893); R. Caulfield’s *Council Book of Youghal*; also the

biography in *Biographia Britannica*, Kippis, vol. ii.

1 *Lords Journals.*

2 *Strafford Letters*, i. 156.

CORK, a county of Ireland in the province of Munster, bounded S. by the Atlantic Ocean, E. by the counties Waterford and Tipperary, N. by Limerick, and W. by Kerry. It is the largest county in Ireland, having an area of 1,849,686 acres, or about 2890 sq. m. The outline is irregular; the coast is for the most part bold and rocky, and is intersected by the bays of Bantry, Dunmanus, and Roaring Water. The southern part of the coast projects several headlands into the Atlantic, and its south-eastern side is indented by Cork Harbour, and Ballycotton and Youghal Bays. The surface is undulating. It consists of low rounded ridges, with corresponding valleys, running east and west, except in the western portion of the county, which is more mountainous. The principal rivers are the Blackwater, the Lee, and the Bandon, flowing generally eastward from their sources in the high ground of the west. The most elevated part of the county is in the Boggeragh Mountains, in the north-west, which reach an extreme height of 2118 ft. To the south are the Shehy Mountains, at the root of the two promontories flanking Bantry Bay, the Caha Mountains forming the backbone of the northern of these promontories, and the hills of the district of Corbery to the south of the Shehy range. North of the Blackwater the country is comparatively level, being a branch of the great plain which occupies a large part of the centre of Ireland. Of the principal rivers the Blackwater has its source in the county Limerick. The Lee originates in the wild and picturesque Gouganebarra Lough, and the Bandon river rises in the Cullinagh Lough. There are also some smaller streams which flow directly into the sea, the more important of these being in the south-west portion of the county. No lakes of any magnitude occur, the largest being Lough Allua, or Inchigeelagh, an expansion of the river Lee. The scenery of the western parts of the county is bold and rugged. In the central and eastern parts, especially in the valleys, it is green and quiet, and in some spots well wooded.

Geology.—The county presents a remarkable simplicity of geological structure. Its surface is controlled throughout by the “Hercynian” folds, running from the Kerry border eastward to the sea at Youghal. The Old Red Sandstone comes out in the north, forming the heather-clad Ballyhoura Hills, which are repeated across the limestone hollow of Mitchelstown by the western spur of the Knockmealdown Mountains. On the west, beds as high as the Millstone Grit and Coal Measures remain above the limestone, extending from Mallow and Kanturk to the Limerick and Kerry borders. Another synclinal of Carboniferous Limestone runs from Millstreet through Lismore, and the Blackwater has worn out an easy course along it. Then the Old Red Sandstone again rises as an undulating upland through the centre of the county, with a few synclinal patches of Carboniferous Shale and Limestone caught in on its back. Cork city lies on the north slope and in the floor of a larger synclinal, and the Yellow Sandstone, which forms the passage-beds from the Old Red Sandstone to the Carboniferous, appears near the city. This hollow continues across the Lee through Middleton. The limestone in it has become crystalline, veined and brecciated, while a fine red staining, especially at Little Island, adds to its value as a marble. After another anticlinal of Old Red Sandstone, the Carboniferous Slate occupies most of the country southward, with occasional appearances of the basal Coomhola Grits and of the underlying Old Red Sandstone along anticlinals. The soils thus vary from sandy loams, usually on the higher ground, to stiff clays along the limestone hollows.

This country admirably illustrates the system of river-development originally traced out by Prof. J. B. Jukes in 1862, and further explained by Prof. W. M. Davis and others. The folded series, culminating originally in Upper Carboniferous strata, was worn down, perhaps as far back as Permian times, until it possessed a fairly uniform surface. This surface, or “peneplain,” was probably the result of denudation working away the beds almost to sea-level. A subsequent elevation enabled the streams, as in so many cases now recognized, to cut into the surface along the direction of greatest inclination, which here happened to be southward. When the higher strata had been worn away, the rivers and their tributaries worked upon rocks of very various hardness, but with a common strike from east to west. The tributaries, running along the strike, speedily confined themselves to the synclinals of limestone, along which they could erode and dissolve long valleys. The present surface of anticlinal sandstone ridges and synclinal limestone hollows thus began to arise; but the main streams still held on their courses across the strike, that is, from north to south. Here and there a more active tributary worked its way back at its head into the basin of one of the cross-streams, and drew

off into its own system the head-waters of this other stream. With this new flood of water the strengthened system still further deepened its original ravine across the strike, while the beheaded cross-stream or streams rapidly dwindled in importance. Ultimately, the tributaries of the surviving river-systems appeared as the most important feature, stretching far west—in the case of county Cork—along the synclinal hollows; while the original cross-ravine remained in the course of each river, a right-angled bend occurring thus in the lower portion of the valleys. Jukes urged that the upper part of the original cross-ravine can be traced above the bend in each case, though the stream now descending along it seems merely a tributary entering parallel with the north-and-south portion of the main stream. Moreover, the tributaries on the north side of the great synclinal valleys may in many cases be the relics of original cross-streams that once flowed directly to the sea until captured by the growth along the synclinal of the tributary of another stream. The Blackwater, rising on Upper Carboniferous beds on the Kerry border, thus falls steeply southward to Rathmore, and then turns eastward along the synclinal valley of limestone from Millstreet to Cappoquin. Here it abruptly turns south, keeping, in fact, to that part of its valley which was first developed. The Lee, rising in the Old Red Sandstone moors of Gouganebarra, runs east, encountering one or two patches of limestone in the floor of the synclinal on its way, mere residues of the rock that once occupied the hollow. Near Cork, the limestone and accompanying shale are better preserved; but the river, instead of continuing along the synclinal through Middleton to Youghal, turns south, and forms the now submerged valley of Cork Harbour. Observations have shown that the coast lay much at its present level in pre-Glacial times, and that Cork Harbour was thus a marine inlet before the ice descended into it. The synclinal valleys of Bantry Bay and Dunmanus Bay were also, in all probability, submerged at this same early epoch.

The county has been famous for its copper-mines, notably at Allihies in the extreme west. The region south-west of Bantry has been mined in several places. Both gold and silver have been found in the copper-ores of this latter area. Barytes has been mined near Bantry, Schull and Clonakilty, and manganese-ore at Glandore. Anthracite has been raised from time to time in the band of Coal Measures south-west of Kanturk. The marble of Little Island near Cork is quarried under the name of “Cork Red,” and the veined pink and grey marble of Middleton is also much esteemed.

Climate and Watering-places.—The climate is moist and warm, the prevailing winds being from the west and south-west. The annual rainfall in the city of Cork is about 40 in., that of the whole county being somewhat higher. The mean annual temperature is about 52° F. The snow-fall during the winter is usually slight, and snow rarely remains long on the ground except in sheltered places. The thermal spring of Mallow was formerly in considerable repute; it is situated in a basin on the banks of the Blackwater, rising from the base of a limestone hill. The chief places for sea-bathing are Blackrock, Passage, Monkstown, Queenstown, and other waterside villages in the vicinity of Cork; Bantry, Baltimore, Kinsale, Glengarrif and Youghal are also much frequented during the summer months.

Industries.—The soils of the county exhibit no great variety. They may be reduced in number to four: the calcareous in the limestone districts; the deep mellow loams found in districts remote from limestone, and generally occurring in the less elevated parts of the grey and red sandstone districts; the light shallow soils, and the moorland or peat soils, the usual substratum of which is coarse retentive clay. About one-sixth of the total area is quite barren. In a district of such extent and variety of surface, the state of agriculture must be liable to much variation. The more populous parts near the sea, and in the vicinity of the great lines of communication, exhibit favourable instances of agricultural improvement. Oats, potatoes and turnips are the principal crops, but the extent of land under tillage shows a general decrease. Pasture land, however, extends, and the number of cattle, sheep and poultry rises; for dairies are numerous and the character of the Cork butter and farmyard produce stands high in English and foreign markets.

Youghal, Kinsale, Queenstown, Castletown and Bearhaven are the deep-sea and coast fishing district centres of the county; while the salmon fishing is distributed among the districts of Cork, Bandon, Skibbereen and Bantry. The mackerel fishery is especially productive from mid-March to mid-June. The Blackwater, Lee and Bandon, apart from the netting industry, afford good rod-fishing for salmon, especially the first, on which Lismore, Fermoy and Mallow are the principal centres. The loughs, the upper waters of these rivers and their tributaries, frequently abound in trout. Macroom, Inchigeelagh, Bandon, Dunmanway and Glandore, with Bantry and Skibbereen, are all good stations.

Communications.—The main line of the Great Southern & Western railway, entering the county from the north at Charleville, serves Cork and Queenstown. The Cork, Bandon & South Coast line runs west to Skibbereen, Baltimore, Bantry, Clonakilty and Kinsale; and there are also the Cork & Macroom line to Macroom; the Cork, Blackrock & Passage to the western

waterside villages of Cork Harbour, and the Great Southern & Western branch eastward from Cork to Youghal; while from Mallow a branch of the same system continues towards Killarney and the south-western coast of Ireland. There is also connexion from this junction with Fermoy, Mitchelstown and county Waterford eastward. The Timoleague and Courtmacsherry line connects these villages with the Clonakilty branch of the Cork, Bandon & South Coast Railway.

Population.—The population (438,432 in 1891; 404,611 in 1901) exhibits a decrease among the most serious of the Irish counties, and emigration is correspondingly heavy. Of the total about 90% are Roman Catholics, and about 70% constitute the rural population. The principal towns are Cork (pop. 76,122, a county of a city); Queenstown (7909), Fermoy (6126); Kinsale (4250), Bandon (2830), Youghal (5393), Mallow (4542), Skibbereen (3208), Macroom (3016), Bantry (3109), Middleton (3361), Clonakilty (3098), and among smaller towns Charleville, Mitchelstown, Passage West, Doneraile and Kanturk. Crookhaven in the extreme S.W. is of importance as a harbour of refuge, but the chief ports are Cork and Queenstown. The county is divided into east and west ridings, and contains twenty-three baronies and 249 parishes. Assizes are held at Cork, and quarter-sessions at Cork, Fermoy, Kanturk, Kinsale, Mallow, Middleton, and Youghal in the east riding; and Bandon, Bantry, Clonakilty, Macroom and Skibbereen in the west riding. The county is in the Protestant diocese of Cork, and the Roman Catholic diocese of Cork, Cloyne, Kerry and Ross. There are seven parliamentary divisions, east, mid, north, north-east, south, south-east and west, each returning one member.

History.—Cork is one of the counties which is generally considered to have been instituted by King John. It had not always its present extent, for its existing boundaries include part of the ancient territory of Desmond (q.v.), which, in the later half of the 16th century, ranked as a separate county. In 1598, however, there were two sheriffs in the county Cork, one especially for Desmond, which was then included in Cork, but was afterwards amalgamated with the county Kerry. In the same period wide lands in the county were given to settlers under the crown, and among these were Sir Walter Raleigh and Edmund Spenser the poet, who received 40,000 acres and 3028 acres respectively. In 1602 a large portion of the estates of Sir Walter Raleigh and Fane Beecher were purchased by Richard Boyle, 1st earl of Cork, who had them colonized with English settlers; and by founding or rebuilding the towns of Bandon, Clonakilty, Baltimore, Youghal, and afterwards those of Middleton, Castlemartyr, Charleville and Doneraile, which were incorporated and made parliamentary boroughs, the family of Boyle became possessed of nearly the entire political power of the county.

Antiquities.—The earlier antiquities of the county are rude monuments of the Pagan era. There are two so-called druids' altars, the most perfect near Cloyne, and certain pillar stones scattered through the county, with straight marks cut on the edges called Ogham inscriptions, the interpretation of which is a subject of much controversy. The remains of the old ecclesiastical buildings are in a very ruinous condition, being used as burial-places by the country people. The principal is Kilcrea, founded by Cormac M'Carthy about 1485, some of the tombs of whose descendants are still in the chancel; the steeple is still nearly perfect, and chapter-house, cloister, dormitory and kitchen can be seen. Timoleague church, situated on a romantic spot on rising ground at the extreme end of Courtmacsherry Bay, contains some tombs of interest, and is still in fair condition. Buttevant Abbey (13th century) contains some tombs of the Barrys and other distinguished families. There is a good crypt here. All these were the property of the Franciscans. There are two round towers in the county, one in a fine state of preservation opposite Cloyne Cathedral, the other at Kinneigh. On the chapter seal at Ross, which is dated 1661, and seems to have been a copy of a much earlier one, there is a good example of a round tower and stone-roofed church, with St Fachnan, to whom the church is dedicated, standing by, with a book in one hand and a cross in the other. The present church dates from 1837, but is on the site of a former cathedral united to Cork in 1583. Of Mourne Abbey, near Mallow, once a preceptory of the Knights Templars, and Tracton Abbey, which once sent a prior to parliament, the very ruins have perished. On an island of Lough Gouganebarra are remains of an oratory of St Finbar.

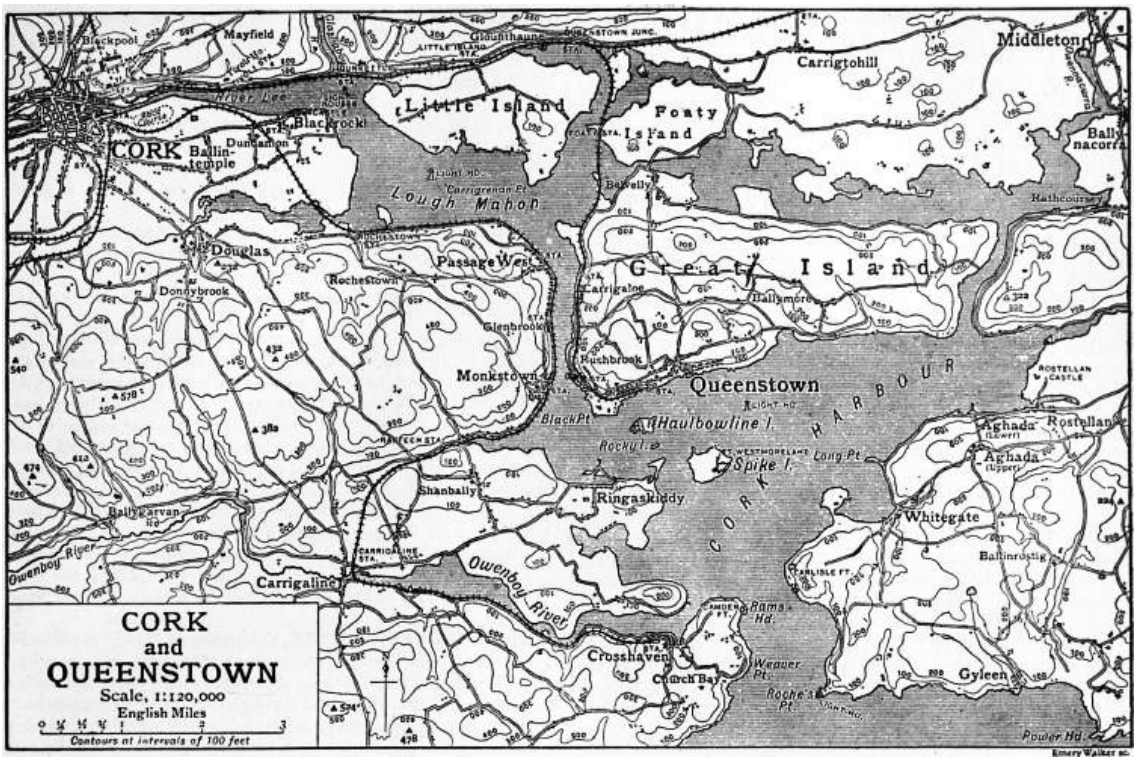
Of the castles, Lohort, built in the reign of King John, is by far the oldest, and in its architectural features the most interesting; it is still quite perfect and kept in excellent repair by the owner, the Earl of Egmont. Blarney Castle, built by Cormac M'Carthy about 1449, has a wide reputation (see Blarney). Castles Mahon and Macroom have been incorporated into the residences of the earls of Bandon and Bantry. The walls of Mallow Castle attest its former strength and extent, as also the castle of Kilbolane. The castles of Buttevant, Kilcrea and Dripsy are still in good condition. At Kanturk is a huge Elizabethan castle still known as "M'Donagh's Folly," left unfinished owing to objections raised by a jealous government. At Kilcolman castle near Doneraile the "Faerie Queene" was written by Spenser.

CORK, a city, county of a city, parliamentary and municipal borough and seaport of Co. Cork, Ireland, at the head of the magnificent inlet of Cork Harbour, on the river Lee, 165½ m. S.W. of Dublin by the Great Southern & Western railway. Pop. (1901) 76,122. Until the middle of the 19th century it ranked second only to Dublin, but is now surpassed by Belfast in commercial importance. It is the centre of a considerable railway system, including the Great Southern & Western, the Cork, Bandon & South Coast, the Cork & Macroom Direct, the Cork, Blackrock & Passage railways, and the Cork & Muskerry light railway; each of which companies possesses a separate station in the city. The passenger steamers to Great Britain, mainly under the control of the City of Cork Steam Packet Company, serve Fishguard, Glasgow, Liverpool, Plymouth and Southampton, London and other ports, starting from Penrose Quay on the North Channel.

The nucleus of the city occupies an island formed by the North and South Channels, two arms of the river Lee, and in former times no doubt merited its name, which signifies a swamp. In the beginning of the 18th century, indeed, this island was broken up into many parts connected by drawbridges, by numerous small channels navigable at high tide. It now includes most of the principal thoroughfares, which form a notable contrast to many of the smaller streets and alleys, in which good building and cleanliness are lacking. Three bridges cross the North Channel, a footbridge, North Gate bridge and St Patrick’s bridge, the last a handsome three-arch structure leading to St Patrick’s Street, a wide and pleasant thoroughfare, containing a statue of Father Mathew, the celebrated Capuchin advocate of temperance, born in 1790. It communicates with the Grand Parade and this in turn with Great George’s Street, to the west, and the South Mall to the east, the last containing the principal banks, the County Club house, and good commercial buildings. The Clarks, South Gate, Parliament and Parnell bridges cross the South Channel to the southern parts of the city. Public grounds are few, but on the outskirts of the city are a park and race-course, with the fashionable Marina promenade; while the Mardyke walk, on the west of the island, is pleasantly shaded by a fine avenue, and was the site of the International exhibition held in 1902. Electric tramways connect the city and suburbs and traverse the principal streets and the St Patrick’s and Parnell bridges. Both branches of the Lee are lined with fine quays of cut limestone, extending in total length over 4 m.

The principal church is the Protestant cathedral, founded in 1865, and consecrated on St Andrew’s Day 1870; while the central tower was completed in 1879. It is dedicated to St Fin Barre or Finbar, who founded the original cathedral in the 7th century. The present building is in the south-west part of the city, and replaces a somewhat mean structure erected in 1735 on the site of the ancient cathedral, which suffered during the siege of Cork in September 1689. Money for the erection of the building of 1735 was raised by the curious method of a tax on imported coal. The new cathedral is in the Early French (pointed) style, with an eastern apse and a striking west front. Its design was by William Burges (d. 1881), and its erection was due to the indefatigable exertions and munificence of Dr John Gregg, bishop of Cork, Cloyne and Ross; while the tower and spires were the gift of two merchants of Cork. The other principal Protestant churches are St Luke’s, St Nicholas and St Anne Shandon, with its striking tower of parti-coloured stones; and its peal of bells extolled in Father Prout’s lyric “The Bells of Shandon.” The Roman Catholic cathedral, also dedicated to St Finbar, is conspicuous on the north side of the city; it dates from 1808, but has been since restored. Other fine churches of this faith are St Mary, St Peter and Paul, St Patrick, Holy Trinity and St Vincent de Paul. St Finbar’s cemetery has handsome monuments, and St Joseph’s, founded by Father Mathew in 1830 on the site of the old botanic gardens of the Cork Institution, is beautifully planted. The court house in Great George’s Street has a good Corinthian portico, happily undamaged in a fire which destroyed the rest of the building in 1891. The custom-house commands the river in a fine position at the lower junction of the branches. The usual commercial and public buildings are mainly on the island. The most notable educational establishment is the University College, founded as Queen’s College (1849), with those of the same name at Belfast and Galway, under an Act of 1845. A new charter was granted to it under letters patent pursuant to the Irish Universities Act 1908, when it was given its present name. The building, designed by Sir Thomas Deane, occupies a beautiful site on the river in the west of the city, where Gill Abbey, of the 7th century, formerly stood. It is a fine building in Tudor Style, “worthy,” said Macaulay, “to stand in the High Street of Oxford.” A large library, museum and well-furnished laboratory are here. The Crawford School of Science (1885); and the Munster Dairy and Agricultural School, 1 m. west of the city, also claim notice, while besides parochial and industrial schools several of the religious orders located here devote themselves to education. The Cork library (founded 1790) contains a valuable collection of books. The Royal Cork Institution (1807), in addition to an extensive library and a rare collection of Oriental MSS., possesses a valuable collection of minerals, and the collections of casts from the antique presented by the pope to George IV. There are numerous literary and scientific societies, including the Cork Cuvierian and Archaeological Society. The principal clubs are the County

and the Southern in South Mall, and the City in Grand Parade; while for sport there are the Cork Golf Club, Little Island, three rowing clubs, and the Royal Munster and Royal Cork Yacht clubs, the latter located at Queenstown. The theatres are the opera-house in Nelson's Place, and the Theatre Royal.



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The country neighbouring to Cork is highly attractive. The harbour, with the ceaseless activity of shipping, its calm waters, sheltered by many islands, and its well-wooded shores studded with pleasant watering-places, affords a series of charming views, apart from its claim to be considered one of the finest natural harbours in the kingdom. Military depots occupy several of the smaller islets, and three batteries guard the entry. This is about 1 m. wide, but within the width increases to 3 m. while the length is about 10 m. The Atlantic port of Queenstown (q.v.) is on Great Island at the head of the outer harbour. Tivoli (the residence of Sir Walter Raleigh), Fort William, Lota Park, and Blackrock Castle are notable features on the shore; and Passage, Blackrock, Glenbrook and Monkstown are waterside resorts. Inland from Cork runs the picturesque valley of the Lee, and low hills surround the commanding situation of the port.

The harbour is by far the most important on the south coast of Ireland, and dredging operations render the quays approachable for vessels drawing 20 ft. at all states of the tide. Its trade is mainly with Bristol and the ports of South Wales. The imports, exceeding £1,000,000 in annual value, include large quantities of wheat and maize, while the exports (about £9000 annually) are chiefly of cattle, provisions, butter and fish. The Cork Butter Exchange, where classification of the various qualities is carried out by branding under the inspection of experts, was important in the early part of the 17th century, and an unbroken series of accounts dates from 1769 when the present market was founded. There are distilleries, breweries, tanneries and iron foundries in the city; and manufactures of woollen and leather goods, tweeds, friezes, gloves and chemical manure. Nearly six-sevenths of the population are Roman Catholics. The city does not share with the county the rapid decrease of population. It is governed by a lord mayor, 14 aldermen and 42 councillors. The parliamentary borough returns two members.

The original site of Cork seems to have been in the vicinity of the Protestant cathedral; St Finbar's ecclesiastical foundation attracting many students and votaries. In the 9th century the town was frequently pillaged by the Northmen. According to the *Annals of the Four Masters* a fleet burned Cork in 821, in 846 the Danes appear to have been in possession of the town, for a force was collected to demolish their fortress; and in 1012 Cork again fell in flames. The Danes then appear to have founded the new city on the banks of the Lee as a trading centre. It was anciently surrounded with a wall, an order for the reparation of which is found so late as 1748 in the city council books (which date from 1610). Submission and

homage were made to Henry II. on his arrival in 1172, and subsequently the English held the town for a long period against the Irish, by constant and careful watch. Cork showed favour to Perkin Warbeck in 1492, and its mayor was hanged in consequence. In 1649 it surrendered to Cromwell, and in 1689 to the earl of Marlborough after five days' siege, when Henry, duke of Grafton, was mortally wounded. Cork was a borough by prescription, and successive charters were granted to it from the reign of Henry II. onward. By a charter of Edward IV. the lord mayor of Cork was created admiral of the port, and this office is manifested in a triennial ceremony in which the mayor throws a dart over the harbour.

See C. Smith, *Ancient and Present State of the County and City of Cork* (1750), edited by R. Day and W. A. Copinger (Cork, 1893); C. B. Gibson, *History of the City and County of Cork* (London, 1861); M. F. Cusack, *History of the City and County of Cork*, 1875.

CORK (perhaps through Sp. *corcha* from Lat. *cortex*, bark, but possibly connected with *quercus*, oak), the outer layer of the bark of an evergreen species of oak (*Quercus Suber*). The tree reaches the height of about 30 ft., growing in the south of Europe and on the North African coasts generally; but it is principally cultivated in Spain and Portugal. The outer layer of bark in the cork oak by annual additions from within gradually becomes a thick soft homogeneous mass, possessing those compressible and elastic properties upon which the economic value of the material chiefly depends. The first stripping of cork from young trees takes place when they are from fifteen to twenty years of age. The yield, which is rough, unequal and woody in texture, is called virgin cork, and is useful only as a tanning substance, or for forming rustic work in ferneries, conservatories, &c. Subsequently the bark is removed every eight or ten years, the quality of the cork improving with each successive stripping; and the trees continue to live and thrive under the operation for 150 years and upwards. The produce of the second barking is still so coarse in texture that it is only fit for making floats for nets and for similar applications. The operation of stripping the trees takes place during the months of July and August. Two cuts are made round the stem—one a little above the ground, and the other immediately under the spring of the main branches. Between these three or four longitudinal incisions are then made, the utmost care being taken not to injure the inner bark. The cork is thereafter removed in the sections into which it has been cut, by inserting under it the wedge-shaped handle of the implement used in making the incisions. After the outer surface has been scraped and cleaned, the pieces are flattened by heating them over a fire and submitting them to pressure on a flat surface. In the heating operation the surface is charred, and thereby the pores are closed up, and what is termed "nerve" is given to the material. In this state the cork is ready for manufacture or exportation.

Though specially developed in the cork-oak, the substance cork is an almost universal product in the stems (and roots) of woody plants which increase in diameter year by year. Generally towards the end of the first year the original thin protective layer of a stem or branch is replaced by a thin layer of "cork," that is a layer of cells the living contents of which have disappeared while the walls have become thickened and toughened as the result of the formation in them of a substance known as suberin. Fresh cork is formed each season by an active formative layer below the layer developed last season, which generally peels off. Where the formation is extensive and persistent as in the cork-oak, a thick covering of cork is formed. In some cases, as on young shoots of the cork-elm, the development is irregular and wing-like outgrowths of cork are formed. In northern Russia a similar method to that used for obtaining cork from the cork-oak is employed with the birch.

Cork possesses a combination of properties which peculiarly fits it for many and diverse uses, for some of which it alone is found applicable. The leading purpose for which it is used is for forming bungs and stoppers for bottles and other vessels containing liquids. Its compressibility, elasticity and practical imperviousness to both air and water so fit it for this purpose that the term cork is even more applied to the function than to the substance. Its specific lightness, combined with strength and durability, recommend it above all other substances for forming life-buoys, belts and jackets, and in the construction of life-boats and other apparatus for saving from drowning. On account of its lightness, softness and non-conducting properties it is used for hat-linings and the soles of shoes, the latter being a very ancient application of cork. It is also used in making artificial limbs, for lining entomological cases, for pommels in leather-dressing, and as a medium for making architectural models. Chips and cuttings are ground up and mixed with india-rubber to form kamptulicon floor-cloth, or "cork-carpet." The inner bark of the cork-tree is a valuable tanning material.

Certain of the properties and uses of cork were known to the ancient Greeks and Romans, and the latter, we find by Horace (*Odes* iii. 8), used it as a stopper for wine-vessels:—

"corticem adstrictum pice dimovebit
amphorae"—

It appears, however, that cork was not generally used for stopping bottles till so recent a period as near the end of the 17th century, and bottles themselves were not employed for storing liquids till the 15th century. Many substitutes have been proposed for cork as a stoppering agent; but except in the case of aerated liquids none of these has recommended itself in practice. For aerated water bottles several successful devices have been introduced. The most simple of these is an india-rubber ball pressed upwards into the narrow of the bottle neck by the force of the gas contained in the water; and in another system a glass ball is similarly pressed against an india-rubber collar inserted in the neck of the bottle. By analogy the term "to cork" is used of any such devices for sealing up a bottle or aperture.

CORK AND ORRERY, MARY, Countess of (Mary Monckton) (1746-1840), was born on the 21st of May 1746, the daughter of the first Viscount Galway. From her early years she took a keen interest in literature, and through her influence her mother's house in London became a favourite meeting-place of literary celebrities. Dr Johnson was a frequent guest. According to Boswell, Miss Monckton's "vivacity enchanted the sage, and they used to talk together with all imaginable ease." Sheridan, Reynolds, Burke and Horace Walpole were among her constant visitors, and Mrs Siddons was her closest friend. In 1786 she married the seventh earl of Cork and Orrery, who died in 1798. As Lady Cork, her love of social "lions" became more pronounced than ever. Among her regular guests were Canning and Castlereagh, Byron, Sir Walter Scott, Lord John Russell, Sir Robert Peel, Theodore Hook and Sydney Smith. She is supposed to have been the original of Lady Bellair in Disraeli's *Henrietta Temple*, and Dickens is believed to have drawn on her for some of the peculiarities of Mrs Leo Hunter in *Pickwick*. Lady Cork had a remarkable memory, and was a brilliant conversationalist. She died in London on the 30th of May 1840. She was then ninety-four, but within a few days of her death had been either dining out or entertaining every night. There is a fine portrait of her by Reynolds.

CORLEONE (Saracen, *Korliun*), a town of Sicily, in the province of Palermo, 42 m. S. of Palermo by rail and 21 m. direct, 1949 ft. above sea-level. Pop. (1901) 14,803. The town was a Saracen settlement, but a Lombard colony was introduced by Frederick II. Two medieval castles rise above the town, and there are some churches of interest.

CORMENIN, LOUIS MARIE DE LA HAYE, Vicomte de (1788-1868), French jurist and political pamphleteer, was born at Paris on the 6th of January 1788. His father and his grandfather both held the rank of lieutenant-general of the admiralty. At the age of twenty he was received advocate, and about the same time he gained some reputation as a writer of piquant and delicate poems. In 1810 he received from Napoleon I. the appointment of auditor to the council of state; and after the restoration of the Bourbons he became master of requests. During the period of his connexion with the council he devoted himself zealously to the study of administrative law. He was selected to prepare some of the most important reports of the council. Among his separate publications at this time are noted,—*Du conseil d'état envisagé comme conseil et comme juridiction dans notre monarchie constitutionnelle* (1818), and *De la responsabilité des agents du gouvernement*. In the former he claimed, for the protection of the rights of private persons in the administration of justice, the institution of

a special court whose members should be irremovable, the right of oral defence, and publicity of trial. In 1822 appeared his *Questions de droit administratif*, in which he for the first time brought together and gave scientific shape to the scattered elements of administrative law. These he arranged and stated clearly in the form of aphorisms, with logical deductions, establishing them by proofs drawn from the archives of the council of state. This is recognized as his most important work as a jurist. The fifth edition (1840) was thoroughly revised.

In 1828 Cormenin entered the Chamber of Deputies as member for Orleans, took his seat in the Left Centre, and began a vigorous opposition to the government of Charles X. As he was not gifted with the qualifications of the orator, he seldom appeared at the tribune; but in the various committees he defended all forms of popular liberties, and at the same time delivered, in a series of powerful pamphlets, under the pseudonym of "Timon," the most formidable blows against tyranny and all political and administrative abuses. After the revolution of July 1830, Cormenin was one of the 221 who signed the protest against the elevation of the Orleans dynasty to the throne; and he resigned both his office in the council of state and his seat in the chamber. He was, however, soon re-elected deputy, and now voted with the extreme Left. The discussions on the budget in 1831 gave rise to the publication of his famous series of *Lettres sur la liste civile*, which in ten years ran through twenty-five editions. In the following year he was elected deputy for Belley. In 1834 he was elected by two arrondissements, and sat for Joigny, which he represented till 1846. In this year he lost his seat in consequence of the popular prejudice aroused against him by his trenchant pamphlet *Oui et non* (1845) against attacks on religious liberty, and a second entitled *Feu! Feu!* (1845), written in reply to those who demanded a retractation of the former. Sixty thousand copies were rapidly sold.

Cormenin was an earnest advocate of universal suffrage before the revolution of February 1848, and had remorselessly exposed the corrupt practices at elections in his pamphlet —*Ordre du jour sur la corruption électorale*. After the revolution he was elected by four departments to the Constituent Assembly, and became one of its vice-presidents. He was also member and president of the constitutional commission, and for some time took a leading part in drawing up the republican constitution. But the disputes which broke out among the members led him to resign the presidency. He was soon after named member of the council of state and president of the *comité du contentieux*. It was at this period that he published two pamphlets—*Sur l'indépendance de l'Italie*. After the *coup d'état* of December 2, 1851, Cormenin, who had undertaken the defence of Prince Louis Napoleon after his attempt at Strassburg, accepted a place in the new council of state of the empire. Four years later, by imperial ordinance, he was made a member of the Institute. One of the most characteristic works of Cormenin is the *Livre des orateurs*, a series of brilliant studies of the principal parliamentary orators of the restoration and the monarchy of July, the first edition of which appeared in 1838, and the eighteenth in 1860. In 1846 he published his *Entretiens de village*, which procured him the Montyon prize, and of which six editions were called for the same year. His last work was *Le Droit de tonnage en Algérie* (1860). He died at Paris, on the 6th of May 1868. Two volumes of his *Reliquiae* were printed in Paris in the same year.

CORMON, FERNAND (1845-), French painter, was born in Paris. He became a pupil of Cabanel, Fromentin and Portaels, and one of the leading historical painters of modern France. At an early age he attracted attention by the better class of sensationalism in his art, although for a time his powerful brush dwelled with particular delight on scenes of bloodshed, such as the "Murder in the Seraglio" (1868) and the "Death of Ravara, Queen of Lanka" at the Toulouse Museum. The Luxembourg has his "Cain flying before Jehovah's Curse"; and for the Mairie of the fourth arrondissement of Paris he executed in grisaille a series of Panels: "Birth," "Death," "Marriage," "War," &c. "A Chief's Funeral," and pictures having the Stone Age for their subject, occupied him for several years. He was appointed to the Legion of Honour in 1880. Subsequently he also devoted himself to portraiture.

CORMONTAINGNE, LOUIS DE (c. 1697-1752), French military engineer, was born at

Strassburg. He was present as a volunteer at the sieges of Freiburg and Landau in the later years of the War of the Spanish Succession, and in 1715 he entered the engineers. After being stationed for some years at Strassburg he became captain, and was put in charge (at first in a subordinate capacity, and subsequently as chief engineer) of the new works, Forts Moselle and Bellecroix, at Metz, which he built according to his own system of fortification. He was present at the siege of Philipsburg in 1733, and as a lieutenant-colonel took part in most of the sieges in the Low Countries during the War of the Austrian Succession. He attained the rank of brigadier and finally that of *maréchal de camp*, and was employed in fortification work until his death. His *Architecture militaire*, written in 1714, was long kept secret by order of the authorities, but, an unauthorized edition having appeared at the Hague in 1741, he himself prepared another version called *Premier mémoire sur la fortification*, which from 1741 onwards was followed by others. His ideas are closely modelled on those of Vauban (q.v.), and in his lifetime he was not considered the equal of such engineers as d'Asfeld and Filley. It was not until twenty years after his death that his system became widely known. Fourcroy de Rainecourt, then chief of engineers, searching the archives for valuable matter, chose the numerous memoirs of Cormontaingne for publication amongst engineer officers in 1776. Even then they only circulated privately, and it was not until the engineer Bousmard published Cormontaingne's *Mémorial de l'attaque des places* (Berlin, 1803) that Fourcroy, and after him General La Fitte de Clavé, actually gave to the general public the *Œuvres posthumes de Cormontaingne* (Paris, 1806-1809).

His system of fortification was not marked by any great originality of thought, which indeed could not be expected of a member of the *corps du génie*, the characteristics of which were a close caste spirit and an unquestioning reverence for the authority of Vauban. Forts Moselle and Bellecroix are still in existence.

See Von Brese-Winiari, *Über Entstehen etc. der neueren Befestigungsmethode* (Berlin, 1844); Prévost du Vernois, *De la fortification depuis Vauban* (Paris, 1861); Cosseron de Villenoisy, *Essai historique sur la fortification* (Paris, 1869).

CORMORANT (from the Lat. *corvus marinus*,[1] through the Fr., in some *patois* of which it is still "cor marin"; in certain Ital. dialects are the forms "corvo marin" or "corvo marino"), a large sea-fowl belonging to the genus *Phalacrocorax*[2] (*Carbo*, *Halieus* and *Graculus* of some ornithologists), and that group of the Linnaean order *Anseres*, now partly generally recognized by Illiger's term *Steganopodes*, of which it with its allies forms a family *Phalacrocoracidae*.

The cormorant (*P. carbo*) frequents almost all the sea-coast of Europe, and breeds in societies at various stations, most generally on steep cliffs, but occasionally on rocky islands as well as on trees. The nest consists of a large mass of sea-weed, and, with the ground immediately surrounding it, generally looks as though bespattered with whitewash, from the excrement of the bird, which lives entirely on fish. The eggs, from four to six in number, are small, and have a thick, soft, calcareous shell, bluish-white when first laid, but soon becoming discoloured. The young are hatched blind, and covered with an inky-black skin. They remain for some time in the squab-condition, and are then highly esteemed for food by the northern islanders, their flesh being said to taste as well as a roasted hare's. Their first plumage is of a sombre brownish-black above, and more or less white beneath. They take two or three years to assume the fully adult dress, which is deep black, glossed above with bronze, and varied in the breeding-season with white on the cheeks and flanks, besides being adorned by filamentary feathers on the head, and further set off by a bright yellow gape. The old cormorant looks nearly as big as a goose, but is really much smaller; its flesh is quite uneatable.

Taken when young from the nest, this bird is easily tamed and can be trained to fish for its keeper, as was of old time commonly done in England, where the master of the cormorants was one of the officers of the royal household. Nowadays the practice is nearly obsolete. When taken out to furnish sport, a strap is fastened round the bird's neck so as, without impeding its breath, to hinder it from swallowing its captures.[3] Arrived at the waterside, it is cast off. It at once dives and darts along the bottom as swiftly as an arrow in quest of its prey, rapidly scanning every hole or pool. A fish is generally seized within a few seconds of its being sighted, and as each is taken the bird rises to the surface with its capture in its bill. It does not take much longer to dispose of the prize in the dilatable skin of its throat so far as the strap

will allow, and the pursuit is recommenced until the bird's gular pouch, capacious as it is, will hold no more. It then returns to its keeper, who has been anxiously watching and encouraging its movements, and a little manipulation of its neck effects the delivery of the booty. It may then be let loose again, or, if considered to have done its work, it is fed and restored to its perch. The activity the bird displays under water is almost incredible to those who have not seen its performances, and in a shallow river scarcely a fish escapes its keen eyes, and sudden turns, except by taking refuge under a stone or root, or in the mud that may be stirred up during the operation, and so avoiding observation (see Salvin and Freeman, *Falconry*, 1859).

Nearly allied to the cormorant, and having much the same habits, is the shag, or green cormorant of some writers (*P. graculus*). The shag (which name in many parts of the world is used in a generic sense) is, however, about one-fourth smaller in linear dimensions, is much more glossy in plumage, and its nuptial embellishment is a nodding plume instead of the white patches of the cormorant. The easiest diagnostic on examination will be found to be the number of tail-feathers, which in the former are fourteen and in the shag twelve. The latter, too, is more marine in the localities it frequents, scarcely ever entering fresh or indeed inland waters.

In the south of Europe a much smaller species (*P. pygmaeus*) is found. This is almost entirely a fresh-water bird, and is not uncommon on the lower Danube. Other species, to the number perhaps of thirty or more, have been discriminated from other parts of the world, but all have a great general similarity to one another. New Zealand and the west coast of northern America are particularly rich in birds of this genus, and the species found there are the most beautifully decorated of any. All, however, are remarkable for their curiously-formed feet, the four toes of each being connected by a web, for their long stiff tails, and for the absence, in the adult, of any exterior nostrils. When gorged, or when the state of the tide precludes fishing, they are fond of sitting on an elevated perch, often with extended wings, and in this attitude they will remain motionless for a considerable time, as though hanging themselves out to dry. It was perhaps this peculiarity that struck the observation of Milton, and prompted his well-known similitude of Satan to a cormorant (*Parad. Lost*, iv. 194); but when not thus behaving they themselves provoke the more homely comparison of a row of black bottles. Their voracity is proverbial.

(A. N.)

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1 Some authors, following Caius, derive the word from *corvus vorans* and spell it corvorant, but doubtless wrongly.

2 So spelt since the days of Gesner; but possibly *Phalaracorax* would be more correct.

3 According to Willoughby it was formerly the custom to carry the cormorant hooded till it was required; in modern practice the bearer wears a face-mask to protect himself from its beak.

CORN (a common Teutonic word; cf. Lat. *granum*, seed, grain), originally meaning a small hard particle or grain, as of sand, salt, gunpowder, &c. It thus came to be applied to the small hard seed of a plant, as still used in the words barley-corn and pepper-corn. In agriculture it is generally applied to the seed of the cereal plants. It is often locally understood to mean that kind of cereal which is the leading crop of the district; thus in England it refers to wheat, in Scotland and Ireland to oats, and in the United States to maize (Indian corn). See Grain Trade; Corn Laws; Agriculture; Wheat; Maize; &c.

The term "corned" is given to a preparation of meat (especially beef) on account of the original manner of preserving it by the use of salt in grains or "corns."

CORN (from Lat. *cornu*, horn), in pathology (technically *clavus*), a localized outgrowth of the epidermic layer of the skin, most commonly of the toe, with a central ingrowth of a hard horny plug. The underlying papillae are atrophied, causing a cup-shaped hollow, whilst the surrounding papillae are hyper-trophied. The condition is mainly caused by badly fitting boots, though any undue pressure, of insufficient power to give rise to ulceration, may be the cause

of a corn. Corns may be hard or soft. The hard corn usually occurs on one of the toes, is a more or less conical swelling and may be extremely painful at times. If suppuration occurs around the corn, it is apt to burrow, and if unattended to may give rise to arthritis or even necrosis. The best treatment is to soften the corn with hot water, pare it very carefully with a sharp knife, and then paint it with a solution of salicylic acid in collodion. The painting must be repeated three times a day for a week or ten days. The soft corn occurs between the toes and is usually a more painful condition. Owing to the absorption of sweat its surface may become white and sodden in appearance. The treatment is much the same, but spirits of camphor should be painted on each night, and a layer of cotton wool placed between the toes during the daytime.

CORNARO, CATERINA (1454-1510), queen of Cyprus, was the daughter of Marco Cornaro, a Venetian noble, whose brother Andrea was an intimate friend of James de Lusignan, natural son of King John II. of Cyprus. In the king's death in 1458 the succession was disputed, and James, with the help of the sultan of Egypt, seized the island. But several powers were arrayed against him—the duke of Savoy, who claimed the island on the strength of the marriage of his son Louis to Charlotte, the only legitimate daughter of John II.,[1] the Genoese, and the pope. It was important that he should make a marriage such as would secure him powerful support. Andrea Cornaro suggested his niece Caterina, famed for her beauty, as that union would bring him Venetian help. The proposal was agreed to, and approved of by Caterina herself and the senate, and the contract was signed in 1468. But further intrigues caused delay, and it was not until 1471 that James's hesitations were overcome. Caterina was solemnly adopted by the doge as a "daughter of the Republic" and sailed for Cyprus in 1472 with the title of queen of Cyprus, Jerusalem and Armenia. But she only enjoyed one year of happiness, for in 1473 her husband died of fever, leaving his kingdom to his queen and their child as yet unborn. Enemies and rival claimants arose on all sides, for Cyprus was a tempting bait. In August the child James III. was born, but as soon as the Venetian fleet sailed away a plot to depose him in favour of Zarla, James's illegitimate daughter, broke out, and Caterina was kept a prisoner. The Venetians returned, and order was soon restored, but the republic was meditating the seizure of Cyprus, although it had no valid title whatever, and after the death of Caterina's child in 1474 it was Venice which really governed the island. The poor queen was surrounded by intrigues and plots, and although the people of the coast towns loved her, the Cypriot nobles were her bitter enemies and hostile to Venetian influence. In 1488 the republic, fearing that Sultan Bayezid II. intended to attack Cyprus, and having also discovered a plot to marry Caterina to King Alphonso II. of Naples, a proposal to which she seemed not averse, decided to recall the queen to Venice and formally annex the island. Caterina at first refused, for she clung to her royalty, but Venice was a severe parent to its adopted daughter and would not be gainsaid; she was forced to abdicate in favour of the republic, and returned to Venice in 1489. The government conferred on her the castle and town of Asolo for life, and there in the midst of a learned and brilliant little court, of which Cardinal Bembo (q.v.) was a shining light, she spent the rest of her days in idyllic peace. She died in July 1510. Titian's famous portrait of her is in the Uffizi gallery in Florence.

BIBLIOGRAPHY.—A. Centelli, *Caterina Cornaro e il suo regno* (Venice, 1892); S. Romanin, *Storia documentata di Venezia*, vol. iv. (Venice, 1855), and his *Lezioni di storia Veneta* (Florence, 1875); L. de Mas Latrie, *Histoire de l'île de Chypre* (Paris, 1852-1861); and Horatio Brown's essay in his *Studies in Venetian History* (London, 1907), which gives the best sketch of the queen's career and a list of authorities.

(L. V.*)

1 Whence the kings of Italy derive their title of kings of Cyprus and Jerusalem.

CORNARO, LUIGI (1467-1566), a Venetian nobleman, famous for his treatises on a temperate life. In his youth he lived freely, but after a severe illness at the age of forty, he began under medical advice gradually to reduce his diet. For some time he restricted himself to a daily allowance of 12 oz. of solid food and 14 oz. of wine; later in life he reduced still

further his bill of fare, and found he could support his life and strength with no more solid meat than an egg a day. At the age of eighty-three he wrote his treatise on *The Sure and Certain Method of Attaining a Long and Healthful Life*, the English translation of which went through numerous editions; and this was followed by three others on the same subject, composed at the ages of eighty-six, ninety-one and ninety-five respectively. The first three were published at Padua in 1558. They are written, says Addison (*Spectator*, No. 195), "with such a spirit of cheerfulness, religion and good sense, as are the natural concomitants of temperance and sobriety." He died at Padua at the age of ninety-eight.

CORNBRASH, in geology, the name applied to the uppermost member of the Bathonian stage of the Jurassic formation in England. It is an old English agricultural name applied in Wiltshire to a variety of loose rubble or "brash" which, in that part of the country, forms a good soil for growing corn. The name was adopted by William Smith for a thin band of shelly limestone which, in the south of England, breaks up in the manner indicated. Although only a thin group of rocks (10-25 ft.), it is remarkably persistent; it may be traced from Weymouth to the Yorkshire coast, but in north Lincolnshire it is very thin, and probably dies out in the neighbourhood of the Humber. It appears again, however, as a thin bed in Gristhorpe Bay, Cayton Bay, Wheatcroft, Newton Dale and Langdale. In the inland exposures in Yorkshire it is difficult to follow on account of its thinness, and the fact that it passes up into dark shales in many places—the so-called "clays of the Cornbrash," with *Avicula echinata*.

The Cornbrash is a very fossiliferous formation; the fauna indicates a transition from the Lower to the Middle Oolites, though it is probably more nearly related to that of the beds above than to those below. Good localities for fossils are Radipole near Weymouth, Closworth, Wincanton, Trowbridge, Cirencester, Witney, Peterborough and Sudbrook Park near Lincoln. A few of the important fossils are: *Waldheimia lagenalis*, *Pecten levis*, *Avicula echinata*, *Ostrea flabelloides*, *Myacites decurtatus*, *Echinobrissus clunicularis*; *Macrocephalites macrocephalus* is abundant in the midland counties but rarer in the south; belemnites are not known. The remains of saurians (*Steneosaurus*) are occasionally found. The Cornbrash is of little value for building or road-making, although it is used locally; in the south of England it is not oolitic, but in Yorkshire it is a rubbly, marly, frequently ironshot oolitic limestone. In Bedfordshire it has been termed the Bedford limestone.

See JURASSIC; also H. B. Woodward, "The Jurassic Rocks of Britain," vol. iv. (1894); and C. Fox Strangways, vol. i.; both *Memoirs of the Geological Survey*.

(J. A. H.)

CORNEILLE, PIERRE (1606-1684), French dramatist and poet, was born at Rouen, in the rue de la Pie, on the 6th of June 1606. The house, which was long preserved, was destroyed not many years ago. His father, whose Christian name was the same, was *avocat du roi à la Table de Marbre du Palais*, and also held the position of *maître des eaux et forêts* in the *vicomté* (or *bailliage*, as some say) of Rouen. In this latter office he is said to have shown himself a vigorous magistrate, suppressing brigandage and plunder without regard to his personal safety. He was ennobled in 1637 (it is said not without regard to his son's distinction), and the honour was renewed in favour of his sons Pierre and Thomas in 1669, when a general repeal of the letters of nobility recently granted had taken place. There appears, however, to be no instance on record of the poet himself assuming the "de" of nobility. His mother's name was Marthe le Pesant.

After being educated by the Jesuits of Rouen, Corneille at the age of eighteen was entered as *avocat*, and in 1624 took the oaths, as we are told, four years before the regular time, a dispensation having been procured. He was afterwards appointed advocate to the admiralty, and to the "waters and forests," but both these posts must have been of small value, as we find him parting with them in 1650 for the insignificant sum of 6000 livres. In that year and the next he was *procureur-syndic des États de Normandie*. His first play, *Mélite*, was acted in 1629. It is said by B. le B. de Fontenelle (his nephew) to have been inspired by personal experiences, and was extremely popular, either because or in spite of its remarkable

difference from the popular plays of the day, those of A. Hardy. In 1632 *Clitandre*, a tragedy, was printed (it may have been acted in 1631); in 1633 *La Veuve* and the *Galerie du palais*, in 1634 *La Suivante* and *La Place Royale*, all the last-named plays being comedies, saw the stage. In 1634 also, having been selected as the composer of a Latin elegy to Richelieu on the occasion of the cardinal visiting Rouen, he was introduced to the subject of his verses, and was soon after enrolled among the "five poets." These officers (the others being G. Colletet, Boisrobert and C. de l'Étoile, who in no way merited the title, and J. de Rotrou, who was no unworthy yokefellow even of Corneille) had for task the more profitable than dignified occupation of working up Richelieu's ideas into dramatic form. No one could be less suited for such work than Corneille, and he soon (it is said) incurred his employer's displeasure by altering the plan of the third act of *Les Thuileries*, which had been entrusted to him.

Meanwhile the year 1635 saw the production of *Médée*, a grand but unequal tragedy. In the next year the singular extravaganza entitled *L'Illusion comique* followed, and was succeeded about the end of November by the *Cid*, based on the *Mocedades del Cid* of Guillem de Castro. The triumphant success of this, perhaps the most "epoch-making" play in all literature, the jealousy of Richelieu and the Academy, the open attacks of Georges de Scudéry and J. de Mairet and others, and the pamphlet-war which followed, are among the best-known incidents in the history of letters. The trimming verdict of the Academy, which we have in J. Chapelain's *Sentiments de l'Académie française sur la tragi-comédie du Cid* (1638), when its arbitration was demanded by Richelieu, and not openly repudiated by Corneille, was virtually unimportant; but it is worth remembering that no less a writer than Georges de Scudéry, in his *Observations sur le Cid* (1637), gravely and apparently sincerely asserted and maintained of this great play that the subject was utterly bad, that all the rules of dramatic composition were violated, that the action was badly conducted, the versification constantly faulty, and the beauties as a rule stolen! Corneille himself was awkwardly situated in this dispute. The *esprit bourru* by which he was at all times distinguished, and which he now displayed in his rather arrogant *Excuse à Ariste*, unfitted him for controversy, and it was of vital importance to him that he should not lose the outward marks of favour which Richelieu continued to show him. Perhaps the pleasantest feature in the whole matter is the unshaken and generous admiration with which Rotrou, the only contemporary whose genius entitled him to criticise Corneille, continued to regard his friend, rival, and in some sense (though Rotrou was the younger of the two) pupil. Finding it impossible to make himself fairly heard in the matter, Corneille (who had retired from his position among the "five poets") withdrew to Rouen and passed nearly three years in quiet there, perhaps revolving the opinions afterwards expressed in his three *Discours* and in the *Examens* of his plays, where he bows, somewhat as in the house of Rimmon, to "the rules." In 1639, or at the beginning of 1640, appeared *Horace* with a dedication to Richelieu. The good offices of Madame de Combalet, to whom the *Cid* had been dedicated, and perhaps the satisfaction of the cardinal's literary jealousy, had healed what breach there may have been, and indeed the poet was in no position to quarrel with his patron. Richelieu not only allowed him 500 crowns a year, but soon afterwards, it is said, though on no certain authority, employed his omnipotence in reconciling the father of the poet's mistress, Marie de Lampérière, to the marriage of the lovers (1640). In this year also *Cinna* appeared. A brief but very serious illness attacked him, and the death of his father the year before had increased his family anxieties by leaving his mother in very indifferent circumstances. It has, however, been recently denied that he himself was at any time poor, as older traditions asserted.

In the following year Corneille figured as a contributor to the *Guirlande de Julie*, a famous album which the marquis de Montausier, assisted by all the literary men of the day, offered to his lady-love, Julie d'Angennes. 1643 was, according to the latest authorities (for Cornelian dates have often been altered), a very great year in the dramatist's life. Therein appeared *Polyeucte*, the memorable comedy of *Le Menteur*, which though adapted from the Spanish stood in relation to French comedy very much as *Le Cid*, which owed less to Spain, stood to French tragedy; its less popular and far less good *Suite*,—and perhaps *La Mort de Pompée*. *Rodogune* (1644) was a brilliant success; *Théodore* (1645), a tragedy on a somewhat perilous subject, was the first of Corneille's plays which was definitely damned. Some amends may have been made to him by the commission which he received next year to write verses for the *Triomphes poétiques de Louis XIII*. Soon after (22nd of January 1647) the Academy at last (it had twice rejected him on frivolous pleas) admitted the greatest of living French writers. *Héraclius* (1646), *Andromède* (1650), a spectacle-opera rather than a play, *Don Sanche d'Aragon* (1650) and *Nicomède* (1651) were the products of the next few years' work; but in 1652 *Pertharite* was received with decided disfavour, and the poet in disgust resolved, like Ben Jonson, to quit the loathed stage. In this resolution he persevered for six years, during which he worked at a verse translation of the *Imitation of Christ* (finished in 1656), at his three *Discourses on Dramatic Poetry*, and at the *Examens* which are usually printed at the end of his plays. In 1659 Fouquet, the Maecenas of the time, persuaded him to alter his resolve,

and *Œdipe*, a play which became a great favourite with Louis XIV., was the result. It was followed by *La Toison d'or* (1660), *Sertorius* (1662) and *Sophonisbe* (1663). In this latter year Corneille (who had at last removed his residence from Rouen to Paris in 1662) was included among the list of men of letters pensioned at the proposal of Colbert. He received 2000 livres. *Othon* (1664), *Agésilas* (1666), *Attila* (1667), and *Tite et Bérénice* (1670), were generally considered as proofs of failing powers,—the cruel quatrain of Boileau—

"Après l'*Agésilas*
Hélas!
Mais après l'*Attila*
Holà!"

in the case of these two plays, and the unlucky comparison with Racine in the *Bérénice*, telling heavily against them. In 1665 and 1670 some versifications of devotional works addressed to the Virgin had appeared. The part which Corneille took in *Psyché* (1671), Molière and P. Quinault being his coadjutors, showed signs of renewed vigour; but *Pulchérie* (1672) and *Suréna* (1674) were allowed even by his faithful followers to be failures. He lived for ten years after the appearance of *Suréna*, but was almost silent save for the publication, in 1676, of some beautiful verses thanking Louis XIV. for ordering the revival of his plays. He died at his house in the rue d'Argenteuil on the 30th of September 1684. For nine years (1674-1681), and again in 1683, his pension had, for what reason is unknown, been suspended. It used to be said that he was in great straits, and the story went (though, as far as Boileau is concerned, it has been invalidated), that at last Boileau, hearing of this, went to the king and offered to resign his own pension if there were not money enough for Corneille, and that Louis sent the aged poet two hundred pistoles. He might, had it actually been so, have said, with a great English poet in like case, "I have no time to spend them." Two days afterwards he was dead.

Corneille was buried in the church of St Roch, where no monument marked his grave until 1821. He had six children, of whom four survived him. Pierre, the eldest son, a cavalry officer who died before his father, left posterity in whom the name has continued; Marie, the eldest daughter, was twice married, and by her second husband, M. de Farcy, became the ancestress of Charlotte Corday. Repeated efforts have been made for the benefit of the poet's descendants, Voltaire, Charles X. and the *Comédie française* having all borne part therein.

The portraits of Corneille (the best and most trustworthy of which is from the burin of M. Lasne, an engraver of Caen), represent him as a man of serious, almost of stern countenance, and this agrees well enough with such descriptions as we have of his appearance, and with the idea of him which we should form from his writings and conduct. His nephew Fontenelle admits that his general address and manner were by no means prepossessing. Others use stronger language, and it seems to be confessed that either from shyness, from pride, or from physical defects of utterance, probably from all three combined, he did not attract strangers. Racine is said to have assured his son that Corneille made verses "cent fois plus beaux" than his own, but that his own greater popularity was owing to the fact that he took some trouble to make himself personally agreeable. Almost all the anecdotes which have been recorded concerning him testify to a rugged and somewhat unamiable self-contentment. "Je n'ai pas le mérite de ce pays-ci," he said of the court, "Je n'en suis pas moins Pierre Corneille," he is said to have replied to his friends as often as they dared to suggest certain shortcomings in his behaviour, manner or speech, "Je suis saoul de gloire et affamé d'argent" was his reply to the compliments of Boileau. Yet tradition is unanimous as to his affection for his family, and as to the harmony in which he lived with his brother Thomas who had married Marguerite de Lampérière, younger sister of Marie, and whose household both at Rouen and at Paris was practically one with that of his brother. No story about Corneille is better known than that which tells of the trap between the two houses, and how Pierre, whose facility of versification was much inferior to his brother's, would lift it when hard bestead, and call out "Sans-souci, une rime!" Notwithstanding this domestic felicity, an impression is left on the reader of Corneille's biographies that he was by no means a happy man. Melancholy of temperament will partially explain this, but there were other reasons. He appears to have been quite free from envy properly so called, and to have been always ready to acknowledge the excellences of his contemporaries. But, as was the case with a very different man—Goldsmith—praise bestowed on others always made him uncomfortable unless it were accompanied by praise bestowed on himself. As Guizot has excellently said, "Sa jalousie fut celle d'un enfant qui veut qu'un sourire le rassure contre les caresses que reçoit son frère."

Although his actual poverty has been recently denied, he cannot have been affluent. His pensions covered but a small part of his long life and were most irregularly paid. He was no "dedicator," and the occasional presents of rich men, such as Montauron (who gave him a thousand, others say two hundred, pistoles for the dedication of *Cinna*), and Fouquet (who

commissioned *Œdipe*), were few and far between, though they have exposed him to reflections which show great ignorance of the manners of the age. Of his professional earnings, the small sum for which, as we have seen, he gave up his offices, and the expression of Fontenelle that he practised "sans goût et sans succès," are sufficient proof. His patrimony and his wife's dowry must both have been trifling. On the other hand, it was during the early and middle part of his career impossible, and during the later part very difficult, for a dramatist to live decently by his pieces. It was not till the middle of the century that the custom of allowing the author two shares in the profits during the first run of the piece was observed, and even then revivals profited him nothing. Thomas Corneille himself, who to his undoubted talents united wonderful facility, untiring industry, and (gift valuable above all others to the playwright) an extraordinary knack of hitting the public fancy, died, notwithstanding his simple tastes, "as poor as Job." We know that Pierre received for two of his later pieces two thousand livres each, and we do not know that he ever received more.

But his reward in fame was not stinted. Corneille, unlike many of the great writers of the world, was not driven to wait for "the next age" to do him justice. The cabal or clique which attacked the *Cid* had no effect whatever on the judgment of the public. All his subsequent masterpieces were received with the same ungrudging applause, and the rising star of Racine, even in conjunction with the manifest inferiority of Corneille's last five or six plays, with difficulty prevailed against the older poet's towering reputation. The great men of his time—Condé, Turenne, the maréchal de Grammont, the knight-errant duc de Guise—were his fervent admirers. Nor had he less justice done him by a class from whom less justice might have been expected, the brother men of letters whose criticisms he treated with such scant courtesy. The respectable mediocrity of Chapelain might misapprehend him; the lesser geniuses of Scudéry and Mairet might feel alarm at his advent; the envious Claverets and D'Aubignacs might snarl and scribble. But Balzac did him justice; Rotrou, as we have seen, never failed in generous appreciation; Molière in conversation and in print recognized him as his own master and the foremost of dramatists. We have quoted the informal tribute of Racine; but it should not be forgotten that Racine, in discharge of his duty as respondent at the Academical reception of Thomas Corneille, pronounced upon the memory of Pierre perhaps the noblest and most just tribute of eulogy that ever issued from the lips of a rival. Boileau's testimony is of a more chequered character; yet he seems never to have failed in admiring Corneille whenever his principles would allow him to do so. Questioned as to the great men of Louis XIV.'s reign, he is said to have replied: "I only know three,—Corneille, Molière and myself." "And how about Racine?" his auditor ventured to remark. "He was an extremely clever fellow to whom I taught the art of elaborate rhyming" (*rimer difficilement*). It was reserved for the 18th century to exalt Racine above Corneille. Voltaire, who was prompted by his natural benevolence to comment on the latter (the profits went to a relation of the poet), was not altogether fitted by nature to appreciate Corneille, and moreover, as has been ingeniously pointed out, was not a little wearied by the length of his task. His partially unfavourable verdict was endorsed earlier by Vauvenargues, who knew little of poetry, and later by La Harpe, whose critical standpoint has now been universally abandoned. Napoleon I. was a great admirer of Corneille ("s'il vivait, je le ferais prince," he said), and under the Empire and the Restoration an approach to a sounder appreciation was made. But it was the glory of the romantic school, or rather of the more catholic study of letters which that school brought about, to restore Corneille to his true rank. So long, indeed, as a certain kind of criticism was pursued, due appreciation was impossible. When it was thought sufficient to say with Boileau that Corneille excited, not pity or terror, but admiration which was not a tragic passion; or that

> "D'un seul nom quelquefois le son dur ou bizarre
> Rend un poème entier ou burlesque ou barbare;"

when Voltaire could think it crushing to add to his exposure of the "infamies" of *Théodore*—"après cela comment osons-nous condamner les pièces de Lope de Véga et de Shakespeare?"—it is obvious that the *Cid* and *Polyeucte*, much more *Don Sanche d'Aragon* and *Rodogune*, were sealed books to the critic.

Almost the first thing which strikes a reader is the singular inequality of this poet, and the attempts to explain this inequality, in reference to his own and other theories, leave the fact untouched. Producing, as he certainly has produced, work which classes him with the greatest names in literature, he has also signed an extraordinary quantity of verse which has not merely the defects of genius, irregularity, extravagance, *bizarreté*, but the faults which we are apt to regard as exclusively belonging to those who lack genius, to wit, the dulness and tediousness of mediocrity. Molière's manner of accounting for this is famous in literary history or legend. "My friend Corneille," he said, "has a familiar who inspires him with the finest verses in the world. But sometimes the familiar leaves him to shift for himself, and then he

fares very badly." That Corneille was by no means destitute of the critical faculty his *Discourses* and the *Examens* of his plays (often admirably acute, and, with Dryden's subsequent prefaces, the originals to a great extent of specially modern criticism) show well enough. But an enemy might certainly contend that a poet's critical faculty should be of the Promethean, not be Epimethean order. The fact seems to be that the form in which Corneille's work was cast, and which by an odd irony of fate he did so much to originate and make popular, was very partially suited to his talents. He could imagine admirable situations, and he could write verses of incomparable grandeur—verses that reverberate again and again in the memory, but he could not, with the patient docility of Racine, labour at proportioning the action of a tragedy strictly, at maintaining a uniform rate of interest in the course of the plot and of excellence in the fashion of the verse. Especially in his later plays a verse and a couplet will crash out with fulgurous brilliancy, and then be succeeded by pages of very second-rate declamation or argument. It was urged against him also by the party of the *Doucereux*, as he called them, that he could not manage, or did not attempt, the great passion of love, and that except in the case of Chimène his principle seemed to be that of one of his own heroines:—

> "Laissons, seigneur, laissons pour les petites âmes
> Ce commerce rampant de soupirs et de flammes."
> (Aristie in *Sertorius*.)

There is perhaps some truth in this accusation, however much some of us may be disposed to think that the line just quoted is a fair enough description of the admired ecstasies of Achille and Bajazet. But these are all the defects which can be fairly urged against him; and in a dramatist bound to a less strict service they would hardly have been even remarked. They certainly neither require, nor are palliated by, theories of his "megalomania," of his excessive attention to conflicts of will and the like. On the English stage the liberty of unrestricted incident and complicated action, the power of multiplying characters and introducing prose scenes, would have exactly suited his somewhat intermittent genius, both by covering defects and by giving greater scope for the exhibition of power.

How great that power is can escape no one. The splendid soliloquies of Medea which, as Voltaire happily says, "annoncent Corneille," the entire parts of Rodogune and Chimène, the final speech of Camille in *Horace*, the discovery scene of *Cinna*, the dialogues of Pauline and Sévère in *Polyeucte*, the magnificently-contrasted conception and exhibition of the best and worst forms of feminine dignity in the Cornélie of *Pompée* and the Cléopâtre of *Rodogune*, the singularly fine contrast in *Don Sanche d'Aragon*, between the haughtiness of the Spanish nobles and the unshaken dignity of the supposed adventurer Carlos, and the characters of Aristie, Viriate and Sertorius himself, in the play named after the latter, are not to be surpassed in grandeur of thought, felicity of design or appropriateness of language. "Admiration" may or may not properly be excited by tragedy, and until this important question is settled the name of tragedian may be at pleasure given to or withheld from the author of *Rodogune*. But his rank among the greatest of dramatic poets is not a matter of question. For a poet is to be judged by his best things, and the best things of Corneille are second to none.

The Plays.—It was, however, some time before his genius came to perfection. It is undeniable that the first six or seven of his plays are of no very striking intrinsic merit. On the other hand, it requires only a very slight acquaintance with the state of the drama in France at the time to see that these works, poor as they may now seem, must have struck the spectators as something new and surprising. The language and dialogue of *Mélite* are on the whole simple and natural, and though the construction is not very artful (the fifth act being, as is not unusual in Corneille, superfluous and clumsy), it is still passable. The fact that one of the characters jumps on another's back, and the rather promiscuous kissing which takes place, are nothing to the liberties usually taken in contemporary plays. A worse fault is the στιχομυθία, or, to borrow Butler's expression, the Cat-and-Puss dialogue, which abounds. But the common objection to the play at the time was that it was *too* natural and too devoid of striking incidents. Corneille accordingly, as he tells us, set to work to cure these faults, and produced a truly wonderful work, *Clitandre*. Murders, combats, escapes and outrages of all kinds are provided; and the language makes *The Rehearsal* no burlesque. One of the heroines rescues herself from a ravisher by blinding him with a hair-pin, and as she escapes the seducer apostrophizes the blood which trickles from his eye, and the weapon which has wounded it, in a speech forty verses long. This, however, was his only attempt of the kind. For his next four pieces, which were comedies, there is claimed the introduction of some important improvements, such as the choosing for scenes places well known in actual life (as in the *Galerie du palais*), and the substitution of the soubrette in place of the old inconvenient and grotesque nurse. It is certain, however, that there is more interval between these six plays and *Médée* than between the latter and Corneille's greatest drama. Here first do we find those

sudden and magnificent lines which characterize the poet. The title-rôle is, however, the only good one, and as a whole the play is heavy. Much the same may be said of its curious successor *L'Illusion comique*. This is not only a play within a play, but in part of it there is actually a *third* involution, one set of characters beholding another set discharging the parts of yet another. It contains, however, some very fine lines, in particular, a defence of the stage and some heroics put into the mouth of a braggadocio. We have seen it said of the *Cid* that it is difficult to understand the enthusiasm it excited. But the difficulty can only exist for persons who are insensible to dramatic excellence, or who so strongly object to the forms of the French drama that they cannot relish anything so presented. Rodrigue, Chimène, Don Dièguе are not of any age, but of all time. The conflicting passions of love, honour, duty, are here represented as they never had been on a French stage, and in the "strong style" which was Corneille's own. Of the many objections urged against the play, perhaps the weightiest is that which condemns the frigid and superfluous part of the Infanta. *Horace*, though more skilfully constructed, is perhaps less satisfactory. There is a hardness about the younger Horace which might have been, but is not made, imposing, and Sabine's effect on the action is quite out of proportion to the space she occupies. The splendid declamation of Camille, and the excellent part of the elder Horace, do not altogether atone for these defects. *Cinna* is perhaps generally considered the poet's masterpiece, and it undoubtedly contains the finest single scene in all French tragedy. The blot on it is certainly the character of Émilie, who is spiteful and thankless, not heroic. *Polyeucte* has sometimes been elevated to the same position. There is, however, a certain coolness about the hero's affection for his wife which somewhat detracts from the merit of his sacrifice; while the Christian part of the matter is scarcely so well treated as in the *Saint Genest* of Rotrou or the *Virgin Martyr* of Massinger. On the other hand, the entire parts of Pauline and Sévère are beyond praise, and the manner in which the former reconciles her duty as a wife with her affection for her lover is an astonishing success. In *Pompée* (for *La Mort de Pompée*, though the more appropriate, was not the original title) the splendid declamation of Cornélie is the chief thing to be remarked. *Le Menteur* fully deserves the honour which Molière paid to it. Its continuation, notwithstanding the judgment of some French critics, we cannot think so happy. But *Théodore* is perhaps the most surprising of literary anomalies. The central situation, which so greatly shocked Voltaire and indeed all French critics from the date of the piece, does not seem to blame. A virgin martyr who is threatened with loss of honour as a bitterer punishment than loss of life offers points as powerful as they are perilous. But the treatment is thoroughly bad. From the heroine who is, in a phrase of Dryden's, "one of the coolest and most insignificant" heroines ever drawn, to the undignified Valens, the termagant Marcelle, and the peevish Placide, there is hardly a good character. Immediately upon this in most printed editions, though older in representation, follows the play which (therein agreeing rather with the author than with his critics) we should rank as his greatest triumph, *Rodogune*. Here there is hardly a weak point. The magnificent and terrible character of Cléopâtre, and the contrasted dispositions of the two princes, of course attract most attention. But the character of Rodogune herself, which has not escaped criticism, comes hardly short of these. *Héraclius*, despite great art and much fine poetry, is injured by the extreme complication of its argument and by the blustering part of Pulchérie. *Andromède*, with the later spectacle piece, the *Toison d'or*, do not call for comment, and we have already alluded to the chief merit of *Don Sanche*. *Nicomède*, often considered one of Corneille's best plays, is chiefly remarkable for the curious and unusual character of its hero. Of *Pertharite* it need only be said that no single critic has to our knowledge disputed the justice of its damnation. *Œdipe* is certainly unworthy of its subject and its author, but in *Sertorius* we have one of Corneille's finest plays. It is remarkable not only for its many splendid verses and for the nobility of its sentiment, but from the fact that not one of its characters lacks interest, a commendation not generally to be bestowed on its author's work. Of the last six plays we may say that perhaps only one of them, *Agésilas*, is almost wholly worthless. Not a few speeches of *Suréna* and of *Othon* are of a very high order. As to the poet's non-dramatic works, we have already spoken of his extremely interesting critical dissertations. His minor poems and poetical devotions are not likely to be read save from motives of duty or curiosity. The verse translation of à Kempis, indeed, which was in its day immensely popular (it passed through many editions), condemns itself.

BIBLIOGRAPHY.—The subject of the bibliography of Corneille was treated in the most exhaustive manner by M. E. Picot in his *Bibliographie Cornélienne* (Paris, 1875-1876). Less elaborate, but still ample information may be found in J. A. Taschereau's *Vie* and in M. Marty-Laveaux's edition of the *Works*. The individual plays were usually printed a year or two after their first appearance: but these dates have been subjected to confusion and to controversy, and it seems better to refer for them to the works quoted and to be quoted. The chief collected editions in the poet's lifetime were those of 1644, 1648, 1652, 1660 (with important corrections), 1664 and 1682, which gives the definitive text. In 1692 T. Corneille published a complete *Théâtre* in 5 vols. 12mo. Numerous editions appeared in the early part of the 18th century, that of 1740 (6 vols. 12mo, Amsterdam) containing the *Œuvres diverses* as well as the

plays. Several editions are recorded between this and that of Voltaire (12 vols. 8vo; Geneva, 1764, 1776, 8 vols. 4to), whose *Commentaires* have often been reprinted separately. In the year IX. (1801) appeared an edition of the *Works* with Voltaire's commentary and criticisms thereon by Palissot (12 vols. 8vo, Paris). Since this the editions have been extremely numerous. Those chiefly to be remarked are the following. Lefèvre's (12 vols. 8vo, Paris, 1854), well printed and with a useful variorum commentary, lacks bibliographical information and is disfigured by hideous engravings. Of Taschereau's, in the *Bibliothèque elzévirienne*, only two volumes were published. Lahure's appeared in 5 vols. (1857-1862) and 7 vols. (1864-1866). The edition of Ch. Marty-Laveaux in Regnier's *Grands Écrivains de la France* (1862-1868), in 12 vols. 8vo, is still the standard. In appearance and careful editing it leaves nothing to desire, containing the entire works, a lexicon, full bibliographical information, and an album of illustrations of the poet's places of residence, his arms, some title-pages of his plays, facsimiles of his writings, &c. Nothing is wanting but variorum comments, which Lefèvre's edition supplies. Fontenelle's life of his uncle is the chief original authority on that subject, but Taschereau's *Histoire de la vie et des ouvrages de P. Corneille* (1st ed. 1829, 2nd in the *Bibl. elzévirienne*, 1855) is the standard work. Its information has been corrected and augmented in various later publications, but not materially. Of the exceedingly numerous writings relative to Corneille we may mention the *Recueil de dissertations sur plusieurs tragédies de Corneille et de Racine* of the abbé Granet (Paris, 1740), the criticisms already alluded to of Voltaire, La Harpe and Palissot, the well-known work of Guizot, first published as *Vie de Corneille* in 1813 and revised as *Corneille et son temps* in 1852, and the essays, repeated in his *Portraits littéraires*, in *Port-Royal*, and in the *Nouveaux Lundis* of Sainte-Beuve. More recently, besides essays by MM. Brunetière, Faguet and Lemaître and the part appurtenant of M. E. Rigal's work on 16th century drama in France, see Gustave Lanson's "Corneille" in the *Grands Écrivains français* (1898); F. Bouquet's *Points obscurs et nouveaux de la vie de Pierre Corneille* (1888); *Corneille inconnu*, by J. Levallois (1876); J. Lemaître, *Corneille et la poétique d'Aristote* (1888); J. B. Segall, *Corneille and the Spanish Drama* (1902); and the recently discovered and printed *Fragments sur Pierre et Thomas Corneille* of Alfred de Vigny (1905). On the *Cid* quarrel E. H. Chardon's *Vie de Rotrou* (1884) bears mainly on a whole series of documents which appeared at Rouen in the proceedings of the *Société des bibliophiles normands* during the years 1891-1894. The best-known English criticism, that of Hallam in his *Literature of Europe*, is inadequate. The translations of separate plays are very numerous, but of the complete *Théâtre* only one version (into Italian) is recorded by the French editors. Fontenelle tells us that his uncle had translations of the *Cid* in every European tongue but Turkish and Slavonic, and M. Picot's book apprises us that the latter want, at any rate, is now supplied. Corneille has suffered less than some other writers from the attribution of spurious works. Besides a tragedy, *Sylla*, the chief piece thus assigned is *L'Occasion perdue recouverte*, a rather loose tale in verse. Internal evidence by no means fathers it on Corneille, and all external testimony is against it. It has never been included in Corneille's works. It is curious that a translation of Statius (*Thebaid*, bk. iii.), an author of whom Corneille was extremely fond, though known to have been written, printed and published, has entirely dropped out of sight. Three verses quoted by Ménage are all we possess.

(G. Sa.)

CORNEILLE, THOMAS (1625-1709), French dramatist, was born at Rouen on the 20th of August 1625, being nearly twenty years younger than his brother, the great Corneille. His skill in verse-making seems to have shown itself early, as at the age of fifteen he composed a piece in Latin which was represented by his fellow-pupils at the Jesuits' college of Rouen. His first French play, *Les Engagements du hasard*, was acted in 1647. *Le Feint Astrologue*, imitated from the Spanish, and imitated by Dryden, came next year. At his brother's death he succeeded to his vacant chair in the Academy. He then turned his attention to philology, producing a new edition of the *Remarques* of C. F. Vaugelas in 1687, and in 1694 a dictionary of technical terms, intended to supplement that of the Academy. A complete translation of Ovid's *Metamorphoses* (he had published six books with the *Heroic Epistles* some years previously) followed in 1697. In 1704 he lost his sight and was constituted a "veteran," a dignity which preserved to him the privileges, while it exempted him from the duties, of an academician. But he did not allow his misfortune to put a stop to his work, and in 1708 produced a large *Dictionnaire universel géographique et historique* in three volumes folio. This was his last labour. He died at Les Andelys on the 8th of December 1709, aged eighty-four. It has been the custom to speak of Thomas Corneille as of one who, but for the name he bore, would merit no notice. This is by no means the case; on the contrary, he is rather to be commiserated for his connexion with a brother who outshone him as he would have outshone almost any one. But the two were strongly attached to one another, and practically lived in

common. Of his forty-two plays (this is the utmost number assigned to him) the last edition of his complete works contains only thirty-two, but he wrote several in conjunction with other authors. Two are usually reprinted as his masterpieces at the end of his brother's selected works. These are *Ariane* (1672) and the *Comte d' Essex*, in the former of which Rachel attained success. But of *Laodice*, *Camma*, *Stilica* and some other pieces, Pierre Corneille himself said that "he wished he had written them," and he was not wont to speak lightly. *Camma* (1661, on the same story as Tennyson's *Cup*) especially deserves notice. Thomas Corneille is in many ways remarkable in the literary gossip-history of his time. His *Timocrate* boasted of the longest run (80 nights) recorded of any play in the century. For *La Devineresse* he and his coadjutor de Visé (1638-1710, founder of the *Mercure galant*, to which Thomas contributed) received above 6000 livres, the largest sum known to have been thus paid. Lastly, one of his pieces (*Le Baron des Fondrières*) contests the honour of being the first which was hissed off the stage.

There is a monograph, *Thomas Corneille, sa vie et ses ouvrages* (1892), by G. Reynier. See also the *Fragments inédits de critique sur Pierre et Thomas Corneille* of Alfred de Vigny, published in 1905.

(G. Sa.)

CORNELIA (2nd cent. B.C.), daughter of Scipio Africanus the Elder, mother of the Gracchi and of Sempronia, the wife of Scipio Africanus the Younger. On the death of her husband, refusing numerous offers of marriage, she devoted herself to the education of her twelve children. She was so devoted to her sons Tiberius and Gaius that it was even asserted that she was concerned in the death of her son-in-law Scipio, who by his achievements had eclipsed the fame of the Gracchi, and was said to have approved of the murder of Tiberius. When asked to show her jewels she presented her sons, and on her death a statue was erected to her memory inscribed, "Cornelia, the mother of the Gracchi." After the murder of her second son Gaius she retired to Misenum, where she devoted herself to Greek and Latin literature, and to the society of men of letters. She was a highly educated woman, and her letters were celebrated for their beauty of style. The genuineness of the two fragments of a letter from her to her son Gaius, printed in some editions of Cornelius Nepos, is disputed.

See L. Mercklin, *De Corneliae vita* (1844), of no great value; J. Sörgel, *Cornelia, die Mutter der Gracchen* (1868), a short popular sketch.

CORNELIUS, pope, was elected in 251 during the lull in the persecution of the emperor Decius. Two years afterwards, under the emperor Gallus, he was exiled to Centumcellae (Civita Vecchia), where he died. He was very intimate with St Cyprian, and is commemorated with him on the 16th of September, which is not, however, the anniversary of his death. He died in June 253.

CORNELIUS, CARL AUGUST PETER (1824-1874), German musician and poet, son of an actor at Wiesbaden, grandson of the engraver Ignaz Cornelius, and nephew of Cornelius the painter, was born at Mainz on the 24th of December 1824. In his childhood his bent was towards languages, but his musical gifts were carefully cultivated and he learned to sing and to play the violin. Cornelius the elder, anxious for his son to become an actor, himself taught the boy the elements of the art. These theatrical studies, however, were interrupted early by a visit paid by Peter Cornelius to England as second violin in the Mainz orchestra. On returning home young Cornelius made his stage debut as John Cook in *Kean*. But after two more appearances, as the lover in the comedy *Das war Ich* and as Perin in Moreto's *Donna Diana*, he practically abandoned the stage for music, his idea being to become a comic opera composer. In 1843 his father died. Hitherto Cornelius's musical studies had been

unsystematic. Now opportunity served to remedy this, for his relative, Cornelius the painter, summoned him in 1844 to Berlin, and enabled him a year later to become a pupil of Siegfried Wilhelm Dehn (1799-1858), counterpoint and theory generally being worked at laboriously. After leaving Dehn, Cornelius proved his independence by writing a trio in A minor, a quartet in C, as well as two comic opera texts. In 1847 he returned to Dehn and immediately composed an enormous mass of music, including a second trio, 30 vocal canons, several sonatas, a Mass, a Stabat Mater; he also wrote a number of translations of old French poems, which are classics of their kind. In 1852 he first came in touch with Liszt, through his uncle's instrumentality. At Weimar, whither he went in 1852, he heard Berlioz's delightful *Benvenuto Cellini*, a work which ultimately exercised great influence over him. For the time, however, he devoted himself, on Liszt's advice, to further Church compositions, the influence of the Church on him at that time being so great that he applied, but vainly, for a place in a Jesuit college. Still his mind was bent on the production of a comic opera, but the composition was long delayed by the work of translating the prefaces for Liszt's symphonic poems and the texts of works by Berlioz and Rubinstein. Between October 1855 and September in the following year, Cornelius wrote the book of the *Barbier von Bagdad*, and on December 15, 1858, the opera was produced at Weimar under Liszt, and hissed off the stage. Thereupon Liszt resigned his post, and shortly afterwards Cornelius went to Vienna and Munich, and still later came very much under Wagner's influence. Cornelius's *Cid* was completed and produced at Weimar in 1865. For the last nine years of his life (1865-1874) Cornelius was occupied with his opera *Gunlöd* and other compositions, besides writing ably and abundantly on Wagner's music-dramas. In 1867 he became teacher of rhetoric and harmony at the Musikschule, Munich, and married Berthe Jung. He died on the 26th of October 1874. Not the least of Cornelius's many claims to fame was his remarkable versatility. Many of his original poems, as well as his translations from the French, rank high. Among his songs, special mention may be made of the lovely "Weihnachtslieder," and of the "Vätergruft," an unaccompanied vocal work for baritone solo and choir.

CORNELIUS, PETER VON (1784-1867), German painter, was born in Düsseldorf in 1784. His father, who was inspector of the Düsseldorf gallery, died in 1799, and the young Cornelius was stimulated to extraordinary exertions. In a letter to the Count Raczynski he says, "It fell to the lot of an elder brother and myself to watch over the interests of a numerous family. It was at this time that it was attempted to persuade my mother that it would be better for me to devote myself to the trade of a goldsmith than to continue to pursue painting—in the first place, in consequence of the time necessary to qualify me for the art, and in the next, because there were already so many painters. My dear mother, however, rejected all this advice, and I felt myself impelled onward by an uncontrollable enthusiasm, to which the confidence of my mother gave new strength, which was supported by the continual fear that I should be removed from the study of that art I loved so much." His earliest work of importance was the decoration of the choir of the church of St Quirinus at Neuss. At the age of twenty-six he produced his designs from *Faust*. On October 14, 1811, he arrived in Rome, where he soon became one of the most promising of that brotherhood of young German painters which included Overbeck, Schadow, Veit, Schnorr and Ludwig Vogel (1788-1879),—a fraternity (some of whom selected a ruinous convent for their home) who were banded together for resolute study and mutual criticism. Out of this association came the men who, though they were ridiculed at the time, were destined to found a new German school of art.

At Rome Cornelius participated, with other members of his fraternity, in the decoration of the Casa Bartoldi and the Villa Massimi, and while thus employed he was also engaged upon designs for the illustration of the Nibelungenlied. From Rome he was called to Düsseldorf to remodel the Academy, and to Munich by the then crown-prince of Bavaria, afterwards Louis I., to direct the decorations for the Glyptothek. Cornelius, however, soon found that attention to such widely separated duties was incompatible with the just performance of either, and most inconvenient to himself; eventually, therefore, he resigned his post at Düsseldorf to throw himself completely and thoroughly into those works for which he had been commissioned by the crown-prince. He therefore left Düsseldorf for Munich, where he was joined by those of his pupils who elected to follow and to assist him. At the death of Director Langer, 1824-1825, he became director of the Munich Academy.

The fresco decorations of the Ludwigskirche, which were for the most part designed and executed by Cornelius, are perhaps the most important mural works of modern times. The

large fresco of the Last Judgment, over the high altar in that church, measures 62 ft. in height by 38 ft. in width. The frescoes of the Creator, the Nativity, and the Crucifixion in the same building are also upon a large scale. Amongst his other great works in Munich may be included his decorations in the Pinakothek and in the Glyptothek; those in the latter building, in the hall of the gods and the hall of the hero-myths, are perhaps the best known. About the year 1839-1840 he left Munich for Berlin to proceed with that series of cartoons, from the Apocalypse, for the frescoes for which he had been commissioned by Frederick William IV., and which were intended to decorate the Campo Santo or royal mausoleum. These were his final works.

Cornelius, as an oil painter, possessed but little technical skill, nor do his works exhibit any instinctive appreciation of colour. Even as a fresco painter his manipulative power was not great. And in critically examining the execution in colour of some of his magnificent designs, one cannot help feeling that he was, in this respect, unable to do them full justice. Cornelius and his associates endeavoured to follow in their works the spirit of the Italian painters. But the Italian strain is to a considerable extent modified by the Dürer heritage. This Dürer influence is manifest in a tendency to overcrowding in composition, in a degree of attenuation in the proportions of, and a poverty of contour in, the nude figure, and also in a leaning to the selection of Gothic forms for draperies. These peculiarities are even noticeable in Cornelius's principal work of the "Last Judgment," in the Ludwigskirche in Munich. The attenuation and want of flexibility of contour in the nude are perhaps most conspicuous in his frescoes of classical subjects in the Glyptothek, especially in that representing the contention for the body of Patroclus. But notwithstanding these peculiarities there is always in his works a grandeur and nobleness of conception, as all must acknowledge who have inspected his designs for the Ludwigskirche, for the Campo Santo, &c. If he were not dexterous in the handling of the brush, he could conceive and design a subject with masterly purpose. If he had an imperfect eye for colour, in the Venetian, the Flemish, or the English sense, he had vast mental foresight in directing the German school of painting; and his favourite motto of *Deutschland über alles* indicates the direction and the strength of his patriotism. Karl Hermann was one of Cornelius's earliest and most esteemed scholars, a man of simple and fervent nature, painstaking to the utmost, a very type of the finest German student nature; Kaulbach and Adam Eberle were also amongst his scholars. Every public edifice in Munich and other German cities which were embellished with frescoes, became, as in Italy, a school of art of the very best kind; for the decoration of a public building begets a practical knowledge of design. The development of this institution of scholarship in Munich was a work of time. The cartoons for the Glyptothek were all by Cornelius's own hand. In the Pinakothek his sketches and small drawings sufficed; but in the Ludwigskirche the invention even of some of the subjects was entrusted to his scholar Hermann.

To comprehend and appreciate thoroughly the magnitude of the work which Cornelius accomplished for Germany, we must remember that at the beginning of the 19th century Germany had no national school of art. Germany was in painting and sculpture behind all the rest of Europe. Yet in less than half a century Cornelius founded a great school, revived mural painting, and turned the gaze of the art world towards Munich. The German revival of mural painting had its effect upon England, as well as upon other European nations, and led to the famous cartoon competitions held in Westminster Hall, and ultimately to the partial decoration of the Houses of Parliament. When the latter work was in contemplation, Cornelius, in response to invitations, visited England (November 1841). His opinion was in every way favourable to the carrying out of the project, and even in respect of the durability of fresco in the climate of England. Cornelius, in his teaching, always inculcated a close and rigorous study of nature, but he understood by the study of nature something more than what is ordinarily implied by that expression, something more than constantly making studies from life; he meant the study of nature with an inquiring and scientific spirit. "Study nature," was the advice he once gave, "in order that you may become acquainted with its *essential* forms."

The personal appearance of Cornelius could not but convey to those who were fortunate enough to come into contact with him the impression that he was a man of an energetic, firm and resolute nature. He was below the middle height and squarely built. There was evidence of power about his broad and overhanging brow, in his eagle eyes and firmly gripped attenuated lips, which no one with the least discernment could misinterpret. Yet there was a sense of humour and a geniality which drew men towards him; and towards those young artists who sought his teaching and his criticism he always exhibited a calm patience.

See Förster, *Peter von Cornelius* (Berlin, 1874).

(W. C. T.)

CORNELL UNIVERSITY, one of the largest of American institutions of higher education, situated at Ithaca, New York. Its campus is finely situated on a hill above the main part of the city; it lies between Fall Creek and Cascadilla Creek (each of which has cut a deep gorge), and commands a beautiful view of the valley and of Lake Cayuga. The university is co-educational (since 1872), and comprises the graduate school, with 306 students in 1909; the college of arts and sciences (902 students); the college of law (225 students), established in 1887; the medical college (217 students, of whom 29 were taking freshman or sophomore work in Ithaca, where all women entering the college must pursue the first two years of work)—this college was established in 1898 by the gift of Oliver Hazard Payne, and has buildings opposite Bellevue hospital on First Avenue and 28th Street, New York city; the New York state veterinary college (94 students), established by the state legislature in 1894; the New York state college of agriculture (413 students), established as such by the state legislature in 1904,—the teaching of agriculture had from the beginning been an important part of the university's work,—with an agricultural experiment station, established in 1887 by the Federal government; the college of architecture (133 students); the college of civil engineering (569 students); and the Sibley College of mechanical engineering and mechanic arts (1163 students), named in honour of Hiram Sibley (1807-1888), a banker of Rochester, N.Y., who gave $180,000 for its endowment and equipment and whose son Hiram W. Sibley gave $130,000 to the college. A state college of forestry was established in connexion with the university in 1898, but was discontinued after several years. The total enrolment of regular students in 1909 was 3980; in addition, 841 students were enrolled in the 1908 summer session (which is especially for teachers) and 364 in the "short winter course in agriculture" in 1909. Nearly all the states and territories of the United States and thirty-two foreign countries were represented—e.g. there were 33 students from China, 12 from the Argentine Republic, 6 from India, 10 from Japan, 10 from Mexico, 5 from Peru, &c.

In the W. central part of the campus is the university library building, which, with an endowment (1891) of $300,000 for the purchase of books and periodicals, was the gift of Henry Williams Sage (1814-1897), second president of the board of trustees; in 1906 it received an additional endowment fund of about $500,000 by the bequest of Prof. Willard Fiske. The building, of light grey Ohio sandstone, houses the general library (300,050 volumes in 1909), the seminary and department libraries (7284 volumes), and the forestry library (1007 volumes). Among the special collections of the general library are the classical library of Charles Anthon, the philological library of Franz Bopp, the Goldwin Smith library (1869), the White architectural and historical libraries, the Spinoza collection presented by Andrew D. White (1894), the library of Jared Sparks, the Samuel J. May collection of works on the history of slavery, the Zarncke library, especially rich in Germanic philology and literature, the Eugene Schuyler collection of Slavic folk-lore, literature and history, the Willard Fiske Rhaeto-Romanic, Icelandic, Dante and Petrarch collections, and the Herbert H. Smith collection of works on Latin America (in addition there are college and department libraries—that of the college of law numbers 38,735 volumes—bringing the total to 353,638 bound volumes in 1909). Among the other buildings are: Morse Hall, Franklin Hall, Sibley College, Lincoln Hall (housing the college of civil engineering), Goldwin Smith Hall (for language and history), Stimson Hall (given by Dean Sage to the medical college), Boardman Hall (housing the college of law), Morrill Hall (containing the psychological laboratory), McGraw Hall and White Hall—these, with the library, forming the quadrangle; S. of the quadrangle, Sage chapel (with beautiful interior decorations), Barnes Hall (the home of the Cornell University Christian Association), Sage College (a dormitory for women), and the armoury and gymnasium; E. of the quadrangle, the Rockefeller Hall of Physics (1906) and the New York State College of Agriculture (completed in 1907); and S.E. of the quadrangle the New York State Veterinary College and the Fuertes Observatory. The university is well-equipped with laboratories, the psychological laboratory, the laboratories of Sibley college and the hydraulic laboratory of the college of civil engineering being especially noteworthy; the last is on Fall Creek, where a curved concrete masonry dam has been built, forming Beebe Lake. East of the campus is the university playground and athletic field (55 acres), built with funds raised from the alumni. Cayuga Lake furnishes opportunity for rowing, and the Cornell crews are famous. During their first two years all undergraduates, unless properly excused, must take a prescribed amount of physical exercise. Normally the first year's exercise for male students is military drill under the direction of a U.S. army officer detailed as commandant.

The reputation of the university is particularly high in mechanical engineering; Sibley college was built up primarily under Prof. Robert Henry Thurston (1839-1903), a well-known engineer, its director in 1885-1903. The college includes the following departments: machine design and construction, experimental engineering, power engineering, and electrical engineering. The "Susan Linn Sage School of Philosophy," so called since the gift (1891) of $200,000 from Henry W. Sage in memory of his wife, issues *The Philosophical Review* and *Cornell Studies in Philosophy*, and is well known for the psychological laboratory

investigations under Prof. E. B. Titchener (b. 1867). Equally well known are the college of agriculture under Prof. Liberty Hyde Bailey (b. 1858); the "Cornell School" of Latin grammarians, led first by Prof. W. G. Hale and then by Prof. C. E. Bennett; the department of entomology under Prof. J. H. Comstock (b. 1849), the department of physics under Prof. E. L. Nichols (b. 1854), and other departments. The university publishes *Cornell Studies in Classical Philology*, the *Journal of Physical Chemistry*, the *Physical Review*, *Publications of Cornell University Medical College*, various publications of the college of agriculture, and *Studies in History and Political Science* (of "The President White School of History and Political Science"). Among the student publications are *The Cornell Era* (1868, weekly), *The Cornell Daily Sun* (1880), *The Sibley Journal of Engineering* (1882), *The Cornell Magazine*, a literary monthly, and *The Cornell Widow* (1892), a comic tri-weekly. The regular annual tuition fee is $100, but in medicine, in architecture, and in civil and mechanical engineering it is $150. In the veterinary and agricultural colleges there are no tuition fees for residents of New York state. There are 150 free-tuition state scholarships (one for each of the state assembly districts), and, in addition, there are 36 undergraduate university scholarships (annual value, $200) tenable for two years, and 23 fellowships and 17 graduate scholarships (annual value, $300-600 each). In the college of arts and sciences the elective system, with certain restrictions, obtains.

The university has always been absolutely non-sectarian; its charter prescribes that "persons of every religious denomination, or of no religious denomination, shall be equally eligible to all offices and appointments" and that "at no time shall a majority of the board (of trustees) be of one religious sect or of no religious sect." There is, however, an active Christian Association and religious services—provided for by the Dean Sage Preachership Endowment—are conducted in Sage chapel by eminent clergymen representing various sects and denominations.

The affairs of Cornell university are under the administration of a board which must consist of forty trustees, of whom ten are elected by the alumni. The following are *ex officio* members of the board: the president of the university, the librarian of the Cornell Library (in Ithaca), the governor and the lieutenant-governor of the state, the speaker of the state assembly, the state commissioners of education and of agriculture, and the president of the state agricultural society. The internal government is in the hands of the university faculty (which consists of the president, the professors and the assistant professors, and has jurisdiction over matters concerning the university as a whole), and of the special faculties, which consist of the president, the professors, the assistant professors, and the instructors of the several colleges, and which have jurisdiction over distinctively collegiate matters.

In 1909 the invested funds of the university amounted to about $8,594,300, yielding an annual income of about $428,800; the income from state and nation was about $232,050, and from tuition fees about $336,100; the campus and buildings were valued at about $4,263,400, and the Library, collections, apparatus, &c. at about $1,826,100.

The university was incorporated by the legislature of New York state on the 27th of April 1865, and was named in honour of Ezra Cornell,[1] its principal benefactor. In 1864 Cornell, at the suggestion of Andrew D. White, his fellow member of the state senate, decided to found a university of a new type—which should be broad and liberal in its scope, should be absolutely non-sectarian, and which should recognize and meet the growing need for practical training and adequate instruction in the sciences as well as in the humanities. He offered to the state as an endowment $500,000 (with 200 acres of land) on condition that the state add to this fund the proceeds of the sales of public lands granted to it by the Morrill Act of 1862 for "the endowment, support and maintenance of at least one college, where the leading object shall be ... to teach such branches of learning as are related to agriculture and the mechanic arts.... "[2] The charter provided that "such other branches of science and knowledge may be embraced in the plan of instruction and investigation pertaining to the university as the trustees may deem useful and proper," and Ezra Cornell expressed his own ideal in the oft-quoted words: "I would found an institution where any person can find instruction in any study." The opposition to Cornell's plan was bitter, especially on the part of denominational schools and press, but incorporation was secured, and the trustees first met on the 5th of September 1865. Andrew D. White was elected president and the entire educational scheme was left to him. Dr White's ideals in part were: a closer union between the advanced and the general educational system of the state; liberal instruction of the industrial classes; increased stress on technical instruction; unsectarian control; "a course in history and political and social science adapted to the practical needs of men worthily ambitious in public affairs"; a more thorough study of modern languages and literatures, especially English; the "steady effort to abolish monastic government and pedantic instruction"; the elective system of studies; and the stimulus of non-resident lecturers. On the 7th of October 1868 the Cornell

University opened with some confusion due to the condition of the campus, and to the presence of 412 would-be pupils, many of whom expected to “work their way through.” The brilliance of the faculty and especially of its non-resident members (including J. R. Lowell, Louis Agassiz, G. W. Curtis, Bayard Taylor, Theodore D. Dwight, and Goldwin Smith, who was a resident professor in 1866-1869), was to a degree over-shadowed during the fifteen years 1868-1882 by financial difficulties. But Ezra Cornell himself paid many salaries during early years, and provided much valuable equipment solely at his own expense; and because the state’s land scrip was selling too low to secure an adequate endowment for the University, in 1866 he bought the land scrip yet unsold (819,920 acres)[3] by the state at the rate of sixty cents an acre on the understanding that all profits, in excess of the purchase money, should constitute a separate endowment fund to which the restrictions in the Morrill Act should not apply; and in 1866-1867 he “located” 512,000 acres in Wisconsin, Minnesota, and Kansas. In November 1874 he transferred these lands, which had cost him $576,953 more than he had received from them, to the university. This actual deficit on the lands owned by the university steadily increased up to 1881, when, after the trustees had refused (in 1880) an offer of $1,250,000 for 275,000 acres of pine lands, they sold about 140,600 acres for $2,319,296; ultimately 401,296 acres of the land turned over to the university by Cornell were sold, bringing a net return of about $4,800,000. The university was put on a sound financial footing; the number of students, less in 1881-1882 than in 1868 at the opening of the university, again increased, so that it was 585 in 1884-1885, and 2120 in 1897-1898. The presidents of the university have been: Andrew Dickson White, 1865-1885; Charles Kendall Adams, 1885-1892; and Jacob Gould Schurman.

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1 Ezra Cornell (1807-1874) was born in Westchester county, New York, on the 11th of January 1807. His parents were Quakers from Massachusetts. He received a scanty education; worked as a carpenter in Syracuse and as a machinist in Ithaca; became interested (about 1842) in the development of the electric telegraph; and after unsuccessful or over-expensive attempts to ground the telegraph wires in 1844 solved the difficulty by stringing them on poles. He organized many telegraph construction companies, was one of the founders of the Western Union Telegraph Company, and accumulated a large fortune. He was a delegate to the first national convention of the Republican party (1856) and was a member of the New York assembly in 1862-1863 and of the state senate in 1864-1867. He founded a public library (dedicated in 1866) in Ithaca, and died there on the 9th of December 1874. Consult Alonzo B. Cornell, *True and Firm: A Biography of Ezra Cornell* (New York, 1884).

2 New York’s share amounted to 990,000 acres. The Morrill Act prescribed that the proceeds from the sale of this land should not be used for the purchase, erection or maintenance of any building or buildings.

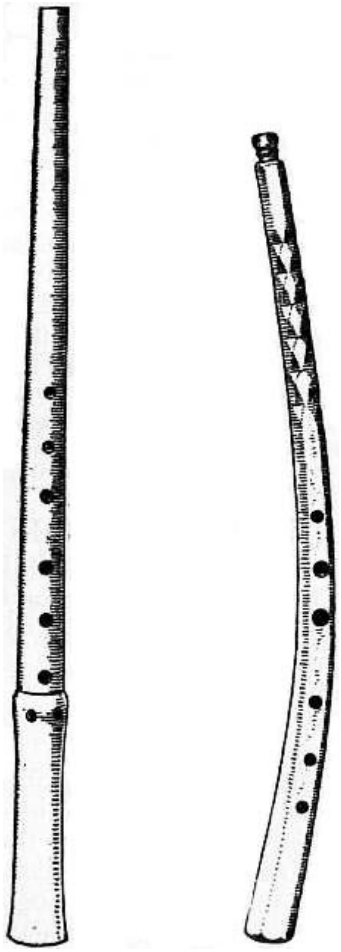
3 He had previously—in 1865—bought scrip for 100,000 acres for $50,000, on the understanding that all profits which might accrue from the sale of the land should be paid to the university.

CORNET, a word having two distinct significations and two etymological histories, both, however, ultimately referable to the same Latin origin:—

1. (Fr. *cornette*, dim. of *corne*, from Lat. *cornu*, a horn), a small standard, formerly carried by a troop of cavalry, and similar to the pennon in form, narrowing gradually to a point. The term was then applied to the body of cavalry which carried a cornet. In this sense it is used in the military literature of the 16th century and, less frequently, in that of the 17th. Before the close of the 16th century, however, the world had also come to mean a junior officer of a troop of cavalry who, like the “ensign” of foot, carried the colour. The spelling “coronet” occurs in the 16th century, and has perhaps contributed to obscure the derivation of “colonel” or “coronel.” The rank of “cornet” remained in the British cavalry until the general adoption of the term “second lieutenant.” In the Boer republics “field-cornets” were local subordinate officers of the commando (q.v.), the unit of the military forces. Elected for three years by the wards into which the electoral districts were divided, they had administrative as well as military duties, and acted as magistrates, inspectors of natives and registration officers for their respective wards. In 1907, the “field-cornet” system was re-established in the Transvaal; the new duties of the “field-cornets” are those performed by assistant magistrates, viz. petty jurisdiction, registration of voters, births and deaths, the carrying out of regulations as to animal diseases, and maintenance of roads. The “field-cornets” are appointed by government for three years.

2. (Fr. *cornet*, Ital. *cornetto*, Med. Lat. *cornetum*, a bugle, from Lat. *cornu*, a horn), in music,

the name of two varieties of wind instruments (see below), and also of certain stops of the organ. The great organ “solo cornet” was a mixture or compound stop, having either 5, 4, or 3 ranges of pipes; occasionally it was placed on a separate soundboard, when it was known as a “mounted cornet.” The “echo cornet” was a similar stop, but softer and enclosed in a box. In German and Dutch organs the term cornet is sometimes applied to a pedal reed stop.



From Capt. C. R. Day’s *Descriptive Catalogue of Musical Instruments*, by permission of Messrs. Eyre & Spottiswoode.

Fig. 1.—Cornetto Muto.

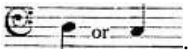
Fig. 2.—Cornetto Curvo.

(a) Cornet or Cornett (Fr. *cornet*, *cornet à bouquin*; Ger. *Zinck*, *Zincken*; Ital. *cornetto*) is the name given to a family of wood wind instruments, now obsolete, having a cup-shaped mouthpiece and a conical bore without a bell, and differing entirely from the modern cornet à pistons. The old cornets were of two kinds, the straight and the curved, characterized by radical differences in construction. There were two very different kinds of straight cornets (Ger. *gerader Zinck*, Ital. *cornetto diretto* or *recto*), the one most commonly used having a detachable cup-shaped mouthpiece similar to that of the trumpet, while the other was made to all appearance without mouthpiece, there being not even a moulded rim at the end of the tube to break the rigid straight line. 171 Examination of the tube, however, reveals the secret of the characteristic sweet tone of this latter kind of cornet; unsuspected inside the top of the tube is cut out of the thickness of the wood a mouthpiece, not cup-shaped, but like a funnel similar to that of the French horn, which merges gradually into the bore of the instrument. This mode of construction, together with the narrower bore adopted, greatly influenced the timbre of the instrument, whose softer tone was thus due mainly to the substitution of the funnel for the sharp angle of incidence at the bottom of the cup mouthpiece known as the throat (see Mouthpiece), where it communicates with the tube. It is this sharp angle, which in the other cornets with detachable mouthpiece, causes the column of air to break, producing a shrill quality of tone, while the wider bore and slightly rough walls of the tube account for the harshness. In Germany the sweet-toned cornet was known as *stiller* or *sanfter Zinck*, and in Italy as *cornetto muto* (fig. 1), while in France the instruments with detachable mouthpiece were distinguished by the addition of *à bouquin* (= with mouthpiece). The curved cornet (Ger. *krummer Zinck* or *Stadtkalb*; Ital. *cornetto curvo*) could not for obvious reasons have the bore pierced through a single piece of wood; the channel for the vibrating column of air was, therefore, hollowed out of two pieces of wood, the diameter increasing from the mouthpiece to the lower end. The two pieces of wood thus prepared were joined together with glue and covered with leather, the outer surface of the tube being finished off in octagonal shape. The separate mouthpiece, made indifferently of wood, horn, ivory or metal,[1] analogous to that of the trumpet, was distinctly cup-shaped and fixed by a tenon to the upper extremity of the pipe. The primitive instrument was an animal’s horn.

Pipes of such short length give only, besides the first or fundamental, the second and sometimes the third note of the harmonic series. Thus a pipe that has for its fundamental A will, if the pressure of breath and tension of the lips be steadily increased, give the octave A and the twelfth E. In order to connect the first and second harmonics diatonically, the length of the pipe was progressively shortened by boring lateral holes through the tube for the fingers to cover. The successive opening of these holes furnished the instrumentalist with the different intervals of the scale, six holes sufficing for this purpose:

The fundamental was thus connected with its octave by all the degrees of a diatonic scale, which became chromatic by the help of cross-fingering and the greater or less tension of the lips stretched as vibrating reeds across the opening of the mouthpiece. This increased

compass of twenty-seven notes obtained by cross-fingering is very clearly shown in a table by Eisel.[2] The fingering was completed by a seventh hole, which had for its object the production of the octave without the necessity of closing all the holes in order to produce the second note of the harmonic series. The first complete octave, thus obtained by a succession of fundamental notes, was easily octaved by a stronger pressure of breath and tension of the lips across the mouthpiece, and thus the ordinary limits of the compass of a *Zinck* or cornet could be extended to a fifteenth. Whether straight or curved it was pierced laterally with seven holes, six through the front, and the seventh, that nearest the mouthpiece, through the back. The first three holes were usually covered with the third, second and first fingers of the right hand, the next four with the third, second and first fingers and the thumb of the left hand. But some instrumentalists inverted the position of the hands. Virdung[3] shows, besides the *cornetto recto*, a kind of *Zinck* made of an animal's horn with only four holes, three in the front of the pipe and one at the back. Such an instrument as this had naturally a very limited compass, since these four holes only sufficed to produce the intermediate notes between the second and third proper tones of the harmonic scale, the lower octave comprised between the first and second remaining incomplete; by overblowing, however, the next octave would be obtained in addition.

At the beginning of the 17th century Praetorius[4] represents the *Zincken* as a complete family comprising: (1) the little *Zinck* with the lowest note  , (2) the ordinary *Zinck* with the lowest note  , (3) the great *Zinck*, *cornon* or *corno torto*, a great cornet in the shape of an S with the lowest note 

. In France[5] the family was composed of the following instruments:

(1) The *dessus* or treble cornet with the lowest note  ;

(2) the *haute-contre* or alto cornet with the lowest note  ;

(3) the *taille* or tenor cornet with the lowest note  and the *basse* or bass or *pédalle*[6] cornet with the lowest note  .

The cornets of the lowest pitch were sometimes furnished with an open key which, when closed, lengthened the tube, and extended the compass downwards by a note. Mersenne figures a *cornon* with a key.

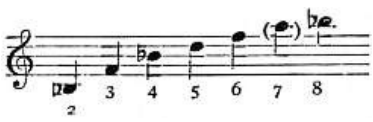
During the middle ages these instruments were in such favour that an important part was given to them in all instrumental combinations. At Dresden,[7] between 1647 and 1651, the Kapelle of the electoral prince of Saxony included two cornets, the bass being supplied by the trombone. Monteverde introduced two cornets in the 3rd and 4th acts of his *Orfeo* (1607). In France the charges for the *Chapelle-Musique* of the kings of France for the year 1619 contain two entries of the sum of 450 *livres tournois*, salary paid to one Marcel Cayty, *joueur de cornet*, a post held by him from 1604 until at least 1631, when another cornet player, Jean Daneau, is also mentioned.[8]

In Germany in the 17th and 18th centuries, *Zincken* were used with trombones in the churches to accompany the chorales. There are examples of this use of the instrument in the sacred cantatas of J. S. Bach, where the cornet is added to the upper voice parts to strengthen them. Johann Mattheson, conductor of the opera at Hamburg, writing on the orchestra in 1713[9] gives a description of the *Zinck* as a member of the orchestra, but in 1739,[10] in his work on the perfect conductor, he deplores the decrease of its popularity in church music, from which it seems to be banished as useless. Gluck was the last composer of importance who scored for the cornet, as for instance in *Orfeo*, in *Paride ed Elena*, in *Alceste* and in *Armide*, &c. The great vogue of the curved cornet is not to be accounted for by its musical qualities, for it had a hard, hoarse, piercing sound, and it failed utterly in truth of intonation; these natural defects, moreover, could only be modified with great difficulty. Mersenne's eulogium of the *dessus*, then more employed than the other cornets, can only be appreciated at its full value if we look upon the art of cornet playing as a lost art. "The *dessus*," he says, "was used in the vocal concerts and to make the treble with the organ, which is ravishing when one knows how to play it to perfection like the Sieur Guiclet;" and again further on, "the character of its tone resembles the brilliance of a sunbeam piercing the darkness, when it is heard among the voices in churches, cathedrals or chapels."[11] Mersenne further observes that the serpent is the true bass of the cornet, that one without the other is like body without soul. A drawing in pen

and ink of a curved cornet is given by Randle Holme in his *Academy of Armoury* (1688);[12] and at the end of the description of the instrument he adds, "It is a delicate pleasant wind musick, if well played and humoured." Giovanni Maria Artusi[13] of Bologna, writing at the end of the 16th century, devotes much space to the cornet, explaining in detail the three kinds of tonguing used with the instrument. By tonguing is understood a method of articulation into the mouthpiece of flute, cornet à pistons or trumpet, of certain syllables which add brilliance to the tone. Artusi advocates (1) for the guttural effect, *ler, ler, ler, der, ler, der, ler*; *ter, ler, ter*; *ler, ter, ler*; (2) for the tongue effect, *tere, tere, tere*; (3) for the dental effect, *teche, teche, teche*, used by those who wish to strike terror into the hearts of the hearers—an effect, however, which offends the ear. A clue to the popularity of the instrument during the middle ages may perhaps be found in Artusi's remark that this instrument is the most apt in imitating the human voice, but that it is very difficult and fatiguing to play; the musician, he adds elsewhere, should adopt an instrument to imitate the voice as much as possible, such as the cornetto and the trombone. He mentions two players in Venice, Il Cavaliero del Cornetto and M. Girolamo da Udine, who excelled in the art of playing the cornet.

Being derived from the horn of an animal through which lateral holes had been pierced, the curved cornet was probably the earlier, and when the instrument came to be copied in metal and in wood the straight cornet was the result of an attempt to simplify the construction. The evolution probably took place in Asia Minor, where tubes with conical bore were the rule, and the instrument was thence introduced into Europe. A straight *Zinck*, having a grotesque animal's head at the bell-end, and six holes visible, is pictured in a miniature of the 11th century.[14] What appears to be precisely the same kind of instrument, although differing widely in reality, the chaunter being reed-blown, is to be found in illuminated MSS. as the chaunter of the bagpipe, as for example in a royal roll of Henry III. at the British Museum,[15] where it occurs twice played by a man on stilts. The grotesque was probably added to the chaunter in imitation of that on the straight *Zinck*. Two *stille Zincken* or *cornetti muti* are among the musical instruments represented in the triumphal procession of the emperor Maximilian I.[16] (d. 1519), designed at his command by H. Burgmair under the superintendence of Albrecht Dürer.

(b) Cornet à Pistons, Cornet, Cornopaean (Fr. *cornet à pistons*; Ger. *Cornett*; Ital. *cornetto*), are the names of a modern brass wind instrument of the same pitch as the trumpet. Being a transformation of the old post-horn, the cornet should have a conical bore of wide diameter in proportion to the length of tube, but in practice usually only a small portion of the tube is conical, i.e. from the mouthpiece to the slide of the first valve and from the slide of the third valve to the bell. The tube of the cornet is doubled round upon itself. The cup-shaped mouthpiece is larger than that of the trumpet; the shape of the cup in conjunction with the length of the tube and the proportions of the bore determines the timbre of the instrument. The outline of the bottom of the cup, where it communicates with the bore, is of the greatest importance.[17] If, as in the trumpet, it presents angles against which the column of air breaks, it produces a brilliant tone quality. In the cornet mouthpiece there are no angles at the bottom of the cup, which curves into the bore; hence the cornet's loose, coarse quality of tone. The sound is produced by stretching the lips across the mouthpiece, and making them act as double reeds, set in vibration by the breath. There are no fixed notes on the cornet as in instruments with lateral holes, or with keys; the musical scale is obtained by means of the power the performer possesses—once he has learned how to use it—of producing the notes of the harmonic series by overblowing, i.e. by varying the tension of the lips and the pressure of breath. In the cornet this series is short, comprising only the harmonics from the 2nd to the 8th:



Harmonic series of the B♭ cornet—the 7th is slightly flat, a defect which the performer corrects, if he uses the note at all.

The intermediate notes completing the chromatic scale are obtained by means of three pistons which, on being depressed, open valves leading into supplementary wind-ways, which lengthen the original tube. The pitch of the instrument is thus lowered respectively one tone, half a tone, and one tone and a half. The action of the piston temporarily changes the key of the instrument and with it the notes of the harmonic series. Before a performer, therefore, can play a note he must know in which harmonic series it is best obtained and use the proper piston in conjunction with the requisite lip tension. By means of the pistons the compass of the cornet is thus extended from

Real sounds for the cornet in C.

(The minims indicate the practical compass but the extension

shown by the crotchets is possible to all good players.)

The treble clef is used in notation, and in England the music for the cornet is usually written as sounded, but most French and German composers score for it as for a transposing instrument; for example, the music for the B♭ cornet is written in a key one tone higher than that of the composition.

The *timbre* of the cornet lies somewhere between that of the horn and the trumpet, having the blaring, penetrating quality of the latter without its brilliant noble sonorousness. The great favour with which the cornet meets is due to the facility with which it speaks, to the little fatigue it causes, and to the simplicity of its mechanism. We must, however, regret from the point of view of art that its success has been so great, and that it has ended in usurping in brass bands the place of the bugles, the tone colour of which is infinitely preferable as a foundation for an ensemble composed entirely of brass instruments. Even the symphonic orchestra has not been secure from its intrusion, and the growing tendency in some orchestras, notably in France, to allow the cornet to supersede the trumpet, to the great detriment of tone colour, is to be deplored. The cornet used in a rich orchestral harmony is of value for completing the chords of trumpets, or to undertake diatonic and chromatic passages which on account of their rapidity cannot easily be fingered by trombones or horns. The technical possibilities of the instrument are very great, almost unrivalled in the brass wind:—notes sustained, crescendo or diminuendo; diatonic and chromatic scale and arpeggio passages; leaps, shakes, and in fact all kinds of musical figures in any key, can be played with great facility on the three-valved cornet. Double tonguing is also practicable, the articulation with the tongue of the syllables *ti-ke* for double, and of *ti-ke-ti* for triple time producing a striking staccato effect.

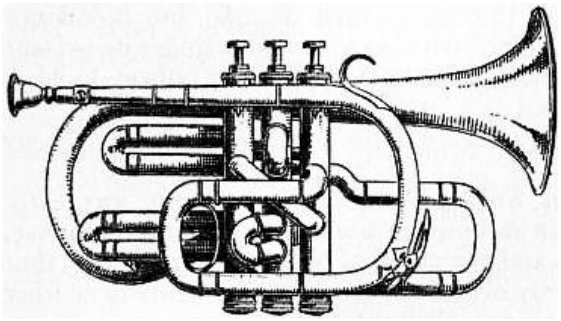


Fig. 3.—B♭ Cornet with enharmonic valves (Besson & Co.).

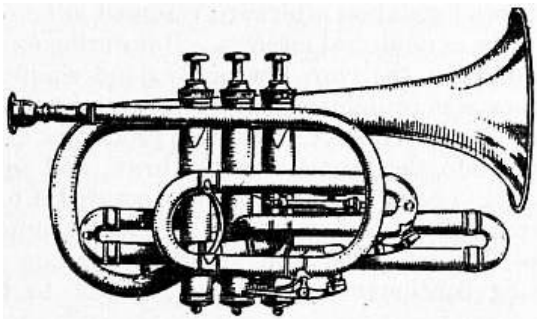


Fig. 4.—B♭ Cornet with strictly conical bore throughout, Klussmann's patent (Rudall, Carte & Co.).

The cornet was evolved in Germany, at the beginning of the 19th century, from the post-horn, by the application of the newly invented pistons of Stoelzel and Bluemel patented in 1815. It was introduced into Great Britain and France about 1830. There were at first only two pistons—for a whole tone and for a half tone—from which there naturally resulted gaps in the chromatic scale of the instrument. The use of a combination of pistons (see Bombardon and Valves) fails to give acoustically correct intervals, because the length of tubing thus thrown open is not of the theoretical length required to produce the interval. A tube about 4 ft. long, such as that of the B♭ cornet, needs an additional length of about 3 in. to lower the pitch a semitone; but, if this cornet has already been lowered one tone to the key of A♭, the length of tube has increased some 6 in., and the 3-in. semitone piston no longer adds sufficient tubing to produce a semitone of correct intonation. To the performer falls the task of concealing the shortcomings of his instrument, and he therefore corrects the intonation by varying the lip tension. At first the cornet was supplied with a great many crooks for A, A♭, G, F, E, E♭ and D, but from the explanation now given, it will be readily understood that they were found unpractical for valve instruments, and all but the first two mentioned have been abandoned. The history of the cornet is a record of the endeavours of successive musical instrument makers to overcome this inherent defect in construction. The most ingenious and successful of these improvements are the following:—(1) The *six-valve-independent system*[18] of Adolphe Sax, designed about 1850, by which a separate valve was used for each position, thus obviating the necessity of using combinations of pistons. This theoretically perfect system unfortunately introduced great difficulties in practice, the valves being made *ascending* instead of *descending*, and each piston cutting off a definite length of wind-way from the open tube, instead of adding to it. The system was eventually abandoned. (2) The *Besson Registre* giving eight independent positions, afterwards modified as the (3) *Besson compensating*

system transpositeur, patented in England in 1859, which was considered so successful that the idea was extensively used by other makers. (4) The *Boosey automatic compensating piston*, invented by D. J. Blaikley, and patented in 1878, a very ingenious device whereby when two or more pistons are used simultaneously the length of the air column is automatically adjusted to the theoretical length required to ensure correct intonation. (5) Victor Mahillon's automatic regulating pistons (*pistons régulateur automatique*) produced about 1886, the result of independent efforts in the same direction as Blaikley, and equally ingenious and effectual.[19] Finally we have (6) more recently the *Besson enharmonic valve system* (fig. 3) with three pistons and six independent tuning slides which give the seven positions independently, thus realizing in a simple effectual manner all that Sax strove to accomplish with his six pistons. The enharmonic valves give all notes theoretically true; there are in addition separate means for adjusting each of the first six lengths, for although these lengths are theoretically correct there are always certain modifying conditions connected with brass instruments which render it essential to provide means for adjustment. All notes being true on this Besson cornet, they can be fingered to the greatest advantage for smoothness and rapidity. (7) Rudall, Carte & Co.'s cornet (fig. 4), with strictly conical bore (Klussmann's patent) throughout the open tube and additional lengths from the mouthpiece to the bell, gives a perfect intonation and is at the same time easy to blow. There are no crooks to this cornet when constructed in B♭, but it may be instantaneously transposed into the key of A major by means of an undetachable slide guided by a piston rod.

(V. M.; K. S.)

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1 See Marin Mersenne, *L'Harmonie universelle* (Paris, 1636-1637), bk. v., pp. 273-274.

2 See Eisel's (Anon.) *Musicus* Αὐτοδίδακτος, *oder der sich selbst informirende Musicus* (Erfurt, 1738), p. 93 and table vi.

3 Sebastian Virdung, *Musica getutscht und auszgezogen* (Basel, 1511).

4 Michael Praetorius, *Syntag. Music.*, vol. ii. *De Organographia* (Wolfenbüttel, 1618), pp. 25 and 41, pls. 8 and 13.

5 See Mersenne, *loc. cit.*

6 See Ad. MS. 30342, Brit. Museum, fol. 145. A tract in French containing pen and ink sketches of musical instruments, which dates from the 17th or perhaps the 18th century, and was formerly in the possession of the Jesuit college in Paris. Here the *pédalle* is the bass pommer, or *hautbois*, and the sackbut is indicated as second bass or *basse-contre*. As also in Mersenne, the cornets are curved.

7 See Moritz Fürstenau, *Geschichte der Musik und des Theaters am Hofe zu Dresden* (Dresden, 1861-1862), p. 28.

8 See Michel Brenet, "Deux comptes de la Chapelle Musique des rois de France," *Sammelband der Intern. Mus. Ges.*, vi. 1 (Leipzig, 1904), pp. 20, 21, 29; and *Archives nationales* (Paris), Z. Ia. 486.

9 *Das neu-eröffnete Orchester* (Hamburg, 1713), p. 253.

10 *Der vollkommene Kapellmeister* (Hamburg, 1739).

11 See Mersenne, *op. cit.*, bk. v., p. 274.

12 Part of book iii. in MS. Harleian, 2034, fol. 207b. Brit. Museum.

13 *Delle imperfettioni della moderna musica* (Venice, 1600), pp. 4, 5, 6 and 12b.

14 Gräfl. Schönborn Bibl. Pommersfelden, Cod. 2776, reproduced in E. Buhle's *Die musikalischen Instrumente in den Miniatur-Handschriften des Mittelalters*, part i. (Leipzig, 1903) pl. 6 and p. 24, where other references will be found.

15 Royal Roll, 14 B. v. 13th century. See also Augustus Hughes-Hughes, *Catalogue of MS. Music in the British Museum*, part iii.

16 See "Triumphzug des Kaisers Maximilians I.," *Beilage zum 1 sten Bd. d. Jahrbuch der Samml. des Allerhöchsten Kaiserhauses* (Vienna, 1883), part i. p. 26, and letterpress, Bd. i. pp. 154-181.

17 See Victor Mahillon, *Éléments d'acoustique musicale et instrumentale* (Brussels, 1874), pp. 96, 97, &c., with diagrams, and Friedrich Zamminer, *Die Musik und die musikalischen Instrumente*, &c. (Giessen, 1855), p. 310, &c., with diagrams.

18 For a fuller description of this system see Capt. C. R. Day, *Descriptive Catalogue of Musical Instruments* (London, 1891), p. 207, No. 406.

19 Id., pp. 192-193.

CORNETO TARQUINIA (anc. *Tarquinii*), a town of Italy, in the province of Rome, 62 m. N.W. by rail from the town of Rome, 490 ft. above sea-level. Pop. (1901) 5273. Corneto probably arose after the ancient town had been destroyed by the Saracens. In the 10th century it began to acquire importance, and for some time was an independent commune. It is picturesquely situated, and commands a fine view. It possesses medieval fortifications, and no less than twenty-five towers are still standing in various parts of the town, which thus has a remarkably medieval appearance. The castle on the N. contains the Romanesque church of S. Maria in Castello, begun in 1121, with a fine portal of 1143, a *ciborium* of 1168 and a pulpit of 1209, both in "cosmatesque" work: the pavement in marble mosaic also is fine. There are several other Romanesque and Gothic churches in the town more or less restored. The oldest parts of the Palazzo Comunale date from about 1000. The Gothic Palazzo Vitelleschi (1439) contains remarkably rich windows. The municipal museum (which is to be transferred to this palace) and the Palazzo Bruschi, contain fine collections of Etruscan antiquities from the tombs of Tarquinii. Four miles to the S.W. is the Porto Clementino (perhaps the ancient *Graviscae*, the port of Tarquinii), with government saltworks, in which convicts are employed.

See L. Dasti, *Notizie storiche archeologiche di Tarquinia e Corneto* (Rome, 1878); for the cemeteries, *Notizie degli Scavi*, 1906, 1907.

CORNICE (Fr. *corniche*, Ital. *cornice*), in architecture, the projection at the top of a wall, which is provided to throw off the rain water from the roof, beyond the face of the building. As employed in classic architecture it forms the upper part of the entablature of an order, and is there subdivided into bed mould, corona and cymatium. The term is also generally applied to any moulding projection which crowns the feature to which it is attached; thus doors and windows, internally as well as externally, have each their cornice, and the same applies to pieces of furniture (see also MASONRY).

CORNIFICIUS, the author of a work on rhetorical figures, and perhaps of a general treatise (*ars*, τέχνη) on the art of rhetoric (Quintilian, *Instit.*, iii. 1. 21, ix. 3. 89). He has been identified with the author of the four books of *Rhetorica* dedicated to a certain Q. Herennius and generally known under the title of *Auctor ad Herennium*. The chief argument in favour of this identity is the fact that many passages quoted by Quintilian from Cornificius are reproduced in the *Rhetorica*. Jerome, Priscian and others attributed the work to Cicero (whose *De inventione* was called *Rhetorica prima*, the *Auctor ad Herennium*, *Rhetorica secunda*), while the claims of L. Aelius Stilo, M. Antonius Gnipho, and Ateius Praetextatus to the authorship have been supported by modern scholars. But it seems improbable that the question of authorship will ever be satisfactorily settled. Internal indications point to the date of compositions as 86-82 B.C., the period of Marian domination in Rome. The unknown author, as may be inferred from the treatise itself, did not write to make money, but to oblige his relative and friend Herennius, for whose instruction he promises to supply other works on grammar, military matters and political administration. He expresses his contempt for the ordinary school rhetorician, the hair-splitting dialecticians and their "sense of inability to speak, since they dare not even pronounce their own name for fear of expressing themselves ambiguously." Finally, he admits that rhetoric is not the highest accomplishment, and that philosophy is far more deserving of attention. Politically, it is evident that he was a staunch supporter of the popular party.

The first and second books of the *Rhetorica* treat of *inventio* and forensic rhetoric; the third, of *dispositio*, *pronuntiatio*, *memoria*, deliberative and demonstrative rhetoric; the fourth, of *elocutio*. The chief aims of the author are conciseness and clearness (*breviter et dilucide scribere*). In accordance with this, he ignores all rhetorical subtleties, the useless and irrelevant matter introduced by the Greeks to make the art appear more difficult of acquisition; where possible, he uses Roman terminology for technical terms, and supplies his own examples of the various rhetorical figures. The work as a whole is considered very valuable. The question of the relation of Cicero's *De inventione* to the *Rhetorica* has been much discussed. Three views were held: that the Auctor copied from Cicero; that they were

independent of each other, parallelisms being due to their having been taught by the same rhetorician at Rome; that Cicero made extracts from the *Rhetorica*, as well as from other authorities, in his usual eclectic fashion. The latest editor, F. Marx, puts forward the theory that Cicero and the Auctor have not produced original works, but have merely given the substance of two τέχναι (both emanating from the Rhodian school); that neither used the τέχναι directly, but reproduced the revised version of the rhetoricians whose school they attended, the introductions alone being their own work; that the lectures on which the Ciceronian treatise was based were delivered before the lectures attended by the Auctor.

The best modern editions are by C. L. Kayser (1860), in the Tauchnitz, and W. Friedrich (1889), in the Teubner edition of Cicero's works, and separately by F. Marx (1894); see also *De scholiis Rhetorices ad Herennium*, by M. Wisen (1905). Full references to authorities will be found in the articles by Brzoska in Pauly-Wissowa, *Realencyclopädie* (1901); M. Schanz, *Geschichte der römischen Litt.*, i. (2nd ed., pp. 387-394); and Teuffel-Schwabe, *Hist. of Roman Lit.* (Eng. trans., p. 162); see also Mommsen, *Hist. of Rome*, bk. iv. ch. 13.

CORNING, ERASTUS (1794-1872), American capitalist, was born in Norwich, Connecticut, on the 14th of December 1794. In 1807 he became a clerk in a hardware store at Troy, New York, but in 1814 he removed to Albany, where he eventually became the owner of extensive ironworks, obtained a controlling interest in various banking institutions, and accumulated a large fortune. He was prominently connected with the early history of railway development in New York, became president of the Utica & Schenectady line, and was the principal factor in the extension and consolidation of the various independent lines that formed the New York Central system, of which he was president from 1853 to 1865. He was also interested in the building of the Michigan Central and the Chicago, Burlington & Quincy railways, and was president of the company which constructed the Sault Sainte Marie ship canal, providing a navigable waterway between Lakes Huron and Superior. He was prominent in politics as a Democrat, and, after serving as mayor of Albany from 1834 to 1837, and as state senator from 1842 to 1845, he was a representative in Congress in 1857-1859 and in 1861-1863, being re-elected for a third term in 1862, but resigning before the opening of the session. In 1861 he was a delegate to the Peace Congress, but when the Civil War actually began he loyally supported the Lincoln administration. He was a delegate to the New York constitutional convention of 1867, and was for many years vice-chancellor of the board of regents of the University of the State of New York. He died at Albany, New York, on the 9th of April 1872.

CORNING, a city of Steuben county, New York, U.S.A., in the S. part of the state, on the Chemung river, 10 m. W.N.W. of Elmira. Pop. (1890) 8550; (1900) 11,061, of whom 1410 were foreign-born; (1910) 13,730. Corning is served by the Erie, the Delaware, Lackawanna & Western, and the New York Central & Hudson River railways. Among the principal buildings and institutions are a fine city hall, a Federal building, a county court house, the Corning hospital, a free public library and St Mary's orphan asylum (Roman Catholic). Corning is one of the principal markets in New York state for tobacco, which is extensively produced in the surrounding country. The principal industry is the making of cut and flint glass, and, of the several extensive plants devoted to this industry, that of the Corning Glass Works is one of the largest in the world. The city also has railway car shops and foundries, and among its manufactures are pressed brick, tile and terra-cotta, papier-mâché and lumber. The total value of the factory products in 1905 was $3,083,515, 35.7% more than in 1900. There were settlers on the site of Corning as early as 1789, but it was not until 1848 that it was incorporated as a village under its present name, given in honour of Erastus Corning, the railway builder. Corning was chartered as a city in 1890.

See C. H. M'Master, *History of the Settlement of Steuben County* (Bath, N.Y., 1853).

CORN LAWS. In England, legislation on corn was early applied both to home and foreign trade in this essential produce. Roads were so bad, and the chain of home trade so feeble, that there was often scarcity of grain in one part, and plenty in another part of the same kingdom. Export by sea or river to some foreign market was in many cases more easy than the carriage of corn from one market to another within the country. The frequency of local dearths, and the diversity and fluctuation of prices, were thus extreme. It was out of this general situation that the first corn laws arose, and they appear to have been wholly directed towards lowering the price of corn. Exportation was prohibited, and home merchandise in grain was in no repute or toleration. As long as the rent of land, including the extensive domains of the crown, was paid in kind, the sovereign, the barons and other landholders had little interest in the price of corn different from that of other classes of people, the only demand for corn being for consumption and not for resale or export. But as rents of land came to be paid in money, the interest of the farmer to be distinguished by a remove from that of the landowner, the difference between town and country to be developed, and the business of society to be more complex, the ruling powers of the state were likely to be actuated by other views; and hence the force which corn legislation afterward assumed in favour of what was deemed the agricultural interest. But during four centuries after the Conquest the corn law of England simply was that export of corn was prohibited, save in years of extreme plenty under forms of state licence, and that producers carried their surplus grain into the nearest market town, and sold it there for what it would bring among those who wanted it to consume; and the same rule prevailed in the principal countries of the continent of Europe. This policy, though, as one may argue from its long continuance, probably not felt to be acutely oppressive, was of no avail in removing the evils against which it was directed. On the contrary it prolonged and aggravated them. The prohibition of export discouraged agricultural improvement, and in so much diminished the security and liberality even of domestic supply; while the intolerance of any home dealing or merchandise in corn prevented the growth of a commercial and financial interest strong enough to improve the means of transport by which the plenty of one part of the same country could have come to the aid of the scarcity in another.

English corn laws, 1436-1603.

Apart from this general feudal germ of legislation on corn, the history of the British corn laws may be said to have begun with the statute in the reign of Henry VI. (1436), by which exportation was permitted without state licence, when the price of wheat or other corn fell below certain prices. The reason given in the preamble of the statute was that the previous state of the law had compelled farmers to sell their corn at low prices, which was no doubt true, but which also showed the important turn of the tide that had set in. J. R. M'Culloch, in an elaborate article in the *Commercial Dictionary*, says that the fluctuation of the prices of corn in that age was so great, and beyond all present conception, that "it is not easy to determine whether the exportation price of 6s. 8d. for wheat" [12s. 10d. in present money per quarter] "was above or below the medium price." But while the medium price of the kingdom must be held to be unascertainable in a remote time, when the medium price in any principal market town of England did not agree with that of another for any year or series of years, one may readily perceive that the cultivators of the wheat lands in the south-eastern counties of England, for example, who could frequently have sold their produce in that age to Dutch merchants to better advantage than in their own market towns, or even in London, but were prohibited to export abroad, and yet had no means of distributing their supplies at home so as to realize the highest medium price in England, must have felt aggrieved, and that their barons and knights of the shire would have a common interest in making a strong effort to rectify the injustice in parliament. This object appears to have been in some measure accomplished by this statute, and twenty-seven years afterwards (1463) a decided step was taken towards securing to agriculturists a monopoly of the home market by a statute prohibitory of importation from abroad. Foreign import was to be permitted only at and above the point of prices where the export of domestic produce was prohibited. The landed interest had now adopted the idea of sustaining and equalizing the value of corn, and promoting their own industry and gains, which for four centuries, under various modifications of plan, and great changes of social and political condition, were to maintain a firm place in the legislation and policy of England. But there were many reasons why this idea, when carried into practice, should not have the results anticipated from it.

The import of grain from abroad, even in times of dearth and high prices at home, could not be considerable as long as the policy of neighbouring countries was to prohibit export; nor could the export of native corn, even with the Dutch and other European ports open to such supplies, be effective save in limited maritime districts, as long as the internal corn trade was suppressed, not only by want of roads, but by legal interdict. The regulation of liberty of export and import by rates of price, moreover, had the same practical objection as the various sliding-scales, bounties, and other legislative expedients down to 1846, viz. that they failed, probably more in that age than in later times, to create a permanent market, and aimed only

at a casual trade. When foreign supplies were needed, they were often not to be found; and when there was an excess of corn in the country a profitable outlet was both difficult and uncertain. It would appear, indeed, that during the Wars of the Roses the statutes of Henry VI. and Edward IV. had become obsolete; for a law regulating export prices in identical terms of the law of 1436 was re-enacted in the reign of Philip and Mary (1554). In the preceding reign of Edward VI., as well as in the succeeding long reign of Elizabeth, there were unceasing complaints of the decay of tillage, the dearth of corn, and the privations of the labouring classes; and these complaints were met by the same kind of measures—by statutes encouraging tillage, forbidding the enlargement of farms, imposing severer restrictions on storing and buying and selling of grain, and by renewed attempts to regulate export and import according to prices. In 1562 the price at which export might take place was raised to 10s. per quarter for wheat, and 6s. 8d. for barley and malt. This only lasted a few years, and in 1570 the export of wheat and barley was permitted from particular districts on payment of a duty of 1s. 8d. per quarter, although still liable to prohibition by the government or local authority, while it was entirely prohibited under the old regulations from other districts. Only at the close of Elizabeth's reign (1603) did a spark of new light appear in a further statute, which removed the futile provisions in favour of tillage and against enlargement of pastoral farms, and rested the whole policy for promoting an equable supply of corn, while encouraging agriculture, on an allowed export of wheat and other grain at a duty of 2s. and 1s. 4d. when the price of wheat was not more than 20s., and of barley and malt 12s. per quarter. The import of corn appears to have been much lost sight of from the period of the statute of 1463. The internal state of England, as well as the policy of other countries of Europe, was unfavourable to any regular import of grain, though many parts of the kingdom were often suffering from dearth of corn. It is obvious that this legislation, carried over more than a century and a half, failed of its purpose, and that it neither promoted agriculture nor increased the supply of bread. So great a variance and conflict between the intention of statutes and the actual course of affairs might be deemed inexplicable, but for an explanation which a close economic study of the circumstances of the times affords.

Besides the general reasons of the failure already indicated, there were three special causes in active operation, which, though not seen at the period, have become distinct enough since. (1) A comparatively free export of wool had been permitted in England from time immemorial. It was subject neither to conditions of price nor to duties in the times under consideration, was easier of transport and much less liable to damage than corn, and, under the extending manufactures of France and the Low Countries, was sure of a foreign as well as a domestic market. Here was one description of rural produce on which there was the least embargo, and on which some reliance could be placed that it would in all circumstances bring a fair value; while corn, the prime rural produce, was subject as a commodity of merchandise to every difficulty, internally and externally, which meddling legislation and popular prejudice could impose. The numerous statutes enjoining tillage and discouraging pastoral farms—or in other words requiring that agriculturists should turn from what was profitable to what was unprofitable—had consequently no substantial effect, save in the many individual instances in which the effect may have been injurious. (2) The value of the standard money of the kingdom had been undergoing great depreciation from two opposite quarters at once. The pound sterling of England was reduced in weight of pure metal from £1 : 18 : 9 in 1436, the date of the first of the corn statutes, to 4s. 7¾d. in 1551, as far as can be estimated in present money, and to £1 : 0 : 6¾ under the restoration of the coinage in the following year. At the same time the greater abundance of silver, which now began to be experienced in Europe from the discovery of the South American mines, was steadily reducing the intrinsic value of the metal. Hence a general rise of prices remarked by Hume and other historians; and hence also it followed that a price of corn fixed for export or import at one period became always at another period more or less restrictive of export than had been designed. (3) The wages of labour would have followed the advance in the prices of commodities had wages been left free, but they were kept down by statute to the three or four pence per day at which they stood when the pound sterling contained one-fourth more silver, and silver itself was much more valuable. This was a refinement of cruelty. The feudal system was breaking up; a wage-earning population was rapidly increasing both in the farms and in the towns; but the spirit of feudalism remained, and the iron collar of serfdom was riveted round the necks of the labourers by these statutes many generations after they had become nominally freemen.[1] The result was chronic privation and discontent among the common people, by which all the conditions of agriculture and trade in corn were further straitened and barbarized; and an age, in some high respects among the most brilliant in the annals of England, was marked by an enormous increase of pauperism, and by the introduction of the merciful but wasteful remedy of the Poor Laws.

The corn legislation of Elizabeth remained without change during the reign of James, the civil wars and the Commonwealth. But on the restoration of Charles II. in 1660, the question

was resumed, and an act was passed of a more prohibitory character. Export and import of corn, while nominally permitted, were alike subjected to heavy duties—the need of the exchequer being the paramount consideration, while the agriculturists were no doubt pleased with the complete command secured to them in the home market. This act was followed by such high prices of corn, and so little advantage to the revenue, that parliament in 1663 reduced the duties on import to 9% *ad valorem*, while at the same time raising the price at which export ceased to 48s., and reducing the duty on export from 20s. to 5s. 4d. per quarter. In a few years this was found to be too much free-trade for the agricultural liking, and in 1670 prohibitory duties were re-imposed on import when the home price was under 53s. 4d., and a duty of 8s. between that price and 80s., with the usual make-weight in favour of home supply, that export should be prohibited when the price was 53s. 4d. and upwards. But complaints of the decline of agriculture continued to be as rife under this act as under the others, till on the accession of William and Mary, the landed interest, taking advantage of the Revolution as they had taken advantage of the Restoration to promote their own interests, took the new and surprising step of enacting a bounty on the export of grain. This evil continued to affect the corn laws of the kingdom, varied, on one occasion at least, with the further complication of bounties on import, until the 19th century. The duties on export being abolished, while the heavy duties on import were maintained, this is probably the most one-sided form which the British corn laws ever assumed, but it was attended with none of the advantages anticipated. The prices of corn fell, instead of rising. There had occurred at the period of the Revolution a depreciation of the money of the realm, analogous in one respect to that which marked the first era of the corn statutes (1436-1551), and forming one of the greatest difficulties which the government of William had to encounter. The coin of the realm was greatly debased, and as rapidly as the mint sent out money of standard weight and purity, it was melted down, and disappeared from the circulation. The influx of silver from South America to Europe had spent its action on prices before the middle of the century; the precious metals had again hardened in value; and for forty years before the Revolution the price of corn had been steadily falling in money price. The liberty of exporting wool had also now been cut down before the English manufactures were able to take up the home supply, and agriculturists were consequently forced to extend their tillage. When the current coin of the kingdom became wholly debased by clipping and other knaveries, there ensued both irregularity and inflation of nominal prices, and the producers and consumers of corn found themselves equally ill at ease. The farmers complained that the home-market for their produce was unremunerative and unsatisfactory; the masses of the people complained with no less reason that the money wages of labour could not purchase them the usual necessaries of life. Macaulay, in his *History of England*, says of this period, with little exaggeration, that “the price of the necessaries of life, of shoes, of ale, of oatmeal, rose fast. The labourer found that the bit of metal which, when he received it, was called a shilling, would hardly, when he purchased a pot of beer or a loaf of rye bread, go as far as sixpence.” The state of agriculture could not be prosperous under these conditions. But when the government of William surmounted this difficulty of the coinage, as they did surmount it, under the guidance of Sir Isaac Newton, with remarkable statesmanship, it necessarily followed that prices, so far from rising, declined, because, for one reason, they were now denominated in a solid metallic value. The rise of prices of corn attending the first years of the export bounty was consequently of very brief duration. The average price of wheat in the Winchester market, which in the ten years 1600-1699 was £2: 10s., fell in the ten years 1716-1725 to £1 : 5 : 4, and in the ten years 1746-1755 to £1 : 1 : 2¾. The system of corn law established in the reign of William and Mary was probably the most perfect to be conceived for advancing the agricultural interest of any country. Every stroke of the legislature seemed complete to this end. Yet it wholly failed of its purpose. The price of wheat again rose in 1750-1760 and 1760-1770 to £1 : 19 : 3¼ and £2 : 11 : 3¾, but many causes had meanwhile been at work, as invariably happens in such economic developments, the operation of which no statutes could embrace, either to control or to prevent. Between the reign of William and Mary and that of George III., the question of bounty on export of grain had, in the general progress of the country, fallen into the background, while that of the heavy embargoes on import had come to the front. Therefore it is that Burke’s Act of 1773, as a deliberate attempt to bring the corn laws into some degree of reason and order, is worthy of special mention. This statute permitted the import of foreign wheat at a nominal duty of 6d. when the home price was 48s. per quarter, and it stopped both the liberty to export and the bounty on export together when the home price was 44s. per quarter. The one blemish of this statute was the stopping export and cutting off bounty on export at the same point of price.

Few questions have been more discussed or more differently interpreted than the elaborate system of corn laws dating from the reign of William and Mary. So careful an observer as Malthus was of opinion that the bounty on export had enlarged the area of subsistence. That it had large operation is sufficiently attested by the fact that, in the years from 1740 to 1751,

bounties were paid out of the exchequer to the amount of £1,515,000, and in 1749 alone they amounted to £324,000. But the trade thus forced was of no permanence, and the British exports of corn, which reached a maximum of 1,667,778 quarters in 1749-1750, had fallen to 600,000 quarters in 1760 and continued to decrease.

Burke's Act lasted long enough to introduce a regular import of foreign grain, varying with the abundance or scarcity of the home harvest, yet establishing in the end a systematic preponderance of imports over exports. The period, moreover, was marked by great agricultural improvements, by extensive reclamation of waste lands, and by an increased home produce of wheat, in the twenty years from 1773 to 1793, of nearly 2,000,000 quarters. Nor had the course of prices been unsatisfactory. The average price of British wheat in the twenty years was £2 : 6 : 3, and in only three years of the twenty was the price a fraction under £2. But the ideas in favour of greater freedom of trade, of which the act of 1773 was an indication, and of which another memorable example was given in Pitt's commercial treaty with France, were overwhelmed in the extraordinary excitement caused by the French Revolution, and all the old corn law policy was destined to have a sudden revival. The landowners and farmers complained that an import of foreign grain at a nominal duty of 6d., when the price of wheat was only 48s., deprived them of the ascending scale of prices when it seemed due; and on this instigation an act was passed in 1791, whereby the price at which importation could proceed at the nominal duty of 6d. was raised to 54s., with a duty of 2s. 6d. from 54s. to 50s., and at 50s. and under 50s. a prohibitory duty of 24s. 3d. The bounty on export was maintained by this act, but exportation was allowed without bounty till the price reached 46s.; and the permission accorded by the statute of 1773 to import foreign corn at any price, to be reexported duty free, was modified by a warehouse duty of 2s. 6d. in addition to the duties on import payable at the time of sale, when the corn, instead of being re-exported, happened to be sold for home consumption. The legislative vigilance in this statute to prevent foreign bread from reaching the home consumer is remarkable. There were deficient home harvests for some years after 1791, particularly in 1795 and 1797, and parliament was forced to the new expedient of granting high bounties on importation. At this period the country was involved in a great war; all the customary commercial relations were violently disturbed; freight, insurance and other charges on import and export were multiplied fivefold; heavier and heavier taxes were imposed; and the capital resources of the kingdom were poured with a prodigality without precedent into the war channels. The consequence was that the price of corn, as of all other commodities, rose greatly: and the Bank of England having stopped paying in specie in 1797, this raised nominal prices still more under the liberal use of bank paper in loans and discounts, and the difference that began to be established in the actual value of Bank of England notes and their legal par in bullion.

1791-1846.

The average price of British wheat rose to £5 : 19 : 6 in 1801. So unusual a value must have led to a large extension of the area under wheat, and to much corn-growing on land that after great outlay was ill prepared for it. In the following years there were agricultural complaints; and in 1804, though in 1803 the average price of wheat had been as high as £2 : 18 : 10, an act was passed, so much more severe than any previous statute, that its object would appear to have been to keep the price of corn somewhere approaching the high range of 1801. A prohibitory duty of 24s. 3d. was imposed on the import of foreign wheat when the home price was 63s. or less; and the price at which the bounty was paid on export was lowered to 40s., while the price at which export might proceed without bounty was raised to 54s. Judging from the prices that ruled during the remaining period of the French wars, this statute would appear to have been effective for its end, though, under all the varied action of the times on a rise of prices, it would be difficult to assign its proper place in the general effect. The average price of wheat rose to £4 : 9 : 9 in 1805, and the bank paper price in 1812 was as high even as £6 : 6 : 6. The bullion prices from 1809 to 1813 ranged from 86s. 6d. to 100s. 3d. But it was foreseen that when the wars ended a serious reaction would ensue, and that the rents of land, and the general condition of agriculture, under the warlike, protective and monetary stimulation they had received, would be imperilled. In the brief peace of 1814 the average bullion price of British wheat fell to 55s. 8d. All the means of select committees of inquiry on agricultural distress, and new modifications of the corn laws, were again brought into requisition. The first idea broached in parliament was to raise the duties on foreign imports, as well as the prices at which they were to be leviable, and to abolish the bounty on export, while permitting freedom of export whatever the home price might be. The latter part of the scheme was passed into law in the session of 1814; but the irritation of the manufacturing districts against the new scale of import duties was too great to be resisted. In the subsequent session an act was passed, after much opposition, fixing 80s. (14s. more than during the wars) as the price at which import of wheat was to become free of duty.

This act of 1815 was intended to keep the price of wheat in the British markets at about 80s.

per quarter; but the era of war and great expenditure of money raised by public loans had ended, the ports of the continent were again open to some measure of trade and to the equalizing effect of trade upon prices, the Bank of England and other banks of issue had to begin the uphill course of a resumption of specie payments, the nation had to begin to feel the whole naked weight of the war debt, and the idea of the protectors of a high price of corn was proved by the event to be an utter hallucination. The corn statutes of the next twenty years, though occupying an enormous amount of time and attention in the Houses of Parliament, may be briefly treated, for they are simply a record of the impotence of legislation to maintain the price of a commodity at a high point when all the natural economic causes in operation are opposed to it. In 1822 a statute was passed reducing the limit of prices at which importation could proceed to 70s. for wheat, 35s. for barley, 25s. for oats; but behind the apparent relaxation was a new scale of import duties, by which foreign grain was subjected to heavy three-month duties up to a price of 85s.,—17s. when wheat was 70s., 12s. when between 70s. and 80s., and 10s. when 85s., showing the grasping spirit of the would-be monopolizers of the home supply of corn, and their reluctance to believe in a lower range of value for corn as for all other commodities. This act never operated, for the reason that, with the exception in some few instances of barley, prices never were so high as its projectors had contemplated. The corn trade had passed rapidly beyond reach of the statutes by which it was to be so painfully controlled; and as there were occasional seasons of scarcity, particularly in oats, the king in council was authorized for several years to override the statutes, and do whatever the public interests might require.

In 1827 Canning introduced a new system of duties, under which there would have been a fixed duty of 1s. per quarter when the price of wheat was at or above 70s., and an increased duty of 2s. for every shilling the price fell below 69s.; but though Canning’s resolutions were adopted by a large majority in the House of Commons, his death and the consequent change of ministers involved the failure of his scheme of corn duties. In the following year Charles Grant introduced another scale of import duties on corn, by which the duty was to be 23s. when the price was 64s., 16s. 8d. when the price was 69s., and only 1s. when the price was 73s. or above 73s. per quarter; and this became law the same year. This sliding scale was more objectionable, as a basis of foreign corn trade, than that of Canning, though not following so closely shilling by shilling the variation of prices, because of the abrupt leaps it made in the amount of duties leviable. For example, a merchant who ordered a shipment of foreign wheat when the home price was 70s. and rising to 73s., instead of having a duty of 1s. to pay, should on a backward drop of the home price to 69s. have 16s. 8d. of duty to pay. The result was to introduce wide and incalculable elements of speculation into all transactions in foreign corn. The prices during most part of this period were under the range at which import was practically prohibited. The average price of British wheat was 96s. 11d. in 1817, but from that point there was in succeeding years a rapid and progressive decline, varied only by the results of the domestic harvests, till in 1835 the average price of wheat was 39s. 4d., of barley 29s. 11d. and oats 22s. The import of foreign grain in these years consisted principally of a speculative trade, under a privilege of warehousing accorded in the statute of 1773, and extended in subsequent acts, by which the grain might be sold for home consumption on payment of the duties, or re-exported free, as suited the interest of the holders.

The act of 1822 admitted corn of the British possessions in North America under a favoured scale of duties, and in 1825 a temporary act was passed, allowing the import of wheat from these provinces at a fixed duty of 5s. per quarter, irrespective of the home price, which, if maintained, would have given some stability to the trade with Canada. The idea of a fixed duty on all foreign grain, however, appears to have grown in favour from about this period. It was included in the programme of import duty reforms of the Whig government in 1841, and fell with its propounders in the general election of that year. Sir Robert Peel, on succeeding to office, and commencing his remarkable career as a free-trade statesman, introduced and carried in 1842 a new sliding scale of duties somewhat better adjusted to the current values. But public opinion by this time was changing, and the prime minister, convinced, as he confessed, by the arguments of Cobden and the Anti-Corn-Law League, and stimulated into action by the failure of the potato crop in Ireland, put an effectual end to the history of the corn laws by the famous act of 1846. It was provided under this measure that the maximum duty on foreign wheat was to be immediately reduced to 10s. per quarter when the price was under 48s., to 5s. on barley when the price was under 26s., and to 4s. on oats when the price was under 18s., with lower duties as prices rose above these figures; but the conclusive part of the enactment was that in three years—on the 1st of February 1849—these duties were to cease, and all foreign corn to be admitted at a duty of 1s. per quarter, and all foreign meal and flour at a duty of 4½d. per cwt.—the same nominal imposts which were conceded to grain and flour of British possessions abroad from the date of the act. In 1869 even these nominal duties were abolished by Robert Lowe in a Customs Duties Act. In 1902 a registration duty of 3d. per cwt. was imposed on imported corn, and 5d. per cwt. on imported flour, in the expectation

that such a duty would broaden the basis of taxation. The duty was, however, repealed the following year. But a low duty on imported foreign corn was made an essential part of the tariff reform scheme advocated by Mr. J. Chamberlain (q.v.) from 1903 onwards.

Foreign Corn Laws.—Freedom of export of corn from customs duties has become the general rule of nearly all foreign countries. It is somewhat curious that Spain saw the advantage to her wheat-producing provinces of freedom of export of wheat as early as 1820, and three years afterwards extended this freedom to all "fruits of the soil" in Spain. The import duty on wheat, as on other grain, has varied from time to time. The tariff of 1882 fixed the duty at 2s. 3¼d. per cwt.; a law of February 1895 raised the duty to 4s. 3¼d. per cwt., at which rate it remained till 1898, when it was reduced to 2s. 5¼d., though in this same year, that of the war with the United States, it was for some three months suspended, owing to distress in the country. In 1899 it was raised to 3s. 3d., and by a law of March 1904 fixed at 6.00 pesetas per 100 kilos (2s. 5¼d. per cwt.) as long as the average price of wheat in the markets of Castile does not fall below 27.00 pesetas per 100 kilos (11s. per cwt.). The duty on rye, oats, barley and maize is 1s. 9½d. per cwt. The duty on flour varied from 3s. 4½d. per cwt. in 1882 to 7s. 0½d. in 1895; by the law of March 1904 it was fixed at 4s. 0¾d. per cwt. The duty on rice is 2s. 1¾d. per cwt. in the husk and 4s. 3¾d. not in the husk.

Spain.

In Portugal the import duty on wheat was fixed by a law of May 1888 at 20 reis per kilo (4s. 7d. per cwt.). By a law of July 1889, as amended by laws of August 1891 and July 1899, importation is prohibited except in the event of the home-grown crop being insufficient, and even then permission is confined to millers. The duty, in the event of permission to import being accorded, is to be charged on a sliding scale intended to keep the cost of wheat to the millers, including the duty, at 60 reis (3¼d.) per kilo (2.2 lbs.). Maize is subject to a duty of 4s. 1½d. per cwt., and rye, oats and barley to one of 3s. 8d. per cwt. By laws of July 1889 and August 1891 the importation of flour was prohibited except in the event of a strike of the mill-hands, and the duty was fixed at 6s. 2d. per cwt.

Portugal.

Export and import of grain in France were prohibited down to the period of the repeal of the British corn laws, save when prices were below certain limits in the one case and above certain other limits in the other. But export of grain and flour from France has long been free of duty. On the other hand, import duties have varied considerably. By a law of 1881, the duty on wheat was fixed at 3d. per cwt.; this duty was raised in 1885 to 1s. 2¾d. per cwt. and again in 1887 to 2s. 0½d. By a law of 1894 the duty was fixed at 2s. 10¼d. per cwt. In 1898, owing to the sudden rise in the price of corn occasioned by the war between Spain and the United States, the duty was temporarily (the 4th of May to the 30th of June) suspended. By a law of 1873 free importation of rye, barley, maize and oats was permitted, but by a law of 1885 a duty was fixed at 7¼d. per cwt., and this was subsequently (1887) increased to 1s. 2¾d. In 1881 the duty on imported flour was as low as 5¾d. per cwt., but this was increased successively by laws of 1885, 1887, 1891 and 1892, and in 1894 was fixed at 4s. 5¾d. per cwt. at the rate of extraction of 70% and over; 5s. 5¾d. at 70 to 60%; and 6s. 6d. at 60% and under.

France.

In Belgium both the export and import of wheat, rye, barley and maize are free of duty; so also were oats and flour. Since 1895, however, there has been a duty of 1s. 2½d. on oats, and of 9¾d. on flour. The policy of the Netherlands was, owing to the advantages possessed by its ports, long favourable to the import and export of grain. But for some years prior to 1845 there was a moderate sliding scale of import duties, and this gave place, on the ravages of the potato disease, to a low fixed duty; since 1877, however, the importation of cereals and flour has been free.

Belgium.

Netherlands.

In Italy there are no duties on the export of grain. The import duties show a progressive increase. In 1878 the import duty on wheat was 6¾d. per cwt.; this was increased to 1s. 2¾d. in 1888, and in 1894 to 3s. 0½d. As in Spain and France, there was a temporary reduction and suspension during 1898, on the Spanish-American war. The duty on rye, barley, oats and maize was fixed by the tariff of 1878 at 5½d. per cwt. By a decree of 1894 the duty on rye was raised to 1s. 10d.; that on barley, by a decree of 1896, to 1s. 7½d.; that on oats, by a decree of 1888, to 1s. 7½d.; and that on maize, by a decree of 1896, to 3s. 0½d. The duty on flour, fixed at 1s. 1½d., by the tariff of 1878, was raised to 2s. 5¼d. in 1888, to 3s. 6½d. in 1888, and to 5s. in 1894. In Germany, the duty on wheat and rye, as fixed by the tariff of 1879, was 6d. per cwt. In 1885 this was raised to 1s. 6¼d., and in 1888 to 2s. 6½d. By treaty in 1892 this was decreased to 1s. 9¼d. On oats the duty in 1879 was 6d. per cwt., increased to 9¼d. in 1885, and again, in 1888, to 2s. 0½d., but reduced to 1s. 5d. in 1892. On barley the duty in 1879 was 3d., in 1885 9¼d., in 1888 1s. 1¾d., and in 1892 1s. 0¼d. On maize, 3d. in 1879, 6d. in 1885, 1s. 0¼d. in 1888, and 9¾d. in 1892. On flour, 1s. 0¼d. in 1879, 3s. 9¾d. in 1885, 5s. 4d. in 1888, and 3s. 8½d. in 1892. The new German tariff of 1906 which formed the basis for the new German commercial treaties with Russia, Italy, Austria-Hungary, &c., and which was passed when the influence of the agrarian party was

Italy.

Germany.

predominant, increased still more the import duties on cereals. Under this tariff there are two rates of duties: (1). Those of the new "general" tariff as applied to imports from all countries entitled to most favoured-nation treatment. (2). "Conventional" tariff rates, conceded to other states as the result of treaties. Under this tariff the "general" and "conventional" duties, respectively, on wheat are 3s. 9½d. and 2s. 9d.; on oats and rye, 3s. 6½d. and 2s. 6¼d.; on "common baker's produce," 8s. 3d. and 5s. 2d. In Austria-Hungary the import duty on wheat and rye is, under the tariff of 1887, 1s. 6¼d. per cwt.; on barley and oats, 9¼d.; on maize, 6d., and on flour, 3s. 9¾d.

Austria-Hungary.

The great countries, famous for a production of raw materials much beyond their own means of consumption, are favourable, of course, to the utmost freedom of export. The empire of China itself was never unwilling to sell to foreigners tea for which there was no domestic use. The United States promotes transit and export of grain, internally and externally, with all the intelligence and resources of a civilized people. Although the import duty on "breadstuffs" imposed by the United States tariff is very high, and is, possibly, a useful protection against the importation of "baker's products," yet it is to a certain extent unnecessary for a country which must dispose of its surplus by exportation. The same remark applies to Russia, whose exportation and importation are alike free, though there is an import duty on wheat flour of 2s. 11½d. per cwt. In the British colonies probably the only example of an export duty is that on rice in British India; it amounts to 3 annas per maund (4d. per cwt.). The import of grain into India is free. In Australia, New Zealand, Canada, and all mainly agricultural countries, there is no export duty. In each of these countries, however, there is an import duty; in the cases of Australia and New Zealand, designed, to a certain extent, as a precaution against possible rivalry on the part of the other. The Australian import duty is 1s. 6d. per cental (100 lb av.), and the New Zealand 9d. per cental. The Canadian import duties on grain are important only in the light of being a species of retaliation against similar duties imposed by the United States with the design of restricting inter-frontier exchange. The Canadian import duty is, on barley, 30% *ad valorem*; on buckwheat, rye and oats, 4.93d. per bushel, and on wheat, 5.92d. per bushel. The South African production of cereal is still insufficient to meet the demand for home consumption, and there is a considerable grain importation. The import duty, which undoubtedly acts as an encouragement to home agriculture, is 1s. per cental. (See also Grain Trade.)

United States.

Russia.

India.

Australia, New Zealand, Canada.

South Africa.

(R. So.; T. A. I.)

1 M'Culloch found from a comparison of the prices of corn and wages of labour in the reign of Henry VII. and the latter part of the reign of Elizabeth, that in the former period a labourer could earn a quarter of wheat in 20, a quarter of rye in 12, and a quarter of barley in 9 days; whereas, in the latter period, to earn a quarter of wheat required 48, a quarter of rye 32, and a quarter of barley 29 days' labour.

CORN-SALAD, or Lamb's Lettuce, *Valerianella olitoria* (natural order Valerianaceae), a weedy annual, native of southern Europe, but naturalized in cornfields in central Europe, and not infrequent in Britain. In France it is used in salads during winter and spring as a substitute for lettuces, but it is less esteemed in England. The plant is raised from seed sown on a bed or border of light rich earth, and should be weeded and watered, as occasion requires, till winter, when it should be protected with long litter during severe frost. The largest plants should be drawn for use in succession. Sowing may be made every two or three weeks from the beginning of August till October, and again in March, if required in the latter part of the spring. The sorts principally grown are the Round-leaved and the Italian; the last is a distinct species, *Valerianella eriocarpa*.

CORNU, MARIE ALFRED (1841-1902), French physicist, was born at Orleans on the 6th of March 1841, and after being educated at the École Polytechnique and the École des Mines,

became in 1867 professor of experimental physics in the former institution, where he remained throughout his life. Although he made various excursions into other branches of physical science, undertaking, for example, with J. B. A. Bailie about 1870 a repetition of Cavendish's experiment for determining the mean density of the earth, his original work was mainly concerned with optics and spectroscopy. In particular he carried out a classical redetermination of the velocity of light by A. H. L. Fizeau's method, introducing various improvements in the apparatus, which added greatly to the accuracy of the results. This achievement won for him, in 1878, the *prix Lacaze* and membership of the Academy of Sciences in France, and the Rumford medal of the Royal Society in England. In 1899, at the jubilee commemoration of Sir George Stokes, he was Rede lecturer at Cambridge, his subject being the undulatory theory of light and its influence on modern physics; and on that occasion the honorary degree of D.Sc. was conferred on him by the university. He died at Paris on the 11th of April 1902.

CORNU COPIAE, later CORNUCOPIA ("horn of plenty"), a horn; generally twisted, filled with fruit and flowers, or an ornament representing it. It was used as a symbol of prosperity and abundance, and hence in works of art it is placed in the hands of Plutus, Fortuna and similar divinities (for the mythological account see AMALTHEIA). The symbol probably originated in the practice of using the horns of oxen and goats as drinking-cups; hence the *rhyton* (drinking-horn) is often confounded with the *cornu copiae*. For its representation in works of art, in which it is very common, especially in those belonging to the Roman period, see article in Daremberg and Saglio's *Dictionnaire des Antiquités*.

CORNUS, an ancient town of Sardinia, of Phoenician origin, on the west coast, 18 m. from Tharros, and the same from Bosa. At the time of the Second Punic War it is spoken of as the principal city of the district, and its capture by the Romans was the last act in the suppression of the rebellion of 215 B.C., it having served as a place of refuge for the fugitives after the defeat of the combined forces of the rebels and the Carthaginians. The site of the ancient acropolis, covered with débris, may still be made out. Here were found three inscriptions in 1831, with dedications by the *ordo*, or town council, of Cornus to various patrons, from one of which it seems that it was a colony, though when it became so is unknown (Th. Mommsen, *Corp. Inscr. Lat.* X. 7915 sqq.). Unimportant remains of an aqueduct and (perhaps) of a church exist. Excavations in the necropolis of the Roman period are recorded by F. Nissardi, *Notizie degli Scavi*, 1887, p. 47. Phoenician rock-cut tombs may also be seen.

CORNUTUS, LUCIUS ANNAEUS, Stoic philosopher, flourished in the reign of Nero. He was a native of Leptis in Libya, but resided for the most part in Rome. He is best known as the teacher and friend of Persius, whose satires he revised for publication after the poet's death, but handed them over to Caesius Bassus to edit, at the special request of the latter. He was banished by Nero (in 66 or 68) for having indirectly disparaged the emperor's projected history of the Romans in heroic verse (Dio Cassius lxii. 29), after which time nothing more is heard of him. He was the author of various rhetorical works in both Greek and Latin (Ῥητορικαὶ Τέχναι, *De figuris sententiarum*). Another rhetorician, also named Cornutus, who flourished A.D. 200-250 (or in the second half of the 2nd century) was the author of a treatise Τέχνη τοῦ πολιτικοῦ λόγου (ed. J. Graeven, 1890). A philosophical treatise, *Theologiae Graecae compendium* (of which the Greek title is uncertain; perhaps, Ἑλληνικὴ θεολογία, or Περὶ τῆς τῶν θεῶν φύσεως, though the latter may be the title of an abridgment of the former) is still extant. It is a manual of "popular mythology as expounded in the etymological and symbolical interpretations of the Stoics" (Sandys), and although marred by many absurd etymologies, abounds in beautiful thoughts (ed. C. Lang, 1881). Simplicius and Porphyry refer to his

commentary on the *Categories* of Aristotle, whose philosophy he is said to have defended against an opponent Athenodorus in a treatise Ἀντιγραφὴπρὸς Ἀθηνόδωρον. His Aristotelian studies were probably his most important work. A commentary on Virgil (frequently quoted by Servius) and *Scholia* to Persius are also attributed to him; the latter, however, are of much later date, and are assigned by Jahn to the Carolingian period. Excerpts from his treatise *De enuntiatione vel orthographia* are preserved in Cassiodorus. The so-called *Disticha Cornuti* (ed. Liebl, Straubing, 1888) belong to the late middle ages.

See G. Martini, *De L. Annaeo Cornuto* (1825); O. Jahn, *Prolegomena* to his edition of Persius; H. von Arnim in Pauly-Wissowa's *Realencyclopädie*, i. pt. ii. (1894); M. Schanz, *Geschichte der römischen Litteratur*, i. 2 (1901), p. 285; W. Christ, *Geschichte der griechischen Litteratur* (1898), pp. 702, 755; Teuffel-Schwabe, *Hist. of Roman Literature* (Eng. trans.), § 299, 2.

CORNWALL, the capital of the united counties of Stormont, Dundas and Glengarry, Ontario, Canada, 67 m. S.W. of Montreal, on the left bank of the St Lawrence river. Pop. (1901) 6704. It is an important station on the Grand Trunk and the Ottawa & New York railways, and is a port of call for all steamers between Montreal and Lake Ontario ports. The surplus from the Cornwall canal furnishes excellent water privileges for its factories, which include cotton and woollen mills and grist and saw mills. The town has long been celebrated for its lacrosse club. On the opposite bank of the river is St Régis, inhabited chiefly by Indians of the Iroquois tribe.

CORNWALL, the south-westernmost county of England, bounded N. and N.W. by the Atlantic Ocean, E. by Devonshire, and S. and S.W. by the English Channel. The area is 1356.6 sq. m. The most southerly extension is Lizard Point, and the most westerly point of the mainland Land's End, but the county also includes the Scilly Isles (q.v.), lying 25 m. W. by S. of Land's End. No county in England has a stronger individuality than Cornwall, whether in economic or social conditions, in history, nomenclature, tradition, or even in the physical characteristics of the land. Such individuality is hardly to be compassed within political boundaries, and in some respects it is shared by the neighbouring county of Devon, yet the traveller hardly feels its influence before passing west of the Tamar.

Physically, Cornwall is a great promontory with a direct length of 75 m. from N.N.E. to S.S.W., and an extreme breadth, at the junction with Devonshire, of 45 m. The river Tamar here forms the greater part of the boundary, and its valley divides the high moors of Devonshire and the succession of similar broad-topped hills which form the backbone of the Cornish promontory. The scenery is full of contrast. To the west of Launceston the principal mass of high land rises to 1375 ft. in Brown Willy, the highest point in the county. This district is broken and picturesque, with rough *tors* or hills and boulders. A remarkable pile of rocks called the Cheese-wring, somewhat resembling an inverted pyramid in form, is seen on the moor north of Liskeard. This district is for the most part a region of furze and heather; but after passing Bodmin, the true Cornish moorland asserts itself, bare, desolate and impracticable, broken and dug into hillocks, which are sometimes due to early mining works, sometimes to more modern search for metals. The seventy miles from Launceston to Mount's Bay have been called not untruly "the dreariest strip of earth traversed by any English high road." There is hardly more cultivation on the higher ground west of Mount's Bay, or in the Meneage or "rocky country," the old Cornish name for the promontory which ends in the Lizard. Long combes and valleys, however, descend from this upper moorland towards the coast on both sides. These are in general well wooded, and, in the luxuriance of their vegetation, strongly characteristic. The small rivers traversing them in several cases enter fine estuaries, which ramify deeply into the land. Such are, on the south coast, the great estuary of the Tamar, and other streams, on which the port of Plymouth is situated (but only the western shore is Cornish), the Looe and Fowey rivers, Falmouth Harbour, the most important of the purely Cornish inlets and accessible for the largest vessels, and the Helford river. On the north are the estuaries of the Camel and the Hayle, debouching into Padstow Bay and St Ives Bay respectively. The Fowey and Camel valleys almost completely break the continuation of the central high ground, and the uplands west of Mount's Bay are similarly

parted from the main mass by the low tract between Hayle and Marazion. Except at the mouth of a stream or estuary the coast is almost wholly rock-bound, and the cliff scenery is unsurpassed in England. Three different types are found. On the north coast, from Tintagel Head and Boscastle northward to Hartland Point in Devonshire, the dark slate cliffs, with their narrow and distorted strata, are remarkably rugged of outline, owing to the ease with which the waves fret the loosely-bound rock. On the south, in the beautiful little bays in the neighbourhood of the Lizard Point, the serpentine rock is noted for its exquisite colouring. Between Treryn and Land's End, at the south-west, a majestic barrier of granite is presented to the sea. The beautiful Scilly Isles continue the line of the granite, and the intervening sea is said to have submerged a tract of land named Lyonesse, containing, according to tradition, 140 parish churches, and intimately connected with the Arthurian romances.

Geology.—One of the most striking features of Cornwall is the presence of the four great masses of granite which rise up and form as many elevated areas out of a lower-lying region occupied by rocks almost entirely slaty in character, generally known as "Killas." The granite is not the oldest of the Cornish rocks; these are found in the Lizard peninsula and are represented by serpentine, gabbro and metamorphic schists. With the exception of a small tract about Veryan and Gorran, of Ordovician age, all the sedimentary rocks, as far as a line joining Boscastle and South Petherwin, were formerly classed as Devonian; to the north of the line are the Culm measures—slates, grits and limestones—of Carboniferous age. The extensive spread of Killas is not, however, entirely Devonian, as it is shown on most maps. In the northern portion, Lower, Middle and Upper Devonian can be distinguished; the lower beds at Polperro, Looe and Watergate, the higher beds along the line indicated above. Farther south it has been shown that an older set of Palaeozoic rocks constitutes at least a part of the Killas; the Veryan series, with Caradoc fossils, is succeeded in descending order by the Portscatho series, the Falmouth series and the Mylor series; the lowest Devonian beds represented here by the Menaccan series, rest unconformably upon these Ordovician beds. Upper Silurian fossils have been found near Veryan. All these rocks have been subjected to severe thrusting from the south, consequently they are much contorted and folded. After this thrusting and folding had taken place, intrusions of diabase, &c., penetrated the sedimentary Strata in numerous places, but it was not until post-Carboniferous times that the granite masses were intruded. The principal granite masses are those of St Just and Land's End, Penryn, St Austell and Bodmin Moor. To the granite Cornwall owes much of its prosperity; it has altered the Killas for some distance around each mass, and the veins of tin and copper ore, though richest in the Killas, are evidently genetically related to the granite. The principal metalliferous districts, Camborne, Redruth, St Just, &c., all lie near the granite margins. The china clay and china stone industry is dependent on the fact that the granite was itself altered in patches during the later phases of eruptive activity by the agency of boric and fluoric vapours which kaolinized the felspar of the granite. Later eruptions produced dykes of quartz-porphyry and other varieties, all locally called "elvans," which penetrate both the granite and the Killas. Small patches of Pliocene strata are found at St Erth and St Agnes Beacon. Blown sand is an important feature at St Pirran, Lelant, Gwythian and elsewhere, and raised beaches are frequent round the coast. A characteristic Cornish deposit is the "Head," an old consolidated scree or talus. Many rare minerals have been obtained from the mines and much tin ore has been taken from the river gravels. The river gravel at Carnon has yielded native gold.

Climate.—The climate of Cornwall is peculiar. Snow seldom lies for more than a few days, and the winters are less severe than in any other part of England, the average temperature for January being 34° F. at Bude and 43.7° at Falmouth. The sea-winds, except in a few sheltered places, prevent timber trees from attaining to any great size, but the air is mild, and the lower vegetation, especially in the Penzance district, is almost southern in its luxuriance. Geraniums, fuchsias, myrtles, hydrangeas and camellias grow to a considerable size, and flourish through the winter at Penzance and round Falmouth; and in the Scilly Isles a great variety of exotics may be seen flourishing in the open air. Stone fruit, and even apples and pears, do not attain the same full flavour as in the neighbouring county, owing to the want of dry heat. The pinaster, the *Pinus austriaca*, *Pinus insignis* and other firs succeed well in the western part of the county. All native plants display a perfection of beauty hardly to be seen elsewhere, and the furze, including the double-blossomed variety, and the heaths, among which *Erica vagans* and *ciliaris* are characteristic, cover the moorland and the cliff summits with a blaze of the richest colour. On the whole the climate is healthy, though the prevalent westerly and south-westerly winds, bringing with them great bodies of cloud from the Atlantic, render it damp; the mean annual rainfall, though only 32.85 in. at Bude, reaches 44.41 at Falmouth, and 50.57 at Bodmin.

Agriculture.—About seven-tenths of the total area is under cultivation, but oats form the only important grain-crop. Turnips, swedes and mangolds make up the bulk of the green crops. The number of cattle (chiefly of the Devonshire breed) is large, and many sheep are kept; nearly 60,000 acres of hill pasture being recorded. As regards agricultural produce, however, Cornwall is chiefly famous for the market-gardening carried on in the

neighbourhood of Penzance, where the climate is specially suitable for the growth of early potatoes, broccoli and asparagus. These are despatched in large quantities to the London market; the Scilly Isles sharing in the industry. Fruit and flowers are also grown for the market. In the valleys the soil is frequently rich and deep; there are good arable and pasture farms, and the natural oak-wood of these coombes has been preserved and increased by plantation.

Mining.—The wealth of Cornwall, however, lies not so much in the soil, as underground and in the surrounding seas. Hence the favourite Cornish toast, “fish, tin and copper.” The tin of Cornwall has been known and worked from a period anterior to certain history. There is no direct proof that the Phoenician traders came to Cornwall for tin; though it has been sought to identify the Cassiterides (q.v.) or Tin Islands with the county or the Scilly Isles. By ancient charters the “tinners” were exempt from all jurisdiction (save in cases affecting land, life and limb) other than that of the Stannary Courts, and peculiar laws were enacted in the Stannary parliaments (see STANNARIES). For many centuries a tax on the tin, after smelting, was paid to the earls and dukes of Cornwall. The smelted blocks were carried to certain towns to be coined, that is, stamped with the duchy seal before they could be sold. By an act of 1838 the dues payable on the coinage of tin were abolished, and a compensation was awarded to the duchy instead of them. The Cornish miners are an intelligent and independent body, and the assistance of a Cornishman has been found necessary to the successful development of mining in many parts of the world, while many miners have emigrated from Cornwall to more remunerative fields abroad. The industry has suffered from periods of depression, as before the accession of Queen Elizabeth, who introduced miners from Germany to resuscitate it; and in modern times the shallow workings, from which tin could be easily “streamed,” have become practically exhausted. The deeper workings to which the miners must needs have recourse naturally render production more costly, and the competition of foreign mines has been detrimental. The result is that the industry is comparatively less prosperous than formerly, and employs far fewer of the inhabitants. However, in the district of Camborne, Carn Brea, Illogan and Redruth, and near St Just in the extreme west, the mines are still active, while there are others of less importance elsewhere, as near Callington in the south-east. And when, as in 1906, circumstances affecting the production of foreign mines cause a rise in the price of tin, the Cornish mines enjoy a period of greater prosperity; the result being the recent reopening of many of the mines which had been closed for twenty years. The largest tin-mine is that of Dolcoath near Camborne. Copper is extracted at St Just and at Carn Brea; but the output has decreased much further than that of tin. As it lies deeper in the earth, and consequently could not be “streamed” for, it was almost unnoticed in the county until the end of the 15th century, and little attention was paid to it until the last years of the 17th. No mine seems to have been worked exclusively for copper before the year 1770; and up to that time the casual produce had been bought by Bristol merchants, to their great gain, at rates from £2 : 10s. to £4 per ton. In 1718 John Coster gave a great impulse to the trade by draining some of the deeper mines, and instructing the men in an improved method of dressing the ore. The trade thereafter progressively increased, and in 1851 the mines of Devon and Cornwall together were estimated to furnish one-third of the copper raised throughout Europe, including the British Isles. Antimony ores and manganese are found, and some lead occurs, being worked without great result. Iron in lodes, as brown haematite, has been worked near Lostwithiel and elsewhere. In the St Austell district the place of tin and copper mining has been taken by that of the raising and preparation of china clay. Granite is largely quarried in various districts, as at Luxulian (between St Austell and Lostwithiel), and in the neighbourhood of Penryn. This is the material of London and Waterloo Bridges, the Chatham docks, and many other great works. It is for the most part coarse-grained, though differing greatly in different places in this respect. Fine slate is quarried and largely exported, as from the Delabole quarries near Tintagel. These slates were in great repute in the 16th century and earlier. Serpentine is quarried in the Lizard district, and is worked there into small ornamental objects for sale to visitors; it is in favour as a decorative stone. Pitchblende also occurs, and is mined for the extraction of radium.

Fisheries.—The fisheries of Cornwall and Devon are the most important on the south-west coasts. The pilchard is in great measure confined to Cornwall, living habitually in deep water not far west of the Scilly Isles, and visiting the coast in great shoals,—one of which is described as having extended from Mevagissey to the Land’s End, a distance, including the windings of the coast, of nearly 100 m. In summer and autumn pilchards are caught by drift nets; later in the year they are taken off the northern coast by seine nets. Forty thousand hogsheads, or 120 million fish, have been taken in the course of a single season, requiring 20,000 tons of salt to cure them. Twelve millions have been taken in a single day; and the sight of this great army of fish passing the Land’s End, and pursued by hordes of dog-fish, hake, and cod, besides vast flocks of sea-birds, is most striking. The principal fishing stations are on Mount’s Bay and at St Ives, but boats are employed all along the coast. When brought

to shore the pilchards are carried to the cellars to be cured. They are then packed in hogsheads, each containing about 2400 fish. These casks are largely exported to Naples and other Italian ports—whence the fisherman's toast, "Long life to the pope, and death to thousands." Besides pilchards, mackerel and herring are taken in great numbers, and conger eels of great size; mullet and John Dory may be mentioned. There is also a trade in "sardines," young pilchards taking the place of the real Mediterranean fish.

Communications.—The principal ports are Falmouth and Penzance, but that of Hayle is of some importance, and there are large engineering works here. It lies on the estuary of the Hayle river, which opens into St Ives Bay, the township of Phillack adjoining on the north-east. A brisk coasting trade is maintained at many small ports along the coast. Communications are provided chiefly by the Great Western railway, the main line of which passes through the county and terminates at Penzance. Fowey, Penryn and Falmouth, and Helston on the south, and Bodmin and Wadebridge, Newquay and St Ives, are served by branch lines. A light railway runs from Liskeard to Looe. The north-eastern parts of the county (Launceston, Bude, Wadebridge) are served by the London & South-Western railway. Coaches are run in several districts during the summer, and in some parts, as in the neighbourhood of Penzance, and between Helston and the Lizard, the Great Western company provides a motor-car service to places beyond the reach of the railway. Many of the small seaside towns have become favourite holiday resorts, such as Bude, Newquay and St Ives, and the south-coast ports.

Population and Administration.—The area of the ancient county is 868,220 acres, with a population in 1891 of 322,571, and in 1901 of 322,334. In 1861 the population was 369,390, and had shown an increase up to that census. The area of the administrative county is 886,384 acres. The county contains 9 hundreds. The municipal boroughs are Bodmin (pop. 5353), the county town; Falmouth (11,789), Helston (3088), Launceston (4053), Liskeard (4010), Lostwithiel (1331), Penryn (3190), Penzance (13,136), St Ives (6699), Saltash (3357), Truro (11,562), an episcopal city. The other urban districts are Callington (1714), Camborne (14,726), Hayle (1084), Looe (2548), Ludgvan (2274), Madron (3486), Newquay (3115), Padstow (1566), Paul (6332), Phillack (3881), Redruth (10,451), St Austell (3340), St Just (5646), Stratton and Bude (2308), Torpoint (4200), Wadebridge (2186). Small market and other towns, beyond those in the above lists, are numerous. Such are Calstock in the east, St Germans in the south-east near Saltash, St Blazey near St Austell, Camelford, St Columb Major, and Perranzabuloe in the north, with the mining towns of Gwennap and Illogan in the Redruth district and Wendron near Helston, all inland towns; while on the south coast may be mentioned Fowey and Mevagissey, on either side of St Austell Bay, and Marazion on Mount's Bay, close by St Michael's Mount. Cornwall is in the western circuit, and assizes are held at Bodmin. It has one court of quarter sessions, and is divided into 17 petty sessional divisions. The boroughs of Bodmin, Falmouth, Helston, Launceston, Liskeard, Penryn, Penzance, St Ives and Truro have separate commissions of the peace, and Penzance has a separate court of quarter sessions. The Scilly Isles are administered by a separate council, and form one of the petty sessional divisions. There are 239 civil parishes, of which 5 are in the Scilly Isles. Cornwall is in the diocese of Truro, and there are 227 ecclesiastical parishes or districts wholly or in part within the county. The parliamentary divisions are the North-Eastern or Launceston, South-Eastern or Bodmin, Mid or St Austell, Truro, North-Western or Camborne, and Western or St Ives, each returning one member; while the parliamentary borough of Penryn and Falmouth returns one member.

Language.—The old Cornish language survives in a few words still in use in the fishing and mining communities, as well as in the names of persons and places, but the last persons who spoke it died towards the end of the 18th century. It belonged to the Cymric division of Celtic, in which Welsh and Armorican are also included. The most important relics of the language known to exist are three dramas or miracle plays, edited and translated by Edwin Norris, Oxford, 1859. A sketch of Cornish grammar is added, and a Cornish vocabulary from a MS. of the 13th century (Cotton MSS. Vespasian A. 14, p. 7a). (See Celt: Language and Literature.) It may be mentioned that the great numbers of saints whose names survive in the topography of the county are largely accounted for by the fact that here, as in Wales, it was the practice to canonize the founder of a church. The natives have many traits in common with the Welsh, such as their love of oratory and their strong tribal attachment to the county.

History.—Cornwall was the last portion of British territory in the south to submit to the Saxon invader. Viewed from its eastern boundary it doubtless appeared less attractive than the rich, well-wooded lands of Wessex, while it unquestionably afforded greater obstacles in the way of conquest. In 815 Ecgbert directed his efforts towards the subjugation of the West-Welsh of Cornwall, and after eight years' fighting compelled the whole of Dyvnaint to acknowledge his supremacy. Assisted by the Danes the Cornish revolted but were again defeated, probably in 836, at the battle of Hengestesdun, Hingston Down in Stoke-Climsland.

Ninety years later Aethelstan banished the West-Welsh from Exeter and made the Tamar the boundary of their territory. The thoroughness of the Saxon conquest is evident from the fact that in the days of the Confessor nearly the whole of the land in Cornwall was held by men bearing English names. As the result of the Norman conquest less than one-twelfth of the land (exclusive of that held by the Church) remained in English hands. Six-sevenths of the manors were assigned to Robert, count of Mortain, and became the foundation of the territorial possessions and revenues of the earldom which was held until 1337, usually by special grant, by the sons or near relatives of the kings of England. On the death of John of Eltham the last earl, in 1337, Edward the Black Prince was created duke of Cornwall. By the terms of the statute under which the dukedom was created the succession was restricted to the eldest son of the king, but in 1613, on the death of Prince Henry, an extended interpretation, given by the king's advisers, enabled his brother Charles (afterwards Charles I.) to succeed as son of the king and next heir to the realm of England.

Traces of jurisdictional differentiation anterior to Domesday survive in the names of at least five of the hundreds, although these names do not appear in the Survey itself. The hundreds into which the county was divided at the time of the *Inquisitio Geldi* were as follows:—Straton, which embraced the present hundreds of Stratton, Lesnewth and Trigg; Fawiton, approximately conterminous with West; Panton, now included in Pydasr, Tibeste, Wineton, Conarditon and Rileston, very nearly identical with Powder, Kerrier, Penwith and East. The shire court was held at Launceston except from about 1260 to 1386, when it was held at Lostwithiel. In 1716 the summer assize was transferred to Bodmin. Since 1836 both assizes have been held at Bodmin. The jurisdiction of the hundred courts became early attached to various manors, and their bailiwicks and bedellaries descended with the real estate of their owners. There is much obscurity concerning the early ecclesiastical organization. It is certain, however, that Cornwall had its own bishops from the middle of the 9th century until the year 1018, when the see was removed to Crediton. During the interval the see had been placed sometimes at Bodmin and sometimes at St Germans. In 1049 the see of the united dioceses of Devon and Cornwall was fixed at Exeter. Cornwall was formed into an archdeaconry soon after, and, as such, continued until 1876, when it was reconstituted a diocese with its see at Truro. The parishes of St Giles-on-the-Heath, North Petherwin and Wellington, wholly in Devon, and Boyton, partly in Devon and partly in Cornwall, which were portions of the ancient archdeaconry, and also the parishes of Broadwoodwidger and Virginstowe, both in Devon, which had been added to it in 1875, thus came to be included in the Truro diocese. The present archdeaconries of Bodmin embracing the eastern, and of Cornwall embracing the western portion of the newly constituted diocese were formed, by order in council, in 1878. Aethelstan's enactment had doubtless roughly determined the civil boundary of the Celtic-speaking county. In 1386 disputes having arisen, a commission was appointed to determine the Cornish border between North Tamerton and Hornacot.

For the first four centuries after the Norman conquest the part played by Cornwall in England's political history was comparatively unimportant. In her final attempt in 1471 to restore the fortunes of the house of Lancaster, Queen Margaret received the active support of the Cornish, who, under Sir Hugh Courtenay and Sir John Arundell, accompanied her to the fatal field of Tewkesbury, and in 1473 John de Vere, earl of Oxford, held St Michael's Mount in her behalf until the following February, when he surrendered to John Fortescue. A rising of considerable magnitude in 1497 at the instigation of Thomas Flamank, occasioned by the levy of a tax for the Scottish war, was only repelled after the arrival of the insurgents at Blackheath in Kent. Perkin Warbeck, who landed at Whitsand Bay in the parish of Sennen, obtained general support in the same year. The imposition of the Book of Common Prayer and the abrogation of various religious ceremonies led to a rebellion in 1549 under Sir Humphry Arundell of Lanherne, the rebels, who knew little English, demanding the restoration of the Latin service, but a fatal delay under the walls of Exeter led to their early defeat and the execution of their leaders. During the Civil War of the 17th century Cornwall won much glory in the royal cause. In 1643 Sir Ralph Hopton, who commanded the king's Cornish troops, defeated General Ruthen on Bradoc Down, while General Chudleigh, another parliamentary general, was repulsed near Launceston, and the earl of Stamford at Stratton. The whole county was thereby secured to the king. Led by Sir Beville Grenville of Stow the Cornish troops now marched into Somersetshire, where in the indecisive battle of Lansdowne they greatly distinguished themselves, but lost their brave leader. In July 1644 the earl of Essex marched into Cornwall and was followed soon afterwards by the king's troops in pursuit. Numerous engagements were fought, in which the latter were uniformly successful. The troops of Essex were surrounded and their leader escaped in a boat from Fowey to Plymouth. In 1646, owing to dissensions amongst the king's officers, and in particular to the refusal of Sir Richard Grenville to serve under Lord Hopton, and to the defection of Colonel Edgcumbe, the royal cause declined and became desperate. On the 16th of August 1646 articles of capitulation were signed by the defenders of Pendennis Castle.

Two members for the county were summoned by Edward I. to the parliament of 1295, and two continued to be the number of county members until 1832. Six boroughs—Launceston, Liskeard, Lostwithiel, Bodmin, Truro and Helston—were granted the like privilege by the same sovereign. To strengthen and augment the power of the crown as against the House of Commons, between 1547 and 1584, fifteen additional towns and villages received the franchise, with the result that, between the latter date and 1821, Cornwall sent no less than forty-four members to parliament. In 1821 Grampound lost both its members, and by the Reform Act in 1832 fourteen other Cornish boroughs shared the same fate. Cornwall was, in fact, notorious for the number of its rotten boroughs. In the vicinity of Liskeard "within an area, which since 1885 ... is represented by only one member, there were until 1832 nine parliamentary boroughs returning eighteen members. In this area, on the eve of the Reform Act, there was a population of only 14,224" (Porrit, *Unreformed House of Commons*, vol. i. p. 92). Bossiney, a village near Camelford, Camelford itself, Lostwithiel, East Looe, West Looe, Fowey and several others were disfranchised in 1832, but even until the act of 1885 Bodmin, Helston, Launceston, Liskeard and St Ives were separately represented, whereas Penzance was not. Until this act was passed Truro, and Penryn with Falmouth, returned two members each.

Antiquities.—No part of England is so rich as Cornwall in prehistoric antiquities. These chiefly abound in the district between Penzance and the Land's End, but they occur in all the wilder parts of the county. They may be classed as follows. (1) *Cromlechs.* These in the west of Cornwall are called "quoits," with reference to their broad and flat covering stones. The largest and most important are those known as Lanyon, Mulfra, Chûn and Zennor quoits, all in the Land's End district. Of these Chûn is the only one which has not been thrown down. Zennor is said to be the largest in Europe, while Lanyon, when perfect, was of sufficient height for a man on horseback to ride under. Of those in the eastern part of Cornwall, Trevethy near Liskeard and Pawton in the parish of St Breock are the finest. (2) Rude uninscribed *monoliths* are common to all parts of Cornwall. Those at Boleigh or Boleit, in the parish of St Buryan, S.W. of Penzance, called the Pipers, are the most important. (3) *Circles*, none of which is of great dimensions. The principal are the Hurlers, near Liskeard; the Boskednan, Boscawen-ûn, and Tregeseal circles; and that called the Dawns-ûn, or Merry Maidens, at Boleigh. All of these, except the Hurlers, are in the Land's End district. Other circles that may be mentioned are the Trippet Stones, in the parish of Blisland, near Bodmin, and one at Duloe, near Liskeard. (4) Long *alignments* or *avenues* of stones, resembling those on Dartmoor, but not so perfect, are to be found on the moors near Rough Tor and Brown Willy. A very remarkable monument of this kind exists in the neighbourhood of St Columb Major, called the Nine Maidens. It consists of nine rude pillars placed in a line, but now imperfect, while near them is a single stone known as the Old Man. (5) *Hut dwellings.* Of these there are at least two kinds, those in the eastern part of the county resembling the beehive structures and enclosures of Dartmoor, and those in the west comprising "hut-clusters," having a central court, and a surrounding wall sometimes of considerable height and thickness. The beehive masonry is also found in connexion with these, as are also (6) *Caves*, or subterraneous structures, resembling those of Scotland and Ireland. (7) *Cliff castles* are a characteristic feature of the Cornish coast, especially in the west, such as Treryn, Mên, Kenedjack, Bosigran and others. These are all fortified on the landward side. At Treryn Castle is the Logan Stone, a mass of granite so balanced as to rock upon its support. (8) *Hill castles*, or camps, are very numerous. Castelan-Dinas, near St Columb, is the best example of the earthwork camp, and Chûn Castle, near Penzance, of the stone.

Early Christian remains in Cornwall include crosses, which occur all over the country and are of various dates from the 6th century onward; inscribed sepulchral stones, generally of the 7th and 8th centuries; and oratories. These last have their parallels in Ireland, which is natural, since from that country and Wales Cornwall was christianized. The buildings (also called baptisteries) are very small and rude, a simple parallelogram in form, always placed near a spring. The best example is St Piran's near Perranzabuloe, which long lay buried in sand dunes. St Piran was one of the missionaries sent from Ireland by St Patrick in the 5th century, and became the patron saint of the tin-miners.

The individuality of Cornwall is reflected in its ecclesiastical architecture. The churches are generally massive, plain structures of granite, built as it were to resist the storms which sweep up from the sea, low in the body, but with high unadorned towers. Within, a common feature is the absence of a chancel arch. In a few cases, of which Gwennap church is an illustration, where the body of the church lies low in a valley, there is a detached campanile at a higher level. The prevalent style is Perpendicular, much rebuilding having taken place in this period, but there are fine examples of the earlier styles. The west front and part of the towers of the church of St Germanus of Auxerre at St Germans form the best survival of Norman work in the county; there are good Norman doorways at Manaccan and Kilkhampton

churches, and the church of Morwenstow, near the coast north of Bude, is a remarkable illustration of the same style. This church has the further interest of having had as its rector the Cornish poet Robert Stephen Hawker (1803-1875). The Early English style is not commonly seen, but the small church of St Anthony in Roseland, near the east shore of Falmouth harbour (with an ornate Norman door), and portions of the churches of Camelford and Manaccan, are instances of this period. Decorated work is similarly scanty, but the churches of Sheviock, in the south-east, and St Columb Major have much that is good, and that of St Bartholomew, Lostwithiel, has a beautiful and rich lantern and spire in this style surmounting an Early English tower, while the body of the church is also largely Decorated. Perpendicular churches are so numerous that it is only needful to mention those possessing some peculiar characteristic. Thus, the high ornamentation of Launceston and St Austell churches is unusual in Cornwall, as is the rich and graceful tower of Probus church. St Neot's church, near Liskeard, has magnificent stained glass of the 15th and 16th centuries.

The ruined castles of Launceston, Trematon near Saltash, Restormel near Lostwithiel, and Tintagel, date, at least in part, from Norman times. St Michael's Mount was at once a fortress and an ecclesiastical foundation. Pendennis Castle, Falmouth, is of the time of Henry VIII. The mansions of Cornwall are generally remarkable rather for their position than for architectural interest, but Trelawne, partly of the 15th century, near Looe, and Place House, a Tudor building, at Fowey, may be noted.

AUTHORITIES.—See Richard Carew, *Survey of Cornwall* (London, 1602); W. Borlase, *Antiquities of Cornwall* (Oxford, 1754 and 1769); D. Gilbert, *Parochial History of Cornwall* (London, 1837-1838), incorporating collections of W. Hals and Tonkin; J. T. Blight, *Ancient Crosses in the East of Cornwall* (London, 1858), and *Churches of West Cornwall* (London, 1865); G. C. Boase and W. P. Courtney, *Bibliotheca Cornubiensis*, a catalogue of the writings, both MS. and printed, of Cornishmen, and of works relating to Cornwall (Truro and London, 1864-1881); R. Hunt, *Popular Romances and Drolls of the West of England* (London, 1865); W. Bottrell, *Traditions and Hearthside Stories of West Cornwall* (Penzance, 1870-1873); J. H. Collins, *Handbook to the Mineralogy of Cornwall and Devon* (Truro, 1871); W. C. Borlase, *Naenia Cornubiae* (1872); *Early Christianity in Cornwall* (London, 1893); J. Bannister, *Glossary of Cornish Names* (London, 1878); W. P. Courtney, *Parliamentary Representation of Cornwall to 1832* (London, 1889); G. C. Boase, *Collectanea Cornubiensia* (Truro, 1890); J. R. Allen, *Old Cornish Crosses* (Truro, 1896); A. H. Norway, *Highways and Byways in Cornwall* (1904); Lewis Hind, *Days in Cornwall* (1907); *Victoria County History, Cornwall.*

CORNWALLIS, CHARLES CORNWALLIS, 1st MARQUESS (1738-1805), eldest son of Charles, 1st earl of Cornwallis (1700-1762), was born on the 31st of December 1738. Having been educated at Eton and Clare College, Cambridge, he entered the army. For some time he was member of parliament for Eye; in 1761 he served a campaign in Germany, and was gazetted to a lieutenant-colonelcy in the 12th Foot. In 1762 he succeeded to the earldom and estates of his father; in 1765 he was made aide-de-camp to the king and gentleman of the bedchamber; in 1766 he obtained a colonelcy in the 33rd Foot; and in 1770 he was appointed governor of the Tower. In public life he was distinguished by independence of character and inflexible integrity; he voted without regard to party, and opposed the ministerial action against Wilkes and in the case of the American colonies. But when the American War of Independence broke out, he accompanied his regiment across the Atlantic, and served not without success as major-general. In 1780 he was appointed to command the British forces in South Carolina, and in the same year he routed Gates at Camden. In 1781 he defeated Greene at Guilford Court House, and made a destructive raid into Virginia; but he was besieged at Yorktown by French and American armies and a French fleet, and was forced to capitulate on the 19th of October 1781. With him fell the English cause in the United States. He not only escaped censure, however, but in 1786 received a vacant Garter, and was appointed governor-general of India and commander-in-chief in Bengal. As an administrator he projected many reforms, but he was interrupted in his work by the quarrel with Tippoo Sahib. In 1791 he assumed in person the conduct of the war and captured Bangalore; and in 1792 he laid siege to Seringapatam, and concluded a treaty with Tippoo Sahib, which stripped the latter of half his realm, and placed his two sons as hostages in the hands of the English. For the permanent settlement of the land revenue under his administration, see BENGAL. He returned to England in 1793, received a marquessate and a seat in the privy council, and was made master-general of the ordnance with a place in the Cabinet. In June 1798 he was appointed to the viceroyalty of Ireland, and the zeal with which he strove to pacify the country gained him the respect and

good-will of both Roman Catholics and Orangemen. On the 17th of July a general amnesty was proclaimed, and a few weeks afterwards the French army under Humbert was surrounded and forced to surrender. In 1801 Cornwallis was replaced by Lord Hardwicke, and soon after he was appointed plenipotentiary to negotiate the treaty of Amiens (1802). In 1805 he was again sent to India as governor-general, to replace Lord Wellesley, whose policy was too advanced for the directors of the East India Company. He was in ill-health when he arrived at Calcutta, and while hastening up the country to assume command of the troops, he died at Ghazipur, in the district of Benares, on the 5th of October 1805. He was succeeded as 2nd marquess by his only son, Charles (1774-1823). On his death the marquessate became extinct, but the title of Earl Cornwallis passed to his uncle, James (1743-1824), who was bishop of Lichfield from 1781 until his death. His son and successor, James, the 5th earl, whose son predeceased him in 1835, died in May 1852, when the Cornwallis titles became extinct.

See W. S. Seton-Karr, *The Marquess Cornwallis*, “Rulers of India” Series (1890).

CORNWALLIS, SIR WILLIAM (1744-1819), British admiral, was the brother of the 1st Marquess Cornwallis, governor-general of India. He was born on the 20th of February 1744, and entered the navy in 1755. His promotion was naturally rapid, and in 1766 he had reached post-rank. Until 1779 he held various commands doing the regular work of the navy in convoy. In that year he commanded the “Lion” (64) in the fleet of Admiral Byron. The “Lion” was very roughly handled in the battle off Grenada on the 6th of July 1779, and had to make her way alone to Jamaica. In March 1780 he fought an action in company with two other vessels against a much superior French force off Monti Cristi, and had another encounter with them near Bermuda in June. The force he engaged was the fleet carrying the troops of Rochambeau to North America, and was too strong for his squadron of two small liners, two fifty-gun ships and a frigate. After taking part in the second relief of Gibraltar, he returned to North America, and served with Hood in the actions at the Basse Terre of St Kitts, and with Rodney in the battle of Dominica on the 12th of April 1782. Some very rough verses which he wrote on the action have been printed in Leyland’s “*Brest-Papers*,” published for the Navy Record Society, which show that he thought very ill of Rodney’s conduct of the battle. In 1788 he went to the East Indies as commodore, where he remained till 1794. He had some share in the war with Tippoo Sahib, and helped to reduce Pondicherry. His promotion to rear-admiral dates from the 1st of February 1793, and on the 4th of July 1794 he became vice-admiral.

In the Revolutionary War his services were in the Channel. The most signal of them was performed on the 16th of June 1795, when he carried out what was always spoken of with respect as “the retreat of Cornwallis.” He was cruising near Brest with four sail of the line and two frigates, when he was sighted by a French fleet of twelve sail of the line, and many large frigates commanded by Villarat Joyeuse. The odds being very great he was compelled to make off. But two of his ships were heavy sailers and fell behind. He was consequently overtaken, and attacked on both sides. The rearmost ship, the “Mars” (74), suffered severely in her rigging and was in danger of being surrounded by the French. Cornwallis turned to support her, and the enemy, impressed by a conviction that he must be relying on help within easy reach, gave up the pursuit. The action affords a remarkable proof of the moral superiority which the victory of the 1st of June, and the known efficiency of the crews, had given to the British navy. The reputation of Cornwallis was immensely raised, and the praise given him was no doubt the greater because he was personally very popular with officers and men. In 1796 he incurred a court-martial in consequence of a misunderstanding and apparently some temper on both sides, on the charge of refusing to obey an order from the Admiralty. He was practically acquitted. The substance of the case was that he demurred on the ground of health at being called upon to go to the West Indies, in a small frigate, and without “comfort.” He became full admiral in 1799, and held the Channel command for a short interval in 1801 and from 1803 to 1806, but saw no further service. He was made a G.C.B. in 1815, and died on the 5th of July 1819. His various nicknames among the sailors, “Billy go tight,” given on account of his rubicund complexion, “Billy Blue,” “Coachee,” and “Mr Whip,” seem to show that he was regarded with more of affection than reverence.

See also Ralfe, *Nav. Biog.* i. 387; *Naval Chronicle*, vii. 1; Charnock, *Biogr. Nav.* vi. 523.

CORO, a small city and the capital of the state of Falcón, Venezuela, 7 m. W. of La Vela de Coro (its port on the Caribbean coast), with which it is connected by rail, and 199 m. W.N.W. of Carácas. Pop. (1904, estimate) 9500. Coro stands on a sandy plain between the Caribbean and the Gulf of Venezuela, and near the isthmus connecting the peninsula of Paraguaná with the mainland. Its elevation above sea-level is only 105 ft., and its climate is hot but not unhealthy. The city is badly built, its streets are unpaved, and it has no public buildings of note except two old churches. Its water-supply is derived from springs some distance away. Coro is the commercial centre for an extensive district on the E. side of Lake Maracaibo and the Gulf of Venezuela, which exports large quantities of goat-skins, an excellent quality of tobacco, and some coffee, cacao, castor beans, timber and dyewoods. It was founded in 1527 by Juan de Ampués, who gave to it the name of Santa Ana de Coriana (afterwards corrupted to Santa Ana de Coro) in honour of the day and of the tribe of Indians inhabiting this locality. It was also called Venezuela (little Venice) because of an Indian village on the gulf coast built on piles over the shallow water; this name was afterwards bestowed upon the province of which Coro was the capital. Coro was also made the chief factory of the Welsers, the German banking house to which Charles V. mortgaged this part of his colonial possessions, and it was the starting-point for many exploring and colonizing expeditions into the interior. It was made a bishopric in 1536, and for a time Coro was one of the three most important towns on the northern coast. The seat of government was removed to Carácas in 1578 and the bishopric five years later. Coro is celebrated in Venezuelan history as the scene of Miranda's first attempt to free his country from Spanish rule. It suffered greatly in the war which followed.

COROMANDEL COAST, a name formerly applied officially to the eastern seaboard of India approximately between Cape Calimere, in 10° 17′ N., 79° 56′ E., and the mouths of the Kistna river. The shore, which is low, is without a single good natural harbour, and is at all times beaten by a heavy sea. Communication with ships can be effected only by catamarans and flat-bottomed surf-boats. The north-east monsoon, which lasts from October till April, is exceedingly violent for three months after its commencement. From April till October hot southerly winds blow by day; at night the heat is tempered by sea-breezes. The principal places frequented by shipping are Pulicat, Madras, Sadras, Pondicherry, Cuddalore, Tranquebar, Nagore, and Negapatam. The name Coromandel is said to be derived from *Cholamandal*, the mandal or region of the ancient dynasty of the Chola. Its official use has lapsed.

CORONA (Lat. for "crown"), in astronomy, the exterior envelope of the sun, being beyond the photosphere and chromosphere, invisible in the telescope and unrecognized by the spectroscope, except during a total eclipse (see SUN; ECLIPSE).

Corona Borealis, also known as the *Corona septentrionalis*, and the Northern Crown or Garland, is a constellation of the Northern hemisphere, mentioned by Eudoxus (4th cent. B.C.) and Aratus (3rd cent. B.C.). In the catalogues of Ptolemy, Tycho Brahe, and Hevelius, eight stars are mentioned; but recent uranographic surveys have greatly increased this number. The most interesting members are: σ *Coronae*, a binary consisting of a yellow star of the 6th magnitude, and a bluish star of the 7th magnitude; *R Coronae*, an irregular variable star; and *T Coronae* or *Nova Coronae*, a temporary or new star, first observed in 1866. *Corona Australis*, also known as *Corona meridionalis*, or the Southern Crown, is a constellation of the Southern hemisphere, mentioned by Eudoxus and Aratus. In Ptolemy's catalogue thirteen stars are described.

In physical science, coronae (or "glories") are the coloured rings frequently seen closely encircling the sun or moon. Formerly classified by the ancient Greeks with halos, rainbows, &c., under the general group of "meteors," they came to receive considerable attention at the hands of Descartes, Christiaan Huygens, and Sir Isaac Newton; but the correct explanation of coronae was reserved until the beginning of the 19th century, when Thomas Young applied the theories of the diffraction and interference of light to this phenomenon. Prior to Young, halos and coronae had not been clearly differentiated; they were both regarded as caused by

the refraction of light by atmospheric moisture and ice, although observation had shown that important distinctions existed between these phenomena. Thus, while halos have certain definite radii, viz. 22° and 46°, the radii of coronae vary very considerably; also, halos are coloured red on the *inside*, whereas coronae are coloured red on the *outside* (see Halo).

It has now been firmly established, both experimentally and mathematically, that coronae are due to diffraction by the minute particles of moisture and dust suspended in the atmosphere, and the radii of the rings depend on the size of the diffracting particles. (See Diffraction of Light.)

Other meteorological phenomena caused by the diffraction of light include the *anthelia*, and the chromatic rings seen encircling shadows thrown on a bank of clouds, mist or fog. These appearances differ from halos and coronae inasmuch as their centres are at the anti-solar point; they thus resemble the rainbow. The anthelia (from the Greek ἀντί, opposite, and ἥλιος, the sun) are coloured red on the inside, the outside being generally colourless owing to the continued overlapping of many spectra. The diameter increases with the size of the globules making up the mist. The chromatic rings seen encircling the "spectre of the Brocken" are similarly explained.

The blue colour of the sky (q.v.), supernumerary rainbows, and the gorgeous sunsets observed after intense volcanic disturbances, when the atmosphere is charged with large quantities of extremely minute dust particles (e.g. Krakatoa), are also explicable by the diffraction of light. (See Dust.)

See E. Mascart, *Traité d'optique* (1899-1903); J. Pernter, *Meteorologische Optik* (1902-1905).

In architecture, the term "corona" is used of that part of a cornice which projects over the bed mould and constitutes the chief protection to the wall from rain; it is always throated, and its soffit rises towards the wall. The term is also given to the apse or semicircular termination of the choir; as at Canterbury in the part called "Becket's crown." The large circular chandelier suspended in churches, of which the finest example is that given by Barbarossa to Aix-la-Chapelle, is often called a corona. The term is also used in botany of the crown-like appendage at the top of compound flowers, the diminutive being *coronule*.

CORONACH (a Gaelic word, from *comh*, with, and *ranach*, wailing), the lamentation or dirge for the dead which accompanied funerals in the Highlands of Scotland and in Ireland. The more usual term in Ireland is "keen" or "keening."

CORONADO, FRANCISCO VASQUEZ DE (c. 1500-c. 1545), Spanish explorer of the south-western part of the United States of America. He accompanied Antonio de Mendoza to New Spain in 1535; by a brilliant marriage, became a leading grandee, and in 1539 was appointed governor of the province of New Galicia. The report presented by Fray Marcos de Niza concerning the "Seven cities of Cibola" (now identified almost certainly with the Zuñi pueblos of New Mexico) aroused great interest in Mexico; Melchior Diaz was sent late in 1539 to retrace Fray Marcos's route and report on his story; and an expedition under Coronado left Compostela for the "Seven Cities" in February 1540. This expedition consisted of a provision train and droves of live-stock; several hundred friendly Indians, Spanish footmen, and more than 250 horsemen. Coronado, with a part of this force, captured the "Seven Cities." The fabled wealth, however, was not there. In the autumn (1540) Coronado was joined by the rest of his army. Meanwhile exploring parties were sent out: Tusayan, the Hopi or Moki (Moqui) country of north-eastern Arizona, was visited; Garcia Lopez de Cardenas discovered and described the Grand Canyon of the Colorado; and expeditions were sent along the Rio Grande (Tuguez), where the army wintered. The Indians revolted but were put down. The army, reinspirited by the tales of a plains-Indian slave[1] about vast herds of cows (bison) on the plains, and about an Eldorado called "Quivira" far to the N.E., started thither in April 1541, and, with a few horsemen, penetrated at least to what is now central Kansas. Here Coronado found a few permanent settlements of Indians; in October he was again on the Rio Grande;

and in the spring of 1542 he led his followers home. Thereafter he practically disappears from history. The first description of the bison and the prairie plains, the first trustworthy account of the Zuñi pueblos, the discovery of the Grand Canyon, a vast increase of the nominal dominion of Spain and Christianity (the priests did not return from Cibola), and a notable addition to geographical knowledge, which, however, was long forgotten, were the results of this expedition; which is, besides, for its duration and the vast distance covered, over mountains, desert and plains, one of the most remarkable expeditions in the history of American discovery. In connexion with it, in 1540, Hernando de Alarcon ascended the Gulf of California to its head and the Colorado river for a long distance above its mouth.

All the essential sources with a critical narrative are available in G. P. Winship's *The Coronado Expedition* (in the 14th Report of the United States Bureau of Ethnology, for 1892-1893, Washington, 1896), except the *Tratado del descubrimiento de las Yndias y su conquesta* of Juan Suarez de Peralta (written in the last third of the 16th century, republished at Madrid, 1878). See also especially Justo Zaragoza, *Noticias historicas de la Nueva España* (Madrid, 1878), the various writings of A. F. A. Bandelier (q.v.); General J. H. Simpson in Smithsonian Institution *Report* (Washington, 1869), with an excellent map; and Winship for a full bibliography. H. H. Bancroft's account in his *Pacific States* (vols. 5, 10, 12) is less authoritative.

1 He was later killed for deception, and confessed that the Pecos Indians induced him to lure Coronado to destruction.

CORONATION (Lat. *corona*, crown), a solemnity whereby sovereigns are inaugurated in office. In pre-Christian times in Europe the king or ruler, upon his election, was raised on a shield, and, standing upon it, was borne on the shoulders of certain of the chief men of the tribe, or nation, round the assembled people. This was called the *gyratio*, and it was usually performed three times. At its conclusion a spear was placed in the king's hand, and the diadem, a richly wrought band of silk or linen, which must not be confused with the crown (see Crown and Coronet), was bound round his forehead, as a token of regal authority. When Europe became Christian, a religious service of benediction was added to the older form, which, however, was not abandoned. Derived from the Teutons, the Franks continued the *gyratio*, and Clovis, Sigebert, Pippin and others were thus elevated to the royal estate. From a combination of the old custom with the religious service, the later coronation ceremonies were gradually developed. In the ceremonial procession of the English king from the Tower to Westminster (first abandoned at the coronation of James II.), in the subsequent elevation of the king into what was known as the marble chair in Westminster Hall, and in the showing of the king of France to the people, as also in the universal practice of delivering a sceptre to the new ruler, traces, it is thought, may be detected of the influence of the original function.

The added religious service was naturally derived from the Bible, where mention is frequently made, in the Old Testament, of the anointing and crowning of kings. The anointing of the king soon came to be regarded as the most important, if not essential, feature of the service. By virtue of the unction which he received, the sovereign was regarded, in the middle ages, as a *mixta persona*, in part a priest, and in part a layman. It was a strange theory, and Lyndwode, the great English canonist, is cautious as to it, and was content to say that it was the opinion of some people. It gained very wide acceptance, and the anointed sovereign was generally regarded as, in some degree, possessed of the priestly character. By virtue of the unction he had received, the emperor was made a canon of St John Lateran and of St Peter at Rome, and also of the collegiate church of Aachen, while the king of France was *premier chanoine* of the primatial church of Lyons, and held canonries at Embrun, Le Mans, Montpellier, St Pol-de-Léon, Lodève, and other cathedral churches in France. There are, moreover, trustworthy records that, on more than one occasion, a king of France, habited in a surplice and choir robes, took part with the clergy in the services of some of those churches. Martène quotes an order, which directs that at the imperial coronation at Rome, the pope ought to sing the mass, the emperor read the gospel, and the king of Sicily, or if present the king of France, the epistle. Nothing like this was known in England, and a theory, which has prevailed of late, that the English sovereign is, in a personal sense, canon of St David's, is based on a misconception. The canonry in question was attached to St Mary's College at St David's before the Reformation, and, at the dissolution of the college, became crown property, which it has remained ever since; but the king of England is not, and never was personally, a canon of St David's, nor did he ever perform any quasi-clerical function.

At first a single anointing on the head was the practice, but afterwards other parts of the body, as the breast, arms, shoulders and hands received the unction. From a very early period in the West three kinds of oil have been blessed each year on Maundy Thursday, the oil of the catechumens, the oil of the sick, and the chrism. The last, a compound of olive oil and balsam, is only used for the most sacred purposes, and the oil of the catechumens was that used for the unction of kings. In France, however, a legend gained credence that, as a special sign of divine favour, the Holy Dove had miraculously descended from heaven, bearing a vessel (afterwards called the Sainte Ampoule), containing holy oil, and had placed it on the altar for the coronation of Clovis. A drop of oil from the Sainte Ampoule mixed with chrism was afterwards used for anointing the kings of France. Similarly the chrism was introduced into English coronations, for the first time probably at the coronation of Edward II. To rival the French story another miracle was related that the Virgin Mary had appeared to Thomas Becket, and had given him a vessel with holy oil, which at some future period was to be used for the sacring of the English king. A full account of this miracle, and the subsequent finding of the vessel, is contained in a letter written in 1318 by Pope John XXII. to Edward II. The chrism was used in addition to the holy oil. The king was first anointed with the oil, and then signed on the head with the chrism. In all other countries the oil of the catechumens was alone used. In consequence of the use of chrism the kings of England and France were thought to be able to cure scrofula by the imposition of their hands, and hence arose the practice in those countries of touching for the king’s evil, as it was called. In England the chrism disappeared at the Reformation, but touching for the evil was continued till the accession of the house of Hanover in 1714.

The oldest of all existing rituals for the coronation of a king is contained in what is known as the Pontifical of Egbert, who was archbishop of York in the middle of the 8th century. The coronation service in it is entitled *Missa pro rege in die benedictionis ejus*, and the coronation ceremony is interpolated in the middle of the mass. After the Gospel the officiant recites some prayers of benediction, and then pours oil from a horn on the king’s head, while the anthem “Zadok the priest,” &c., is sung. After this the assembled bishops and nobles place a sceptre in the king’s hands, while a form of intercessory benediction is recited. Then the staff (*baculus*) is delivered to him, and finally a helmet (*galea*) is set upon his head, the whole assembly repeating thrice “May King N. live for ever. Amen. Amen. Amen.” The enthronement follows, with the kisses of homage and of fealty, and the mass, with special prayers, is concluded.

Another coronation service of Anglo-Saxon date bearing, but with no good reason, the name of Æthelred II., has also been preserved, and is of importance as it spread from England to the continent, and was used for the coronations of the kings of France. It differs from the Egbert form as the coronation precedes the mass, while the use of a ring, and the definite allusion to a crown (*corona* not *galea*) occur in it. Joined to it is the form for the coronation of a queen consort. It may have been used for the crowning of Harold and of William the Conqueror.

A third English coronation form, of the 12th century, bears the name of Henry I., but also without good reason. The ceremonial is more fully developed, and the king is anointed on the head, breast, shoulders and elbows. The royal mantle appears for the first time, as does the sceptre. The queen consort is to be crowned *secundum ordinem Romanum*, and the whole function precedes the mass.

The fourth and most important of all English coronation services is that of the *Liber Regalis*, a manuscript still in the keeping of the dean of Westminster. It was introduced in 1307, and continued in use till the Reformation, and, in an English translation and with the Communion service substituted for the Latin mass, it was used for the coronation of James I. In it the English coronation ceremonies reached their fullest development. The following is a bare outline of its main features:—

The ceremonies began the day before the coronation, the king being ceremonially conducted in a procession from the Tower of London to Westminster. There he reposed for the night, and was instructed by the abbot as to the solemn obligations of the kingly office. Early next morning he went to Westminster Hall, and there, among other ceremonies, as *rex regnaturus* was elevated into a richly adorned seat on the king’s bench, called the Marble Chair. Then a procession with the regalia was marshalled, and led into the abbey church, the king wearing a cap of estate on his head, and supported by the bishops of Bath and Durham. A platform with thrones, &c., having been previously prepared under the crossing, the king ascended it, and all being in order, the archbishop of Canterbury called for the Recognition, after which the king, approaching the high altar, offered a pall to cover it, and a pound of gold. Then a sermon appropriate to the occasion was preached by one of the bishops, the oath was administered by the archbishop, and the *Veni Creator* and a litany were sung. Then the king was anointed with oil on his hands, breast, between the shoulders, on the shoulders, on the elbows, and on the

head; finally he was anointed with the chrism on his head. Thus blessed and anointed, the king was vested, first with a silk dalmatic, called the *colobium sindonis*, then a long tunic, reaching to the ankles and woven with great golden images before and behind, was put upon him. He then received the buskins (*caligae*), the sandals (*sandalia*), and spurs (*calcaria*), then the sword and its girdle; after this the stole, and finally the royal mantle, four-square in shape and woven throughout with golden eagles. Thus vested, the crown of St Edward was set on his head, the ring placed on his wedding finger, the gloves drawn over his hands, and the golden sceptre, in form of an orb and cross, delivered to him. Lastly, the golden rod with the dove at the top was placed in the king's left hand. Thus consecrated, vested and crowned, the king kissed the bishops who, assisted by the nobles, enthroned him, while the *Te Deum* was sung. When a queen consort was also crowned, that ceremony immediately followed, and the mass with special collect, epistle, gospel and preface was said, and during it both king and queen received the sacrament in one kind. At the conclusion the king retired to a convenient place, surrounded with curtains, where the great chamberlain took off certain of the robes, and substituted others for them, and the archbishop, still wearing his mass vestments, set other crowns on the heads of the king and queen, and with these they left the church.

This service, in English, was used at the coronation of James I., Elizabeth having been crowned with the Latin service. Little change was made till 1685, when it was considerably altered for the coronation of James II. The Communion was necessarily omitted in the case of a Roman Catholic, but other changes were introduced quite needlessly by Archbishop Sancroft, and four years later the old order was still more seriously changed, with the result that the revisions of 1685 and 1689 have grievously mutilated the service, by confusing the order of its different sections, while the meaning of the prayers has been completely changed for no apparent reason. Alterations since then have been verbal rather than essential, but at each subsequent coronation some feature has disappeared, the proper preface having been abandoned at the coronation of Edward VII.

In connexion with the English coronation a number of claims to do certain services have sprung up, and before each coronation a court of claims is constituted, which investigates and adjudicates on the claims that are made. The most striking of all these services is that of the challenge made by the king's champion, an office which has been hereditary in the Dymoke family for many centuries. Immediately following the service in the church a banquet was held in Westminster Hall, during the first course of which the champion entered the hall on horseback, armed *cap-à-pie*, with red, white and blue feathers in his helmet. He was supported by the high constable on his right, and the earl marshal on his left, both of whom were also mounted. On his appearance in the hall a herald in front of him read the challenge, the words of which have not materially varied at any period, as follows: "If any person, of what degree soever, high or low, shall deny or gainsay our sovereign lord ..., king of the United Kingdom of Great Britain and Ireland, defender of the faith (son and), next heir unto our sovereign lord the last king deceased, to be the right heir to the imperial crown of this realm of Great Britain and Ireland, or that he ought not to enjoy the same; here is his champion, who saith that he lieth, and is a false traitor, being ready in person to combat with him; and in this quarrel will adventure his life against him, on what day soever he shall be appointed." The champion then threw down the gauntlet. The challenge was again made in the centre of the hall, and a third time before the high table, at which the king was seated. The king then drank to the champion out of a silver-gilt cup, with a cover, which he handed to him as his fee. The banquet was last held, and the challenge made, at the coronation of George IV. in 1821. The champion's claim was admitted in 1902, but as there was no banquet the duty of bearing the standard of England was assigned to him. There is no record of the challenge having been ever accepted.

The revival of the western empire under Charlemagne was marked by his coronation by the pope at Rome in the year 800. His successors, for several centuries, went to Rome, where they received the imperial crown in St Peter's from the pope, the crown of Lombardy being conferred in the church of St Ambrose (Sant' Ambrogio) at Milan, that of Burgundy at Arles, and the German crown, which came to be the most important of all, most commonly at Aix-la-Chapelle. It must suffice to speak of the coronations at Rome and Aix-la-Chapelle. From Martène we learn the early form of the ceremony at Rome. The emperor was met at the silver door of St Peter's, where the first coronation prayer was recited over him by the bishop of Albano. He was then conducted within the church, where in *medio rotae majoris*, the bishop Of Porto said the second prayer. Thence the emperor went to the confessio of St Peter, where the litany was said, and there, or before the altar of St Maurice, the bishop of Ostia anointed him on the right arm and between the shoulders. Then he ascended to the high altar, where the pope delivered the naked sword to him. This he flourished, and then sheathed in its scabbard. The pope then delivered the sceptre to the emperor, and placed the crown on his head. The ceremony was concluded by the coronation mass said by the pope. The custom of

the emperors going to Rome to be crowned was last observed by Frederick III. in 1440, and after that the German coronation was alone celebrated. The form followed was mainly thus: the electors first met at Frankfort, under the presidency of the elector-archbishop of Mainz, and, the election having been made, the emperor was led to the high altar of the cathedral and seated at it. He was then conducted to a gallery over the entrance to the choir, where, seating himself with the electors, proclamation was made of the election, and on a subsequent day the coronation took place. If the coronation was performed, as it most commonly was, at Aix-la-Chapelle, then the archbishop of Cologne, as diocesan, was the chief officiant, and the emperor was presented to him by the two other clerical electors, the archbishops of Mainz and Trier. The emperor was anointed on the head, the nape of the neck, the breast, the right arm between the wrist and the elbow, and on the palms of both hands. After this, he was vested in what were called the imperial and pontifical robes, which included the buskins, a long alb, the stole crossed priest-wise over the breast, and the mantle. The regalia were then delivered to him, and the crown was set on his head conjointly by the three archbishop-electors. Mass was then said, during which the emperor communicated in one kind. When the coronation was performed at Aix-la-Chapelle, the emperor was at once made, at its conclusion, a canon of the church.

The coronation form in France bore much resemblance, in its general features, to the English coronation, and was, it is believed originally based on the English form. The unction was given, first on the top of the head in the form of a cross, on the breast, between the shoulders, and at the bending and joints of both arms. Then, standing up, the king was vested in the dalmatic, tunic and royal robe, all of purple velvet sprinkled with fleurs-de-lys of gold, and representing, it was said, the three orders of subdeacon, deacon and priest. Then, kneeling again, he was anointed in the palms of the hands, after which the gloves, ring and sceptre were delivered. Then the peers were summoned by name to come near and assist, and the archbishop of Reims, taking the crown of Charlemagne from the altar, set it on the king’s head. After which the enthronement, and showing of the king to the people, took place. All the unctions were made with the chrism, mixed with a drop of oil from the Sainte Ampoule. After the enthronement, mass was said, and at its conclusion the king communicated in both kinds. The third day after the coronation, the king touched for the evil.

On the “11 Frimaire an 13” Napoleon and Josephine were jointly crowned at Paris, by the pope. Napoleon entered Notre-Dame wearing a crown, and before him were carried the imperial ornaments, to wit: *”la couronne de l’empereur, l’épée, la main de justice, le sceptre, le manteau de l’empereur, son anneau, son collier, le globe impérial, la couronne de l’impératrice, son manteau, son anneau.”* Each of these was blessed, and delivered with a benediction to the emperor and empress, kneeling, side by side, to receive them, both having previously received the unction on the head and on each hand. Napoleon placed the crown on his head himself. Mass with special prayers followed.

In Spain the coronation ceremony never assumed the fullness, or magnificence, that might have been expected. It was usually performed at Toledo, or in the church of St Jerome at Madrid, the king being anointed by the archbishop of Toledo. The royal ornaments were the sword, sceptre, crown of gold and the apple of gold, which the king himself assumed after the unction. In recent years the unction and coronation have been disused.

In Sweden the king was anointed and crowned at Upsala by the archbishop. The ceremony is now performed in the Storkyrka, at Stockholm, where the archbishop of Upsala anoints the king on the breast, temples, forehead and palms of both hands. The crown is placed on the king’s head by the archbishop and the minister of justice jointly, whereupon the state marshal proclaims: “Now is crowned king of the Swedes, Goths and Wends, he and no other.” When there is a queen consort, she is then anointed, crowned and proclaimed, in the same manner.

In Norway, according to the law of 1814, the coronation is performed in the cathedral at Trondhjem, when the Lutheran superintendent, or bishop, anoints the king. The crown is placed on the king’s head jointly by the bishop and the prime minister.

In Russia the coronation is celebrated at Moscow, and is full of religious significance. The tsar is anointed by the metropolitan, but places the crown on his head himself. He receives the sacrament among the clergy, the priestly theory of his office being recognized. In some other European countries the coronation ceremony, as in Austria and Hungary, is also performed with much significant ritual. In other countries, as Prussia, it is retained in a modified form; but in the remaining states such as Denmark, Belgium, Italy, &c., it has been abandoned, or never introduced.

AUTHORITIES.—L. G. Wickham Legg, *English Coronation Records*; Roxburgh Club—*Liber Regalis*; Anon., *A Complete Account of the Ceremonies observed in the Coronations of the Kings and Queens of England* (London, 1727); F. Sandford, *Description of the Coronation of*

James II. (1687); Menin, *The Form, Order and Ceremonies of Coronations*, trans. from the French (1727); Martène, *De Antiquis Ecclesiae Ritibus*, lib. ii.

(T. M. F.)

CORONER, an ancient officer of the English common law, so called, according to Coke, because he was a *keeper* of the pleas of the crown (*custos placitorum coronae*). At what period the office of coroner was instituted is a matter of considerable doubt; some modern authorities (Stubbs, *Select Charters*, 260; Pollock and Maitland, *Hist. Eng. Law*, i. 519) date its origin from 1194, but C. Gross (*Political Science Quarterly*, vol. vii.) has shown that it must have existed before that date. The office was always elective, the appointment being made by the freeholders of the county assembled in county court. By the Statute of Westminster the First it was ordered that none but lawful and discreet knights should be chosen as coroners, and in one instance a person was actually removed from office for insufficiency of estate. Lands to the value of £20 per annum (the qualification for knighthood) were afterwards deemed sufficient to satisfy the requirements as to estate which ought to be insisted on in the case of a coroner. The complaint of Blackstone shows the transition of the office from its original dignified and honorary character to a paid appointment in the public service, "Now, 188 indeed, through the culpable neglect of gentlemen of property, this office has been suffered to fall into disrepute, and get into low and indigent hands; so that, although formerly no coroners would condescend to be paid for serving their country, and they were by the aforesaid Statute of Westminster expressly forbidden to take a reward, under pain of a great forfeiture to the king; yet for many years past they have only desired to be chosen for their perquisites; being allowed fees for their attendance by the statute 3 Henry VII. c. 1, which Sir Edward Coke complains of heavily; though since his time those fees have been much enlarged." The mercenary character of the office, thus deprecated by Coke and Blackstone, is now firmly established, without, however (it need hardly be said), affording the slightest ground for such reflections as the above. The coroner is in fact a public officer, and like other public officers receives payment for his services. The person appointed is almost invariably a qualified legal or medical practitioner; how far one is a more "fit person" than another has frequently been a matter of dispute—a Bill of 1879, which, however, failed to pass, decided in favour of the legal profession. The property qualification for a county coroner ("having land in fee sufficient in the same county whereof he may answer to all manner of people," 14 Ed. III. st. 1, c. 8), although re-enacted in the Coroners Act 1887, is now virtually dispensed with. The appointment is for life, but is vacated by the holder being made sheriff. A coroner may be removed by the writ *de coronatore exonerando*, for sufficient cause assigned, or the lord chancellor may, if he thinks fit, remove any coroner from his office for inability or misbehaviour in the discharge of his duty.

Coroners are of three kinds: (1) coroners by virtue of their office, e.g. the lord chief justice of the king's bench is the principal coroner of England; the puisne judges of the king's bench are sovereign coroners—they may exercise their jurisdiction within any part of the realm, even in the verge[1] or other exempt liberties or franchises; (2) coroners by charter or commission, e.g. in certain liberties and franchises coroners are appointed by the crown or by lords holding a charter from the crown; (3) coroners by virtue of election, e.g. county and borough coroners. County coroners in England were, until 1888, elected by the freeholders, but by the Local Government Act 1888 the appointment was given to the county council, who may appoint any fit person, not being a county alderman or county councillor, to fill the office. By an act of 1860 the system of payment by fees, established by an act of 1843, was abolished and payment made by salary calculated on the average amount of the fees, mileage, and allowances usually received by the coroner for a period of five years, and the calculation revised every five years. In boroughs having a separate court of quarter sessions, and whose population exceeds 10,000, the coroner is appointed by the town council and is paid by fees. A county coroner must reside within his district or not more than two miles out of it. Deputy coroners are also appointed in both counties and boroughs, and the law relating to their appointment is contained in the Coroners Act 1892. The duties of a coroner were ascertained by 4 Edward I. st. 2:—"A coroner of our Lord the king ought to inquire of these things, first, when coroners are commanded by the king's bailiffs or by the honest men of the county, they shall go to the places where any be slain, or suddenly dead or wounded, or where houses are broken, or where treasure is said to be found, and shall forthwith command four of the next towns, or five, or six, to appear before him in such a place; and when they are come thither, the coroner upon the oath of them shall inquire in this manner, that is, to wit, if it concerns a

man slain, if they know when the person was slain, whether it were in any house, field, bed, tavern, or company, and if any, and who, were there, &c. It shall also be inquired if the dead person were known, or else a stranger, and where he lay the night before. And if any person is said to be guilty of the murder, the coroner shall go to their house and inquire what goods they have, &c." Similar directions were given for cases of persons found drowned or suddenly dead, for attachment of criminals in cases of violence, &c. His functions are now, by the Coroners Act 1887, limited to an inquiry upon "the dead body of a person lying within his jurisdiction, where there is reasonable cause to suspect that such person has died either a violent or an unnatural death, or has died a sudden death of which the cause is unknown, or that such person has died in prison, or in such place or under such circumstances as to require an inquest in pursuance of any act" (S. 3), and upon treasure-trove (S. 36). The inquisition must be *super visum corporis* (that is, after "viewing the body"); the evidence is taken on oath; and any party suspected may tender evidence. The Coroners Act 1887, S. 21, gives power to the coroner to summon medical witnesses and to direct the performance of a post-mortem examination. The verdict must be that of twelve at least of the jury. If any person is found guilty of murder or other homicide, the coroner shall commit him to prison for trial; he shall also certify the material evidence to the court, and bind over the proper persons to prosecute or to give evidence at the trial. He may in his discretion accept bail for a person found guilty of manslaughter. Since the abolition of public executions, the coroner is required to hold an inquest on the body of any criminal on whom sentence of death has been carried into effect. The duty of coroners to inquire into treasure-trove (q.v.) is still preserved by the Coroners Act 1887, which, however, repealed certain other jurisdictions, as,—inquests of royal fish (whale, sturgeon) thrown ashore or caught near the coast; inquest of wrecks, and of felonies, except felonies on inquisitions of death. By the City of London Fire Inquests Act 1888 the duty is imposed upon the coroner for the city to hold inquests in cases of loss or injury by fire in the city of London and the liberties thereof situated in the county of Middlesex. This is a practice which exists in several European countries.

In Scotland the duties of a coroner are performed by an officer called a procurator-fiscal.

In the United States and in most of the colonies of Great Britain the duties of a coroner are substantially the same. In some cases his duties are more enlarged, his inquisition embracing the origin of fires; in others they are confined to holding inquests in cases of suspicious deaths. Unlike a coroner in England, he is elected generally only for a specified period.

AUTHORITIES.—Jervis, *Office and Duties of Coroners* (6th ed., 1898); R. H. Wellington, *The King's Coroner* (2 vols., 1905-1906). In 1908 a committee was appointed to inquire into the law relating to coroners and coroners' inquests and into the practice in coroners' courts.

(T. A. I.)

1 *Coroner of the Verge.*—The verge comprised a circuit of 12 m. round the king's court, and the coroner of the king's house, called the coroner of the verge, has jurisdiction within this radius. By the Coroners Act 1887 the jurisdiction of the verge was abolished and became absorbed in that of the county, but the appointment of the king's coroner was left with the lord steward, while his jurisdiction was limited to the precincts of the palace.

CORONIUM, that constituent (otherwise unknown) of the sun's corona, which emits the characteristic green coronal ray, of which the wave-length is 5303.

COROT, JEAN-BAPTISTE CAMILLE (1796-1875), French landscape painter, was born in Paris, in a house on the Quai by the rue du Bac, now demolished, on the 26th of July 1796. His family were well-to-do bourgeois people, and whatever may have been the experience of some of his artistic colleagues, he never, throughout his life, felt the want of money. He was educated at Rouen and was afterwards apprenticed to a draper, but hated commercial life and despised what he called its "business tricks," yet he faithfully remained in it until he was twenty-six, when his father at last consented to his adopting the profession of art. Corot learned little from his masters. He visited Italy on three occasions: two of his Roman studies

are now in the Louvre. He was a regular contributor to the Salon during his lifetime, and in 1846 was “decorated” with the cross of the Legion of Honour. He was promoted to be officer in 1867. His many friends considered nevertheless that he was officially neglected, and in 1874, only a short time before his death, they presented him with a gold medal. He died in Paris, on the 22nd of February 1875, and was buried at Père Lachaise.

Of the painters classed in the Barbizon school it is probable that Corot will live the longest, and will continue to occupy the highest position. His art is more individual than Rousseau’s, whose works are more strictly traditional; more poetic than that of Daubigny, who is, however, Corot’s greatest contemporary rival; and in every sense more beautiful than J. F. Millet, who thought more of stern truth than of aesthetic feeling.

Corot’s works are somewhat arbitrarily divided into periods, but the point of division is never certain, as he often completed a picture years after it had been begun. In his first style he painted traditionally and “tight”—that is to say, with minute exactness, clear outlines, and with absolute definition of objects throughout. After his fiftieth year his methods changed to breadth of tone and an approach to poetic power, and about twenty years later, say from 1865 onwards, his manner of painting became full of “mystery” and poetry. In the last ten years of his work he became the Père Corot of the artistic circles of Paris, in which he was regarded with personal affection, and he was acknowledged as one of the five or six greatest landscape painters the world has ever seen, along with Hobbema, Claude, Turner and Constable. During the last few years of his life he earned large sums by his pictures, which became greatly sought after. In 1871 he gave £2000 for the poor of Paris (where he remained during the siege), and his continued charity was long the subject of remark. Besides landscapes, of which he painted several hundred, Corot produced a number of figure pictures which are much prized. These were mostly studio pieces, executed probably with a view to keep his hand in with severe drawing, rather than with the intention of producing pictures. Yet many of them are fine in composition, and in all cases the colour is remarkable for its strength and purity. Corot also executed a few etchings and pencil sketches. In his landscape pictures Corot was more traditional in his method of work than is usually believed. If even his latest tree-painting and arrangement are compared with such a Claude as that which hangs in the Bridgewater gallery, it will be observed how similar is Corot’s method and also how masterly are his results.

The works of Corot are scattered over France and the Netherlands, Great Britain and America. The following may be considered as the first half-dozen: “Une Matinée” (1850), now in the Louvre; “Macbeth” (1859), in the Wallace collection: “Le Lac” (1861); “L’Arbre brisé” (1865): “Pastorale—Souvenir d’Italie” (1873), in the Glasgow Corporation Art Gallery; “Biblis” (1875). Corot had a number of followers who called themselves his pupils. The best known are Boudin, Lepine, Chintreuil, Français and Le Roux.

AUTHORITIES.—H. Dumesnil. *Souvenirs intimes* (Paris, 1875); Roger-Milès, *Les Artistes célèbres: Corot* (Paris, 1891); Roger-Milès, *Album classique des chefs-d’œuvres de Corot* (Paris, 1895); J. Rousseau, *Bibliothèque d’art moderne: Camille Corot* (Paris, 1884); J. Claretie, *Peintres et sculpteurs contemporains: Corot* (Paris, 1884); Ch. Bigot, *Peintres français contemporains: Corot* (Paris, 1888); Geo. Moore, *Ingres and Corot in Modern Painting* (London, 1893); David Croal Thomson, *Corot* (4to, London, 1892); Mrs Schuyler van Rensselaer, “Corot,” *Century Magazine* (June 1889); Corot, *The Portfolio* (1870), p. 60, (1875) p. 146; R. A. M. Stevenson, “Corot as an Example of Style in Painting,” *Scottish Art Review* (Aug. 1888); Ethel Birnstigl and Alice Pollard, *Corot* (London, 1904); Alfred Robaut, *L’Œuvre de Corot, catalogue raisonné et illustré, précédé de l’histoire de Corot et de ses œuvres par Étienne Morceau-Nélaton* (Paris, 1905).

(D. C. T.)

CORPORAL. 1. (From Lat. *corporalis*, belonging to the *corpus* or body), an adjective appearing in several expressions, such as “corporal punishment” (see below), or in “corporal works of mercy,” for those acts confined to the succouring of the bodily needs, such as feeding the hungry, visiting the sick, rescuing captives. A “corporal oath” was sworn with the body in contact with a sacred object (see OATH).

2. (From Lat. *corporalis*, sc. *palla*, or *corporale*, sc. *pallium*), in the Roman Catholic Church, a small square linen cloth, which at the service of the Mass is placed on the altar under the chalice and paten. It was originally large enough to cover the whole surface of the altar, and was folded over so as to cover the chalice—a custom still observed by the Carthusians. The

chalice is now, however, covered by another small square of linen, stiffened with cardboard, &c., known as the pall (*palla*). When not in use both corporal and pall are carried in a square silken pocket called the burse. The corporal must be blessed by the bishop, or by a priest with special faculties, the ritual prayers invoking the divine blessing that the linen may be worthy to cover and enwrap the body and blood of the Lord. It represents the winding-sheet in which Joseph of Arimathea wrapped the body of the dead Christ.

3. (Of uncertain derivation; the French form *caporal*, and Ital. *caporale*, point to an origin from *capo*, Italian for head; the *New English Dictionary*, however, favours the derivation from Lat. *corpus*, Ital. *corpo*, body), a non-commissioned officer of infantry, cavalry and artillery, ranking below a sergeant. This rank is almost universal in armies. In the 16th and 17th centuries there were corporals but no sergeants in the cavalry, and this custom is preserved in the three regiments of British household cavalry, the rank of sergeant being replaced by that of “corporal of horse,” and that of sergeant-major by “corporal-major.” In the 16th and early 17th centuries the title “corporal of the field” was often given to a superior officer who acted as a staff-officer to the sergeant-major-general. In the navy the “ship’s corporal,” formerly a semi-military instructor to the crew, is now a petty officer charged with assisting the master-at-arms in police duties on board ship.

CORPORAL PUNISHMENT, chastisement inflicted by one person on the body (*corpus*) of another. By the common law of England, Scotland and Ireland, the infliction of corporal punishment is illegal unless it is done in self-defence or in defence of others, or is done either by some person having punitive authority over the person chastised or under the authority of a competent court of justice. Corporal punishment in defence of self or others needs no comment, except that, like all other acts done in defence, its justification depends on whether or not it was reasonably necessary for the protection of the person attacked. Among persons invested with punitive authority, mention must first be made of parents and guardians, and of teachers, who have, by implied delegation from the parents, and as incidental to the relation of master and pupil, powers of reasonable corporal punishment. Such powers are not limited to offences committed by the pupil upon the premises of the school, but extend to acts done on the way to and from school and during what may be properly regarded as school hours (*Cleary* v. *Booth*, 1893, 1 Q.B. 465). The rights of parents, guardians and teachers, in regard to the chastisement of children, were expressly recognized in English law by the Prevention of Cruelty to Children Act 1904 (§ 28). Poor law authorities and managers of reformatories are in the same position in this respect as teachers. The punitive authority of elementary school teachers is subject to the regulations of the education authority: that of poor law authorities to the regulation of the Home Office and the Local Government Board. A master has a right to inflict moderate chastisement upon his apprentice for neglect or other misbehaviour, provided that he does so himself, and that the apprentice is under age (Archbold, *Cr. Pl.*, 23rd ed., 795). Where a legal right of chastisement is exercised immoderately, the person so exercising it incurs both civil and criminal liability.

In some of the older English legal authorities (e.g. Bacon, Abridg. tit. “Baron and Feme,” B), it was stated that a husband might inflict moderate corporal punishment on his wife in order to keep her “within the bounds of duty.” But these authorities were definitely discredited in 1891 in the case of *R.* v. *Jackson* (1 Q.B. 671). By the unmodified Mahommedan law, a husband may administer moderate corporal punishment to his wife; but it is doubtful whether this right could be legally exercised in British India (Wilson, *Digest of Anglo-Mahommedan Law*, 2nd ed., pp. 153, 154). In Hawkins’s *Pleas of the Crown* (Bk. 1, c. 63, § 29) it is laid down that “churchwardens, and perhaps private persons, may whip boys playing in church” during divine service. But while the right to remove such offenders is undoubted, the right of castigation could not now safely be exercised. At common law the master of a ship is entitled to inflict reasonable chastisement on a seaman for gross breach of duty. But such offences are now specially provided for by the Merchant Shipping Act 1894 (§§ 220-238); and where the provisions of that statute are available, corporal punishment would probably be illegal.

As to corporal punishment in the army and navy, see articles Military Law; Navy. In civil prisons, whether they are convict prisons or local prisons, corporal punishment may not be inflicted except under sentence of a competent court, or except in the case of prisoners under sentence of penal servitude, or convicted of felony, or sentenced to hard labour, who have been guilty of mutiny or incitement to mutiny, or of gross personal violence to an officer or servant of the prison (Act of 1898, § 5). Flogging for these offences in prison may not be

inflicted except by order of the board of visitors or visiting committee of the prison, made at a meeting specially constituted, and confirmed by a secretary of state (Prison Act of 1898, § 5; Convict Prison Rules 1899; Stat. R. and O. 1899, No. 321, rr. 77-79; Local Prison Rules 1899; Stat. R. and O. 1899, No. 322, rr. 84, 85). The mode of inflicting the punishment is prescribed by the Convict Prison Rules (rr. 82-85) and the Local Prison Rules (rr. 88-91), which limit the number of strokes and prescribe the instrument to be used for inflicting them, the cat or birch for prisoners over 18, and the birch for prisoners under 18.

Corporal punishment for breaches of prison discipline in Scottish prisons is not authorized by any statute nor under the Scottish Prison Rules (see *Stat. R. and O. Revised*, ed. 1904, vol. X. tit. "Prison, Scotland," p. 60). In Irish convict prisons corporal punishment may be inflicted by order of justices specially appointed by the lord-lieutenant under § 3 of the Penal Servitude Act 1864, but the Irish Prison Rules of 1902 (Stat. R. and O. 1902, No. 590) contain no reference to this power.

At common law, courts of justice had jurisdiction to impose a sentence of whipping on persons convicted on indictment for petty larceny or misdemeanours of the meaner kind (see 1 Bishop, *Amer. Cr. Law*, 8th ed., § 942). But they do not now impose such sentence except under statutory authority. The whipping of women was absolutely prohibited in 1820 by the Whipping of Female Offenders Abolition Act of that year. But there are numerous statutes authorizing the imposition of a sentence of whipping on male offenders. The following cases may be noted. 1. *Adults*: (a) who are incorrigible rogues (Vagrancy Act 1824, § 10); (b) who discharge fire-arms, &c., with intent to injure or alarm the sovereign (Treason Act 1842, § 2, and see 8 St. Tr. N.S. 1, and *O'Connor's Case*, 1872, ib. p. 3 n.); (c) who are guilty of robbery with violence (Larceny Act 1861, § 43), or offences against § 21 of the Offences against the Person Act of 1861; there has been much controversy as to whether the Garrotters Act of 1861, which authorized the ordering of more than one whipping in the case of an offender over 16 years of age, was the effective cause of the diminution of the offences against which it was directed, but the best judicial opinion is in the affirmative. 2. *Males under sixteen*: (a) in any of the cases above noted; (b) for many statutory offences, e.g. larceny (Larceny Act 1861), malicious damage (Malicious Damage Act 1861, § 75; Criminal Law Amendment Act 1885, § 4); (c) by courts of summary jurisdiction (Summary Jurisdiction Act 1879, §§ 10, 11, and 1899; First Offenders Act 1887); if a boy is over 7 and under 12, not more than 6 strokes, if he is over 12, but under 14, not more than 12 strokes may be inflicted; the birch-rod is to be used, and the punishment is to be given by a police constable in the presence of a superior officer, and of the parent or guardian if he desire it.

In Scotland the whipping of male offenders under 14 is regulated by the Prisons (Scotland) Act 1860, § 74, the Whipping Act 1862, and § 514 of the Burgh Police (Scotland) Act 1892; and offenders over 16 may not be whipped for offences against person or property (Whipping Act 1862, § 2).

In Ireland the law is in substance the same as in England; for special statutes see official *Index to Statutes* (ed. 1905), p. 985, art. Punishment, 6.

The flogging of women is prohibited throughout British India (Code of Criminal Procedure, Act v. of 1898, § 393) and the British colonies, where the infliction of corporal punishment by judicial order is in the main regulated on the lines of modern English legislation. In some British colonies the list of offences punishable by whipping is larger than in England (see Queensland Criminal Code 1899, arts. 212, 213, 216).

In the United States whipping is not a legal punishment under the Federal Law (Revised Stats. U.S. § 5327). But in some of the states of the Union whipping is inflicted under statute, and is not held cruel or unusual within the Federal Constitution (1 Bishop, *Amer. Crim. Law*, 8th ed., § 947). In Delaware wife-beating and certain offences against property by males are punishable with flogging; and in Maryland the same punishment is applicable for wife-beating. Flogging is in force as a disciplinary measure in some penal institutions.

It has been suggested by Laurent (*Principes de droit civil français* (1870), vol. iv. § 275) that the express definition in the French Code Civil (arts. 371 et seq.) of parental rights over children excludes the power of corporal punishment. But this view is not generally accepted. The parental right of moderate chastisement is expressly reserved in the Civil Code of Spain (art. 155, 2). Flogging is not recognized as a legal punishment by the French Code Pénal, nor by the Penal Codes of Germany, Italy, Spain or Portugal. (See also Whipping or Flogging.)

(A. W. R.)

CORPORATION (from Lat. *corporare*, to form into a body, *corpus*, *corporis*), in English law, an association of persons which is treated in many respects as if it were itself a person. It has rights and duties of its own which are not the rights and duties of the individual members thereof. Thus a corporation may own land, but the individual members of the corporation have no rights therein. A corporation may owe money, but the corporators as individuals are under no obligation to pay the debt. The rights and duties descend to the successive members of the corporation. This capacity of perpetual succession is regarded as the distinguishing feature of corporations as compared with other societies. One of the phrases most commonly met with in law-books describes a corporation as a society with perpetual succession and a common seal. The latter point, however, is not conclusive of the corporate character.

The legal attributes of a corporation have been worked out with great fulness and ingenuity in English law, but the conception has been taken full-grown from the law of Rome. The term in Roman law corresponding to the modern corporation is *collegium*; a more general term is *universitas*. A *collegium* or *corpus* must have consisted of at least three persons, who were said to be *corporati—habere corpus*. They could hold property in common and had a common chest. They might sue and be sued by their agent (*syndicus* or *actor*). There was a complete separation in law between the rights of the *collegium* as a body and those of its individual members. The *collegium* remained in existence although all its original members were changed. It was governed by its own by-laws, provided these were not contrary to the common law. The power of forming *collegia* was restrained, and societies pretending to act as corporations were often suppressed. In all these points the *collegia* of Roman closely resemble the corporations of English law. There is a similar parallel between the purposes for which the formation of such societies is authorized in English and in Roman law. Thus among the Roman *collegia* the following classes are distinguished:—(1) Public governing bodies, or municipalities, *civitates*; (2) religious societies, such as the *collegia* of priests and Vestal Virgins; (3) official societies, e.g. the *scribae*, employed in the administration of the state; (4) trade societies, e.g. *fabri*, *pictores*, *navicularii*, &c. This class shades down into the *societates* not incorporated, just as our own trading corporations partake largely of the character of ordinary partnerships. In the later Roman law the distinction of corporations into civil and ecclesiastical, into lay and eleemosynary, is recognized. The latter could not alienate without just cause, nor take land without a licence—a restriction which may be compared with modern statutes of mortmain. All these privileged societies are what we should call *corporations aggregate*. The *corporation sole* (i.e. consisting of only a single person) is a later refinement, for although Roman law held that the corporation subsisted in full force, notwithstanding that only one member survived, it did not impute to the successive holders of a public office the character of a corporation. When a public officer in English law is said to be a corporation sole, the meaning is that the rights acquired by him in that capacity descend to his successor in office, and not (as the case is where a public officer is not a corporation) to his ordinary legal representative. The best known instances of corporation sole are the king and the parson of a parish. The conception of the king as a corporation is the key to many of his paradoxical attributes in constitutional theory—his invisibility, immortality, &c.

The term *quasi-corporation* is applied to holders for the time being of certain official positions, though not incorporated, as the churchwardens of a parish, guardians of the poor, &c.

The Roman conception of a corporation was kept alive by ecclesiastical and municipal bodies. When English lawyers came to deal with such societies, the corporation law of Rome admitted of easy application. Accordingly, in no department has English law borrowed so copiously and so directly from the civil law. The corporations known to the earlier English law were mainly the municipal, the ecclesiastical, and the educational and eleemosynary. To all of these the same principles, borrowed from Roman jurisprudence, were applied. The different purposes of these institutions brought about in course of time differences in the rules of the law applicable to each. In particular, the great development of trading companies under special statutes has produced a new class of corporations, differing widely from those formerly known to the law. The reform of municipal corporations has also restricted the operation of the principles of the older corporation law. These principles, however, still apply when special statutes have not intervened.

The legal origin of corporation is ascribed by J. Grant (*Treatise on the Law of Corporations*, 1850) to five sources, viz. common law, prescription, act of parliament, charter and implication. Prescription in legal theory implies a grant, so that corporations by prescription would be reducible to the class of chartered or statutory corporations. A corporation is said to exist by implication when the purposes of a legally constituted society cannot be carried out without corporate powers. Corporations are thus ultimately traceable to the authority of charters and acts of parliament. The power of creating corporations by charter is an important

prerogative of the crown, but in the present state of the constitution, when all the powers of the crown are practically exercised by parliament, there is no room for any jealousy as to the manner in which it may be exercised. The power of chartering corporations belonged also to subjects who had *jura regalia*, e.g. the bishops of Durham granted a charter of incorporation to the city of Durham in 1565, 1602 and 1780. The charter of a corporation is regarded as being of the nature of a contract between the king and the corporation. It will be construed more favourably for the crown, and more strictly as against the grantee. It cannot alter the law of the land, and it may be surrendered, so that, if the surrender is accepted by the crown and enrolled in chancery, the corporation is thereby dissolved. Great use was made of this power of the crown in the reigns of Charles II. and James II.

Every corporation, it is said, must have a name, and it may have more names than one, but two corporations cannot have the same name. And corporations cannot change their name save by charter or some equivalent authority.

The possession of a common seal, though, as already stated, not conclusive of the corporate character, is an incident of every corporation aggregate. The inns of courts have common seals, but they are only voluntary societies, not corporations. Generally speaking, all corporate acts affecting strangers must be performed under the common seal; acts of internal administration affecting only the corporators, need not be under seal. The rule has been defended as following necessarily from the impersonal character of a corporation; either a seal or something equivalent must be fixed upon so that the act of the corporation may be recognized by all.

A corporation may be abolished by statute, but not by the mere authority of the crown. It may also become extinct by the disappearance of all its members or of any integral part, by surrender of charter if it is a chartered society, by process of law, or by forfeiture of privileges.

The power of the majority to bind the society is one of the first principles of corporation law, even in cases where the corporation has a head. It is even said that only by an act of parliament can this rule be avoided. The binding majority is that of the number present at a corporate meeting duly summoned.

In corporations which have a head (as colleges), although the head cannot veto the resolution of the majority, he is still considered an integral part of the society, and his death suspends its existence, so that a head cannot devise or bequeath to the corporation, nor can a grant be made to a corporation during vacancy of the headship.

A corporation has power to make such regulations (by-laws) as are necessary for carrying out its purposes, and these are binding on its members and on persons within its local jurisdiction if it has any.

The power to acquire and hold land was incident to a corporation at common law, but its restriction by the statutes of mortmain dates from a very early period. The English law against mortmain was dictated by the jealousy of the feudal lords, who lost the services they would otherwise have been entitled to, when their land passed into the hands of a perpetual corporation. The vast increase in the estates of ecclesiastical corporations constituted by itself a danger which might well justify the operation of the restricting statutes.

The Mortmain Acts applied only to cases of alienation *inter vivos*. There was no power to devise lands by will until 32 Henry VIII. c. 1 (1540), and when the power was granted corporations were expressly excluded from its benefits. No devise to a corporation, whether for its own use or in trust, was allowed to be good; land so devised went to the heir, either absolutely or charged with the trusts imposed upon it in the abortive devise. A modification, however, was gradually wrought by the judicial interpretations of the Charitable Trusts Act 1601, and it was held that a devise to a corporation for a charitable purpose might be a good devise, and would stand unless voided by the Mortmain Acts; so that no corporation could take land, without a licence, for any purpose or in any way; and no localised corporation could take lands by devise, save for charitable purposes. Then came the act of 1736, commonly but improperly called the Mortmain Act. Its effect was generally to make it impossible for land to be left by will for charitable uses, whether through a corporation or a natural person[1]. The Wills Act 1837 did not renew the old provision against devises to corporations, which therefore fell under the general law of mortmain. The law was consolidated by the Mortmain and Charitable Uses Act 1888, and the result is simply that corporations cannot take land for any purpose without a licence, and no licence in mortmain is granted by the crown, except in certain statutory cases in the interests of religion, charity or other definite public object.

The power of corporations at common law to alienate their property is usually restricted, as is their power to lease it for more than a certain number of years, except by sanction of a

public authority. The more important classes of corporations, however, are now governed by special statutes which exclude or modify the operation of the common law principles. The most considerable class of societies still unaffected by such special legislation are the Livery Companies (q.v.). Under COMPANY will be found an account of the important enactments regulating joint-stock companies.

The question to what extent the common law incidents of a corporation have been interfered with by special legislation has become one of much importance, especially under the acts relating to joint-stock companies. The most important case on this subject is that of *Riche* v. *The Ashbury Railway Carriage Company*, 1875 (L.R. 9 Ex. 224; L.R. 7 H.L. 653), in which, the judges of the exchequer chamber being equally divided, the decision of the court below was affirmed. The view taken by the affirming judges, viz. that the common law incidents of a corporation adhere unless expressly removed by the legislature, may be illustrated by a short extract from the judgment of Mr Justice Blackburn:— 192

> "If I thought it was at common law an incident to a corporation that its capacity should be limited by the instrument creating it, I should agree that the capacity of a company incorporated under the act of 1862 was limited to the object in the memorandum of association. But if I am right in the opinion which I have already expressed, that the general power of contracting is an incident to a corporation which it requires an indication of intention in the legislature to take away, I see no such indication here. If the question was whether the legislature had conferred on a corporation, created under this act, capacity to enter into contracts beyond the provisions of the deed, there could be only one answer. The legislature did not confer such capacity. But if the question be, as I apprehend it is, whether the legislature have indicated an intention to take away the power of contracting which at common law would be incident to a body corporate, and not merely to limit the authority of the managing body and the majority of the share-holders to bind the minority, but also to prohibit and make illegal contracts made by the body corporate, in such a manner that they would be binding on the body if incorporated at common law, I think the answer should be the other way."

On the other hand, the House of Lords, agreeing with the three dissentient judges in the exchequer chamber, pronounced the effect of the Companies Act to be the opposite of that indicated by Mr Justice Blackburn, "It was the intention of the legislature, not implied, but actually expressed, that the corporations, should not enter, having regard to this memorandum of association, into a contract of this description. The contract in my judgment could not have been ratified by the unanimous assent of the whole corporation." In such companies, therefore, objects beyond the scope of the memorandum of association are *ultra vires* of the corporation. The doctrine of *ultra vires*, as it is called, is almost wholly of modern and judicial creation. The first emphatic recognition of it appears to have been in the case of companies created for special purposes with extraordinary powers, by act of parliament, and, more particularly, railway companies. The funds of such companies, it was held, must be applied to the purposes for which they were created, and to no other. Whether this doctrine is applicable to the older or, as they are sometimes called, ordinary corporations, appears to be doubtful. S. Brice (*Ultra Vires*) writes:—

> "Take, as a strong instance, a university or a London guild. Either can undoubtedly manage, invest, transform and expend the corporate property in almost any way it pleases, but if they proposed to exhaust the same on the private pleasures of existing members, or to abandon the promotion, the one of education, the other of their art and mystery, it is very probable, if not absolutely certain, that the court of chancery would restrain the same, as being *ultra vires*."

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1 Devises to colleges are excepted from the operation of the act, but such devises must be for purposes identical with or closely resembling the original purposes of the college; and the exception from this act does not supersede the necessity for a licence in mortmain.

CORPS (pronounced as in French, from which it is taken, being a late spelling of *cors*, from Lat. *corpus*, a body; cf. "corpse"), a word in very general use since the 17th century to denote a body of troops, varying from a few hundred to the greater part of an army. In a special sense "corps" is used as synonymous with "army corps" (*corps d'armée*). The word is applied to any organized body, as in *corps diplomatique*, the general body of foreign diplomatic agents accredited to any government (see DIPLOMACY), or *corps de ballet*, the members of a troop of dancers at a theatre; so in *esprit de corps*, the common spirit of loyalty which animates any

body of associated persons.

CORPSE (Lat. *corpus*, the body), a dead human body. By the common law of England a corpse is not the subject of property nor capable of holding property. It is not therefore larceny to steal a corpse, but any removal of the coffin or grave-cloths is otherwise, such remaining the property of the persons who buried the body. It is a misdemeanour to expose a naked corpse to public view, to prevent the burial of a dead body, or to disinter it without authority; also to bury or otherwise dispose of a dead body on which an inquest ought to be held, without giving notice to a coroner. Anyone who, having the means, neglects to bury a dead body which he is legally bound to bury, is guilty of a misdemeanour, but no one is bound to incur a debt for such a purpose. It is incumbent on the relatives and friends of a deceased person to provide Christian burial for him; failing relatives and friends, the duty devolves upon the parish. No corpse can be attached, taken in execution, arrested or detained for debt. See further Body-snatching, and Burial and Burial Acts.

CORPULENCE (Lat. *corpus*, body), or Obesity (Lat. *ob*, against, and *edere*, to eat), a condition of the animal body characterized by the over-accumulation of fat under the skin and around certain of the internal organs. In all healthy persons a greater or less amount of fat is present in these parts, and serves important physiological ends, besides contributing to the proper configuration of the body (see Nutrition). Even a considerable measure of fatness, however inconvenient, is not inconsistent with a high degree of health and activity, and it is only when in great excess or rapidly increasing that it can be regarded as a pathological state (see Metabolic Diseases). The extent to which excess of fat may proceed is illustrated by numerous well-authenticated examples recorded in medical works, of which only a few can be here mentioned. Thus Bright, a grocer of Maldon, in Essex, who died in 1750, in his twenty-ninth year, weighed 616 ℔. Dr F. Dancel (*Traité de l'obésité*, Paris, 1863) records the case of a young man of twenty-two, who died from excessive obesity, weighing 643 ℔. In the *Philosophical Transactions* for 1813 a case is recorded of a girl of four years of age who weighed 256 ℔. But the most celebrated case is that of Daniel Lambert (q.v.) of Leicester, who died in 1809 in his fortieth year. He is said to have been the heaviest man that ever lived, his weight being 739 ℔ (52 st. 11 ℔). Health cannot be long maintained under excessive obesity, for the increase in bulk of the body, rendering exercise more difficult, leads to relaxation and defective nutrition of muscle, while the accumulations of fat in the chest and abdomen occasion serious embarrassment to the functions of the various organs in those cavities. In general the mental activity of the highly corpulent becomes impaired, although there have always been many notable exceptions to this rule.

Various causes are assigned for the production of corpulence (see Metabolic Diseases). In some families there exists an hereditary predisposition to an obese habit of body, the manifestation of which no precautions as to living appear capable of averting. But it is unquestionable that certain habits favour the occurrence of corpulence. A luxurious, inactive, or sedentary life, with over-indulgence in sleep and absence of mental occupation, are well recognized predisposing causes. The more immediate exciting causes are over-feeding and the large use of fluids of any kind, but especially alcoholic liquors. Fat persons are not always great eaters, though many of them are, while leanness and inordinate appetite are not infrequently associated. Still, it may be stated generally that indulgence in food, beyond what is requisite to repair daily waste, goes towards the increase of flesh, particularly of fat. This is more especially the case when the non-nitrogenous (the fatty, saccharine and starchy) elements of the food are in excess. The want of adequate bodily exercise will in a similar manner produce a like effect, and it is probable that many cases of corpulence are to be ascribed to this cause alone, from the well-known facts that many persons of sedentary occupation become stout, although of most abstemious habits, and that obesity frequently comes on in the middle-aged and old, who take relatively less exercise than the young, in whom it is comparatively rare. Women are more prone to become corpulent than men, and appear to take on this condition more readily after the cessation of the function of menstruation.

For the prevention of corpulence and the reduction of superfluous fat many expedients have been resorted to, and numerous remedies recommended. These have included bleeding, blistering, purging, starving (see FASTING), the use of different kinds of baths, and of drugs innumerable. The drinking of vinegar was long popularly, but erroneously, supposed to be a remedy for obesity. It is related of the marquis of Cortona, a noted general of the duke of Alva, that by drinking vinegar he so reduced his body from a condition of enormous obesity that he could fold his skin about him like a garment.

In 1863 a pamphlet entitled "Letter on Corpulence, Addressed to the Public by William Banting," in which was narrated the remarkable experience of the writer in accomplishing the reduction of his own weight in a short space of time by the adoption of a particular kind of diet, started the modern dietetic treatment, at first called "Banting" after the author. After trying almost every known remedy without effect, Banting was induced, on the suggestion of Mr Harvey, a London aurist, to place himself upon an entirely new form of diet, which consisted chiefly in the removal, as far as possible, of all saccharine, starchy and fat food, the reduction of liquids, and the substitution of meat or fish and fruit in moderate quantity at each meal, together with the daily use of an antacid draught. Under this regimen his weight was reduced 46 ℔ in the course of a few weeks, while his health underwent a marked improvement. His experience, as might have been expected, induced many to follow his example; and since then various regimens have been propounded, all aiming at treating corpulence on modern physiological principles (see also DIETETICS, METABOLIC DISEASES and NUTRITION). It is important, however, to bear in mind that the treatment should be followed under medical advice and observation; for, however desirable it be to get rid of superabundant fat, it would be manifestly no gain were this to be achieved by the sacrifice of the general health.

CORPUS CHRISTI, a city and the county-seat of Nueces county, Texas, U.S.A., situated on Corpus Christi Bay opposite the mouth of the Nueces river, 192 m. W.S.W. of Galveston and about 150 m. S.S.E. of San Antonio. Pop. (1890) 4387; (1900) 4703, including 963 foreign-born and 460 negroes; (1910) 8299. It is served by the National of Mexico, the St Louis, Brownsville & Mexico, and the San Antonio & Aransas Pass railways. In 1908 the Federal government began work on a project to connect Corpus Christi harbour with Aransas Pass by a channel 8½ ft. deep at low water and 75 ft. wide at the bottom, following a natural depression between the two bays. Corpus Christi is a summer and winter resort, with a very dry equable climate (average annual mean, 70.2° F.) and good bathing on the horseshoe beach of Corpus Christi Bay. The city has an extensive coasting trade, and exports fruit, early vegetables, fish and oysters. There was a small Spanish settlement here at an early date, but no American settlement was made until after the Mexican War. Corpus Christi was the base from which General Zachary Taylor made his forward movement to the Rio Grande in 1846. It was chartered as a city in 1876.

CORPUS CHRISTI, FEAST OF (Lat. *festum corporis Christi*, i.e. festival of the Body of Christ, Fr. *fête-Dieu* or *fête du sacrement*, Ger. *Frohnleichnamsfest*), a festival of the Roman Catholic Church in honour of the Real Presence of Christ in the sacrament of the altar, observed on the first Thursday after Trinity Sunday. The doctrine of transubstantiation was defined by the Lateran Council in 1215, and shortly afterwards the elevation and adoration of the Host were formally enjoined. This naturally stimulated the popular devotion to the Blessed Sacrament, which had been already widespread before the definition of the dogma. The movement was especially strong in the diocese of Liége, and when Julienne, prioress of Mont-Cornillon near Liége (1222-1258), had a vision in which the need for the establishment of a festival in honour of the Sacrament was revealed to her, the matter was taken up with enthusiasm by the clergy, and in 1246 Robert de Torote, bishop of Liége, instituted such a festival for his diocese. The idea, however, did not spread until, in 1261, Jacob Pantaleon, archdeacon of Liége, ascended the papal throne as Urban IV. By a bull of 1264 Urban made the festival, hitherto practically confined to the diocese of Liége, obligatory on the whole Church,[1] and a new office for the festival was written by Thomas Aquinas himself. As yet the

stress was laid on reverence for the Holy Sacrament as a whole; there is no mention in Urban's bull of the solemn procession and exposition of the Host for the adoration of the faithful, which are the main features of the festival as at present celebrated. Urban's bull was once more promulgated, at the council of Vienne in 1311, by Pope Clement V.; and the procession of the Host in connexion with the festival was instituted, if the accounts we possess are trustworthy, by Pope John XXII.

From this time onwards the festival increased in popularity and in splendour. It became in effect the principal feast of the Church, the procession of the Sacrament a gorgeous pageant, in which not only the members of the trade and craft gilds, with the magistrates of the cities, took part, but princes and sovereigns. It thus became in a high degree symbolical of the exaltation of the sacerdotal power.[2] In the 15th century the custom became almost universal of following the procession with the performance of miracle-plays and mysteries, generally arranged and acted by members of the gilds who had formed part of the pageant.

The rejection of the doctrine of transubstantiation at the Reformation naturally involved the suppression of the festival of Corpus Christi in the reformed Churches. Luther, in spite of his belief in the Real Presence, regarded it as the most harmful of all the medieval festivals and, though he fully realized its popularity, it was the first that he abolished. This attitude of the reformers towards the festival, however, intensified by their abhorrence of the traffic in indulgences with which it had become closely associated, only tended to establish it more firmly among the adherents of the "old religion." The procession of the Host on Corpus Christi day became, as it were, a public demonstration of Catholic orthodoxy against Protestantism and later against religious Liberalism. In most countries where religious opinion is sharply divided the procession of Corpus Christi is therefore now forbidden, even when Catholicism is the dominant religion. In England occasional breaches of the law in this respect have been for some time tolerated, as in the case of the Corpus Christi procession annually held by the Italian community in London. An attempt to hold a public procession of the Host in connexion with the Eucharistic Congress at Westminster in 1908, however, was the signal for the outburst of a considerable amount of opposition, and was eventually abandoned owing to the personal intervention of the prime minister.

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1 The pope's decision, so the story goes, was hastened by a miracle. A priest, saying mass at the church of Santa Christina at Bolsena, was troubled, after the consecration, with grave doubts as to the truth of the doctrine of transubstantiation. His temptation was removed by the Host beginning to bleed, the blood soaking through the corporal *into* the marble of the altar.

2 Nothing caused more offence to Liberal sentiment in France after the Restoration than the spectacle of King Louis XVIII. walking and carrying a candle in the procession through the streets of Paris.

CORRAL (Span. from *corro*, a circle), a word used chiefly in Spanish America and the United States for an enclosure for cattle and horses, and also for a defensive circle formed of wagons against attacks from Indians. It is also used as a verb, meaning to drive into a corral, and so figuratively to enclose, hem in. The word is probably connected with the South African Dutch word kraal (q.v.). In Ceylon it is especially used for an enclosure meant for the capture of wild elephants. In this last sense of the word the corresponding term in India is keddah (q.v.).

CORREA, a genus of Australian plants belonging to the natural order Rutaceae, named after the Portuguese botanist José Francisco Correa da Serra. The plants are evergreen shrubs and extremely useful for winter flowering. They are increased by cuttings, and grown in a cool greenhouse in rough peaty soil, with a slight addition of loam and sand. After the plants have done flowering, they should all get a little artificial warmth, plenty of moisture, and a slight shade, while they are making their growth, during which period the tips of the young shoots should be nipped out when 6 or 8 in. long. When the growth is complete, a half-shady place outdoors during August and September will be suitable, with protection from

parching winds and hot sunshine.

CORREA DA SERRA, JOSÉ FRANCISCO (1750-1823), Portuguese politician and man of science, was born at Serpa, in Alemtejo, in 1750. Educated at Rome, he took orders under the protection of the duke of Alafoès, uncle of Mary I. of Portugal. In 1777 he returned to Lisbon, where he resided with his patron, with whose assistance he founded the Portuguese Academy of Sciences. Of this institution he was named perpetual secretary, and he received the privilege of publishing its transactions without reference to any censor whatever. His use of this right brought him into conflict with the Holy Office; and consequently in 1786 he fled to France, and remained there till the death of Pedro III., when he again took up his residence with Alafoès. But having given a lodging in the palace to a French Girondist, he was forced to flee to England, where he found a protector in Sir Joseph Banks, and became a member of the Royal Society. In 1797 he was appointed secretary to the Portuguese embassy, but a quarrel with the ambassador drove him once more to Paris (1802), and in that city he resided till 1813, when he crossed over to New York. In 1816 he was made Portuguese minister-plenipotentiary at Washington, and in 1820 he was recalled home, appointed a member of the financial council, and elected to a seat in the Cortes. Three years after, and in the same year with the fall of the constitutional government, he died. Correa da Serra ranks high as a botanist, though he published no great special work. His principal claim to renown is the *Colecção de livros ineditos da historia Portugueza*, (4 vols., 1790-1816), an invaluable selection of documents, exceedingly well edited.

CORREGGIO, or Coreggio, the name ordinarily given to Antonio Allegri (1494-1534), the celebrated Italian painter, one of the most vivid and impulsive inventors in expression and pose and the most consummate executants. The external circumstances of his life have been very diversely stated by different writers, and the whole of what has been narrated regarding him, even waiving the question of its authenticity, is but meagre.

The first controversy is as to his origin. Some say that he was born of poor and lowly parents; others, that his family was noble and rich. Neither account is accurate. His father was Pellegrino Allegri, a tradesman in comfortable circumstances, living at Correggio, a small city in the territory of Modena; his mother Bernardina Piazzoli degli Aromani, also of a creditable family of moderate means. Antonio was born at Correggio, and was carefully educated. He was not (as has been often alleged) strictly self-taught in his art—a supposition which the internal evidence of his pictures must of itself refute. They show a knowledge of optics, perspective, architecture, sculpture and anatomy. The last-named science he studied under Dr Giovanni Battista Lombardi, whom he is believed to have represented in the portrait currently named “II Medico del Correggio” (Correggio’s physician). It is concluded that he learned the first elements of design from his uncle, Lorenzo Allegri, a painter of moderate ability at Correggio, and from Antonio Bartolotti, named Tognino, and that he afterwards went to the school of Francesco Ferrari Bianchi (named Frarè), and perhaps to that of the successors of Andrea Mantegna in Mantua. He is said to have learned modelling along with the celebrated Begarelli at Parma; and it has even been suggested that, in the “Pietà” executed by Begarelli for the church of Santa Margherita, the three finest figures are the work of Correggio, but, as the group appears to have been completed three years after the painter’s death, there is very little plausibility in this story. Another statement connecting Begarelli with Correggio is probably true, namely, that the sculptor executed models in relief for the figures which the painter had to design on the cupolas of the churches in Parma. This was necessarily an expensive item, and it has been cited as showing that Correggio must have been at least tolerably well off,—an inference further supported by the fact that he used the most precious and costly colours, and generally painted on fine canvases or sometimes on sheets of copper.

The few certain early works of Correggio show a rapid progression towards the attainment of his own original style. Though he never achieved any large measure of reputation during his brief lifetime, and was perhaps totally unknown beyond his own district of country, he found a sufficiency of employers, and this from a very youthful age. One of his early pictures, painted

in 1514 when he was nineteen or twenty years old, is a large altar-piece commissioned for the Franciscan convent at Carpi, representing the Virgin enthroned, with Saints; it indicates a predilection for the style of Leonardo da Vinci, and has certainly even greater freedom than similarly early works of Raphael. This picture is now in the Dresden gallery. Another painting of Correggio's youth is the "Arrest of Christ." A third is an Ancona (or triple altar-piece—the "Repose in Egypt, with Sts Bartholomew and John") in the church of the Conventuali at Correggio, showing the transition from the painter's first to his second style. Between 1514 and 1520 Correggio worked much, both in oil and in fresco, for churches and convents. In 1521 he began his famous fresco of the "Ascension of Christ," on the cupola of the Benedictine church of San Giovanni in Parma; here the Redeemer is surrounded by the twelve apostles and the four doctors of the church, supported by a host of wingless cherub boys amid the clouds. This he finished in 1524, and soon afterwards undertook his still vaster work on another cupola, that of the cathedral of the same city, presenting the "Assumption of the Virgin," amid an unnumbered host of saints and angels rapt in celestial joy. It occupied him up to 1530. The astounding boldness of scheme in these works, especially as regards their incessant and audacious foreshortenings—the whole mass of figures being portrayed as in the clouds, and as seen from below—becomes all the more startling when we recall to mind the three facts—that Correggio had apparently never seen any of the masterpieces of Raphael or his other great predecessors and contemporaries, in Rome, Florence, or other chief centres of art; that he was the first artist who ever undertook the painting of a large cupola; and that he not only went at once to the extreme of what can be adventured in foreshortening, but even forestalled in this attempt the mightiest geniuses of an elder generation—the "Last Judgment" of Michelangelo, for instance, not having been begun earlier than 1533 (although the ceiling of the Sixtine chapel, in which foreshortening plays a comparatively small part, dates from 1508 to 1512). The cupola of the cathedral has neither skylight nor windows, but only light reflected from below; the frescoes, some portions of which were ultimately supplied by Giorgio Gandini, are now dusky with the smoke of tapers, and parts of them, in the cathedral and in the church of St John, have during many past years been peeling off. The violent foreshortenings were not, in the painter's own time, the object of unmixed admiration; some satirist termed the groups a "guazzetto di rane," or "hash of frogs." This was not exactly the opinion of Titian, who is reported to have said, on seeing the pictures, and finding them lightly esteemed by local dignitaries, "Reverse the cupola, and fill it with gold, and even that will not be its money's worth." Annibale Caracci and the Eclectics generally evinced their zealous admiration quite as ardently. Parma is the only city which contains frescoes by Correggio. For the paintings of the cupola of San Giovanni he received the moderate sum of 472 sequins; for those of the cathedral, much less proportionately, 350. On these amounts he had to subsist, himself and his family, and to provide the colours, for about ten years, having little time for further work meanwhile. Parma was in an exceedingly unsettled and turbulent condition during some of the years covered by Correggio's labours there, veering between the governmental ascendancy of the French and of the Pope, with wars and rumours of wars, alarms, tumults and pestilence.

Other leading works by Correggio are the following:—The frescoes in the Camera di San Paolo (the abbess's saloon) in the monastery of S. Lodovico at Parma, painted towards 1519 in fresco,—"Diana returning from the Chase," with auxiliary groups of lovely and vivacious boys of more than life size, in sixteen oval compartments. In the National Gallery, London, the "Ecce Homo," painted probably towards 1520 (authenticity not unquestioned); and "Cupid, Mercury and Venus," the latter more especially a fine example. The oil-painting of the Nativity named "Night" ("La Notte"), for which 40 ducats and 208 livres of old Reggio coin were paid, the nocturnal scene partially lit up by the splendour proceeding from the divine Infant. This work was undertaken at Reggio in 1522 for Alberto Pratoneris, and is now in the Dresden gallery. The oil-painting of St Jerome, termed also "Day" ("Il Giorno"), as contrasting with the above-named "Night." Jerome is here with the Madonna and Child, the Magdalene, and two Angels, of whom one points out to the Infant a passage in the book held by the Saint. This was painted for Briseida Bergonzi from 1527 onwards, and was remunerated by 400 gold imperials, some cartloads of faggots and measures of wheat, and a fat pig. It is now in the gallery at Parma. The "Magdalene lying at the entrance of her Cavern": this small picture (only 18 in. wide) was bought by Augustus III. of Saxony for 6000 louis d'or, and is in Dresden. In the same gallery, the two works designated "St George" (painted towards 1532) and "St Sebastian." In the Parma gallery, the Madonna named "della Scala," a fresco which was originally in a recess of the Porta Romana, Parma; also the Madonna "della Scodella" (of the bowl, which is held by the Virgin—the subject being the Repose in Egypt): it was executed for the church of San Sepolcro. Both these works date towards 1526. In the church of the Annunciation, "Parma," a fresco of the Annunciation, now all but perished. Five celebrated pictures painted or begun in 1532,—"Venus," "Leda," "Danaë," "Vice," and "Virtue": the "Leda," with figures of charming girls bathing, is now in the Berlin gallery, and is a singularly

delightful specimen of the master. In Vienna, “Jupiter and Io.” In the Louvre, “Jupiter and Antiope,” and the “Mystic Marriage of St Catharine.” In the Naples Museum, the “Madonna Reposing,” commonly named “La Zingarella,” or the “Madonna del Coniglio” (Gipsy-girl, or Madonna of the Rabbit). On some of his pictures Correggio signed “Lieto,” as a synonym of “Allegri.” About forty works can be confidently assigned to him, apart from a multitude of others probably or manifestly spurious.

The famous story that this great but isolated artist was once, after long expectancy, gratified by seeing a picture of Raphael’s, and closed an intense scrutiny of it by exclaiming “Anch’ io son pittore” (I too am a painter), cannot be traced to any certain source. It has nevertheless a great internal air of probability; and the most enthusiastic devotee of the Umbrian will admit that in technical *bravura*, in enterprizing, gifted, and consummated execution, not Raphael himself could have assumed to lord it over Correggio.

In 1520 Correggio married Girolama Merlino, a young lady of Mantua, who brought him a good dowry. She was but sixteen years of age, very lovely, and is said by tradition to have been the model of his Zingarella. They lived in great harmony together, and had a family of four children. She died in 1529. Correggio himself expired at his native place on the 5th of March 1534. His illness was a short one, and has by some authors been termed pleurisy. Others, following Vasari, allege that it was brought on by his having had to carry home a sum of money, 50 scudi, which had been paid to him for one of his pictures, and paid in copper coin to humiliate and annoy him; he carried the money himself, to save expense, from Parma to Correggio on a hot day, and his fatigue and exhaustion led to the mortal illness. In this curious tale there is no symptom of authenticity, unless its very singularity, and the unlikelihood of its being invented without any foundation at all, may be allowed to count for something. He is said to have died with Christian piety; and his eulogists (speaking apparently from intuition rather than record) affirm that he was a good citizen, an affectionate son and father, fond and observant of children, a sincere and obliging friend, pacific, beneficent, grateful, unassuming, without meanness, free from envy and tolerant of criticism. He was buried with some pomp in the Arrivabene chapel, in the cloister of the Franciscan church at Correggio.

Regarding the art of Correggio from an intellectual or emotional point of view, his supreme gift may be defined as suavity,—a vivid, spontaneous, lambent play of the affections, a heartfelt inner grace which fashions the forms and features, and beams like soft and glancing sunshine in the expressions. We see lovely or lovable souls clothed in bodies or corresponding loveliness, which are not only physically charming, but are so informed with the spirit within as to become one with that in movement and gesture. In these qualities of graceful naturalness, not heightened into the sacred or severe, and of joyous animation, in momentary smiles and casual living turns of head or limb, Correggio undoubtedly carried the art some steps beyond anything it had previously attained, and he remains to this day the unsurpassed or unequalled model of pre-eminence. From a technical point of view, his supreme gift—even exceeding his prodigious faculty in foreshortening and the like—is chiaroscuro, the power of modifying every tone, from bright light to depth of darkness, with the sweetest and most subtle gradations, all being combined into harmonious unity. In this again he far distanced all predecessors, and defied subsequent competition. His colour also is luminous and precious, perfectly understood and blended; it does not rival the superb richness or deep intense glow of the Venetians, but on its own showing is a perfect achievement, in exact keeping with his powers in chiaroscuro and in vital expression. When we come, however, to estimate painters according to their dramatic faculty, their power of telling a story or impressing a majestic truth, their range and strength of mind, we find the merits of Correggio very feeble in comparison with those of the highest masters, and even of many who without, being altogether great have excelled in these particular qualities. Correggio never *means* much, and often, in subjects where fulness of significance is demanded, he means provokingly little. He expressed his own miraculous facility by saying that he always had his thoughts at the end of his pencil; in truth, they were often thoughts rather of the pencil and its controlling hand than of the teeming brain. He has the faults of his excellences—sweetness lapsing into mawkishness and affectation, empty in elevated themes and lasciviously voluptuous in those of a sensuous type, rapid and forceful action lapsing into posturing and self-display, fineness and sinuosity of contour lapsing into exaggeration and mannerism, daring design lapsing into incorrectness. No great master is more dangerous than Correggio to his enthusiasts; round him the misdeeds of conventionalists and the follies of connoisseurs cluster with peculiar virulence, and almost tend to blind to his real and astonishing excellences those practitioners or lovers of painting who, while they can acknowledge the value of *technique*, are still more devoted to greatness of soul, and grave or elevated invention, as expressed in the form of art.

Correggio was the head of the school of painting of Parma, which forms one main division of the Lombardic school. He had more imitators than pupils. Of the latter one can name with

certainty only his son Pomponio, who was born in 1521 and died at an advanced age; Francesco Capelli; Giovanni Giarola; Antonio Bernieri (who, being also a native of the town of Correggio, has sometimes been confounded with Allegri); and Bernardo Gatti, who ranks as the best of all. The Parmigiani (Mazzuoli) were his most highly distinguished imitators.

A large number of books have been written concerning Correggio. The principal modern authority is Conrado Ricci, *Life and Times of Correggio* (1896); see also Pungileoni, *Memorie storiche di Antonio Allegri* (1817); Julius Meyer, *Antonio Allegri* (1870, English translation, 1876); H. Thode, *Correggio* (1898); Bigi, *Vita ed opere* (1881); Colnaghi, *Correggio Frescoes at Parma* (1845); Fagan, *Works of Correggio* (1873); and T. Sturge Moore, *Correggio* (1906) (a work which includes some adverse criticism on the views of Bernhard Berenson, in his *Study of Italian Art*, 1901, and elsewhere).

(W. M. R.)

CORRENTI, CESARE (1815-1888), Italian revolutionist and politician, was born on the 3rd of January 1815, at Milan, of a poor but noble family. While employed in the public debt administration, he flooded Lombardy with revolutionary pamphlets designed to excite hatred against the Austrians, and in 1848 proposed the general abstention of the Milanese from smoking, which gave rise to the insurrection known as the Five Days. During the revolt he was one of the leading spirits of the operations of the insurgents. Until the reoccupation of Milan by the Austrians he was secretary-general of the provisional government, but afterwards he fled to Piedmont, whence he again distributed his revolutionary pamphlets throughout Lombardy, earning a precarious livelihood by journalism. Elected deputy in 1849, he worked strenuously for the national cause, supporting Cavour in his Crimean policy, although he belonged to the Left. After the annexation of Lombardy he was made commissioner for the liquidation of the Lombardo-Venetian debt, in 1860 was appointed councillor of state, and received various other public positions, especially in connexion with the railway and financial administration. He veered round to the Right, and in 1867 and again in 1869 he held the portfolio of education; he played an important part in the events consequent upon the occupation of Rome, and helped to draft the Law of Guarantees. As minister of education he suppressed the theological faculties in the Italian universities, but eventually resigned office and allied himself with the Left again on account of conservative opposition to his reforms. His defection from the Right ultimately assured the advent of the Left to power in 1876; and while declining office, he remained chief adviser of Agostino Depretis until the latter’s death. On several occasions—notably in connexion with the redemption of the Italian railways, and with the Paris exhibition of 1878—he acted as representative of the government. In 1877 he was given the lucrative appointment of secretary of the order of Saints Maurice and Lazarus by Depretis, and in 1886 was created senator. He died at Rome on the 4th of October 1888. He left a considerable body of writings on a variety of subjects, none of which is of exceptional merit.

See E. Massarani, *Cesare Correnti nella vita e nelle opere* (1890); and L. Carpi, *Il Risorgimento italiano*, vol. iv. (Milan, 1888).

(L. V.*)

CORRESPONDENCE (from med. scholastic Lat. *correspondentia*, *correspondere*, compounded of Lat. *cum*, with, and *respondere*, to answer; cf. Fr. *correspondence*), strictly a mutual agreement or fitness of parts or character, that which fits or answers to a requirement in another, or more generally a similarity or parallelism. In the 17th and 18th centuries the word was frequently applied to relations and communications between states. It is now, outside special applications, chiefly applied to the interchange of communications by letter, or to the letters themselves, between private individuals, states, business houses, or from individuals to the press. The “doctrine of correspondence or correspondences,” one of the leading tenets of Swedenborgianism, is that every natural object corresponds to and typifies some spiritual principle or truth, this being the only key to the true interpretation of Scripture. In mathematics, the term “correspondence” implies the existence of some relation between the members of two groups of objects. If each object of one group corresponds to one and only

one object of the second, and vice versa, then a one-to-one correspondence exists between the groups. If each object of the first group corresponds to β objects of the second group, and each object of the second group corresponds to a objects of the first group, then an α to β correspondence exists between the two groups. For examples of the application of this notion see CURVE.

CORRÈZE, a department of south-central France, formed from the southern portion of the old province of Limousin, bounded N. by the departments of Haute-Vienne and Creuse, E, by Puy-de-Dôme, S.E. by Cantal, S. by Lot, and W. by Dordogne. Area, 2273 sq. m. Pop. (1906) 317,430. Corrèze is situated on the western fringe of the central plateau of France. It forms a hilly tableland elevated in the east and north, and intersected by numerous fertile river valleys, trending for the most part to the south and south-west. The highest points, many of which exceed 3000 ft., are found in the north, where the Plateau de Millevaches separates the basins of the Loire and the Garonne. Except for a small district in the extreme north, which is watered by the Vienne, Corrèze belongs to the basin of the Garonne. The Dordogne waters its south-eastern region. The Corrèze, from which the department takes its name, and the Vézère, of which the Corrèze is the chief tributary, rise in the Plateau de Millevaches, flow south-west, and unite to the west of Brive. The climate of Corrèze is, in general, cold, damp and variable, except in the south-west, where it is mild and agreeable. The majority of the inhabitants live by agriculture. About one-third of the department is arable land, most of which is found in the south-west. Rye, buckwheat and wheat (in the order named) are the most abundant cereals. Hemp, flax and tobacco are also grown. The more elevated regions of the north and east are given over to pasture, sheep being specially numerous on the Plateau de Millevaches. Pigs and goats are reared to a considerable extent; and poultry-farming and cheese-making are much practised. The vineyards of the neighbourhood of Brive produce wine of medium quality. Chestnuts, largely used as an article of food, walnuts and cider-apples are the chief fruits. Coal in small quantities, slate, building-stone and other stone are the mineral products, and clay, used in potteries and tile-works, is also worked. The most important industrial establishment is the government manufactory of fire-arms at Tulle. There are flour-mills, breweries, oil-works, saw-mills and dye-works; and hats (Bort), coarse woollens, silk, preserved foods, wooden shoes, chairs, paper and leather are manufactured. Coal and raw materials for textile industries are leading imports; live stock and agricultural products are the chief exports. The department is served by the Orléans railway, and the Dordogne is navigable. The department is divided into the arrondissements of Tulle, Brive and Ussel, containing 29 cantons and 289 communes. It belongs to the archdiocese of Bourges, the region of the XII. army corps, and the *Académie* (educational division) of Clermont-Ferrand. Its court of appeal is at Limoges. Tulle, the capital, and Brive are the principal towns of the department. Uzerche is a picturesque old town on the Vézère, with a Romanesque church, old houses, a gate and other remains of medieval fortifications. At Aubazine (or Obazine) there is a Romanesque church of the 12th century, formerly belonging to the celebrated Cistercian abbey, of which Étienne “of Obazine” (d. 1159 and subsequently beatified) was the founder and first abbot. It contains the fine sculptured tomb of the founder. To the same style belong the abbey church of Beaulieu, the south portal of which is elaborately carved, the abbey church of Meymac, and the abbey church of Vigeois. Treignac, with its church, bridge and ramparts of the 15th century, and Turenne, dominated by the ruins of the castle of the famous family of that name, are ancient and interesting towns. The dolmen at Espartignac and the cromlech of Aubazine are the chief megalithic remains in the department. A Roman eagle and other antiquities have been found close to Ussel, which at the end of the 16th century became the centre of the duchy of Ventadour.

CORRIB, LOUGH, a lake of western Ireland, in the counties Galway and Mayo. It lies N.W. and S.E., and is 27 m. long, including a long projecting arm at the north-west. The extreme breadth is 7 m., but the outline is extremely irregular, and the lough narrows near the centre to a few hundred yards. Lough Corrib is very shallow, hardly exceeding 30 ft. in depth at any point, and it is covered with islands, of which there are some 300. It lies 29 ft. above sea-level,

and drains by the short river Corrib to Galway Bay. The large Lough Mask lies to its north and is connected with it by a partly subterranean channel. The scenery is pleasant, but the shores are low, except at the north-west, where the wild foothills of Joyce's Country rise.

CORRIDOR (Fr. *corridor*, from Ital. *corridore*, Med. Lat. *corridorium*, a "running-place," from *currere*, to run), a main passage in a large building, on which various apartments open. In public offices, prisons, workhouses, hospitals, &c., the corridors are usually of severe simplicity; but in mansions and palaces large corridors (galleries) are often adorned with works of art, whence comes the term "picture gallery" applied to many collections. The term "corridor carriage" is applied to the modern style of railway carriage in which a narrow passage connects the separate compartments, the object being to combine a certain degree of privacy for the traveller with access from one compartment to another whilst the train is in motion.

CORRIE (Gaelic *coire*, cauldron; hence whirlpool, or circular hollow), a term used in the Highlands of Scotland for a steep-sided, rounded hollow in a mountain-side, from the lower part of which a stream usually issues as the outlet of a small lake ponded by glacial debris. Corrie-lakes are common in all glaciated mountain regions. (See Cirque.)

CORRIENTES, a north-eastern province of the Argentine Republic, and part of a region known as the Argentine Mesopotamia, bounded N. by Paraguay, N.E. by Misiones (territory), E. by Brazil, S. by Entre Rios, and W. by Santa Fé and the Chaco. Pop. (1895) 239,618; (1904 estimate) 299,479; area, 32,580 sq. m. Nearly one-third of the province is covered by swamps and lagoons, or is so little above their level as to be practically unfit for permanent settlement unless drained. The Iberá lagoon (c. 8500 sq. m., according to the *Argentine Year Book* for 1905-1906) includes a large part of the central and north-eastern departments, and the Maloya lagoon covers a large part of the north-western departments. Several streams flowing into the Paraná and Uruguay have their sources in these lagoons, the Iberá sending its waters in both directions. The southern districts of the province, however, are high and rolling, similar to the neighbouring departments of Entre Rios, and are admirably adapted to grazing and agriculture. The north-eastern corner is also high, but it is broken by ranges of hills and is heavily forested, like the adjacent territory of Misiones. The climate on the higher plains is sub-tropical, but in the northern swamps it is essentially tropical. Corrientes is the hottest province of Argentina, notwithstanding its large area of water and forest. The exports include cattle and horses, jerked beef, hides, timber and firewood, cereals and fruit. The principal towns are Corrientes, the capital; Goya, a flourishing agricultural town (1906 estimate, 7000) on a side channel of the Paraná, 150 m. S. of Corrientes, the seat of a modern normal school and the market-town of a prosperous district; Bella Vista (pop. 1906 estimate, 3000), prettily situated on the Paraná, 80 m. S. of Corrientes, the commercial centre of a large district; Esquina (pop. 1906 estimate, 3000) on the Paraná at the mouth of the Corrientes river, 86 m. S. of Goya, which exports timber and firewood from the neighbouring forest of Payubre; Monte Caseros (pop. 1906 estimate, 4000) on the Uruguay river, from which cattle are shipped to Brazil, the eastern terminus of the Argentine North-Eastern railway (which crosses the province in a N.W. direction to Corrientes), and a station on the East Argentine railway (which runs northward to Paso de Los Libres, opposite Uruguayana, Brazil and to San Tomé, and southward to a junction with the Entre Rios railways). A considerable district on the upper Uruguay was once occupied by prosperous Jesuit missions, all of which fell into decay and ruins after the expulsion of that order from the Spanish possessions in 1767. The population of the province is composed very largely of Indian and mixed races, and Guarani is still the language of the country people.

CORRIENTES (*San Juan de Corrientes*), a city and river port, and the capital of the above province, in the north of the Argentine Republic, on the left bank of the Paraná river, 20 m. below the junction of the Upper Paraná and Paraguay, and 832 m. N. of Buenos Aires. The name is derived from the *siete corrientes* (seven currents) caused by rocks in the bed of the river just above the town. Pop. (1895) 16,129; (1907 local estimate) 30,172, largely Indian and of mixed descent. The appearance of Corrientes is not equal to its commercial and political importance, the buildings both public and private being generally poor and antiquated. There are four churches, the more conspicuous of which are the Matriz and San Francisco. The government house, originally a Jesuit college, is an antiquated structure surrounding an open court (*patio*). There is a national college. The commercial importance of Corrientes results from its unusually favourable situation near the confluence of the Upper Paraná and Paraguay, and a short distance below the mouth of the Bermejo. The navigation of the Upper Paraná and Bermejo rivers begins here, and freight for the Upper Paraná and Chaco rivers is transhipped at Corrientes, which practically controls the trade of the extensive regions tributary to them. Corrientes is the western terminus of the Argentine North-Eastern railway, which crosses the province S.E. to Monte Caseros, where it connects with the East Argentine line running S. to Concordia and N. to San Tomé. The principal exports are timber, cereals, maté, sugar, tobacco, hides, jerked beef, fruit and quebracho.

CORRIGAN, MICHAEL AUGUSTINE (1839-1902), third archbishop of the Roman Catholic archdiocese of New York, in the United States, was born in Newark, New Jersey, on the 13th of August 1839. In 1859 he graduated at Mount St Mary's College, Emmittsburg, Maryland, and began his studies for the priesthood as the first of the twelve students with whom the American College at Rome was opened. On the 19th of September 1863 he was ordained priest, and in 1864 obtained the degree of D.D. Returning to America, he was appointed professor of Dogmatic Theology and Sacred Scripture, and director of the ecclesiastical seminary of Seton Hall College at South Orange, New Jersey; soon afterwards he was made vice-president of the institution; and in 1868 became president, succeeding Rev. Bernard J. M'Quaid (b. 1823), the first Roman Catholic bishop of Rochester. In October 1868 Corrigan became vicar-general of Newark, a diocese then including all the state of New Jersey. When Archbishop Bayley was transferred to the see of Baltimore in 1873, Pius IX. appointed Corrigan bishop of Newark. In 1876 he resigned the presidency of Seton Hall College. In 1880 Bishop Corrigan was made coadjutor, with the right of succession, to Cardinal McCloskey, archbishop of New York, under the title of archbishop of Petra; and thereafter nearly all the practical work of the archdiocese fell to his hands. He was at the time the youngest archbishop in the Catholic Church in America. On the death of Cardinal McCloskey in 1885 Archbishop Corrigan became metropolitan of the diocese of New York. He died on the 5th of May 1902. He was a scholar of much erudition, with great power of administrative organization, simple, generous and kindly in character. The earlier years of his archiepiscopate were disturbed by his controversy with Edward McGlynn (1839-1900), a New York priest (and a fellow-student with Corrigan at Rome), who disapproved of parochial schools, refused to go to Rome for examination, and was excommunicated in July 1887, but returned to the church five years later.

See *Michael Augustine Corrigan: A Memorial*, with biographical sketch by John A. Mooney (New York, 1902).

CORROSIVE SUBLIMATE, Mercuric Chloride, Perchloride of Mercury ($HgCl_2$), a white solid obtained by the action of chlorine on mercury or calomel, by the addition of hydrochloric acid to a hot, strong solution of mercurous nitrate, $Hg_2(NO_3)_2 + 4HCl = 2HgCl_2 + 2H_2O + 2NO_2$, and, commercially, by heating a mixture of mercuric sulphate and common salt, the mercuric

chloride subliming and being condensed in the form of small rhombic crystals. It melts at 288°, and boils at 303°; it is sparingly soluble in cold water, more so in hot; it is very soluble in alcohol and ether. It is soluble in hydrochloric acid forming compounds such as $HgCl_2 \cdot 2HCl$, $3HgCl_2 \cdot 4HCl$, $2HgCl_2 \cdot HCl$, according to the temperature and concentration; it also forms double salts with many chlorides; *sal alembroth*, $2NH_4Cl \cdot HgCl_2 \cdot H_2O$, is the compound with ammonium chloride. It absorbs ammonia to form $HgCl_2 \cdot NH_3$, which may be distilled without decomposition. Various oxychlorides are formed by digesting corrosive sublimate with mercuric oxide. Corrosive sublimate has important applications in medicine—as an astringent, stimulant, caustic and antiseptic (see MERCURY).

CORRUPT PRACTICES, a term used in English election law, as defined by the Corrupt and Illegal Practices Prevention Act 1883, to include bribery, treating, undue influence, personation, and aiding, abetting, counselling and procuring personation. Bribery and corruption at elections have been the subject of much legislation, statutes for their prevention have been passed in 1729, 1809, 1827, 1842, 1854, 1868 and 1883.

By the Corrupt and Illegal Practices Prevention Act 1883 (which incorporated the Corrupt Practices Prevention Act 1854, an act that repealed all former legislation) the following persons are to be deemed guilty of *bribery*:—

1. Every person who shall directly or indirectly, by himself or by any other person on his behalf, give, lend, &c., or offer, promise, or promise to procure, &c., any money or valuable consideration to or for any voter or any other person in order to induce any voter to vote or refrain from voting, or shall corruptly do any such act on account of such voter having voted or refrained from voting at any election.

2. Every person who shall similarly give or procure or promise, &c., any office, place or employment to or for any voter or other person in order to induce him to vote, &c.

3. Every person who shall make any gift, loan, promise, &c., as aforesaid to any person to induce such person to procure the return of any person to serve in parliament or the vote of any voter.

4. Every person who shall, in consequence of such gift, procure or engage, promise or endeavour to procure the return of any person or the vote of any voter.

5. Every person who shall pay any money with the intent that it should be spent in bribery, or who shall pay money in repayment of any money wholly or in part expended in bribery.

6. Every person who before or during an election shall receive or contract for any money, &c., for voting, or refraining, or agreeing to vote or to refrain from voting.

7. Every person who, after the election, receives money, &c., on account of any person having voted or refrained, &c.

Treating.—Any person who corruptly by himself or by any other person either before, during or after an election, directly or indirectly gives or provides, or pays wholly or in part the expense of giving or providing any meat, drink or entertainment, or provision to or for any person in order to be elected, or for being elected, or for the purpose of corruptly influencing such person to give or refrain from giving his vote at an election, &c., shall be deemed guilty of treating, and every elector corruptly accepting such meat, drink, &c., shall also be guilty of treating.

Undue Influence.—Every person who shall directly or indirectly make use of or threaten to make use of any force, violence, &c., or inflict or threaten to inflict any temporal or spiritual injury, &c., upon any person to induce or compel such person to vote or refrain from voting, or who shall by abduction, duress, or any fraudulent device or contrivance impede or prevent the exercise of the franchise of any elector, or shall thereby compel, induce, &c., any elector to give or refrain from giving his vote, shall be guilty of undue influence.

Illegal, as distinguished from “corrupt,” practices are certain acts and omissions in regard to an election which are now prohibited, whether done or omitted, honestly or dishonestly. They may be classified under the following heads:—(1) Acts which are illegal practices by whomsoever committed. These are as follows: Payment or receipt or contracts to pay or receive money for conveyance of voters to or from the poll, on account of any committee room

beyond the number allowed by the act, or to an elector for use of house or land to exhibit addresses, &c., or for exhibition by him (otherwise than in the ordinary course of his business of advertising agent) of such addresses, &c.; payment of election expenses otherwise than by or through the election agent, and payment otherwise than to a candidate or election agent of money provided by any other person for election expenses; voting or procuring to vote of any person prohibited from voting, if the person offending knows of the prohibition; knowingly publishing a false statement that a candidate has withdrawn, or publishing with a view to affect the return of a candidate a false statement as to his character or conduct. (2) Acts and omissions which are illegal practices in the case of candidates and agents only, being breaches of duties specially imposed on them. These are the payment or incurring expenses in excess of the maximum authorized by the legislature, the omitting without lawful excuse to make a return and declaration of expenses in due time, and the payment by an election agent of any election expense amounting to 40s. not vouched by bill of particulars and receipt, of any claim for expenses not sent in in due time, or of any such claim after the time allowed for payment thereof. (3) Acts which are illegal practices when done by a candidate or agent, and are a minor offence when done by any one else. These are illegal payments, employment and hiring, and printing, publishing or posting a bill, placard or poster not bearing on its face the name of the printer or publisher. Illegal payments are knowingly providing money for prohibited payments or expenses in excess of the maximum, corruptly inducing a candidate to withdraw by payment or promise of payment (the candidate so induced being guilty of the like offence), paying or agreeing to pay for torches, flags, banners, cockades, ribbons and other marks of distinction (the receiver being guilty of the like offence if he is aware of the illegality). Illegal employment is the employment for payment or promise of payment of persons beyond the number allowed by the legislature or for purposes not authorized. The employé is guilty of the like offence if he knows of the illegality. Illegal hiring is the letting or lending, or the employing, hiring, borrowing or using to carry voters to the poll of stage, or hackney carriages, or horses, or of carriages or horses ordinarily let for hire, and the hiring of committee rooms in premises licensed for the sale of intoxicants, in a club (not being a permanent political club) where intoxicants are sold, in premises where refreshments are ordinarily sold, or in a public elementary school in receipt of a parliamentary grant. Personation and aiding, abetting, &c., of personation are felonies punishable with two years' imprisonment with hard labour. All other corrupt practices are indictable misdemeanours (in Scotland, crimes and offences) punishable with one year's imprisonment, with or without hard labour, or a fine not exceeding £200. Conviction of any corrupt practice also renders the offender incapable for seven years of being registered as an elector, or voting at any election, parliamentary or other, in the United Kingdom, or of holding any public or judicial office, or of being elected to or sitting in the House of Commons; and any such office or seat held by him at the time is vacated. In the case of a parliamentary candidate, if an election court finds that there has been treating or undue influence by him, or any other corrupt practice with his knowledge or consent, he becomes incapable of ever being elected for the same constituency, and incurs the like incapacities as if he had been convicted on indictment; if it is found by the election court that he has been guilty by his agents of a corrupt practice, he becomes incapable for seven years of being elected for the same constituency. Illegal practices are offences punishable on summary conviction with a fine not exceeding £100, and with five years' incapacity for being registered or voting as a parliamentary elector, or an elector to public office within the county or borough where the offence was committed. Illegal payments, employment and hiring, and printing and publishing of bills, &c., not bearing the printer's or publisher's name, are, when committed by any one who is not a candidate or agent, offences punishable on summary conviction with a fine not exceeding £100, but carry with them no incapacities. Where an election court finds that any illegal practice has been committed with the knowledge or consent of a parliamentary candidate, he becomes incapable for seven years of being elected to or sitting in the House of Commons for the same constituency. He incurs the like incapacity, limited to the duration of the parliament for which the election was held, if the election court finds that he was guilty by his agents of an illegal practice. A prosecution for any of the above offences cannot be instituted more than a year after the offence was committed, unless an inquiry by election commissioners takes place, in which case it may be instituted at any time within two years from the commission of the offence, not being more than three months after the date of the commissioners' report.

The law as to corrupt and illegal practices, as above stated, applies equally to parliamentary, municipal, county and parish council elections. Incapacities corresponding to those incurred by parliamentary candidates found guilty by an election court are incurred by municipal and other candidates in the like case, e.g. a municipal candidate found personally guilty of a corrupt practice is incapacitated forever, and a candidate found guilty by his agents is incapacitated for three years from holding corporate office in the borough.

See Rogers, *On Elections*, 3 vols.; Fraser, *Law of Parliamentary Elections*.

CORRY, a city of Erie county, Pennsylvania, U.S.A., 37 m. S.E. of Erie, in the N.W. part of the state, at an elevation of about 1430 ft. Pop. (1890) 5677; (1900) 5369 (671 foreign-born); (1910) 5991. It is served by the Erie and the Pennsylvania railways. Corry is situated in the midst of a fine farming region, which is rich in petroleum and natural gas, and is widely known for its mineral springs. One mile W. of the city is a state fish hatchery, and there are fine trout streams in the neighbourhood. Among the city's manufactures are steel, engines, locomotives, radiators, shovels, bricks, flour, furniture and leather. Corry was settled in 1860, and was incorporated as a borough in 1863 and as a city in 1866.

CORSAIR (through the Fr. from the Med. Lat. *cursarius*, a pirate; *cursus*, or *cursa*, from *currere*, to run, being Late Latin for a plundering foray), the name given by the Mediterranean peoples to the privateers of the Barbary coast who plundered the shipping of Christian nations; they were not strictly pirates, as they were commissioned by their respective governments, but the word came to be synonymous, in English, with "pirate." The French word *corsaire* is still used for "privateer," and *guerre de course* is applied to the use in naval warfare of "commerce-destroyers." (See Pirate, Barbary Pirates and Privateer.)

CORSICA (Fr. *Corse*), a large island of the Mediterranean, forming a department of France. It is situated immediately to the north of Sardinia (from which it is separated by the narrow strait of Bonifacio), between 41° 21′ and 43° N. and 8° 30′ and 9° 30′ E. Area, 3367 sq.m. Pop. (1906) 291,160. Corsica lies within 54 m. W. of the coast of Tuscany, 98 m. S. of Genoa and 106 m. S.E. of the French coast at Nice. The extreme length of the island is 114 m. and its breadth 52 m. The greater part of the surface of Corsica is occupied by forest-clad mountains, whose central ridge describes a curve from N.W. to S.W., presenting its convexity towards the E. Secondary chains diverge in all directions from this main range, enclosing small basins both geographically and socially isolated; on the west and south of the island they either terminate abruptly on the shore or run out to a great distance into the sea, forming picturesque bays and gulfs, some of which afford excellent harbours. The highest peaks are the Monts Cinto (8881 ft.), Rotondo (8612), Paglia Orba (8284), Padro (7851) and d'Oro (7845). On the eastern side of the island, between Bastia and Porto Vecchio, there intervenes between the mountains and the sea a considerable tract of low and unhealthy, but fertile country, and the coast is fringed in places by lagoons.

Geology.—Corsica may be divided into two parts, which are geologically distinct, by a line drawn from Belgodere through Corte to the east coast near Favone. West of this line the island is composed chiefly of granite, with a large mass of granophyres, quartz porphyries and similar rocks forming the high mountains around Mt. Cinto; but between the Gulfs of Porto and Galeria, schists, limestones and anthracite, containing fossils of Upper Carboniferous age, occur. The famous orbicular diorite of Corsica is found near Sta. Lucia-di-Tallano in the arrondissement of Sartène. In the eastern part of the island the predominant rocks are schists of unknown age, with intrusive masses of serpentine and euphotide. Folded amongst the schists are Strips of Upper Carboniferous beds similar to those of the west coast. Overlying these more ancient rocks are limestones with Rhaetic and Liassic fossils, occurring in small patches at Oletta, Morosaglia, &c. Nummulitic limestone of Eocene age is found near St Florent, and occupies several large basins near the boundary between the granite and the schist. Miocene molasse with *Clypeaster*, &c., forms the plain of Aleria on the east coast, and occurs also at St Florent in the north and Bonifacio in the south. A small patch of Pliocene has been found near Aleria. The caves of Corsica, especially in the neighbourhood of Bastia, contain numerous mammalian remains, the commonest of which belong to *Lagomys corsicanus*, Cuv.

See Hollande, "Géologie de la Corse," *Ann. sci. géol.*, vol. ix. (1877); Nentien, "Études sur les gîtes minéraux de la Corse," *Ann. Mines Paris*, ser. 9, vol. xii. pp. 231-296, pi. v. (1897).

Corsica is well watered by rivers and torrents, which, though short in their course, bring down large volumes of water from the mountains. The longest is the Golo, which rises in the pastoral region of Niolo, isolated among the mountains to the west of Corte and inhabited by a distinct population of obscure origin. It enters the sea on the east coast to the south of the salt-water lake of Biguglia; farther south, on the same side of the island, is the Tavignano, while on the west there are the Liamone, the Gravone and the Taravo. The other streams are all comparatively small. Owing to the rugged and indented outline of the western coast there are an unusual number of bays and harbours. Of the bays the most important are Porto, Sagone, Ajaccio and Valinco; of the ports, St Florent (San Fiorenzo), Ile Rousse (Isola Rossa), Calvi, Ajaccio and Propriano. On the eastern side, which is much less rugged and broken, the only harbours worth mentioning are those of Bastia and Porto Vecchio (the *Portus Syracusanus* of the ancients), and the only gulfs those of Porto Vecchio and Santa Manza. At the extreme south are the harbour and town of Bonifacio, giving name to the strait which separates Corsica from Sardinia.

The climate of the island ranges from warmth in the lowlands to extreme rigour in the mountains. The intermediate region is the most temperate and healthy. The mean annual temperature at Ajaccio is 63° F. The dominant winds are those from the south-west and south-east.

There are mines of anthracite, antimony and copper; the island produces granite, building stone, marble, and amianthus, and there are salt marshes. Among other places Guagno, Pardina Guitera, and Orezza have mineral springs.

The agriculture of Corsica suffers from scarcity of labour, due partly to the apathy of the inhabitants, and from scarcity of capital. The cultivation of cereals, despite the fertility of the soil, is neglected; wheat is grown to some extent, but in this respect, the population is dependent to a large degree on outside supplies. The culture of fruit, especially of the vine, cedrates, citrons and olives (for which the Balagne region, in the north-west, is noted), of vegetables and of tobacco, and sheep and goat rearing are the main rural industries, to which may be added the rearing of silk-worms. The exploitation of the fine forests, which contain the well-known Corsican pine, beeches, oaks and chestnuts, is also an important resource, but tends to proceed too rapidly. Chestnuts are exported, and, ground into flour, are used as food by the mountaineers. Most of the inhabitants are proprietors of land, but often the properties are so split up that many hours, or even a whole day, are spent in going from the vineyard or olive plantation to the arable land in the plain or the chestnut-wood in the mountain. A great part of the agricultural labour is performed by labourers from Tuscany and Lucca, who periodically visit the island for that purpose. Sheep of a peculiar breed, resembling chamois and known as *mouflons*, inhabit the more inaccessible parts of the mountains. The uncultivated districts are generally overgrown with a thick tangled underwood, consisting of arbutus, myrtle, thorn, laurel broom and other fragrant shrubs, and known as the *maquis*, the fragrance of which can be distinguished even from the sea.

Fishing and shooting are allowed almost everywhere to the possessor of a government licence; special permission, where it is necessary, is easily obtained. Wild boars, stags, in the eastern districts, and hares as well as the *mouflon* are found, while partridges, quail, woodcock, wild duck and water-fowl are abundant. Trout and eels are the chief fish. The flesh of the Corsican blackbird is considered a delicacy. The fisheries of tunny, pilchard and anchovy are extensively prosecuted for the supply of the Italian markets; but comparatively few of the natives are engaged in this industry.

The Corsican is simple and sober but unenterprising; dignified and proud, he is possessed of a native courtesy, manifested in his hospitality to strangers, the refusal of which is much resented. He is, however, implacable towards his own countrymen when his enmity is once aroused, and the practice of the blood-feud or *vendetta* has not died out. Each individual is attached to some powerful family, and the influence of this usage is specially marked in politics, the individual voting with his clan on pain of arousing the vindictiveness of his fellow-members. Another dominant factor in social life in Corsica is the almost universal ambition on the part of the natives towards an official career, a tendency from which commerce and agriculture inevitably suffer.

The manufactures of the island are of small importance. They include the extraction of gallic acid from chestnut-bark, the preparation of preserved citrons and other delicacies, and of macaroni and similar foods and the manufacture of fancy goods and cigars.

The chief ports are Bastia, Ajaccio and Ile Rousse. A railway runs from Bastia to Ajaccio with branches to Calvi and Ghisonaccia, but, in general, lack of means of communication as well as of capital are a barrier to commercial activity. In 1905 imports reached a value of £113,000. The chief were tobacco furniture and wooden goods, wine, cereals, coal, cheese and bran.

Exports were valued at £336,000, and included chestnut-extract, charcoal, timber, citrons and other fruits, seeds, casks, skins, chestnuts and tanning bark.

Corsica is divided into five arrondissements (chief towns—Ajaccio, Bastia, Calvi, Corte and Sartène), with 62 cantons and 364 communes. It forms part of the *académie* (educational circumscription) and archiepiscopal province of Aix (Bouches-du-Rhône) and of the region of the XV. army corps. The principal towns are Ajaccio, the capital and the seat of the bishop of the island and of the prefect; Bastia, the seat of the court of appeal and of the military commander; Calvi, Corte and Bonifacio. Other places of interest are St Florent, near which stand the ruins of the cathedral (12th century) of the vanished town of Nebbio; Murato, which has a church (12th or 13th century) of Pisan architecture, which is exemplified in other Corsican churches; and Cargese, where there is a Greek colony, dating from the 17th century. Near Lucciana are the ruins of a fine Romanesque church called La Canonica. Megalithic monuments are numerous, chief among them being the dolmen of Fontanaccia in the arrondissement of Sartène.

History.—The earliest inhabitants of Corsica were probably Ligurian. The Phocaeans of Ionia were the first civilized people to establish settlements there. About 560 B.C. they landed in the island and founded the town of Alalia. By the end of the 6th century, however, their power had dwindled before that of the Etruscans, who were in their turn driven out by the Carthaginians. The latter were followed by the Romans, who gained a footing in the island at the time of the First Punic War, but did not establish themselves there till the middle of the 2nd century B.C. Both Marius and Sulla founded colonies—the one at Mariana (near Lucciana) in 104, the second at Aleria in 88. In the early centuries of the Christian era Corsica formed one of the senatorial provinces of the Empire, but though it was in continuous commercial communication with Italy, it was better known as a place of banishment for political offenders. One of the most distinguished of those was the younger Seneca, who spent in exile there the eight years ending A.D. 49.

During the break-up of the Roman empire in the West the possession of Corsica was for a while disputed between the Vandals and the Gothic allies of the Roman emperors, until in 469 Genseric finally made himself master of the island. For 65 years the Vandals maintained their domination, the Corsican forests supplying the wood for the fleets with which they terrorized the Mediterranean. After the destruction of the Vandal power in Africa by Belisarius, his lieutenant Cyril conquered Corsica (534) which now, under the exarchate of Africa, became part of the East Roman empire. The succeeding period was one of great misery. Goths and Lombards in turn ravaged the island, which in spite of the prayers of Pope Gregory the Great the exarch of Africa did nothing to defend; the rule of the Byzantines was effective only in grinding excessive taxes out of the wretched population; and, to crown all, in 713 the Mussulmans from the northern coast of Africa made their first descent upon the island. Corsica remained nominally attached to the East Roman empire until Charlemagne, having overthrown the Lombard power in Italy (774), proceeded to the conquest of the island, which now passed into the hands of the Franks. In 806, however, occurred the first of a series of Moorish incursions from Spain. Several times defeated by the emperor’s lieutenants, the Moors continually returned, and in 810 gained temporary possession of the island. They were crushed and exterminated by an expedition under the emperor’s son Charles, but none the less returned again and again. In 828 the defence of Corsica was entrusted to Boniface II., count of the Tuscan march, who conducted a successful expedition against the African Mussulmans, and returning to Corsica built a fortress in the south of the island which formed the nucleus of the town (Bonifacio) that bears his name. Boniface’s war against the Saracens was continued by his son Adalbert, after he had been restored to his father’s dignities in 846; but, in spite of all efforts, the Mussulmans seem to have remained in possession of part of the island until about 930. Corsica, of which Berengar II., king of Italy, had made himself master, became in 962, after his dethronement by Otto the Great, a place of refuge for his son Adalbert, who succeeded in holding the island and in passing it on to his son, another Adalbert. This latter was, however, defeated by the forces of Otto II., and Corsica was once more attached to the marquisate of Tuscany, of which Adalbert was allowed to hold part of the island in fee.

The Terra di Comune.

The period of feudal anarchy now began, a general mellay of petty lords each eager to expand his domain. The counts of Cinarca, especially, said to be descended from Adalbert, aimed at establishing their supremacy over the whole island. To counteract this and similar ambitions, in the 11th century, a sort of national diet was held, and Sambucuccio, lord of Alando, put himself at the head of a movement which resulted in confining the feudal lords to less than half of the island to the south, and in establishing in the rest, henceforth known as the Terra di Comune, a sort of republic composed of autonomous parishes. This system, which survived till the Revolution, is

thus described by Jacobi (tom. i. p. 137), “Each parish or commune nominated a certain number of councillors who, under the name of ‘fathers of the commune,’ were charged with the administration of justice under the direction of a *podestà*, who was as it were their president. The podestas of each of the states or enfranchised districts chose a member of the supreme council charged with the making of laws and regulations for the Terra di Comune. This council or magistracy was called the Twelve, from the number of districts taking a share in its nomination. Finally, in each district the fathers of the commune elected a magistrate who, under the name of *caporale*, was entrusted with the defence of the interests of the poor and weak, with seeing that justice was done to them, and that they were not made the victims of the powerful and rich.”

Meanwhile the south remained under the sway of the counts of Cinarca, while in the north feudal barons maintained their independence in the promontory of Cape Corso. Internal feuds continued; William, marquis of Massa, of the family known later as the Malaspina, was called in by the communes (1020), drove out the count of Cinarca, reduced the barons to order, and in harmony with the communes established a dominion which he was able to hand on to his son. Towards the end of the 11th century, however, the popes laid claim to the island in virtue of the donation of Charlemagne, though the Frankish conqueror had promised at most the reversion of the lands of the Church. The Corsican clergy supported the claim, and in 1077 the Corsicans declared themselves subjects of the Holy See in the presence of the apostolic legate Landolfo, bishop of Pisa. Pope Gregory VII. thereupon invested the bishop and his successors with the island, an investiture confirmed by Urban II. in 1190 and extended into a concession of the full sovereignty. The Pisans now took solemn possession of the island and their “grand judges” (*judices*) took the place of the papal legates. Corsica, valued by the Pisans as by the Vandals as an inexhaustible storehouse of materials for their fleet, flourished exceedingly under the enlightened rule of the great commercial republic. Causes of dissension remained, however, abundant. The Corsican bishops repented their subjection to the Pisan archbishop; the Genoese intrigued at Rome to obtain a reversal of the papal gift to the rivals with whom they were disputing the supremacy of the seas. Successive popes followed conflicting policies in this respect; until in 1138 Innocent II., by way of compromise, divided the ecclesiastical jurisdiction of the island between the archbishops of Pisa and Genoa. This gave the Genoese great influence in Corsica, and the contest between the Pisans and Genoese began to distract the island. It was not, however, till 1195 that the Genoese, by capturing Bonifacio—a nest of pirates preying on the commerce of both republics—actually gained a footing in the country. For twenty years the Pisans fought to recover the fortress for themselves, until in 1217 the pope settled the matter by taking it into his own hands.

Papal sovereignty

Rule of Pisa.

Throughout the 13th century the struggle between Pisans and Genoese continued, reproducing in the island the feud of Ghibellines and Guelphs that was desolating Italy. In order to put a stop to the ruinous anarchy the chiefs of the Terra di Comune called in the marquis Isnard Malaspina; the Pisans set up the count of Cinarca once more; and the war between the marquis, the Pisans and Genoese dragged on with varying fortunes, neither succeeding in gaining the mastery. Then, in 1298, Pope Boniface VIII. added to the complication by investing King James of Aragon with the sovereignty of Corsica and of Sardinia. In 1325, after long delay, the Aragonese attacked and reduced Sardinia, with the result that the Pisans, their sea-power shattered, were unable to hold their own in Corsica. A fresh period of anarchy followed until, in 1347, a great assembly of *caporali* and barons decided to offer the sovereignty of the island to Genoa. A regular tribute was to be paid to the republic; the Corsicans were to preserve their laws and customs, under the council of Twelve in the north and a council of Six in the south; Corsican interests were to be represented at Genoa by an *orator*.

The Genoese domination, which began under evil auspices—for the Black Death killed off some two-thirds of the population—was not destined to bring peace to the island. The feudal barons of the south and the hereditary *caporali* of the north alike resisted the authority of the Genoese governors; and King Peter of Aragon took advantage of their feuds to reassert his claims. In 1372 Arrigo, count of La Rocca, with the assistance of Aragonese troops, made himself master of the island; but his very success stirred up against him the barons of Cape Corso, who once more appealed to Genoa. The republic, busied with other affairs, hit upon the luckless expedient of investing with the governorship of the island a sort of chartered company, consisting of five persons, known as the *Maona*. They attempted to restore order by taking Arrigo della Rocca into partnership, with disastrous results. In 1380 four of the “governors of the Maona” resigned their rights to the Genoese republic, and Leonello Lomellino was left as sole governor. It was he who, in 1383, built Bastia on the north coast, which became the bulwark of the Genoese

Genoese domination.

power in the island. It was not till 1401, after the death of Count Arrigo, that the Genoese domination was temporarily re-established.

Meanwhile Genoa itself had fallen into the hands of the French, and in 1407 Leonello Lomellino returned as governor with the title of count of Corsica bestowed on him by Charles VI. of France. But Vincentello d' Istria, who had gained distinction in the service of the king of Aragon, had captured Cinarca, rallied round him all the communes of the Terra di Comune, proclaimed himself count of Corsica at Biguglia and even seized Bastia. Lomellino was unable to make headway against him, and by 1410 all Corsica, with the exception of Bonifacio and Calvi, was lost to Genoa, now once more independent of France. A feud of Vincentello with the bishop of Mariana, however, led to the loss of his authority in the Terra di Comune; he was compelled to go to Spain in search of assistance, and in his absence the Genoese reconquered the island. Not, however, for long. The Great Schism was too obvious an opportunity for quarrelling for the Corsicans to neglect; and the Corsican bishops and clergy were more ready with the carnal than with spiritual weapons. The suffragans of Genoa fought for Benedict XIII., those of Pisa for John XXIII.; and when Vincentello returned with an Aragonese force he was able to fish profitably in troubled waters. He easily captured Cinarca and Ajaccio, came to terms with the Pisan bishops, mastered the Terra di Comune and built a strong castle at Corte; by 1419 the Genoese possessions in Corsica were again reduced to Calvi and Bonifacio.

Aragonese intervention.

At this juncture Alphonso of Aragon arrived, with a large fleet, to take possession of the island. Calvi fell to him; but Bonifacio held out, and its resistance gave time for the Corsicans, aroused by the tyranny and exactions of the Aragonese, to organize revolt. In the end the siege of Bonifacio was raised, and the town, confirmed in its privileges, became practically an independent republic under Genoese protection. As for Vincentello he managed to hold his own for a while; but ultimately the country rose against him, and in 1435 he was executed as a rebel by the Genoese, who had captured him by surprise in the port of Bastia.

The anarchy continued, while rival factions, nominal adherents of the Aragonese and Genoese, contended for the mastery. Profiting by the disturbed situation, the Genoese doge, Janus da Fregoso, succeeded in reducing the island, his artillery securing him an easy victory over the forces of Count Paolo della Rocca (1441). To secure his authority he built and fortified the new city of San Fiorenzo, near the ruins of Nebbio. But again the Aragonese intervened, and the anarchy reached its height. An appeal to Pope Eugenius IV. resulted in the despatch of a pontifical army of 14,000 men (1444), which was destroyed in detail by a league of some of the *caporali* and most of the barons under the bold leadership of Rinuccio da Leca. A second expedition was more fortunate, and Rinuccio was killed before Biguglia. In 1447 Eugenius was succeeded on the papal throne by Nicholas V., a Genoese, who promptly made over his rights in Corsica, with all the strong places held by his troops, to Genoa. The island was now, in effect, divided between the Genoese republic; the lords of Cinarca, who held their lands in the south under the nominal suzerainty of Aragon; and Galeazzo da Campo Fregoso, who was supreme in the Terra di Comune.

The Bank of San Giorgio.

An assembly of the chiefs of the Terra di Comune now decided to offer the government of the island to the Company or Bank of San Giorgio, a powerful commercial corporation established at Genoa in the 14th century.[1] The bank accepted; the Spaniards were driven from the country; and a government was organized. But the bank soon fell foul of the barons, and began a war of extermination against them. Their resistance was finally broken in 1460, when the survivors took refuge in Tuscany. But order had scarcely been established when the Genoese Tommasinoda Campo Fregoso, whose mother was a Corsican, revived the claims of his family and succeeded in mastering the interior of the island (1462). Two years later the duke of Milan, Francesco Sforza, overthrew the power of the Fregoso family at Genoa, and promptly proceeded to lay claim to Corsica. His lieutenant had no difficulty in making the island accept the overlordship of the duke of Milan; but when, in 1466, Francesco Sforza died, a quarrel broke out, and Milanese suzerainty became purely nominal save in the coast towns. Finally, in 1484, Tommasino da Campo Fregoso persuaded the duke to grant him the government of the island. The strong places were handed over to him; he entered into marriage relations with Gian Paolo da Leca, the most powerful of the barons, and was soon supreme in the island.

Milanese intervention.

Within three years the Corsicans were up in arms again. A descendant of the Malaspinas who had once ruled in Corsica, Jacopo IV. (d'Appiano), was now prince of Piombino, and to him the malcontents applied. His brother Gherardo, count of Montagnano, accepted the call, proclaimed himself count of Corsica, and, landing in the island, captured Biguglia and San Fiorenzo; whereupon Tommasino da Campo Fregoso discreetly sold his rights to the bank of San Giorgio. No sooner, however, had the bank—with the assistance of the count of Leca—

beaten Count Gherardo than the Fregoso family tried to repudiate their bargain. Their claims were supported by the count of Leca, and it cost the agents of the bank some hard fighting before the turbulent baron was beaten and exiled to Sardinia. Twice he returned, and he was not finally expelled from the country till 1501; it was not till 1511 that the other barons were crushed and that the bank could consider itself in secure possession of the island.

If the character of the Corsicans has been distinguished in modern times for a certain wild intractableness and ferocity, the cause lies in their unhappy past, and not least in the character of the rule established by the bank of San Giorgio. The power which the bank had won by ruthless cruelty, it exercised in the spirit of the narrowest and most short-sighted selfishness. Only a shadow of the native institutions was suffered to survive, and no adequate system of administration was set up in the place of that which had been suppressed. In the absence of justice the blood-feud or *vendetta* grew and took root in Corsica just at the time when, elsewhere in Europe, the progress of civilization was making an end of private war. The agents of the bank, so far from discouraging these internecine quarrels, looked on them as the surest means for preventing a general rising. Concerned, moreover, only with squeezing taxes out of a recalcitrant population, they neglected the defence of the coast, along which the Barbary pirates harried and looted at will; and to all these woes were added, in the 16th century, pestilences and disastrous floods, which tended still further to impoverish and barbarize the country.

In these circumstances King Henry II. of France conceived the project of conquering the island. From Corsican mercenaries in French service, men embittered by wrongs suffered at the hands of the Genoese, he obtained all the necessary information; by a treaty of alliance concluded at Constantinople (February 1, 1553) with Sultan Suleiman the Magnificent he secured the co-operation of the Turkish fleet. The combined forces attacked the island the same year; the citadel of Bastia fell almost without a blow, and siege was at once laid simultaneously to all the other fortresses. The capitulation of Bonifacio to the Turks, after an obstinate resistance, was followed by the treacherous massacre of the garrison; soon, of all the strong places, the Genoese held Calvi alone. At this juncture the emperor Charles V. intervened; a strong force of imperial troops and Genoese was poured into the island, and the tide of war turned. The details of the struggle that followed, in which the Corsican national hero Sampiero da Bastelica gained his first laurels, are of little general importance. Fortresses were captured and recaptured; and for three years French, Germans, Spaniards, Genoese and Corsicans indulged in a carnival of mutual slaughter and outrage. The outcome of all this was a futile reversion to the *status quo*. In 1556, indeed, the conclusion of a truce left Corsica—with the exception of Bastia—in the hands of the French, who proceeded to set up a tolerable government; but in 1559, by the treaty of Cateau-Cambrésis, the island was restored to the bank of San Giorgio, from which it was at once taken over by the Genoese republic.

First French Intervention, 1553.

Trouble at once began again. The Genoese attempted to levy a tax which the Corsicans refused to pay; in violation of the terms of the treaty, which had stipulated for a universal amnesty, they confiscated the property of Sampiero da Bastelica. Hereupon Sampiero again put himself at the head of the national movement. The suzerainty of the Turk seemed preferable to that of Genoa, and, armed with letters from the king of France, he went to Constantinople to ask the aid of a fleet for the purpose of reducing Corsica to the status of an Ottoman province.[2] All his efforts to secure foreign help were, however, vain; he determined to act alone, and in June 1564 landed at Valinco with only fifty followers. His success was at first extraordinary, and he was soon at the head of 8000 men; but ultimate victory was rendered impossible by the indiscipline among the Corsicans and by the internecine feuds of which the Genoese well knew how to take advantage. For over two years a war was waged in which quarter was given on neither side; but after the assassination of Sampiero in 1567 the spirit of the insurgents was broken. In 1568 an honourable peace, including a general amnesty, was arranged with the Genoese commander Giorgio Doria by Sampiero’s son Alphonso d’Ornano, who with 300 of his friends emigrated to France, where he rose to be a marshal under Henry IV.

Sampiero da Bastelica.

From this time until 1729 Corsica remained at peace under the government of Genoa. It was, however, a peace due to lassitude and despair rather than contentment. The settlement of 1568 had reserved a large measure of autonomy to the Corsicans; during the years that followed this was withdrawn piecemeal, until, disarmed and powerless, they were excluded from every office in the administration. Nor did the Genoese substitute any efficient system for that which they had destroyed. In the absence of an effective judiciary the *vendetta* increased; in the absence of effective protection the sea-board was exposed to the ravages of the Barbary pirates, so that the coast villages and towns were abandoned and the inhabitants withdrew into the interior, leaving the most fertile part of the country to fall into the condition

of a malarious waste. To add to all this, in 1576 the population had been decimated by a pestilence. Emigration *en masse* continued, and an attempt to remedy this by introducing a colony of Greeks in 1688 only added one more element of discord to the luckless island. To the Genoese Corsica continued to be merely an area to be exploited for their profit; they monopolized its trade; they taxed it up to and beyond its capacity; they made the issue of licences to carry firearms a source of revenue, and studiously avoided interfering with the custom of the *vendetta* which made their fiscal expedient so profitable.[3]

In 1729 the Corsicans, irritated by a new hearth-tax known as the *due seini*, rose in revolt, their leaders being Andrea Colonna Ceccaldi and Luigi Giafferi. As usual, the Genoese were soon confined to a few coast towns; but the intervention of the emperor Charles VI. and the despatch of a large force of German mercenaries turned the tide of war, and in 1732 the authority of Genoa was re-established. Two years later, however, Giacinto Paoli once more raised the standard of revolt; and in 1735 an assembly at Corte proclaimed the independence of Corsica, set up a constitution, and entrusted the supreme leadership to Giafferi, Paoli and Ceccaldi. Though the Genoese were again driven into the fortresses, lack of arms and provisions made any decisive success of the insurgents impossible, and when, on the 12th of March 1736, the German adventurer Baron Theodor von Neuhof arrived with a shipload of muskets and stores and the assurance of further help to come, leaders and people were glad to accept his aid on his own conditions, namely that he should be acknowledged as king of Corsica. On the 15th of April, at Alesani, an assembly of clergy and of representatives of the communes, solemnly proclaimed Corsica an independent kingdom under the sovereignty of Theodore “I.” and his heirs. The new king’s reign was not fated to last long. The *opéra bouffe* nature of his entry on the stage—he was clad in a scarlet caftan, Turkish trousers and a Spanish hat and feather, and girt with a scimitar—did not, indeed, offend the unsophisticated islanders; they were even ready to take seriously his lavish bestowal of titles and his knightly order “della Liberazione”; they appreciated his personal bravery; and the fact that the Genoese government denounced him as an impostor and set a price on his head could only confirm him in their affection. But it was otherwise when the European help that he had promised failed to arrive, and, still worse, the governments with which he had boasted his influence disclaimed him. In November he thought it expedient to proceed to the continent, ostensibly in search of aid, leaving Giafferi, Paoli and Luca d’Ornano as regents. In spite of several attempts, he never succeeded in returning to the island. The Corsicans, weary of the war, opened negotiations with the Genoese; but the refusal of the latter to regard the islanders as other than rebels made a mutual agreement impossible. Finally the republic decided to seek the aid of France, and in July 1737 a treaty was signed by which the French king bound himself to reduce the Corsicans to order.

Revolt of 1729.

King Theodore of Corsica.

The object of the French in assisting the Genoese was not the acquisition of the island for themselves so much as to obviate the danger, of which they had long been aware, of its falling into the hands of another power, notably Great Britain. The Corsicans, on the other hand, though ready enough to come to terms with the French king, refused to acknowledge the sovereignty of Genoa even when backed by the power of France. A powerful French force, under the comte de Boissieux, arrived in the spring of 1738, and for some months negotiations proceeded. But the effect of the French guarantee of Corsican liberties was nullified by the demand that the islanders should surrender their arms, and the attempt of Boissieux to enforce the order for disarmament was followed, in the winter of 1738-39, by his defeat at the hands of the Corsicans and by the cutting up of several isolated French detachments. In February 1739 Boissieux died. His successor, the marquis de Maillebois, arrived in March with strong reinforcements, and by a combination of severity and conciliation soon reduced the island to order. Its maintenance, however, depended on the presence of the French troops, and in October 1740 the death of the emperor Charles VI. and the outbreak of the War of the Austrian Succession necessitated their withdrawal. Genoese and Corsicans were once more left face to face, and the perennial struggle began anew.

Intervention of France, 1738.

In 1743 “King Theodore,” supported by a British squadron, made a descent on the island, but finding that he no longer possessed a following, departed never to return. The Corsicans, assembled in diet at Casinca, now elected Giampietro Gaffori and Alerio Matra as generals and “protectors of the fatherland” (*protettori della patria*), and began a vigorous onslaught on the Genoese strongholds. They were helped now by the sympathy and active aid of European powers, and in 1746 Count Domenico Rivarola, a Corsican in Sardinian service, succeeded in capturing Bastia and San Fiorenzo with the aid of a British squadron and Sardinian troops. The factious spirit of the Corsicans themselves was, however, their worst

Sardinian and British Intervention, 1746.

enemy. The British commander judged it inexpedient to intervene in the affairs of a country of which the leaders were at loggerheads; Rivarola, left to himself, was unable to hold Bastia—a place of Genoese sympathies—and in spite of the collapse of Genoa itself, now in Austrian hands, the Genoese governor succeeded in maintaining himself in the island. By the time of the signature of the peace of Aix-la-Chapelle, in 1748, the situation of the island had again changed. Rivarola and Matra had departed, and Gaffori was left nominally supreme over a people torn by intestine feuds. Genoa, too, had expelled the Austrians with French aid, and, owing to a report that the king of Sardinia was meditating a fresh attempt to conquer the island, a strong French expedition under the marquis de Cursay had, at the request of the republic, occupied Calvi, Bonifacio, Ajaccio and Bastia. By the terms of the treaty of Aix-la-Chapelle, Corsica was once more assigned to Genoa, but the French garrison remained, pending a settlement between the republic and the islanders. In view of the intractable temper of the two parties no agreement could be reached; but Cursay's personal popularity served to preserve the peace for a while. His withdrawal in 1752, however, was the signal for a general rising, and once more, at a diet held at Orezza, Gaffori was elected general and protector. In October of the following year, however, he fell victim to a *vendetta* and the nation was once more leaderless. His place was taken for a while by Clemente Paoli, son of Giacinto, who for a year or two succeeded, with the aid of other lieutenants of Gaffori, in holding the Genoese at bay. He was, however, by temperament unfitted to lead a turbulent and undisciplined people in time of stress, and in 1755, at his suggestion, his brother Pasquale was invited to come from Naples and assume the command.

Renewed French Intervention.

The first task of Pasquale Paoli, elected general in April at an assembly at San Antonio della Casabianca, was to suppress the rival faction led by Emanuele Matra, son of Gaffori's former colleague. By the spring of 1756 this was done, and the Corsicans were able to turn a united front against the Genoese. At this juncture the French, alarmed by a supposed understanding between Paoli and the British, once more intervened, and occupied Calvi, Ajaccio and San Fiorenzo until 1757, when their forces were once more called away by the wars on the continent. In 1758 Paoli renewed the attack on the Genoese, founding the new port of Isola Rossa as a centre whence the Corsican ships could attack the trading vessels of Genoa. The republic, indeed, was now too weak to attempt seriously to reassert its sway over the island, which, with the exception of the coast towns, Paoli ruled with absolute authority and with conspicuous wisdom. In the intervals of fighting he was occupied in reducing Corsican anarchy into some sort of civilized order. The vendetta was put down, partly by religious influence, partly with a stern hand; the surviving oppressive rights of the feudal *signori* were abolished; and the traditional institutions of the Terra di Comune were made the basis of a democratic constitution for the whole island.

Pasquale Paoli.

As regarded the relations of Corsica all now depended on the attitude of France to which both Paoli and the republic made overtures. In 1764 a French expedition under the comte de Marbeuf arrived, and, by agreement with Genoa, garrisoned three of the Genoese fortresses. Though Genoese sovereignty had been expressly recognized in the agreement authorizing this, it was in effect non-existent. French and Corsicans remained on amicable terms, and the inhabitants of the nominally Genoese towns actually sent representatives to the national *consulta* or parliament. The climax came early in 1767 when the Corsicans captured the Genoese island of Capraja, and occupied Ajaccio and other places, evacuated by the French as a protest against the asylum given to the Jesuits exiled from France. Genoa now recognized that she had been worsted in the long contest, and on the 15th of May 1768 signed a treaty selling the sovereignty of the island to France.

Corsica sold to France.

The Corsicans, intent on independence, were now faced with a more formidable enemy than the decrepit republic of Genoa. A section of the people indeed, were in favour of submission; but Paoli himself declared for resistance; and among those who supported him at the *consulta* summoned to discuss the question was his secretary Carlo Buonaparte, father of Napoleon Bonaparte, the future emperor of the French. Into the details of the war that followed, it is impossible to enter here; in the absence of the hoped-for help from Great Britain its issue could not be doubtful; and, though the task of the French was a hard one, by the summer of 1769 they were masters of the island. On the 16th of June Pasquale and Clemente Paoli, with some 400 of their followers, embarked on a British ship for Leghorn. On the 15th of September 1770, a general assembly of the Corsicans was summoned and the deputies swore allegiance to King Louis XV.

French conquest.

For twenty years Corsica, while preserving many of its old institutions, remained a dependency of the French crown. Then came the Revolution, and the island, conformed to the

Corsica and the revolution of 1789.

new model, was incorporated in France as a separate department (see Renucci, ii. p. 271 seq.). Paoli, recalled from exile by the National Assembly on the motion of Mirabeau, after a visit to Paris, where he was acclaimed as "the hero and martyr of liberty" by the National Assembly and the Jacobin Club, returned in 1790 to Corsica, where he was received with immense enthusiasm and acclaimed as "father of the country." With the new order in the island, however, he was little in sympathy. In the towns branches of the Jacobin Club had been established, and these tended, as elsewhere, to usurp the functions of the regular organs of government and to introduce a new element of discord into a country which it had been Paoli's life's work to unify. Suspicions of his loyalty to revolutionary principles had already been spread at Paris by Bartolomeo Arena, a Corsican deputy and ardent Jacobin, so early as 1791; yet in 1792, after the fall of the monarchy, the French government, in its anxiety to secure Corsica, was rash enough to appoint him lieutenant-general of the forces and governor (*capo comandante*) of the island. Paoli accepted an office which he had refused two years before at the hands of Louis XVI. With the men and methods of the Terror, however, he was wholly out of sympathy. Suspected of throwing obstacles in the way of the expedition despatched in 1793 against Sardinia, he was summoned, with the procurator-general Pozzo di Borgo, to the bar of the Convention. Paoli now openly defied the Convention by summoning the representatives of the communes to meet in diet at Corte on the 27th of May. To the remonstrances of Saliceti, who attended the meeting, he replied that he was rebelling, not against France, but against the dominant faction of whose actions the majority of Frenchmen disapproved. Saliceti thereupon hurried to Paris, and on his motion Paoli and his sympathizers were declared by the Convention *hors la loi* (June 26).

Revolt under Paoli.

Paoli had already made up his mind to raise the standard of revolt against France. But though the *consulta* at Corte elected him president, Corsican opinion was by no means united. Napoleon Bonaparte, whom Paoli had expected to win over to his views, indignantly rejected the idea of a breach with France, and the Bonapartes were henceforth ranked with his enemies. Paoli now appealed for assistance to the British government, which despatched a considerable force. By the summer of 1794, after hard fighting, the island was reduced, and in June the Corsican assembly formally offered the sovereignty to King George III. The British occupation lasted two years, the island being administered by Sir Gilbert Elliot. Paoli, whose presence was considered inexpedient, was invited to return to England, where he remained till his death. In 1796 Bonaparte, after his victorious Italian campaign, sent an expedition against Corsica. The British, weary of a somewhat thankless task, made no great resistance, and in October the island was once more in French hands. It was again occupied by Great Britain for a short time in 1814, but in the settlement of 1815 was restored to the French crown. Its history henceforth is part of that of France.

British occupation, 1794-1796.

See F. Girolami-Cortona, *Géographie générale de la Corse* (Ajaccio, 1893); A. Andrei, *À travers la Corse* (Paris, 1893); Forcioli-Conti, *Notre Corse* (Ajaccio, 1897); R. Le Joindre, *La Corse et les Corses* (Paris, 1904); F. O. Renucci, *Storia di Corsica* (2 vols., Bastia, 1833), fervidly Corsican, but useful; Antonio Pietro Filippini, *Istoria di Corsica* (1st ed., 1594; 2nd ed., corrected and illustrated with unpublished documents by G. C. Gregori, 5 vols., Pisa, 1827-1832); J. M. Jacobi, *Hist. gén. de la Corse*, 2 vols., (Paris, 1833-1835), with many unpublished documents; L. H. Caird, *History of Corsica* (London, 1899). Further works and references to articles in reviews, &c., are given in Ulysse Chevalier's *Répertoire des sources*, &c., *Topo-bibliographie*, t. ii. s.v.

1 See "Conventions entre quelques seigneurs Corses et l'office de St Georges (1453)," in *Bulletin soc. scientif. Corse* (1881-1882), pp. 286, 305, 413, 501, 549 and (1883) 147; also the report of the deputies sent by the bank to Pope Nicholas V. in 1453, ib. p. 141.

2 Hammer-Purgstall, *Gesch. des Osmanischen Reichs* (Pest, 1840), ii. 288.

3 Father Cancellotti, who visited every part of the island, estimated the number of murders committed in 20 years at 28,000 (quoted in the article on Corsica in *La Grande Encyclopédie*).

CORSICANA, a city and the county-seat of Navarro county, Texas, U.S.A., situated in the N.E. part of the state, about 55 m. S. of Dallas. Pop. (1890) 6285; (1900) 9313, of whom 2399 were of negro descent; (1910 census) 9749. It is served by the Houston & Texas Central, the

St Louis South Western, and the Trinity & Brazos Valley railways. It is the centre of a large and productive wheat- and cotton-growing region, which has also numerous oil wells (with a total production in 1907 of 226,311 barrels). The city has two oil refineries, a large cotton gin and a cotton compress, and among its manufactures are cotton-seed oil, cotton-cloth, flour and ice. The total value of the factory product in 1905 was $1,796,805, being an increase of 50.3% since 1900. Natural gas is extensively used for fuel and for lighting. Corsicana is the seat of the Texas state orphan home and of an Odd Fellows widows' and orphans' home, and has a Carnegie library. Corsicana was named in honour of the wife of a Mexican, Navarro, who owned a large tract of land in the county and from whom the county was named. The first permanent settlement here was made in 1848, and Corsicana was incorporated as a village in 1850 and chartered as a city in 1871.

CORSINI, the name of a Florentine princely family, of which the founder is said to be Neri Corsini, who flourished about the year 1170. Like other Florentine nobles the Corsini had at first no titles, but in more recent times they received many from foreign potentates and from the later grand dukes of Tuscany. The emperor Charles IV. created the head of the house a count palatine in 1371; the marquisate of Sismano was conferred on them in 1620, those of Casigliano and Civitella in 1629, of Lajatico and Orciatico in 1644, of Giovagallo and Tresana in 1652; in 1730 Lorenzo Corsini was elected pope as Clement XII., and conferred the rank of Roman princes and the duchy of Casigliano on his family, and in 1732 they were created grandees of Spain. They own two palaces in Florence, one of which on the Lung' Arno Corsini contains the finest private picture gallery in the city, and many villas and estates in various parts of Italy.

See L. Passerini, *Genealogia e storia della famiglia Corsini* (Florence, 1858); A. von Reumont, *Geschichte der Stadt Rom* (Berlin, 1868); *Almanach de Gotha*.

(L. V.*)

CORSON, HIRAM (1828-), American scholar, was born on the 6th of November 1828, in Philadelphia, Pennsylvania. He held a position in the library of the Smithsonian Institution, Washington D.C. (1849-1856), was a lecturer on English literature in Philadelphia (1859-1865), and was professor of English at Girard College, Philadelphia (1865-1866), and in St John's College, Annapolis, Maryland (1866-1870). In 1870-1871 he was professor of rhetoric and oratory at Cornell University, where he was professor of Anglo-Saxon and English literature (1872-1886), of English literature and rhetoric (1886-1890), and from 1890 to 1903 (when he became professor emeritus) of English literature, a chair formed for him. He edited Chaucer's *Legende of Goode Women* (1863) and *Selections from Chaucer's Canterbury Tales* (1896), and wrote a *Hand-Book of Anglo-Saxon and Early English* (1871), and, among other text-books, *An Elocutionary Manual* (1864), *A Primer of English Verse* (1892), and *Introductions* to the study of Browning (1886, 1889), of Shakespeare (1889) and of Milton (1899). The volume on Shakespeare and the *Jottings on the Text of Macbeth* (1874) contain some excellent Shakespearian criticism. He also published *The University of the Future* (1875), *The Aims of Literary Study* (1895), and *The Voice and Spiritual Education* (1896). He translated the *Satires of Juvenal* (1868) and edited a translation by his wife, Caroline Rollin (d. 1901), of Pierre Janet's *Mental State of Hystericals* (1901).

CORSSEN, WILHELM PAUL (1820-1875), German philologist, was born at Bremen on the 20th of January 1820, and received his school education in the Prussian town of Schwedt, to which his father, a merchant, had removed. After spending some time at the Joachimsthal Gymnasium in Berlin, where his interest in philological pursuits was awakened by the rector, Meinike, he proceeded to the university, and there came especially under the influence of

Böckh and Lachmann. His first important appearance in literature was as the author of *Origines poesis romanae*, by which he had obtained the prize offered by the "philosophical" or "arts" faculty of the university. In 1846 he was called from Stettin, where he had for nearly two years held a post in the gymnasium, to occupy the position of lecturer in the royal academy at Pforta (commonly called Schulpforta), and there he continued to labour for the next twenty years. In 1854 he won a prize offered by the Royal Prussian Academy of Sciences for the best work on the pronunciation and accent of Latin, a treatise which at once took rank, on its publication under the title of *Über Aussprache, Vocalismus, und Betonung der lateinischen Sprache* (1858-1859), as one of the most erudite and masterly works in its department. This was followed in 1863 by his *Kritische Beiträge zur lat. Formenlehre*, which were supplemented in 1866 by *Kritische Nachträge zur lat. Formenlehre*. In the discussion of the pronunciation of Latin he was naturally led to consider the various old Italian dialects, and the results of his investigations appeared in miscellaneous communications to Kuhn's *Zeitschrift für vergleichende Schriftforschung*. Ill-health obliged him to give up his professorship at Pforta, and return to Berlin, in 1866; but it produced almost no diminution of his literary activity. In 1867 he published an elaborate archaeological study entitled the *Alterthümer und Kunstdenkmale des Cistercienserklosters St Marien und der Landesschule Pforta*, in which he gathers together all that can be discovered about the history of the Pforta academy, the German "Eton," and in 1868-1869 he brought out a new edition of his work on Latin pronunciation. From a very early period he had been attracted to the special study of Etruscan remains, and had at various times given occasional expression to his opinions on individual points; but it was not till 1870 that he had the opportunity of visiting Italy and completing his equipment for a formal treatment of the whole subject by personal inspection of the monuments. In 1874 appeared the first volume of *Über die Sprache der Etrusker*, in which with great ingenuity and erudition he endeavoured to prove that the Etruscan language was cognate with that of the Romans. Before the second volume (published posthumously under the editorship of Kuhn) had received the last touches of his hand, he was cut off in 1875 by a comparatively early death.

CORT, CORNELIS (1536-1578), Dutch engraver, was born at Horn in Holland, and studied engraving under Hieronymus Cockx of Antwerp. About 1565 he went to Venice, where Titian employed him to execute the well-known copperplates of St Jerome in the Desert, the Magdalen, Prometheus, Diana and Actaeon, and Diana and Calisto. From Italy he wandered back to the Netherlands, but he returned to Venice soon after 1567, proceeding thence to Bologna and Rome, where he produced engravings from all the great masters of the time. At Rome he founded the well-known school in which, as Bartsch tells us, the simple line of Marcantonio was modified by a brilliant touch of the burin, afterwards imitated and perfected by Agostino Caracci in Italy and Nicolas de Bruyn in the Netherlands. Before visiting Italy, Cort had been content to copy Michael Coxcie, F. Floris, Heemskerk, G. Mostaert, Bartholomäus Spranger and Stradan. In Italy he gave circulation to the works of Raphael, Titian, Polidoro da Caravaggio, Baroccio, Giulio Clovio, Muziano and the Zuccari. His connexion with Cockx and Titian is pleasantly illustrated in a letter addressed to the latter by Dominick Lampson of Liége in 1567. Cort is said to have engraved upwards of one hundred and fifty-one plates. In Italy he was known as Cornelio Fiammingo.

CORTE, a town of central Corsica, 52 m. N.E. of Ajaccio by the railway between that town and Bastia. Pop. (1906) 4839. The upper town is situated on a precipitous rock overhanging the confluence of the Tavignano and Restonica, the rest of the town lying below it on both banks of the rivers. On the summit of the rock stands a citadel built by Vincentello d'Istria (see Corsica). Other interesting buildings are the house in which Pasquale Paoli lived while Corte was the seat of his government (1755 to 1769), and the house of another patriot, Giampietro Gaffori, whose wife defended it from the Genoese in 1750. There are statues of Paoli, of General Gaffori, and of General Arrighi di Casanova, duke of Padua (d. 1853). Corte is capital of an arrondissement of the island, has a subprefecture, a tribunal of first instance and a communal college, and manufactures alimentary paste. There are marble quarries in the

vicinity, and the town has trade in wine and timber. In the 18th century Corte was the centre of the resistance to the Genoese, and it was the seat of a university erected by Paoli.

CORTE-REAL, JERONYMO (1533-1588), Portuguese epic poet, came of a noble Portuguese stock. Of the same family were Gaspar Corte-Real, who in 1500 and 1501 sailed to Labrador and the Arctic seas; and his brothers Miguel and Vasco. Their voyages opened the way for important Portuguese fisheries on the Newfoundland coast (see Henry Harrisse, *Les Corte-Real et leurs voyages au Nouveau-Monde*, and *Gasper Corte-Real: la date exacte de sa dernière expédition au Nouveau-Monde*, Paris, 1883). In his youth Jeronymo fought in Africa and Asia according to the custom of noblemen in that age. There is a tradition that he was present at the affair of Tangier on the 18th of May 1553, when D. Pedro de Menezes met his death. Returning home, it is supposed about 1570, he spent the rest of his days in retirement. In 1578 he placed his sword at the disposal of King Sebastian for the fatal expedition to Africa, but the monarch dispensed him from the journey (it is said) on account of his age, and in 1586 we find him acting as *provedor* of the *Misericordia* of Evora. He married D. Luiza da Silva, but left no legitimate issue. Corte-Real was painter as well as soldier and poet, and one of his pictures is still preserved in the church of S. Antão at Evora. His poetical works are believed to have been composed in his old age at the mansion on his estate near Evora, known as "Valle de Palma." *O Segundo cerco de Diu*, an epic in 21 cantos, deals with the historic siege of that Indian island-fortress of the Portuguese. First printed in 1574, it had a second edition in 1783, while a Spanish version appeared at Alcalá in 1597. *Austriada*, an epic in 15 cantos celebrating the victory of Don John of Austria over the Turks at Lepanto, was written in Spanish and published in 1578. King Philip II. accepted the dedication in flattering terms and visited the poet when he came to Portugal. *Naufragio de Sepulveda*, an epic in 17 cantos, describes the tragic shipwreck on the South African coast and the death of D. Manoel de Sepulveda with his beautiful wife and young children, a disaster which drew some feeling stanzas from Camoens (*Lusiads*, v. 46). The poem was published four years after the death of Corte-Real by his heirs, and had two later editions, while a Spanish version appeared in Madrid in 1624 and a French in Paris in 1844. *Auto dos quatro novissimos do homem* is a short poem printed in 1768. Except the *Naufragio de Sepulveda*, which is highly considered in Portugal, Corte-Real's poetry has hardly stood the test of time, and critics of later generations have refused to ratify the estimate formed by contemporaries, who considered him the equal, if not the superior, of Camoens. His lengthy epics suffer from a want of sustained inspiration, and are marred by an abuse of epithet, though they contain episodes of considerable merit, vigorous and well-coloured descriptive passages, and exhibit a pure diction.

See *Subsidios para a biographia do poeta Jeronymo Corte-Real* (Evora, 1899); also Ernesto do Canto's Memoir on the family in Nos. 23 and 24 of the *Archivo dos Azores*, and Dr Sousa Viterbo's *Trabalhos nauticos dos Portuguezes*, ii. 153 et seq.

(E. Pr.)

CORTES, HERNAN or **HERNANDO** (1485-1547), Spanish soldier, the conqueror of Mexico, was born at Medellin, a small town of Estremadura, in 1485. He belonged to a noble family of decayed fortune, and, being destined for the law, was sent, at fourteen years of age, to the university of Salamanca; but study was distasteful to him, and he returned home in 1501, resolved to enter upon a life of adventure. He arranged to accompany Ovando, who had been appointed to the command of San Domingo, but was prevented from joining the expedition by an accident that happened to him in a love adventure. He next sought military service under the celebrated Gonsalvo de Córdoba, but a serious illness frustrated his purpose. At last, in 1504, he set out, according to his first plan, for San Domingo, where he was kindly received by Ovando. He was then only nineteen, and remarkable for a graceful physiognomy and amiable manners, as well as for skill and address in all military exercises. He remained in San Domingo, where Ovando had successively conferred upon him several lucrative and honourable employments, until 1511, when he accompanied Diego Velazquez in his expedition to the island of Cuba. Here he became alcalde of Santiago, and displayed great ability on several trying occasions.

An opportunity was soon afforded him of showing his powers as a military leader. Juan Grijalva, lieutenant of Velazquez, had just discovered Mexico, but had not attempted to effect a settlement. This displeased the governor of Cuba, who superseded Grijalva, and entrusted the conquest of the newly discovered country to Cortes. The latter hastened his preparations, and, on the 18th of November 1518, he set out from Santiago, with 10 vessels, 600 or 700 Spaniards, 18 horsemen and some pieces of cannon. Scarcely had he set sail, however, when Velazquez recalled the commission which he had granted to Cortes, and even ordered him to be put under arrest; but the attachment of the troops, by whom he was greatly beloved, enabled him to persevere in spite of the governor; and on the 4th of March 1519 he landed on the coast of Mexico. Advancing along the gulf, sometimes taking measures to conciliate the natives, and sometimes spreading terror by his arms, he took possession of the town of Tobasco. The noise of the artillery, the appearance of the floating fortresses which had transported the Spaniards over the ocean, and the horses on which they fought, all new objects to the natives, inspired them with astonishment mingled with terror and admiration; 206
they regarded the Spaniards as gods, and sent them ambassadors with presents. Cortes here learned that the native sovereign was called Montezuma; that he reigned over an extensive empire, which had lasted for three centuries; that thirty vassals, called caciques, obeyed him; and that his riches were immense and his power absolute. No more was necessary to inflame the ambition of the invader, who did not hesitate to undertake the conquest of this great empire, which could only be effected by combining stratagem and address with force and courage. He laid the foundation of the town of Vera Cruz, caused himself to be elected captain-general of the new colony, and burned his vessels to cut off the possibility of retreat and show his soldiers that they must either conquer or perish. He then penetrated into the interior of the country, drew to his camp several caciques hostile to Montezuma, and induced these native princes to facilitate his progress. The republic of Tlaxcala, which was hostile to Montezuma, opposed him; but he routed its army, which had resisted all the forces of the Mexican empire, dictated peace on moderate terms and converted the people into powerful auxiliaries. His farther advance was in vain attempted to be checked by an ambuscade laid by the inhabitants of Cholula, on whom he took signal vengeance.

Surmounting all other obstacles he arrived, with 6000 natives and a handful of Spaniards, in sight of the immense lake on which was built the city of Mexico, the capital of the empire. Montezuma received him with great pomp, and his subjects, believing Cortes to be a descendant of the sun, prostrated themselves before him. The first care of Cortes was to fortify himself in one of the beautiful palaces of the prince, and he was planning how to possess himself of the riches of so opulent an empire, when intelligence reached him that a general of the emperor, who had received secret orders, had just attacked the garrison of Vera Cruz and killed several of his soldiers. The head of one of the Spaniards was sent to the capital. This event undeceived the Mexicans, who had hitherto believed the Spaniards to be immortal, and necessarily altered the whole policy of Cortes. Struck with the greatness of the danger, surrounded by enemies, and having only a handful of soldiers, he conceived and instantly executed a most daring project. Having repaired with his officers to the palace of the emperor, he announced to Montezuma that he must either accompany him or perish. Being thus master of the person of the monarch, he next demanded that the Mexican general and his officers who had attacked the Spaniards should be delivered into his hands; and when this had been done he caused these unfortunate men, who had only obeyed the orders of their sovereign, to be burned alive before the gates of the imperial palace. During this cruel execution Cortes entered the apartment of Montezuma, and caused him to be loaded with irons, in order to force him to acknowledge himself a vassal of Charles V. The unhappy prince yielded, and was restored to a semblance of liberty on presenting the fierce conqueror with 600,000 marks of pure gold, and a prodigious quantity of precious stones. Scarcely had he reaped the fruits of his audacity, however, when he was informed of the landing of a Spanish army, under Narvaez, which had been sent by Velazquez to compel him to renounce his command. In this emergency Cortes acted with his usual decision and courage. Leaving 200 men at Mexico, under the orders of his lieutenant (Alvarado), he marched against Narvaez, whom he defeated and made prisoner, and he then enlisted under his standard the Spanish soldiers who had been sent to attack him. On his return to the capital, however, he found that the Mexicans had revolted against the emperor and the Spaniards, and that dangers thickened around him. Montezuma perished in attempting to address his revolted subjects; the latter, having chosen a new emperor, attacked the headquarters of Cortes with the utmost fury, and, in spite of the advantage of firearms, forced the Spaniards to retire, as the only means of escaping destruction. Their rear-guard, however, was cut in pieces, and they suffered severely during the retreat, which was continued during six days. Elated with their success, the Mexicans offered battle in the plain of Otumba. This was what Cortes desired, and it proved their destruction. Cortes gave the signal for battle, and, on the 7th of July 1520, gained a victory which decided the fate of Mexico. Immediately afterwards he proceeded to Tlaxcala,

assembled an auxiliary army of natives, subjected the neighbouring provinces, and then marched a second time against Mexico, which, after a gallant defence of several months, was retaken on the 13th of August 1521.

These successes were entirely owing to the genius, valour and profound but unscrupulous policy of Cortes; and the account of them which he transmitted to Spain excited the admiration of his countrymen. The extent of his conquests, and the ability he had displayed, effaced the censure which he had incurred by the irregularity of his operations; and public opinion having declared in his favour, Charles V., disregarding the pretensions of Velazquez, appointed him governor and captain-general of Mexico, at the same time conferring on him the valley of Oaxaca, which was erected (1529) into a marquisate, with a considerable revenue. But although his power was thus confirmed by royal authority, and although he exerted himself to consolidate Spanish domination throughout all Mexico, the means he employed were such that the natives, reduced to despair, took arms against the Spaniards. This revolt, however, was speedily subdued, and the Mexicans were everywhere forced to yield to the ascendancy of European discipline and valour. Guatemotzin, who had been recognized as emperor, and a great number of caciques, accused of having conspired against the conquerors, were publicly executed, with circumstances of great cruelty, by order of Cortes. Meanwhile the court of Madrid, dreading the ambition and popularity of the victorious chief, sent commissioners to watch his conduct and thwart his proceedings; and whilst he was completing the conquest of New Spain his goods were seized by the fiscal of the Council of the Indies, and his retainers imprisoned and put into irons. Indignant at the ingratitude of his sovereign, Cortes returned in person to Spain to appeal to the justice of the emperor, and appeared there with great splendour. The emperor received him with every mark of distinction, and decorated him with the order of St Iago. Cortes returned to Mexico with new titles but diminished authority, a viceroy having been entrusted with the administration of civil affairs, whilst the military department, with permission to push his conquests, was all that remained to Cortes. This division of powers became a source of continual dissension, and caused the failure of the last enterprises in which he engaged. Nevertheless, in 1536, he discovered the peninsula of Lower California, and surveyed a part of the gulf which separates it from Mexico.

At length, tired of struggling with adversaries unworthy of him, whom the court took care to multiply, he returned to Europe, hoping to confound his enemies. But Charles V. received him coldly. Cortes dissembled, redoubled the assiduity of his attendance on the emperor, accompanied him in the disastrous expedition to Algiers in 1541, served as a volunteer, and had a horse killed under him. This was his last appearance in the field, and if his advice had been followed the Spanish arms would have been saved from disgrace, and Europe delivered nearly three centuries earlier from the scourge of organized piracy. Soon afterwards he fell into neglect, and could scarcely obtain an audience. The story goes that, having forced his way through the crowd which surrounded the emperor’s carriage, and mounted on the door-step, Charles, astonished at an act of such audacity, demanded to know who he was. “I am a man,” replied the conqueror of Mexico proudly, “who has given you more provinces than your ancestors left you cities.” So haughty a declaration of important services ill-requited could scarcely fail to offend a monarch on whom fortune had lavished her choicest favours. Cortes, overwhelmed with disgust, withdrew from court, passed the remainder of his days in solitude, and died, near Seville, on the 2nd of December 1547.

The only writings of Cortes are five letters on the subject of his conquests, which he addressed to Charles V. The best edition of them is that of Don Francisco Antonio Lorenzana, archbishop of Mexico, entitled *Historia de Nueva-España escrita par su esclarecido conquistador, Hernan Cortes, aumentada con otros documientos y notas* (Mexico, 1770, 4to), a work the noble simplicity of which attests the truth of the recital it contains. An English translation of the letters, edited by Francis A. MacNutt, was published in 1908. The conquests of Cortes have been described with pompous elegance by Antonio de Solis in his *Historia de la conquista de Mejico* (1684), and with more truth and simplicity by Bernardo Diaz del Castillo in his work under the same title (1632). See also Sir Arthur Helps’s *Life of Hernando Cortes* (2 vols., London, 1871), F. A. MacNutt’s *Fernando Cortes* (“Heroes of the Nations” Series, 1909), and the bibliography to Mexico.

CORTES, a Spanish term literally signifying the “courts,” and applied to the states, or assembly of the states, of the kingdom. (See Spain and Portugal.)

CORTI, LODOVICO, Count (1823-1888), Italian diplomatist, was born at Gambarano on the 28th of October 1823. Early involved with Benedetto Cairoli in anti-Austrian conspiracies, he was exiled to Turin, where he entered the Piedmontese foreign office. After serving as artillery officer through the campaign of 1848, he was in 1850 appointed secretary of legation in London, whence he was promoted minister to various capitals, and in 1875 ambassador to Constantinople. Called by Cairoli to the direction of foreign affairs in 1878, he took part in the congress of Berlin, but unwisely declined Lord Derby's offer for an Anglo-Italian agreement in defence of common interests. At Berlin he sustained the cause of Greek independence, but in all other respects remained isolated, and excited the wrath of his countrymen by returning to Italy with "clean hands." For a time he withdrew from public life, but in 1881 was again sent to Constantinople by Cairoli, where he presided over the futile conference of ambassadors upon the Egyptian question. In 1886 he was transferred to the London embassy, but was recalled by Crispi in the following year through a misunderstanding. He died in Rome on the 9th of April 1888.

CORTLAND, a city and the county-seat of Cortland county, New York, U.S.A., in the central part of the state, on Tioughnioga river, at the junction of its E. and W. branches. Pop. (1890) 8590; (1900) 9014, of whom 682 were foreign born; (1905) 11,272;(1910) 11,504. It is served by the Delaware, Lackawanna & Western and the Lehigh Valley railways. The Franklin Hatch library and a state normal and training school (opened in 1869) are in Cortland. The city has important manufactories of wire, and wire-cloth and netting (one of the largest in America), cabs, carriages and waggons, iron and steel, wall-paper, dairy supplies, corundum wheels, and clothing. The value of the city's factory products increased from $3,063,828 in 1900 to $4,574,191 in 1905 or 49.3%. The town of Cortlandville, which formed a part of the Phelps and Gorham Purchase, was first settled in 1792, and until 1829 was a part of the town of Homer; from which in the latter year it was separated, and made the county-seat. In 1900 the village of Cortland in the town of Cortlandville was chartered as a city.

See H. C. Goodwin, *Cortland County and the Border Wars of New York* (New York, 1859).

CORTONA, a town and episcopal see of Italy, in the province of Arezzo, 18 m. S. by E. from the town of Arezzo by rail. The ancient and modern names are identical. Pop. (1901) of town, 3579; commune, 29,296. The highest point of Cortona, a medieval castle (Fortezza), is situated 2130 ft. above sea-level on a hill commanding a splendid view, and is approached by a winding road. It is surrounded by its ancient Etruscan walls, which for the greater part of the circuit are fairly well preserved. They are constructed of parallelepipedal blocks of limestone, finely jointed (though the jointing has often been spoilt by weathering), and arranged in regular courses which vary in size in different parts of the enceinte. Near the N.W. angle some of the blocks are 7 to 8½ ft. long and 2½ ft. high, while on the W. side they are a good deal smaller—sometimes only 1 ft. high (see F. Noack in *Römische Mitteilungen*, 1897, 184). Within the town are two subterranean vaulted buildings in good masonry, of uncertain nature, some other remains under modern buildings, and a concrete ruin known as the "Bagni di Bacco." The museum of the Accademia Etrusca, a learned body founded by Ridolfino Venuti in 1726, is situated in the Palazzo Pretorio; it contains some Etruscan objects, among which may be specially noted a magnificent bronze lamp with 16 lights, of remarkably fine workmanship, found in 1740, at the foot of the hill, two votive hands and a few other bronzes, and a little gold jewellery. The library has a good MS. of Dante. The cathedral, originally a Tuscan Romanesque building of the 11th-12th centuries, is now a fine Renaissance basilica restored in the 18th century, containing some paintings by Luca Signorelli, a native of the place. Opposite is the baptistery, with three fine pictures by Fra Angelico. S. Margherita, just below the Fortezza, is an ugly modern building occupying the site of a Gothic church of 1294, and

containing a fine original rose window and reliefs from the tomb of the saint by Angelo e Francesco di maestro Pietro d'Assisi. Other works by Signorelli are to be seen elsewhere in the town, especially in S. Domenico; Pietro Berettini (Pietro da Cortona, 1596-1669) is hardly represented here at all. Below the town is the massive tomb chamber (originally subterranean, but now lacking the mound of the earth which covered it) known as the Grotta di Pitagora (grotto of Pythagoras). To the E. is the church of S. Maria del Calcinaio, a fine early Renaissance building by Francesco di Giorgio Martini of Siena, with fine stained glass windows.

The foundation of Cortona belongs to the legendary period of Italy. It appears in history as one of the strongholds of the Etruscan power; but in Roman times it is hardly mentioned. Dionysius's statement that it was a colony (i. 26) is probably due to confusion.

See G. Dennis, *Cities and Cemeteries of Etruria* (London, 1883), ii. 394 seq.; A. Della Cella, *Cortona Antica* (Cortona, 1900).

(T. As.)

CORUMBÁ, a town and river port of Brazil on the W. bank of the Paraguay river, 1986 m. above Buenos Aires and 486 m. above the Paraguayan frontier. Pop. (1890) 8414. Corumbá is a fortified military post, has the large Ladario naval arsenal, where small river boats are built and repaired, and is the commercial entrepôt of the state of Matto Grosso. It is near the Bolivian frontier and is strongly garrisoned. Although the climate is extremely hot, the neighbouring country has many large cattle farms. Corumbá is one of the most important places in the interior of Brazil.

CORUNDUM, a mineral composed of native alumina (Al_2O_3). remarkable for its hardness, and forming in its finer varieties a valuable gem-stone. Specimens were sent from India to England in the 18th century, and were described in 1798 by the Hon. C. Greville under the name of corundum—a word which he believed to be the native name of the stone (Hindi, *kurund*; Tamil, *kurundam*; Sanskrit, *kuruvinda*, "ruby"). The finely coloured, transparent varieties include such gem-stones as the ruby and sapphire, whilst the impure granular and massive forms are known as emery. The term corundum is often restricted to the remaining kinds, i.e. those crystallized and crystalline varieties which are not sufficiently transparent and brilliant for ornamental purposes, and which were known to the older mineralogists as "imperfect corundum." Such varieties were termed by J. Black, in consequence of their hardness, adamantine spar, but this name is now usually restricted to a hair-brown corundum, remarkable for a pearly sheen on the basal plane.

Corundum crystallizes in the hexagonal system. In fig. 1, which is a form of ruby, the prism a is combined with a hexagonal pyramid n, a rhombohedron R, and the basal pinacoid C. In fig. 2, which represents a typical crystal of sapphire, the prism s is associated with the acute pyramids b, r, and a rhombohedron a. Other crystals show a tabular habit, consisting usually of the basal pinacoid with a rhombohedron, and it is notable that this habit is said to be characteristic of corundum which has consolidated from a fused magma. Corundum has no true cleavage, but presents parting planes due to the structure of the crystal, which have been studied by Prof. J. W. Judd.

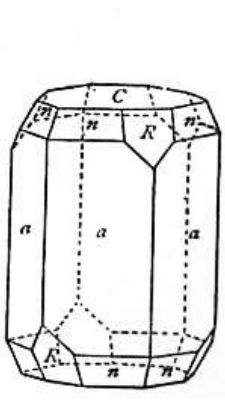


FIG. 1.

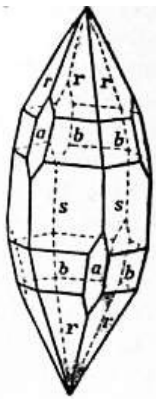


FIG. 2.

Next to diamond, corundum is the hardest known mineral. Its hardness is generally given as 9, but there are slight variations in different stones, sapphire being rather harder than ruby, and ruby than common corundum. The colours are very varied, and it is probable that iron is responsible for many of the tints, though chromium is a possible agent in certain cases. The transparent varieties are often distinguished as

"Oriental" stones. (See Ruby and Sapphire.) Corundum is used largely for watch-jewels, and for bearings in electrical apparatus.

The coloured corundums fit for gem-stones come chiefly from Ceylon, Burma, Siam and Montana. Coarse dull corundum is found in many localities, and usually has higher commercial value as an abrasive agent than emery, which is less pure. The coarse corundum, however, is often partially hydrated or otherwise altered, whereby its hardness is diminished. In India, where the native lapidaries use corundum-sticks and rubbers formed of the powdered mineral cemented with lac, it occurs in the Salem district, Madras, in Mysore and in Rewa. Large deposits of corundum exist in the United States, especially in N. Carolina and Georgia, where they are associated with peridotites, often near contact with gneiss. The mineral has been extensively worked, as at Corundum Hill, Macon county, N.C., near which, in 1871, were discovered numerous rubies, sapphires and pebbles of coarse corundum in the bed of a river. Corundum occurs also at many localities in Montana, where the crystals are often of gem quality. They are found mostly as loose crystals in gravel, but are known also in igenous rocks like andesite and lamprophyre. Prof. J. H. Pratt, who has studied the occurrence both in Montana and in N. Carolina, considers that the alumina was dissolved in a molten magma, from which it separated at an early period of consolidation, as illustrated by the experiments of J. Morozewicz. Corundum occurs also in Canada in an igneous rock, a nepheline-syenite, associated with Laurentian gneiss. Important deposits were discovered by the Geological Survey in 1896, in Hastings county, Ontario; and corundum is now worked there and in Renfrew county. New South Wales, Queensland and Victoria are other localities for corundum. The mineral is found also in the Urals and the Ilmen Mountains, in the Alps (in dolomite), in the basalts of the Rhine, and indeed as a subordinate rock-constituent corundum seems to enjoy a wide distribution, being found even in the British Isles.

See Joseph Hyde Pratt, "Corundum and its Occurrence and Distribution in the United States," *Bulletin U.S. Geol. Surv.*, No. 269 (1906); T. H. Holland, *Economic Geology of India* (2nd ed.), Part i. (1898).

(F. W. R.*)

CORUNNA, a maritime province in the extreme north-west of Spain; forming part of Galicia, and bounded on the E. by Lugo, S. by Pontevedra, W. and N. by the Atlantic Ocean. Pop. (1900) 653,556; area, 3051 sq. m. The coast of Corunna is exposed to the full force of the Atlantic; it forms one succession of fantastically shaped promontories, divided by bays and estuaries which often extend for many miles inland, with reefs and small islands in their midst. Though well lighted, this coast is very dangerous to navigation, gales and fogs being frequent in winter and spring. The most conspicuous headlands are Cape Ortegal and Cape de Vares, the most northerly points of the Spanish seaboard, and Capes Finisterre and Toriñana in the extreme west. The principal bays are those of Santa Marta, Ferrol and Corunna, on the north; Corcubion, Muros y Noya and Arosa, on the west. Wild and rugged though this region appears to travellers at sea, the mountains which overspread the interior are covered with forests and pastures, and watered by an abundance of small rivers and streams. The climate is mild and singularly equable, but the rainfall is very heavy. All the fruits and vegetables of northern Europe thrive in the sheltered valleys, and the cultivation of cherries, strawberries, peas and onions, for export, ranks among the most profitable local industries. Heavy crops of wheat, rye, maize and sugar-beet are raised. The wines of Corunna are heady and of inferior flavour. Cattle-breeding, once a flourishing industry, had greatly declined by the beginning of the 20th century, owing to foreign competition. All along the coast there are valuable fisheries of sardines, lobsters, cod, hake and other fish. Copper, tin and gold are procured in small quantities, and other minerals undoubtedly exist. The exports consist chiefly of farm produce and fish; the imports, of coal and textiles from England, petroleum from the United States, marble from Italy, salt fish from Norway and Newfoundland, and hides. The principal towns are Corunna, the capital and chief port (pop. 1900, 43,971); Ferrol (25,281), another seaport; Santiago de Compostela (24,120), famous as a place of pilgrimage; Carballo (13,032); Ortigueira (18,426) and Ribeira (12,218). These are described under separate headings. Along the coast there are numerous trading and fishing stations of minor importance. Railway communication is very defective. From Corunna a line passes south-eastward to Lugo and Madrid, and from Santiago another line goes southward to Vigo and Oporto; but the centre and the north-west of the province are, to a great extent, inaccessible except by road; and many, even of the main highways, are ill-constructed and ill-kept. Very few Spanish provinces have so high a birthrate, but the population increases very slowly owing to emigration. For a

description of the peasantry, who are distinguished in may respects from those inhabiting other parts of Spain, see GALICIA.

CORUNNA (Span. *La Coruña*; Fr. *La Corogne*; Eng. formerly often *The Groyne*), the capital of the province described above; in 43° 22′ N., and 8° 22′ W.; on the bay of Corunna, an inlet of the Atlantic Ocean. Pop. (1900) 43,971. The principal railways of north-western Spain converge on Corunna, and afford direct communication with Madrid and Oporto. Corunna consists of an upper and a lower town, built respectively on the eastern side of a small peninsula, and on the isthmus connecting the peninsula with the mainland. The upper town is the more ancient, and is still surrounded by walls and bastions, and defended by a citadel; but it has been gradually outgrown by the lower, which, though at first a mere fishing village, as its name of *Pescaderia* implies, is now comparatively well built, and has many broad and handsome streets. There is little remarkable in the public buildings, although the churches of Santiago and the Colegiata date respectively from the 12th and 13th centuries, and there are several convents, two hospitals, a palace for the captain-general of Galicia, a theatre, a school of navigation, an arsenal and barracks. The harbour is on the east. Though difficult to approach in stormy weather, it is completely sheltered, and accommodates vessels drawing 22 ft. It is defended by several forts, of which the most important are San Diego, on the east, and San Antonio, on the west. These fortifications are of little practical value on the landward side, as they are commanded by a hill which overlooks the town. The so-called Tower of Hercules, on the north, has been increased by modern additions to a height of nearly 400 ft., and is surmounted by a fine revolving light. Many foreign steamers call here, for emigrants or mails, on their way to South America. Upwards of 1200 merchant ships, mostly British, entered the port in 1905. The exports are chiefly agricultural produce, wine and fish; the imports are coal, colonial products, and manufactured goods. Chief among the industrial establishments is a state tobacco factory; the sardine and herring fisheries also employ a large number of the inhabitants.

Corunna, possibly at first a Phoenician settlement, is usually identified with the ancient *Ardobrica*, a seaport mentioned by the 1st-century historian, Pomponius Mela, as in the country of the *Artabri*, from whom the name of *Portus Artabrorum* was given to the bay on which the city is situated. In the middle ages, and probably at an earlier period, it was called *Caronium*; and this name is much more probably the origin of the present designation than the Latin *Columna* which is sometimes put forward. The harbour has always been of considerable importance, but it is only in comparatively modern times that it has made a figure in history. In 1588 it gave shelter to the Invincible Armada; in 1598 the town was captured and burned by the British under Drake and Norris. In 1747, and again in 1805, the bay was the scene of a naval victory of the British over the French; and on the 16th of January 1809 a battle took place in the neighbourhood, which is celebrated in British military annals (see PENINSULAR WAR). The French under Marshal Soult attempted to prevent the embarcation of the English under Sir John Moore, but were successfully repulsed in spite of their superior numbers. Moore was mortally wounded and died shortly afterwards. He was hastily buried in the ramparts near the sea; a monument in the Jardin de San Carlos raised by the British government commemorates his death. The town joined the revolutionary movement of 1820, but in 1823 it was forced to capitulate by French troops. In 1836 it was captured by the Carlists. Corunna suffered heavily when Spain was deprived of Cuba and Porto Rico by the Spanish-American War of 1898, for it had hitherto had a thriving trade with these colonies.

CORVÉE, in feudal law, the term used to designate the unpaid labour due from tenants, whether free or unfree, to their lord; hence any forced labour, especially that exacted by the state, the word being applied both to each particular service and to the system generally. Though the corvée formed a characteristic feature of the feudal system, it was, as an institution, much older than feudalism, and was already developed in its main features under the Roman Empire. Thus, under the Roman system, personal services (*operae*) were due from certain classes of the population not only to the state but to private proprietors. Apart from the obligations (*operae officiales*) imposed on freedmen as a condition of their

enfranchisement, which in the country usually took the form of unpaid work on the landlord's domain, the semi-servile *coloni* were bound, besides paying rent in money or kind, to do a certain number of days' unremunerated labour on that part of the estate reserved by the landed proprietor. The state also exacted personal labour (*operae publicae*), in lieu of taxes, from certain classes for such purposes as the upkeep of roads, bridges and dykes; while the inhabitants of the various regions were responsible for the maintenance of the posting system (*cursus publicus*), for which horses, carts or labour would be requisitioned.

Under the Frankish kings, who in their administration followed the Roman tradition, this system was preserved. Thus for the repair of roads, or other public works, within their jurisdiction the counts were empowered to requisition the labour of the inhabitants of the *pagus*, while the *missi* and other public functionaries on their travels were entitled to demand from the population *en route* entertainment and the means of transport for themselves and their belongings. It was, however, the economic revolution which between the 6th and 10th centuries converted the Gallo-Roman estates into the feudal model, and the political conditions under which the officials of the Frankish empire developed into hereditary feudal nobles, that evolved the system of the corvée as it existed throughout the middle ages and, in some countries, survived far into the 19th century. The Roman estate had been cultivated by free farmers, by *coloni*, and by slave labour. Under Frankish rule the farmers became *coloni* or *hospites*, the slaves, serfs. The estate was now habitually divided into the lord's domain (*terra indominicata*, *dominicum*) and a series of allotments (*mansi*), parcels of land distributed by lot to the cultivators of the domain, who held them, partly by payment of rent in money or kind, partly by personal service and labour on the domain, these obligations both as to their nature and amount being very rigorously defined and permanently fixed in the case of each *mansus* and passing with the land to each new tenant. They varied, of course, very greatly according to the size of the holding and the needs of the particular estate, but they possessed certain common characteristics which are everywhere found. Luchaire (*Manuel*, p. 346) divides all corvées into two broad categories, (1) corvées properly so called, (2) military services. The second of these, so far as the obligation to serve in the host (*Hostis et equitatus*) is concerned, was common to all classes of feudal society; though the obligation of villeins to keep watch and ward (*gueta*, *warda*) and to labour at the building or strengthening of fortifications (*muragium*, *munitio castri*) are special corvées. We are, however, mainly concerned with the first category, which may again be subdivided into two main groups, (1) personal service of men and women (*manoperae*, *manuum operae*, Fr. *manœuvres*, manual labour), (2) carriage (*carroperae*, *carragia*, *carrata*, &c., Fr. *charrois*), i.e. service rendered by means of carts, barrows or draught animals. These again were divided into fixed services (*operae rigae*) and exceptional services, demanded when the others proved insufficient. To these latter was given in the 8th century the name of *operae corrogatae* (i.e. requisitioned works, from *rogare*, to request.) From this term (corrupted into *corvatae*, *curvadae*, *corveiae*, &c.) is derived the word corvée, which was gradually applied as a general term for all the various services.

As to the nature of these corvées it must be noted that in the middle ages the feudal lords had replaced the centralized state for all administrative purposes, and the services due to them by their tenants and serfs, were partly in the nature of rent in the form of labour, partly those which under the Roman and Frankish monarchs had been exacted in lieu of taxes, and which the feudal lords continued to impose as sovereigns of their domains. To the former class belonged the service of personal labour in the fields, of repairing buildings, felling trees, threshing corn, and the like, as well as the hauling of corn, wine or wood; to the latter belonged that of labouring on the roads, of building and repairing bridges, castles and churches, and of carrying letters and despatches. Corvées were further distinguished as *real*, i.e. attached to certain parcels of land, and *personal*, i.e. due from certain persons.

In spite of the fact that the corvées were usually strictly defined by local custom and by the contracts of tenancy, and that, in an age when currency was rare, payment in personal labour was a convenience to the poor, the system was open to obvious abuses. With the growth of communal life in the towns the townsmen early managed to rid themselves of these burdensome obligations either by purchase, or by exchanging the obligation of personal work for that of supplying carts, draught animals and the like. In the country, however, the system survived all but intact; and, so far as it was modified, was modified for the worse. Whatever safeguards the free cultivators may have possessed, the serfs were almost everywhere—especially in the 10th and 11th centuries—actually as well as nominally in this respect at the mercy of their lords (*corvéables à merci*), there being no limit to the amount of money or work that could be demanded of them. The system was oppressive even when the nobles to whom these services were paid gave something in return, namely, protection to the cultivator, his family and his land; they became intolerable when the development of the modern state deprived the land-owners of their duties, but not of their rights. In the case of France, in the 17th century the so-called *corvée royale* was added to the burden of the peasants, i.e. the

obligation to do unpaid labour on the public roads, an obligation made general in 1738; and this, together with the natural resentment of men at the fact that the land which their ancestors had bought was still subject to burdensome personal obligations in favour of people whom they rarely saw and from whom they derived no benefit, was one of the most potent causes of the Revolution. By the Constituent Assembly personal corvées were abolished altogether, while owners of land were allowed the choice of continuing real corvées or commuting them for money. The corvée as an incident of land tenure has thus disappeared in France. The *corvée royale* of repairing the roads, however, abolished in 1789, was revived, under the name of *prestation*, under the Consulate, by the law of 4 Thermidor an X., modified by subsequent legislation in 1824, 1836 and 1871. Under these laws the duty of keeping the roads in repair is still vested in the local communities, and all able-bodied men are called upon either to give three days' work or its equivalent in money to this purpose. It is precisely the same system as that in force under the Roman Empire, and if it differ from the corvée it is mainly in the fact that the burden is equitably distributed, and that the work done is of actual value to those who do it.

As regards other countries, the corvée was everywhere, sooner or later, abolished with the serfdom of which it was the principal incident (see SERFDOM). Though so early as 1772 Maria Theresa had endeavoured to mitigate its hardships in her dominions (in Hungary unpaid labour was only to be demanded of the serfs on 52 days in the year!) it survived longest in the Austrian empire, being finally abolished by the revolution of 1848. The duty of personal labour on the public roads is, however, still maintained in other countries besides France. This was formerly the case in England also, where the occupiers of each parish who, by the common law, had access to the roads were responsible also for their upkeep. An act of 1555 imposed four days of forced labour for the repair of roads, and an act of Elizabeth (5 Eliz. c. 13) raised the number of days to six, or the payment of a composition instead. The system of turnpikes, dating from 1663, which gradually extended over the whole of England, lessened the burden of this system of taxation, so far as main roads were concerned, but the greater number of the local roads were subject to repair by statutory labour until the Highways Act 1835, by which highways were put under the direction of a parish surveyor, and the necessary expenses met by a rate levied on the occupiers of land. In Scotland, statutory labour on highways was created by an act of 1719, and abolished in 1883.

In Egypt, the corvée has been employed from time immemorial, more especially for the purpose of cleaning out the irrigation canals. In the days when only one harvest a year was reaped, this forced labour was not a very great burden, but the introduction of cotton and the sugar-cane under Mehemet Ali changed the conditions. These latter are crops which require watering at various seasons of the year, and very often the fellah was called away for work in the canals at times when his own crops required the utmost attention. Moreover, the inequality of the corvée added to the evil. In some districts it was possible to purchase exemption, and the more wealthy paid no more for the privilege than the humblest fellah, consequently the corvée fell with undue hardship on the poorer classes. Under the premiership of Riaz Pasha the corvée was gradually abolished in Egypt between the years 1888 and 1891, and a small rate on the land substituted to provide the labour necessary for cleaning the canals. The corvée is now employed only to a limited extent to guard the banks of the Nile during flood.

See Du Cange, *Glossarium inf. et med. Lat. s.v.* "Corvatae"; A Luchaire, *Manuel des institutions françaises* (Paris, 1892), pp. 346-349; *La Grande Encyclopédie, s.v.*, with bibliography. For further works see the bibliography to the article SERFDOM.

CORVEY, a place in the Prussian province of Westphalia, on the Weser, a mile north of the town of Höxter, with which it communicates by an avenue of lime trees. During the middle ages it was famous for its great Benedictine abbey, which was founded and endowed by the emperor Louis the Pious about 820, and received its name from having been first occupied by a body of monks coming from Corbie in Picardy. The bones of St Vitus, the patron saint of Saxony, were removed thither according to legend in 836, but apart from this attraction, Corvey became the centre of Christianity in Saxony and a nursery of classical studies. The abbot was a prince of the Empire, and Corvey was made a bishopric in 1783. In 1803 the abbey was secularized, in 1815 its lands were given to Prussia, and in 1822 they were bestowed on Victor Amadeus, landgrave of Hesse-Rotenburg, by whom they were bequeathed, in 1834, to Prince Victor of Hohenlohe-Schillingsfürst, duke of Ratibor. The abbey, which is

now used as a residence, possesses a magnificent library of 150,000 volumes especially rich in old illustrated works, though the ancient collection due to the literary enthusiasm of the Benedictines is no longer extant. Here in 1517 the manuscript of the five first books of the *Annals* of Tacitus was discovered. Here Widukind wrote his *Res gestae Saxonicae*. Here, also, the librarian and poet Hoffmann von Fallersleben lived and worked. The *Annales Corbejenses 648-1148* of the monks can be read in the *Monumenta Germaniae historica*, Band iii. The *Chronicon Corbejense*, published by A. C. Wedekind in 1823, has been declared by S. Hirsch and Waitz (*Kritische Prüfung*, Berlin, 1839) to be a forgery.

See P. Wigand, *Geschichte der Abtei Korvey* (Höxter, 1819); and M. Meyer, *Zur ältern Geschichte Corveys und Höxters* (Paderborn, 1893).

CORVINUS, JÁNOS [JOHN] (1473-1504), illegitimate son of Matthias Hunyadi, king of Hungary, and one Barbara, supposed to be the daughter of a burgess of Breslau. He took his name from the raven (*corvus*) in his father's escutcheon. Matthias originally intended him for the Church, but on losing all hope of offspring from his consort Queen Beatrice, determined, towards the end of his life, to make the youth his successor on the throne. He loaded him with honours and riches, till he was by far the wealthiest magnate in the land. He publicly declared him his successor, created him a prince with vast apanages in Silesia, made the commandants of all the fortresses in the kingdom take an oath of allegiance to him, and tried to arrange a marriage for him with Bianca Maria Sforza of Milan, a project which was frustrated by the intrigues of Queen Beatrice. Matthias also intended to make the recognition of János as prince royal of Hungary by the emperor Frederick a condition precedent of relinquishing all or part of the conquered hereditary domains of the house of Habsburg; but his sudden death left the matter still pending, and the young prince suddenly found himself alone in the midst of enemies. The inexperienced and irresolute youth speedily became the victim of the most shameful chicanery. He was first induced formally to resign his claims to the throne, on the understanding that he was to be compensated with the crown of Bosnia. He was then persuaded to retire southwards with the royal treasures which Matthias had confided to him, whereupon an army immediately started in pursuit, scattered his forces, and robbed him of everything. Meanwhile the diet had elected Vladislav of Bohemia king (July 15, 1490), to whom János hastened to do homage, in order to save something from the wreck of his fortunes. He was also recognized as prince of Slavonia and duke of Troppau, but compelled to relinquish both titles five years later. On the invasion of Hungary by Maximilian, he shewed his loyalty to the crown by relinquishing into the hands of Vladislav the three important fortresses of Pressburg, Komárom and Tata, which had been entrusted to him by his father. But now, encouraged by his complacency, the chief dignitaries, headed by the palatine Stephen Zapolya, laid claim to nearly all his remaining estates and involved him in a whole series of costly processes. This they could do with perfect impunity, as they had poisoned the mind of the indolent and suspicious king against their victim. In 1496 Corvinus married Beatrice, the daughter of Bernard Frangepán. His prospects now improved, and in 1498 he was created perpetual ban of Croatia and Slavonia. From 1499 to 1502 he successfully defended Bosnia against the Turks, and in the following year aspired to the dignity of palatine, but was defeated by a combination of Queen Beatrice and his other enemies. He died on the 12th of October 1504, leaving one son, Prince Christopher, who died on the 17th of March 1505.

See Gyula Schönherr, *János Corvinus Hunyadi* (Hung.) (Budapest, 1894).

(R. N. B.)

CORVUS, MARCUS VALERIUS (c. 370-270 B.C.), Roman general of the early republican period. According to the legend a raven settled on his helmet during his combat with a gigantic Gaul, and distracted the enemy's attention by flying in his face. He was twice dictator and six times consul, and occupied the curule chair twenty-one times. In his various campaigns he defeated successively the Gauls, the Volscians, the Samnites, the Etruscans and the Marsians. His most important victory (343) was over the Samnites at Mount Gaurus.

See Livy vii. 26-42, x. 2-11.

CORWEN (“the white choir”), a market town of Merionethshire, Wales, on branches of the London & North Western and the Great Western railways; 10 m. from Llangollen, through the Glyn Dyfrdwy (Dee Vale). Pop. (1901) 2680. Telford’s road, raised on the lower Berwyn range side and overlooking the Dee, opens up the picturesqueness of Corwen, historically interesting from the reminiscences of Wales’s last struggle for independence under Owen Glendower. In the old parish church was traditionally Owen’s pew; his knife, fork and dagger, are at the neighbouring Rûg (Rhûg); his palace, 3 m. distant at Sychnant (dry stream). Here is the church dedicated to St Julian, archbishop of St David’s (d. 1009), with “the college,” an almshouse endowed by William Eyton of Plâs Warren, Shropshire. The old British fort, Caer Drewyn, one of a chain of forts from Dyserth to Canwyd, is the supposed scene of Glendower’s retreat under Henry IV., and here Owen Cwynedd is said to have prepared to repulse Henry II. To the N.E. are the Clwyd hills; to the S. the Berwyn range, to the S.W. Arran Mawddy and Cadair (Cader) Idris; to the W. the two Arenigs; to the N.W. Snowdon. Corwen is a favourite station for artists and anglers. Besides the Dee, there are several streamlets, such as the Trystion, which forms the Rhaiadr Cynwyd (waterfall), the Ceudiog, and the Alwen.

CORWIN, THOMAS (1794-1865), American statesman and orator, was born in Bourbon county, Kentucky, on the 29th of July 1794. In 1798 his father, Matthias Corwin (1761-1829), removed to what later became Lebanon, Ohio, where the son worked on a farm, read much, and in 1817 was admitted to the bar. As an advocate he was at once successful, but after 1831 he devoted his attention chiefly to politics, identifying himself first with the Whig and after 1858 with the Republican party. He was a member of the lower house of the Ohio legislature in 1821, 1822 and 1829, and of the national House of Representatives from 1831 to 1840; was governor of Ohio in 1840-1842; served in the United States Senate from 1845 to 1850; was secretary of the treasury in the cabinet of President Fillmore in 1850-1853; was again a member of the national House of Representatives from 1859 to 1861; and from 1861 to 1864 was minister of the United States to Mexico—a position of peculiar difficulty at that time. As a legislator he spoke seldom, but always with great ability, his most famous speech being that of the 11th of February 1847 opposing the Mexican War. In 1860 he was chairman of the House “Committee of Thirty-three,” consisting of one member from each state, and appointed to consider the condition of the nation and, if possible, to devise some scheme for reconciling the North and the South. He is remembered chiefly as an orator. Many anecdotes have been told to illustrate his kindliness, his inimitable humour, and his remarkable eloquence. He died at Washington, D.C., on the 18th of December 1865.

See the *Life and Speeches of Thomas Corwin* (Cincinnati, 1896), edited by Josiah Morrow; and an excellent character sketch, *Thomas Corwin* (Cincinnati, 1881), by A. P. Russell.

CORY, WILLIAM JOHNSON (1823-1892), English schoolmaster and author, son of Charles Johnson of Torrington, Devonshire, was born on the 9th of January 1823. He was educated at Eton and King’s College, Cambridge. At Cambridge he gained the chancellor’s medal for an English poem on Plato in 1843, and the Craven Scholarship in 1844. In 1845, after graduating at the university, he was made an assistant master at Eton, where he remained for some twenty-six years. He has been called “the most brilliant Eton tutor of his day.” He had a great influence on his pupils, and he defended the Etonian system against the criticism of Matthew James Higgins. In 1872, having inherited an estate at Halsdon and assumed the name of Cory, he left Eton. He married late in life, and after four years spent in Madeira he settled in 1882 at Hampstead. He died on the 11th of June 1892. He proved his genuine lyrical power in *Ionica* (1858), which was republished with some additional poems in 1891. He also produced

Lucretilis (1871), a work on the writing of Latin verses; *Iophon* (1873), on Greek Iambics; and *Guide to Modern History from 1815 to 1835* (1882). Extracts from the *Letters and Journals of William Cory*, which contains much paradoxical and suggestive criticism, were edited by F.W. Cornish and published by private subscription in 1897.

His elder brother, Charles Wellington Johnson Furse (1821-1900), who, on the death of his father in 1854, took the name of Furse, was canon and archdeacon of Westminster from 1894 till his death. The artist Charles Wellington Furse, A.R.A. (1868-1904), was a son of Archdeacon Furse.

CORYATE, THOMAS (1577?-1617), English traveller and writer, was born at Odcombe, Somersetshire, where his father, the Rev. George Coryate, prebendary of York Cathedral, was rector. Educated at Westminster school and at Oxford, he became a kind of court fool, eventually entering the household of Prince Henry, the eldest son of James I. In 1611 he published a curious account of a prolonged walking tour undertaken in 1608, under the title of *Coryate's Crudities hastily gobbled up in Five Months Travels in France, Italy, &c*. At the command of Prince Henry, verses in mock praise of the author, and intended originally to persuade some bookseller to undertake the publication of the *Crudities*, were added to the volume. These commendatory verses, written in a number of languages, and some in a mixture of languages, by Ben Jonson, Donne, Chapman, Drayton and others, were afterwards published (1611) by themselves as the *Odcombian Banquet*. The book contains a clear and interesting account of Coryate's travels, and, being the first of its kind, was extremely popular. It is now very rare, and the copy in the Chetham library is said to be the only perfect one. In the same year was published a second volume of a similar kind, *Coryats Crambe, or his Coleworte twice Sodden*. In 1612 he set out on another journey, which also was mostly performed on foot. He visited Greece, the Holy Land, Persia and India; from Agra and Ajmere he sent home an account of his adventures. Some of his letters were published in 1616 under the title of *Letters from Asmere, the Court of the Great Mogul, to several Persons of Quality in England*, and some fragments of his writings were included in *Purchas his Pilgrimes* in 1625. Coryate was a curious and observant traveller; he gives accounts of inscriptions he had copied, of the antiquities of the towns he passed through, and of manners and customs, from the Italian pronunciation of Latin to the new-fangled use of forks. He acquired a knowledge of Turkish, Persian and Hindustani in the course of his travels, and on being presented by the English ambassador, Sir Thomas Roe, to the Great Mogul, he delivered a speech in Persian. His journeys were performed at small expense, for he says that he spent only three pounds between Aleppo and Agra, and often lived "competently" for a penny a day. Coryate died at Surat in 1617.

> *Coryate's Crudities*, with his letters from India, was reprinted from the edition of 1611 in 1776, and at the Glasgow University Press (2 vols., 1905). The *Odcombian Banquet* was ridiculed by John Taylor, the Water Poet, in his *Laugh and be Fat, or a Commentary on the Odcombian Banket* (1613) and two other satires.

CORYBANTES (Gr. Κορύβαντες), in Greek mythology, half divine, half demonic beings, bearing the same relation to the Asiatic Great Mother of the Gods that the Curetes bear to Rhea. From their first appearance in literature, they are already often identified or confused with them, and are distinguished only by their Asiatic origin and by the more pronouncedly orgiastic nature of their rites. Various accounts of their origin are given: they were earth-born, sons of Cronus, sons of Zeus and Calliope, sons of Rhea, of Ops, of the Great Mother and a mystic father, of Apollo and Thalia, of Athena and Helios. Their names and number were as indistinct even to the ancients as those of the Curetes and Idaean Dactyli. Like the Curetes, Dactyli, Telchines and Cabeiri (q.v.), however, they represent primitive gods of procreative significance, who survived in the historic period as subordinate deities associated with a form of the Great Mother goddess, their relation to the Great Mother of the Gods, Cybele, being comparable with that of Attis (q.v.). They may have been represented or impersonated by priests in her rites as Attis was, but they were also, like him, not actual priests in the first instance, but objects of worship in which a frenzied dance, with accompaniment of flute music,

the beating of tambourines, the clashing of cymbals and castanets, wild cries and self-infliction of wounds—the whole culminating in a state of ecstasy and exhaustion—were the most prominent features. The dance of the Corybantic priests, like that of the priests who represented the Curetes, may have originated in a primitive faith in the power of noise to avert evil. Its psychic effect, both upon the dancer and upon the mystic about whom he danced during the initiation of the Cybele-Attis mysteries, made it a widely known and popular feature of the cult.

In art the Corybantes appear, usually not more than two or three in number, fully armed and executing their orgiastic dance in the presence of the Great Mother, her lions and Attis. They sometimes appear with the child Dionysus, between whose cult and that of the Mother there was a close affinity.

(G. Sn.)

CORYDON, a town and the county-seat of Harrison county, Indiana, U.S.A., on Indian Creek, about 21 m. W. by S. of Louisville, Kentucky. Pop. (1900) 1610; (1910) 1703. Corydon is served by the Louisville, New Albany & Corydon railway, which connects at Corydon Junction, 8 m. N., with the Southern railway. There are sulphur springs here, and the town is a summer and health resort. Wyandotte Cave is several miles W. of Corydon. Corydon is in an agricultural region, and there are valuable quarries in the neighbourhood; among the town's manufactures are waggons, and building and lithographic stone. Corydon was settled about 1805, and was the capital of Indiana Territory from 1813 to 1816, and of the state until 1824. The convention which framed the first state constitution met here in June 1816. The original state house, an unpretentious two-storey stone building, is still standing. Corydon was captured by the Confederates during Gen. Morgan's raid on the 9th of July 1863.

CORYPHAEUS (from Gr. κορυφήkoruphê, the top of the head), in Attic drama, the leader of the chorus. Hence the term (sometimes in an Anglicized form "coryphe") is used for the chief or leader of any company or movement. In 1856 in the university of Oxford there was founded the office of Coryphaeus or Praecentor, whose duty it was to lead the musical performances directed by the Choragus (q.v.). The office ceased to exist in 1899.

COS, or Stanko (Ital. *Stanchio*, Turk. *Istan-keui*, by corruption from Εἰς τὰν Κῶ), an island in that part of the Turkish archipelago which was anciently known as the Myrtoan Sea, not far from the south-western corner of Asia Minor, at the mouth of the Gulf of Halicarnassus, or Bay of Budrum. Its total length is about 25 m. and its circumference about 74. Its population is estimated at about 10,000, of whom nearly all are Greeks.

A considerable chain of mountains, known to the ancients as Oromedon, or Prion, extends along the southern coast with hardly a break except near the island of Nisyros; so that the greatest versant and most important streams turn towards the north. The whole island is little more than a mass of limestone, and consequently unites great aridity in the drier mountain regions with the richest fertility in the alluvial districts. As the attention of the islanders is mainly directed to the culture of their vineyards, which yield the famous sultana raisins, a considerable proportion of the arable land is left untouched, though wheat, barley and maize are sown in some quarters, and melons and sesamum seed appear among the exports. The Cos lettuce is well known. Fruit, especially grapes, is exported in large quantities to Egypt, mostly in local sailing boats. The wild olive is abundant enough, but neglected; and cotton, though it thrives well, is grown only in small quantities. As the principal harbour, in spite of dredging operations, is fit only for smaller vessels, the island is not of so much commercial importance as it would otherwise be; but since 1868 it has been regularly visited by steamers. The only town in the island is Cos, or Stanko, at the eastern extremity, remarkable for its fortress,

founded by the knights of Rhodes, and for the gigantic plane-tree in the public square. The fortress preserves in its walls a number of interesting architectural fragments. The plane-tree has a circumference of about 30 ft., and its huge and heavy branches have to be supported by pillars; of its age there is no certain knowledge, but the popular tradition connects it with Hippocrates. The town is supplied by an aqueduct, about 4 m. in length, with water from a hot chalybeate spring, which is likewise named after the great physician of the island. The villages of Pyli and Kephalas are interesting, the former for the Greek tomb of a certain Charmylos, and the latter for a castle of the knights of St John and the numerous inscriptions that prove that it occupies the site of the chief town of the ancient deme of Isthmos. The most interesting site on the island is the precinct of Asclepius, which was excavated in 1900-1904 on the slope of Mount Prion, about 2 m. from the town of Cos. It consists of three terraces, the uppermost containing a temple, a cypress grove and porticoes; the middle, which is the earliest portion, two or three temples, an altar, and other buildings; and the lower a kind of sacred agora enclosed by porticoes. The precinct had been enlarged and reconstructed at various times. The earliest buildings on the middle terrace probably date from the 6th century B.C. The temple on the upper terrace, with the imposing flight of steps by which it is approached, seems to belong to the 2nd century B.C. when the whole precinct was enlarged and reconstructed. After a destructive earthquake, the whole appears to have been rebuilt by Xenophon, the physician and poisoner of the emperor Claudius. The final destruction was brought about by the earthquake of A.D. 554. Among other things the precinct contains a fountain of water with medicinal properties. It is doubtful whether this water is brought from Burinna, the famous fountain of Hippocrates in the mountain above.

History.—Cos was a Dorian colony with a large contingent of settlers from Epidaurus who took with them their Asclepius cult and made their new home famous for its sanatoria. The other chief sources of the island's wealth lay in its wines, and in later days, in its silk manufacture. Its early history is obscure. During the Persian wars it was ruled by tyrants, but as a rule it seems to have been under an oligarchic government. In the 5th century it joined the Delian League, and after the revolt of Rhodes served as the chief Athenian station in the south-eastern Aegean (411-407). In 366 a democracy was instituted. After helping, in the Social War (357-355), to weaken Athenian power it fell for a few years to the Carian prince Maussollus. In the Hellenistic age Cos attained the zenith of its prosperity. Its alliance was valued by the kings of Egypt, who used it as an outpost for their navy to watch the Aegean. As a seat ef learning it rose to be a kind of provincial branch of the museum of Alexandria, and became a favourite resort for the education of the princes of the Ptolemaic dynasty; among its most famous sons were the physician Hippocrates, the painter Apelles, the poets Philetas and, perhaps, Theocritus (q.v.). Following the lead of its great neighbour, Rhodes, Cos generally displayed a friendly attitude towards the Romans; in A.D. 53 it was made a free city. In A.D. 1315 it was occupied by the Knights of St John; in 1523 it passed under Ottoman sway. Except for occasional incursions by corsairs and some severe earthquakes the island has rarely had its peace disturbed.

AUTHORITIES.—L. Ross, *Reisen nach Kos, &c.* (Halle, 1852), pp. 11-29, and *Reisen auf den griechischen Inseln* (Stuttgart, 1840-1845), ii. 86 ff.; O. Rayet, *Mémoire sur l'île de Cos* (Paris, 1876); M. Dubois, *De Co Insula* (Paris and Nancy, 1884); W. Paton and E. Hicks, *The Inscriptions of Cos* (Oxford, 1891); B. V. Head, *Historia Numorum* (Oxford, 1887), pp. 535-537; *Archäol. Anzeiger*, 1905, i.; for coins see also NUMISMATICS: *Greek*, § "Calymna and Cos."

(E. GR.; M. O. B. C.)

COSA, an ancient city of Etruria, on the S.W. coast of Italy, close to the Via Aurelia, 4½ m. E.S.E. of the modern town of Orbetello. Apparently it was not an independent Etruscan town, but was founded as a colony by the Romans in the territory of the Volceientes, whom they had recently conquered, in 273 B.C. The town was strongly fortified, and the walls, about a mile in circuit, with three gates, and seventeen projecting rectangular towers at intervals, are in places preserved to a height of over 30 ft. on the outside, and 15 on the inside. The lower part is built of polygonal, the upper of rectangular, blocks, and the masonry is of equal fineness all through, so that a difference of date cannot be assumed; such a change of technique is not without parallel in Greece (F. Noack in *Römische Mitteilungen*, 1897, 194). Within the city no remains are visible. The place was of importance as a fortress; it was approached by a branch road which diverged from the Via Aurelia at the post station of Succosa, at the foot of the hill on which the town stood. The harbour, too, was of some importance. In the 5th century we hear of it as deserted, and in the 9th a town called Ansedonia took its place for a short time,

but itself soon perished, though it has left its name to the ruins.

See G. Dennis, *Cities and Cemeteries of Etruria* (London, 1883), ii. 245.

(T. As.)

COSEL, or KOSEL, a town of Germany, in the Prussian province of Silesia, at the junction of the Klodnitz and the Oder, 29 m. S.E. of Oppeln by rail. Pop. (1905) 7085. It has an Evangelical and a Roman Catholic church, an old château and a grammar-school (Progymnasium). Its industries are of some importance, including a manufactory of cellulose (employing 1200 hands), steam saw- and flour-mills and a petroleum refinery. There is a lively trade by river.

The first record of Cosel dates from 1286. From 1306 to 1359 it was the seat of an independent duchy held by a cadet line of the dukes of Teschen. In 1532 it fell to the emperor, was several times besieged during the Thirty Years' War, and came into Prussian possession by the treaty of Breslau in 1742. Frederick II. converted it into a fortress, which was besieged in vain by the Austrians in 1758, 1759, 1760 and 1762. In 1807 it withstood another siege, by the Bavarian allies of Napoleon. The fortifications were razed and their site converted into promenades in 1874.

COSENZ, ENRICO (1812-1898), Italian soldier, was born at Gaeta, on the 12th of January 1812. As captain of artillery in the Neapolitan army he took part in the expedition sent by Ferdinand II. against the Austrians in 1848; but after the *coup d'état* at Naples he followed General Guglielmo Pepe in disobeying Ferdinand's order for the withdrawal of the troops, and proceeded to Venice to aid in defending that city. As commandant of the fort of Marghera, Cosenz displayed distinguished valour, and after the fall of the fort assumed the defence of the Piazzale, where he was twice wounded. Upon the fall of Venice he fled to Piedmont, where he remained until, in 1859, he assumed the command of a Garibaldian regiment. In 1860 he conducted the third Garibaldian expedition to Sicily, defeated two Neapolitan brigades at Piale (August 23), and marched victoriously upon Naples, where he was appointed minister of war, and took part in organizing the *plébiscite*. During the war of 1866 his division saw but little active service. After the war he repeatedly declined the portfolio of war. In 1881, however, he became chief of the general staff, and held that position until a short time before his death at Rome on the 7th of August 1898.

COSENZA (anc. *Consentia*), a town and archiepiscopal see of Calabria, Italy, the capital of the province of Cosenza, 755 ft. above sea-level, 43 m. by rail S. by W. of Sibari, which is a station on the E. coast railway between Metaponto and Reggio. Pop. (1901) town, 13,841; commune, 20,857. It is situated on the slope of a hill between the Crati and Busento, just above the junction, and is commanded by a castle (1250 ft.). The Gothic cathedral, consecrated in 1222, on the site of another ruined by an earthquake in 1184, goes back to French models in Champagne, and is indeed unique in Italy. It contains the Gothic tomb of Isabella of Aragon, wife of Philip III. of France, and also the tomb of Louis III., duke of Anjou; but it has been spoilt by restoration both inside and out. S. Domenico has a fine rose window. The Palazzo del Tribunale (law courts) is a fine building, and the upper town contains several good houses of rich proprietors of the province; while the lower portion is unhealthy. Earthquakes, and a fire in 1901, have done considerable damage to the town.

The ancient Consentia is first named as the burial place of Alexander of Epirus in about 330 B.C. In 204 it became Roman, though it was more under the influence of Greek culture. It is mentioned by Strabo as the chief town of the Bruttii, and frequently spoken of in classical authors as an important place. It lay on the Via Popillia. Varro speaks of its apple trees which

gave fruit twice in the year and Pliny praises its wine also. It is the more surprising that in the whole of its territory no inscriptions, either Greek or Latin, have ever been found, those that are recorded by some writers being fabrications. in A.D. 410 Alaric fell in battle here and was buried, it is said, in the bed of the Busento, which was temporarily diverted and then allowed to resume its natural course. Cosenza became an archbishopric in the 11th century. In 1461 it was taken by Roberto Orsini, and suffered severely. It was the home of a scientific academy founded by the philosopher Bernardino Telesio (1509-1588). In 1555-1561 it was the centre of the persecution by the Inquisition of the Waldenses who had settled there towards the end of the 14th century.

(T. As.)

COSHOCTON, a city and the county-seat of Coshocton county, Ohio, U.S.A., at the confluence of the Tuscarawas and the Walhonding rivers, with the Muskingum river, and about 70 m. E.N.E. of Columbus. Pop. (1890) 3672; (1900) 6473 (364 foreign-born); (1910) 9603. It is served by the Pennsylvania, the Pittsburg, Cincinnati, Chicago & St Louis (controlled by the Pennsylvania), and the Wheeling & Lake Erie railways. The city is built on a series of four broad terraces, the upper one of which has an elevation of 824 ft. above sea-level, and commands pleasant views of the river and the valley. It has a public library. Coshocton is the commercial centre of an extensive agricultural district and has manufactories of paper, glass, flour, china-ware, cast-iron pipes and especially of advertising specialities. The municipality owns and operates its water-works. Coshocton occupies the site of a former Indian village of the same name—the chief village of the Turtle tribe of the Delawares. This village was destroyed by the whites in 1781. The first settlement by whites was begun in 1801; and in 1802 the place was laid out as a town and named Tuscarawas. In 1811, when it was made the county-seat, the present name was adopted. Coshocton was first incorporated in 1833.

COSIN, JOHN (1594-1672), English divine, was born at Norwich on the 30th of November 1594. He was educated at Norwich grammar school and at Caius College, Cambridge, where he was scholar and afterwards fellow. On taking orders he was appointed secretary to Bishop Overall of Lichfield, and then domestic chaplain to Bishop Neile of Durham. In December 1624 he was made a prebendary of Durham, and in the following year archdeacon of the East Riding of Yorkshire. In 1628 he took his degree of D.D. He first became known as an author in 1627, when he published his *Collection of Private Devotions*, a manual stated to have been prepared by command of Charles I., for the use of the queen's maids of honour.[1] This book, together with his insistence on points of ritual in his cathedral church and his friendship with Laud, exposed him to the suspicions and hostility of the Puritans; and the book was rudely handled by William Prynne and Henry Burton. In 1628 Cosin took part in the prosecution of a brother prebendary, Peter Smart, for a sermon against high church practices; and the prebendary was deprived. In 1634 Cosin was appointed master of Peterhouse, Cambridge; and in 1640 he became vice-chancellor of the university. In October of this year he was promoted to the deanery of Peterborough. A few days before his installation the Long Parliament had met; and among the complainants who hastened to appeal to it for redress was the ex-prebendary, Smart. His petition against the new dean was considered; and early in 1641 Cosin was sequestered from his benefices. Articles of impeachment, were, two months later, presented against him, but he was dismissed on bail, and was not again called for. For sending the university plate to the king, he was deprived of the mastership of Peterhouse (1642). He thereupon withdrew to France, preached at Paris, and served as chaplain to some members of the household of the exiled royal family. At the Restoration he returned to England, was reinstated in the mastership, restored to all his benefices, and in a few months raised to the see of Durham (December 1660). At the convocation in 1661 he played a prominent part in the revision of the prayer-book, and endeavoured with some success to bring both prayers and rubrics into completer agreement with ancient liturgies. He administered his diocese with conspicuous ability and success for about eleven years; and applied a large share of his revenues to the promotion of the interests of the Church, of schools and of charitable institutions. He died in London on the 15th of January 1672.

Cosin occupies an interesting and peculiar position among the churchmen of his time. Though a ritualist and a rigorous enforcer of outward conformity, he was uncompromisingly hostile to Roman Catholicism, and most of his writings illustrate this antagonism. In France he was on friendly terms with Huguenots, justifying himself on the ground that their non-episcopal ordination had not been of their own seeking, and at the Savoy conference in 1661 he tried hard to effect a reconciliation with the Presbyterians. He differed from the majority of his colleagues in his strict attitude towards Sunday observance and in favouring, in the case of adultery, both divorce and the re-marriage of the innocent party. He was a genial companion, frank and outspoken, and a good man of business.

Among his writings (most of which were published posthumously) are a *Historia Transubstantiationis Papalis* (1675), *Notes and Collections on the Book of Common Prayer* (1710) and *A Scholastical History of the Canon of Holy Scripture* (1657). A collected edition of his works, forming 5 vols. of the Oxford *Library of Anglo-Catholic Theology*, was published between 1843 and 1855; and his *Correspondence* (2 vols.) was edited by Canon Ornsby for the Surtees Society (1868-1870).

1 See John Evelyn's *Diary* (Oct. 12, 1651).

COSMAS, of Alexandria, surnamed from his maritime experiences *Indicopleustes*, merchant and traveller, flourished during the 6th century A.D. The surname is inaccurate, since he never reached India proper; further, it is doubtful whether Cosmas is a family name, or merely refers to his reputation as a cosmographer. In his earlier days he had sailed on the Red Sea and the Indian Ocean, visiting Abyssinia and Socotra and apparently also the Persian Gulf, western India and Ceylon. He subsequently became a monk, and about 548, in the retirement of a Sinai cloister, wrote a work called *Topographia Christiana*. Its chief object is to denounce the false and heathen doctrine of the rotundity of the earth, and to vindicate the scriptural account of the world. Photius, who had read it, calls it a "commentary on the Octateuch" (meaning the eight books of Ptolemy's great geographical work; according to some, the first eight books of the Old Testament). According to Cosmas the earth is a rectangular plane, covered by the vaulted roof of the firmament, above which lies heaven. In the centre of the plane is the inhabited earth, surrounded by ocean, beyond which lies the paradise of Adam. The sun revolves round a conical mountain to the north—round the summit in summer, round the base in winter, which accounts for the difference in the length of the day. Cosmas is supposed by some to have been a Nestorian. Although not to be commended from a theological standpoint, the *Topographia* contains some curious information. Especially to be noticed is the description of a marble seat discovered by him at Adulis (Zula) in Abyssinia, with two inscriptions recounting the heroic deeds and military successes of Ptolemy Euergetes and an Axumitic king. It also contains in all probability the oldest Christian maps. From allusions in the *Topographia* Cosmas seems to have been the author of a larger cosmography, a treatise on the motions of the stars, and commentaries on the Psalms and Canticles. Photius (*Cod.* 36) speaks contemptuously of the style and language of Cosmas, and throws doubt upon his truthfulness. But the author himself expressly disclaims any claims to literary elegance, which in fact he considers unsuited to a Christian circle of readers, and the accuracy of his statements has been confirmed by later travellers.

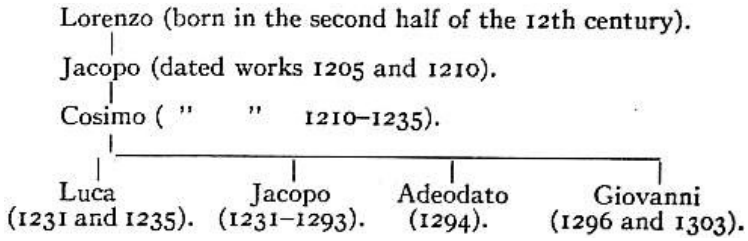
The *Topographia* will be found in Migne, *Patrologia Graeca*, lxxxviii.; an edition by G. Siefert is promised in the Teubner series. See H. Gelzer, "Kosmas der Indienfahrer," in *Jahrbücher für protestantische Theologie*, ix. (1883) and C. R. Beazley, *The Dawn of Modern Geography*, i. (1897). There is an English translation, with introduction and notes, by J. W. McCrindle (1897), published by the Hakluyt society.

COSMAS, of Prague (1045-1125), dean of the cathedral and the earliest Bohemian historian. His *Chronicae Bohemorum libri iii.*, which contains the history and traditions of Bohemia up to nearly the time of his death, has earned him the title of the Herodotus of his country. This work, which his continuators brought down to the year 1283, is of the highest value to historians in spite of the fact that its reputation for disingenuousness and credibility

has been greatly affected by the critical attacks of J. Loserth (*Studien zu Cosmas von Prag*, Vienna, 1880, &c.).

The work was first published at Hanover in 1602, from the imperfect Strassburg codex. A perfected edition was brought out at the same place in 1607; this was reprinted, with notes by C. G. Schwarz in I. B. Menckenius, *Scriptores rer. Germ.* (3 vols., Lips., 1728-1730). It is included in Pelzel and Dobrowsky, *Script. rer. Bohem.* i. pp. 1-282, after collation with Dresden MS., edited very fully by R. Köpke in *Mon. Germ. Hist. Scrip.* ix. 1-132, and repeated in Migne, *Patrol. lat.* clxvi. pp. 55-388, and in *Fontes rer. Bohem.* ii. (1874), 1-370 (Latin and Czech), by W. Wl. Tomek. See A. Potthast, *Bibliotheca Hist. Med. Aevi*.

COSMATI, the name of a Roman family, seven members of which, for four generations, were skilful architects, sculptors and workers in mosaic. The following are the names and dates known from existing inscriptions:—



Their principal works in Rome are: ambones of S. Maria in Ara Coeli (Lorenzo); door of S. Saba, 1205, and door with mosaics of S. Tommaso in Formis (Jacopo); chapel of the Sancta Sanctorum, by the Lateran (Cosimo); pavement of S. Jacopo alla Lungara, and (probably) the magnificent episcopal throne and choir-screen in S. Lorenzo fuori le Mura, of 1254 (Jacopo the younger); baldacchino of the Lateran and of S. Maria in Cosmedin, c. 1294 (Adeodato); tombs in S. Maria sopra Minerva (c. 1296), in S. Maria Maggiore, and in S. Balbina (Giovanni). The chief signed works by Jacopo the younger and his brother Luca are at Anagni and Subiaco. A large number of other works by members and pupils of the same family, but unsigned, exist in Rome. These are mainly altars and baldacchini, choir-screens, paschal candlesticks, ambones, tombs and the like, all enriched with sculpture and glass mosaic of great brilliance and decorative effect.

Besides the more mechanical sort of work, such as mosaic patterns and architectural decoration, they also produced mosaic pictures and sculpture of very high merit, especially the recumbent effigies, with angels standing at the head and foot, in the tombs of Ara Coeli, S. Maria Maggiore and elsewhere. One of their finest works is in S. Cesareo; this is a marble altar richly decorated with mosaic in sculptured panels, and (below) two angels drawing back a curtain (all in marble) so as to expose the open grating of the confessio. The magnificent cloisters of S. Paolo fuori le Mura, built about 1285 by Giovanni, the youngest of the Cosmati, are one of the most beautiful works of this school. The baldacchino of the same basilica is a signed work of the Florentine Arnolfo del Cambio, 1285, “cum suo socio Petro,” probably a pupil of the Cosmati. Other works of Arnolfo, such as the Braye tomb at Orvieto (q.v.), show an intimate artistic alliance between him and the Cosmati. The equally magnificent cloisters of the Lateran, of about the same date, are very similar in design; both these triumphs of the sculptor-architect’s and mosaicist’s work have slender marble columns, twisted or straight, richly inlaid with bands of glass mosaic in delicate and brilliant patterns. The shrine of the Confessor at Westminster is a work of this school, executed about 1268. The general style of works of the Cosmati school is Gothic in its main lines, especially in the elaborate altar-canopies, with their pierced geometrical tracery. In detail, however, they differ widely from the purer Gothic of northern countries. The richness of effect which the English or French architect obtained by elaborate and carefully worked mouldings was produced in Italy by the beauty of polished marbles and jewel-like mosaics—the details being mostly rather coarse and often carelessly executed.

An excellent account of the Cosmati is given by Boito, *Architettura del media evo* (Milan, 1880), pp. 117-182.

COSMIC (from Gr. κόσμος, order or universe), pertaining to the universe, universal or orderly. In ancient astronomy, the word “cosmical” means occurring at sunrise, and designates especially the rising or setting of the stars at that time. “Cosmical physics” is a term broadly applied to the totality of those branches of science which treat of cosmical phenomena and their explanation by the laws of physics. It includes terrestrial magnetism, the tides, meteorology as related to cosmical causes, the aurora, meteoric phenomena, and the physical constitution of the heavenly bodies generally. It differs from astrophysics only in dealing principally with phenomena in their wider aspects, and as the products of physical causes, while astrophysics is more concerned with minute details of observation.

COSMOGONY (from Gr. κόσμος, world and γίγνεσθαι, to be born), a theory, however incomplete, of the origin of heaven and earth, such as is produced by primitive races in the myth-making age, and is afterwards expanded and systematized by priests, poets or philosophers. Such a theory must be mythical in form, and, after gods have arisen, is likely to be a theogony (θεός, god) as well as a cosmogony (Babylonia, Egypt, Phoenicia, Polynesia).

1. To many the interest of such stories will depend on their parallelism to the Biblical account in Genesis i.; the anthropologist, however, will be attracted by them in proportion as they illustrate the more primitive phases of human culture. In spite of the frequent overgrowth of a luxuriant imagination, the leading ideas of really primitive cosmogonies are extremely simple. Creation out of nothing is nowhere thought of, for this is not at all a simple idea. The pre-existence of world-matter is assumed; sometimes too that of heaven, as the seat of the earth-maker, and that of preternatural animals, his coadjutors. The earth-making process may, among the less advanced races, be begun by a bird, or some other animal (whence the term “theriomorphism”), for the high idea of a god is impossible, till man has fully realized his own humanity. Of course, the earth-forming animal is a preternaturally gifted one, and is on the line of development towards that magnified man who, in a later stage, becomes the demiurge.[1] Between the two comes the animal—man, i.e. a being who has not yet shed the slough of an animal shape, but combines the powers—natural and preternatural—of some animal with those of a man. Let us now collect specimens of the evidence for different varieties of cosmogony, ranging from those of the Red Indian tribes to that of the people of Israel.

2. *North American Stories.*—Theriomorphic creators are most fully attested for the Red Indian tribes, whose very backwardness renders them so valuable to an anthropologist. There is a painted image from Alaska, now in the museum of the university of Pennsylvania, which represents such an one. We see a black crow tightly holding a human mask which he is in the act of incubating. Let us pass on to the Thlinkît Indians of the N.W. coast. A cycle of tales is devoted to a strange humorous being called Yehl or Yelch, i.e. the Raven, miraculously born, not to be wounded, and at once a semi-developed creator and a culture hero.[2] His bitter foe is his uncle; the germs of dualism appear early. Like some other culture-heroes, he steals sun, moon and stars out of a box, so enlightening the dark earth. These people are at any rate above the Greenlanders, but are surpassed by the Algonkins described by Nicholas Perrot in 1700, and by the Iroquois, whom the heroic Father Brébeuf (1593-1649) learned to know so well.[3] The earth-maker of the former was called Michabo, i.e. the Great Hare.[4] He is the leader of some animals on a raft on a shoreless sea. Three of these in succession are sent to dive for a little earth. A grain of sand is brought; out of it he makes an island (America?). Of the carcases of the dead animals he makes the present men (N. Americans?). There is also a Flood-story, an episode in which has a bearing on the great dragon-myth[5] (see Deluge). The Iroquois are in advance of the Algonkins; their creator-hero has no touch of the animal in him. Above the waters there existed a heaven, or a heavenly earth (cf. Mexico, Babylonia, Egypt), through a hole in which Aataentsic fell to the water. The broad back of a tortoise (cf. § 6) on which a diving animal had placed some mud, received her. Here, being already pregnant, she gave birth to a daughter, who in turn bore the twins Joskeha and Tawiscara (myth of hostile brothers). By his violence (cf. Gen. xxv. 22) the latter killed his mother, out of whose corpse grew plants. Tawiscara fled to the west, where he rules over the dead. Joskeha made the beasts and also men. After acting as culture-giver he disappeared to the east, where he is said

to dwell with his grandmother as her husband.[6]

3. *Mexican.*—The most interesting feature in the Mexican cosmology is the theory of the ages of the world. Greece, Persia and probably Babylon, knew of four such ages.[7] The Priestly Writer in the Pentateuch also appears to be acquainted with this doctrine; it is the first of four ages which begins with the Creation and ends with the Deluge. The Mexicans, however, are said to have assumed five ages called "suns." The first was the sun of earth; the second, of fire; the third, of air; the fourth, of water; the fifth (which is the present) was unnamed. Each of these closed with a physical catastrophe.[8] The speculations which underlie the Mexican theory have not come down to us. For the Iranian parallel, see § 8, and on the Hebrew Priestly Writer, Gunkel, *Genesis*[2], pp. 233 ff.

4. *Peruvian.*—In Peru, as in Egypt, the sun-god obtained universal homage. But there were creator-gods in the background. A theoretical supremacy was accorded by the Incas to Pachacamac, whose worship, like that of Viracocha, they appear to have already found when they conquered the land. Pachacamac means, in Quichua, "world-animator."[9] The "philosophers" of Peru declared that he desired no temples or sacrifices, no worship but that of the heart. This is conceivable; Maui, too, in New Zealand had no temple or priests. But most probably this deity had another less abstract name, and the horrible worship offered in the one temple which he really had under the Incas, accorded with his true cosmic significance as the god of the subterranean fire. Viracocha too had a cosmic position; an old Peruvian hymn calls him "world-former, world-animator."[10] He was connected with water. A third creator was Manco Capac ("the mighty man"), whose sister and wife is called Mama Oello, "the mother-egg." Afterwards, the creator and the mother-egg became respectively the sun and the moon, represented by the Inca priest-king and his wife, the supposed descendants of Manco Capac.[11] Dualistic tendencies were also developed. Las Casas[12] reports a story that before creation the creator-god had a bad son who sought, after creation, to undo all that his father had done. Angered at this, his father hurled him into the sea. We need not suspect Christian influences, but the parallelism of Rev. xx. 3, Isa. xiv. 12, 15, Ezek. xxviii. 16 is obvious.

5. *Polynesian.*—Polynesia, that classic land of mythology, is specially rich in myths of creation. The Maori story, told by Grey and others, of the rending apart of Rangi (= Langi, heaven) and Papa (earth) can be paralleled in China, India and Greece, and more remotely in Egypt and Babylonia. The son of Rangi and Papa was Tangaloa (also called Tangaroa and Taaroa), the sea-god and the father of fishes and reptiles.[13] In other parts of Polynesia he is the Heaven God, to whom there is no like, no second. In Samoa he is even called Tangaloa-Langi (Tangaloa = heaven). And if he is the sea-god, we must remember that there is a heavenly as well as an earthly ocean; hence the clouds are sometimes called Tangaloa's ships. It is true, the popular imagery is unworthy of such a god. Sometimes he is said to live in a shell, by throwing off which from time to time he increases the world; or in an egg, which at last he breaks in pieces; the pieces are the islands. We also hear that long ago he hovered as an enormous bird over the waters, and there deposited an egg. The egg may be either the earth with the overarching vault of heaven or (as in Egypt—but this is a later view) the sun. The latter received mythical representation in that most interesting god (but originally rather culture-hero) Maui, who, in New Zealand practically supplants Tangaloa, and becomes the god of the air and of the heaven, the creator and the causer of the flood.[14] Speculation opened the usual deep problem; whence came the gods? It was answered that Po, i.e. darkness, was the begetter of all things, even of Tangaloa.

6. *Indian.*—India, however, is the natural home of a mythology recast by speculation. The classical specimen of an advanced cosmogony is to be found in the Rig Veda (x. 129); it is the hymn which begins, "There then was neither Aught nor Naught!"[15] Another such cosmogony is given in Manu. It is "the self-existent Lord," who, "with a thought, created the waters, and deposited in them a seed which became a golden egg, in which egg he himself is born as Brahmā, the progenitor of the worlds."[16] The doctrine of creation by a thought is characteristically Indian. In the ṣatapatha Brahmana (cf. DELUGE), we meet again with the primeval waters and the world-egg, and with the famous mythological tortoise-theory,[17] also found among the Algonkins (§ 2)—antique beliefs gathered up by the framers of philosophic systems, who felt the importance of maintaining such links with the distant past.

7. *Egyptian.*—In Egypt too the systematizers were busily engaged in the co-ordination of myths. They retained the belief that the germs of all things slept for ages within the dark flood, personified as Nûn or Nû. How they were drawn forth was variously told.[18] In some districts the demiurge was called Khnūmu; it was he who modelled the egg (of the world?) and also man.[19] Elsewhere he was the artizan-god Ptaḥ, who with his hammer broke the egg; sometimes Thoth, the moon-god and principle of intelligence, who spoke the world into existence.[20] A strange episode in the legend of the destruction of man by the gods tells how

Ra (or Re), the first king of the world, finding in his old age that mankind ceased to respect him, first tried the remedy of massacre, and then ascended the heavenly cow, and organized a new world—that of heaven.[21]

8. *Iranian.*—The Iranian account of creation[22] is specially interesting because its religious spirit is akin to that of Genesis i. From a literary point of view, indeed, it cannot compare with the dignified Hebrew narrative, but considering the misfortunes which have befallen the collection of Zoroastrian traditions now represented by the Bundahish (the Parsee Genesis) we cannot reasonably be surprised. The work referred to begins by describing the state of things in the beginning; the good spirit in endless light and omniscient, and the evil spirit in endless darkness and with limited knowledge. Both produced their own creatures, which remained apart, in a spiritual or ideal state, for 3000 years, after which the evil spirit began his opposition to the good creation under an agreement that his power was not to last more than 9000 years, of which only the middle 3000 were to see him successful. By uttering a sacred formula the good spirit throws the evil one into a state of confusion for a second 3000 years, while he produces the archangels and the material creation, including the sun, moon and stars. At the end of that period the evil spirit, encouraged by the demons he had produced, once more rushes upon the good creation to destroy it. The demons carry on conflicts with each of the six classes of creation, namely, the sky, water, earth, plants, animals represented by the primeval ox, and mankind represented by Gāyōmard or Kayumarth (the "first man" of the *Avesta*).[23] Four points to be noticed here: (1) the belief in the four periods of the world, each of 3000 years (cf. § 3); (2) the comparative success for a time of Angra Mainyu (the evil principle personified); (3) the absence of any recognition of pre-existent matter; (4) the mention of six classes of good creatures. Each of these deserves a comment which we cannot, however, here give, and the third may seem to suggest direct influence of the Iranian upon the Jewish cosmogony. But though there are in Gen. i. six days of creative activity, and the creative works are not six, but eight, if not ten in number, and indirect Babylonian influence is more strongly indicated. Jewish thinkers would have been attracted by the emphatic assertion of the creatorship of the One God in the royal Persian inscriptions more than by the traditional cosmogony. See further *Ency. Bib.*, "Creation," § 9.

9. *Phoenician and Greek.*—Phoenician cosmogonies would appear, from the notices which have come down to us,[24] to have been composite. The traditions are pale and obscure. It is clear, however, that the primeval flood and the world-egg (out of which came heaven and earth) are referred to. See *Ency. Bib.*, "Creation" § 7; "Phoenicia" § 15; Lagrange, *Religions sémitiques*, pp. 351 ff. Greek cosmogonies (the orientalism of which is clear) will be found in Hesiod, *Theog.* 116 ff.; Aristophanes, *Birds*, 692 ff.; cf. Clem. Rom., *Homil.* vi. 4. See Miss Harrison, *Prolegomena to the Study of Greek Religion*, chap. xii, "Orphic Cosmogony."

10. *Babylonian and Israelitish.*—Of the Babylonian and Israelitish cosmogonies we have several more or less complete records. For details as to the former, see Babylonian and Assyrian Religion. With regard to the latter, we may notice that in Gen. ii. 4b-25 we have an account of creation which, though in its present form very incomplete, is highly attractive, because it is pervaded by a breath from primitive times. It has, however, been interwoven with an account of the Garden of Eden from some other source (see Eden; Paradise), and perhaps in order to concentrate the attention of the reader, the description of the origin of "earth and heaven" as well as of the plants and of the rain, appears to have been omitted. In fact, both the creation-stories at the opening of Genesis must have undergone much editorial manipulation. Originally, for instance, Gen. i. 26 must have said that man was made out of earth; this point of contact between the two cosmogonic traditions has, however, been effaced.

The other narrative, Gen. i. 1-ii. 4a, is a much more complete cosmogony, and since the theory of P. A. Lagarde (1887), which ascribes it to Iranian influence (see § 8), has no very solid ground, whereas the theory which explains it as largely Babylonian is in a high degree plausible, we must now consider the relations between the Israelitish and Babylonian cosmogonies. The short account of creation first translated in 1890 by T. G. Pinches is distinguished by its non-mythical character; in particular, the dragon of chaos and darkness is conspicuous by her absence. This may illustrate the fact that the dragon is also unmentioned in the Hebrew cosmogony; to some writers the dragon-element may have seemed grotesque and inappropriate. We must, however, study this element in the most important Babylonian tradition, even if only for its relation to non-Semitic myths and especially to some striking passages in the Bible (Isa. xxvii. 1, li. 9b; Ps. lxxiv. 14, lxxxix. 10, 11; Job iii. 8, ix. 13, xxvi. 12, 13; Rev. xii. 3, 4, xx. 1-3). One may also be permitted to hold that the mythic figure of the dragon, if used poetically, is a highly serviceable one, and consider that "in the beginning God fought with the dragon, and slew him" would have formed an admirable illustration of the passages just now referred to, especially to those in the Apocalypse.

The student should, however, notice that the dragon-element is not entirely unrepresented

even in the priestly Hebrew cosmogony. It is said in Gen. i. 9, 10, 14, 15, that God divided the primeval waters into two parts by an intervening "firmament" or "platform," on which the sun, moon and stars (planets) were placed to mark times and to give light. This division (cp. Ps. lxxiv. 13) is really a pale version of the old mythic statement respecting the cleaving of the carcase of Tiāmat (the Dragon) into two parts, one of which kept the upper waters from coming down.[25] And we must affirm that the technical term *tĕ hōm* (rendered in the English Bible "the deep"), which evidently signifies the enveloping primeval flood, and which closely resembles Tiāmat, the name given to the dragon or serpent in the epic (cf. *tiamtu* and *tamtu*, Babylonian words for "the ocean"), can only be due to the influence—probably the very early influence—of Babylonia.

But we are far from having exhausted the evidence of Babylonian influence on the Hebrew cosmogony. The description of chaos in v. 2 not only mentions the great water (*tĕhōm*), but the earth, i.e. the earth-matter, out of which the earth and (potentially) its varied products (vv. 9-11), and (as we know from the Babylonian epic) the "firmament" or "platform" of the heaven were to appear. This earth-matter is called "*tōhu* and *bōhu*"; there is nothing like this phrase in the epic, but we may infer from Jer. iv. 23, where the same phrase occurs, that it means "devoid of living things." For a commentary on this see the opening of the Babylonian account referred to above, which refers to the period of chaos as one in which there were neither reeds nor trees, and where "the lands altogether were sea." As to the creative acts, we may admit that the creation of light does not form one of them in the epic (cf. Gen. i. 3), but the existence of light apart from the sun is presupposed; Marduk the creator is in fact a god of light. Nor ought we to find a discrepancy between the Babylonian and the Hebrew accounts in the creation of the heavenly bodies after the plants, related in Gen. i. 14-18. For the position of this creative act is due to the necessity of bringing all the divine acts into the framework of six working days. On the whole, the Hebrew statement of the successive stages of creation corresponds so nearly to that in the Babylonian epic that we are bound to assume that one has been influenced by the other. And if we are asked, "Which is the more original?" we answer by appealing to the well-established fact of the profound influence of Babylonian culture upon Canaan in remote times (see Canaan). An important element in this culture would be mythic representations of the origin of things, such as the Babylonian Creation and Deluge-stories in various forms. Indeed, not only Canaan but all the neighbouring regions must have been pervaded by Babylonian views of the universe and its origin. Myths of origins there must indeed have been in those countries before Babylonian influence became so overpowering, but, if so, these myths must have become recast when the great Teacher of the Nations half-attracted and half-compelled attention. More than this we need not assert. Zimmern's somewhat different treatment of the subject in *Ency. Biblica*, "Creation," § 4, may be compared.

Popular writers are in some danger of misrepresenting this important result. It is tempting, but incorrect, to suppose that a docile Israelitish writer accepted one of the chief forms of the Babylonian cosmogony, merely omitting its polytheism and substituting "Yahweh" for "Marduk." As we have seen, various myths of Creation may have been current both in N. Arabia (whence the Israelites may have come) and in Canaan prior to the great extension of Babylonian influence. These myths doubtless had peculiarities of their own. From one of them may have come that remarkable statement in Gen. i. 2b, "and the spirit of God (Elohim) was hovering over the face of the waters," which, until we find some similar myth nearer home, is best illustrated and explained by a Polynesian myth (see Cheyne, *Traditions and Beliefs of Ancient Israel*, ad loc.). It is also probably to a non-Babylonian source that we owe the prescription of vegetarian or herb diet in Gen. i. 29, 30, which has a Zoroastrian parallel[26] and is evidently based on a myth of the Golden Age, independent of the Babylonian cosmogony. Gen. i., therefore, has not, as it stands, been directly borrowed from Babylonia, and yet the infused Babylonian element is so considerable that the story is, in a purely formal aspect, much more Babylonian than either Israelitish or Canaanitish or N. Arabian. We say "in a purely formal aspect," because the strictness with which Babylonian mythic elements have been adapted in Gen. i. to the wants of a virtually monotheistic community is in the highest degree remarkable.

On the literary scheme of the Creation-story in Gen. i. see the commentaries (e.g. Dillman's and Driver's). On the other Old Testament references to creation, and on the prophetic doctrine of creation, see *Ency. Bib.*, "Creation," §§ 27-29. On the traces of dragon and serpent myths in the Old Testament and their significance, see Gunkel, *Schöpfung und Chaos* (1895)—a pioneering work of the highest merit—and *Ency. Bib.*, "Behemoth," "Dragon," "Rahab," "Serpent." On the connexion of the Creation and the Deluge-stories, see Deluge. Cf. also the article on Babylonian and Assyrian Religion; and Cheyne, *Traditions and Beliefs of Ancient Israel* (1907).

(T. K. C.)

1 Cf. Miss Harrison, *Prolegomena to the Study of Greek Religion*, chaps. vi., vii., "The Making of a Goddess and of a God."

2 See Ratzel. *Hist. of Mankind*, ii. 147-148; Breysig, *Die Entstehung des Gottesgedankens* (1905), pp. 10-12.

3 See Chamberlain, *Journ. of American Folklore*, iv. 208-209 (analysis of Perrot's account); Brinton, *Myths of the New World*, pp. 176-179; Breysig, op. cit., pp. 15-20.

4 On Michabo see Brinton, op. cit. (1876), pp. 176 ff., *Essays of an Americanist* (1890), p. 132. This scholar holds that "Michabo" has properly nothing to do with "Great Hare," but should be translated "the Great White One," i.e. the light of the dawn. The Algonkins, however, thought otherwise, and the myth itself suggests a theriomorphic earth-maker.

5 See Schoolcraft, *Myth of Hiawatha* (1856), pp. 35-39; and cf. the myth of Manabush, analysed in *Journ. of Amer. Folklore*, iv. 210-213.

6 The latest explanation of Joskeha is "dear little sprout," and of Tawiscara, "the ice-one," while Aataentsic becomes "she of the swarthy body." Hewitt, *Journ. of Amer. Folklore*, x. 68. Brébeuf (1635) says that Iouskeha gives growth and fair weather (Tylor, *Prim. Cult.* i. 294).

7 See Jeremias, *Das Alte Testament im Lichte des Alten Orients*, p. 121, 1; Winckler, *Die Keilinschriften und das Alte Testament*[3], p. 333.

8 Réville, *Religions of Mexico and Peru*, p. 129.

9 Garcilasso el Inca, *Comment. de los Incas*, lib. ii. c. 2; cf. Lang, *The Making of Religion*, pp. 262-270.

10 Réville, p. 187.

11 Réville, p. 158. Garcilasso (lib. i. c. 18) says that Manco Capac "taught the subject nations to be men," and also founded the imperial city of Cuzco (= navel).

12 *De las antiquas gentes del Peru* (ed. 1892), pp. 55, 56.

13 See especially Waitz-Gerland, *Anthropologie der Naturvölker*, vi. 229-302; Gill, *Myths and Songs of the South Pacific*; Schirren, *Wandersagen der Neuseeländer*; also an older work (Sir George) Grey's *Polynesian Mythology*.

14 See Schirren, op. cit., pp. 64-89.

15 J. Muir, *Metrical Translations*, pp. 188-189.

16 J. Muir, *Sanscrit Texts*, iv. 26.

17 See Tylor, *Early History of Mankind*, p. 340; *Primitive Culture*, i. 329; Oldenberg, *Religion des Veda*, pp. 85 f.

18 See Maspero, *Dawn of Civilization*, p. 127; also Brugoch, *Religion und Mythologie der alten Ägypter*.

19 See illustration in Maspero, p. 157.

20 See Maspero, pp. 146-147.

21 Maspero, pp. 160-169.

22 See Zoroaster, and cf. *Ency. Bib.*, "Creation," § 9: "Zoroastrianism," §§ 20, 21.

23 West, *Pahlavi Texts* (S.B.E.), vol. i., introd. p. xxiii. We need not deny that, late as the Bundahish may be as a whole, the traditions which it contains are often old.

24 Fragments of older works are cited by Philo of Byblus (in Eusebius, *Praep. Evang.* i. 10) and Mochus and Endemus (in Damascius, *De primis principiis*, c. 125).

25 See Jastrow, *Religion of Babylonia and Assyria*, p. 428.

26 See *Bundahish*, xv. 2 (*S.B.E.*, v. 53).

COSMOPOLITAN (Gr. κόσμος, world, and πολίτης, citizen), of or belonging to a "citizen of the world," i.e. one whose sympathies, interests, whether commercial, political or social, and culture are not confined to the nation or race to which he may belong, opposed therefore to "national" or "insular." As an attribute the word may be applied to a cultured man of the world, who has travelled widely and is at home in many forms of civilization, to such races as the Jewish, scattered through the civilized world, yet keeping beneath their cosmopolitanism the racial type pure, and also to mark a profound line of cleavage in economic and political

thought.

COSNE, a town of central France, capital of an arrondissement in the department of Nièvre, on the right bank of the Loire at its junction with the Nohain, 37 m. N.N.W. of Nevers by the Paris-Lyon railway. Pop. (1906) town, 5750; commune, 8437. Two suspension bridges unite it to the left bank of the Loire. The church of St Aignan is a building of the 12th century, restored in the 16th and 18th centuries; the only portions in the Romanesque style are the apse and the north-west portal. It formerly belonged to a Benedictine priory depending on the abbey of La Charité (Nièvre). The manufacture of files, flour-milling and tanning are carried on in the town which has a subprefecture, a tribunal of first instance and a communal college. Cosne is mentioned in the Antonine Itinerary under the name of *Condate*, but it was not till the middle ages that it rose into importance as a military post. In the 12th century the bishop of Auxerre and the count of Nevers agreed to a division of the supremacy over the town and its territory.

COSSA, LUIGI (1831-1896), Italian economist, was born at Milan on the 27th of May 1831. Educated at the universities of Pavia, Vienna and Leipzig, he was appointed professor of political economy at Pavia in 1858. He died at Pavia on the 10th of May 1896. Cossa was the author of several works which established for him a high reputation; including *Scienza delle finanze* (1875, English translation 1888 under title *Taxation, its Principles and Methods*); *Guida allo studio dell' economia politica* (1876, English translation 1880), an admirable compendium of the theoretical preliminaries of economics, with a brief critical history of the science and an excellent bibliography; *Introduzione allo studio dell' economia politica*, (1876, English translation by L. Dyer, 1893); and *Saggi di economia politica*, 1878.

COSSA, PIETRO (1830-1880), Italian dramatist, was born at Rome in 1830, and claimed descent from the family of Pope John XXIII., deposed by the council of Constance. He manifested an independent spirit from his youth, and was expelled from a Jesuit school on the double charge of indocility and patriotism. After fighting for the Roman republic in 1849, he emigrated to South America, but failing to establish himself returned to Italy, and lived precariously as a literary man until 1870, when his reputation was established by the unexpected success of his first acted tragedy, *Nero*. From this time to his death in 1880 Cossa continued to produce a play a year, usually upon some classical subject. *Cleopatra*, *Messalina*, *Julian*, enjoyed great popularity, and his dramas on subjects derived from Italian history, *Rienzi* and *The Borgias*, were also successful. *Plautus*, a comedy, was preferred by the author himself, and is more original. Cossa had neither the divination which would have enabled him to reconstruct the ancient world, nor the imagination which would have enabled him to idealize it. But he was an energetic writer, never tame or languid, and at the same time able to command the attention of an audience without recourse to melodramatic artifice; while his sonorous verse, if scarcely able to support the ordeal of the closet, is sufficiently near to poetry for the purposes of the stage.

His collected *Teatro poetico* was published in 1887.

COSSACKS (Russ. *Kazak*; plural, *Kazaki*, from the Turki *quzzāq*, "adventurer, free-booter"), the name given to considerable portions of the population of the Russian empire, endowed

with certain special privileges, and bound in return to give military service, all at a certain age, under special conditions. They constitute ten separate *voiskos*, settled along the frontiers: Don, Kuban, Terek, Astrakhan, Ural, Orenburg, Siberian, Semiryechensk, Amur and Usuri. The primary unit of this organization is the *stanitsa*, or village, which holds its land as a commune, and may allow persons who are not Cossacks (excepting Jews) to settle on this land for payment of a certain rent. The assembly of all householders in villages of less than 30 households, and of 30 elected men in villages having from 30 to 300 households (one from each 10 households in the more populous ones), constitutes the village assembly, similar to the *mir*, but having wider attributes, which assesses the taxes, divides the land, takes measures for the opening and support of schools, village grain-stores, communal cultivation, and so on, and elects its *ataman* (elder) and its judges, who settle all disputes up to £10 (or above that sum with the consent of both sides). Military service is obligatory for all men, for 20 years, beginning with the age of 18. The first 3 years are passed in the preliminary division, the next 12 in active service, and the last 5 years in the reserve. Every Cossack is bound to procure his own uniform, equipment and horse (if mounted)—the government supplying only the arms. Those on active service are divided into three equal parts according to age, and the first third only is in real service, while the two others stay at home, but are bound to march out as soon as an order is given. The officers are supplied in the usual way by the military schools, in which all Cossack *voiskos* have their own vacancies, or are non-commissioned Cossack officers, with officers' grades. In return for this service the Cossacks have received from the state considerable grants of land for each *voisko* separately.

The total Cossack population in 1893 was 2,648,049 (1,331,470 women), and they owned nearly 146,500,000 acres of land, of which 105,000,000 acres were arable and 9,400,000 under forests. This land was divided between the *stanitsas*, at the rate of 81 acres per each soul, with special grants to officers (personal to some of them, *in lieu* of pensions), and leaving about one-third of the land as a reserve for the future. The income which the Cossack *voiskos* receive from the lands which they rent to different persons, also from various sources (trade patents, rents of shops, fisheries, permits of gold-digging, &c.), as also from the subsidies they receive from the government (about £712,500 in 1893), is used to cover all the expenses of state and local administration. They have besides a special reserve capital of about £2,600,000. The expenditure of the village administration is covered by village taxes. The general administration is kept separately for each *voisko*, and differs with the different *voiskos*. The central administration, at the Ministry of War, is composed of representatives of each *voisko*, who discuss the proposals of all new laws affecting the Cossacks. In time of war the ten Cossack *voiskos* are bound to supply 890 mounted *sotnias* or squadrons (of 125 men each), 108 infantry *sotnias* or companies (same number), and 236 guns, representing 4267 officers and 177,100 men, with 170,695 horses. In time of peace they keep 314 squadrons, 54 infantry *sotnias*, and 20 batteries containing 108 guns (2574 officers, 60,532 men, 50,054 horses). Altogether, the Cossacks have 328,705 men ready to take arms in case of need. As a rule, popular education amongst the Cossacks stands at a higher level than in the remainder of Russia. They have more schools and a greater proportion of their children go to school. In addition to agriculture, which (with the exception of the Usuri Cossacks) is sufficient to supply their needs and usually to leave a certain surplus, they carry on extensive cattle and horse breeding, vine culture in Caucasia, fishing on the Don, the Ural, and the Caspian, hunting, bee-culture, &c. The extraction of coal, gold and other minerals which are found on their territories is mostly rented to strangers, who also own most factories.

A military organization similar to that of the Cossacks has been introduced into certain districts, which supply a number of mounted infantry *sotnias*. Their peace-footing is as follows: —Daghestan, 6 regular squadrons and 3 of militia; Kuban Circassians, 1 *sotnia*; Terek, 8 *sotnias*; Kars, 3 *sotnias*; Batum, 2 infantry and 1 mounted *sotnia*; Turkomans, 3 *sotnias*; total, 25 squadrons and 2 companies.

For the origin and history of the Cossacks see POLAND: *History*, and the biographies of Razin, Chmielnicki and Mazepa.

(P. A. K.)

COSSIMBAZAR, or KASIMBAZAR, a decayed town on the river Bhagirathi in the Murshidabad district of Bengal, India, now included in the Berhampur municipality. Pop. (1901) 1262. Though the history of the place cannot be traced back earlier than the 17th century, it was of great importance long before the foundation of Murshidabad. From the first European traders

set up factories here, and after the ruin of Satgaon by the silting up of the mouth of the Saraswati it gained a position, as the great trading centre of Bengal, which was not challenged until after the foundation of Calcutta. In 1658 the first English agent was established at Cossimbazar, and in 1667 the chief of the factory there became an *ex-officio* member of council. In English documents of this period, and till the early 19th century, the Bhagirathi was described as the Cossimbazar river, and the triangular piece of land between the Bhagirathi, Padma and Jalangi, on which the city stands, as the island of Cossimbazar. The proximity of the factory to Murshidabad, the Mahommedan capital, while it was the main source of its wealth and of its political importance, exposed it to constant danger. Thus in 1757 it was the first to be taken by Suraj-ud-dowlah, the nawab; ana the resident with his assistant (Warren Hastings) were taken as prisoners to Murshidabad.

At the beginning of the 19th century the city still flourished; so late as 1811 it was described as famous for its silks, hosiery, *koras* and beautiful ivory work. But an insidious change in its once healthy climate had begun to work its decay; the area of cultivated land round it had shrunk to vanishing point, jungle haunted by wild beasts taking its place; and in 1813 its ruin was completed by a sudden change in the course of the Bhagirathi, which formed a new channel 3 m. from the old town, leaving an evil-smelling swamp around the ancient wharves. Of its splendid buildings the fine palace of the maharaja of Cossimbazar alone remains, the rest being in ruins or represented only by great mounds of earth. The first wife of Warren Hastings was buried at Cossimbazar, where her tomb with its inscription still remains.

See *Imp. Gaz. of India* (Oxford, 1908), s.v.

COSTA, GIOVANNI (1826-1903), Italian painter, was born in Rome. He fought under Garibaldi in 1848, and served as a volunteer in the war of 1859; and his enthusiasm for Italian unity was actively shown again in 1870, when he was the first to mount the breach in the assault of Rome near the Porta Pia. He had settled meanwhile at Florence, where his fight for the independence of art from worn-out traditions was no less strenuous, and he became known as a landscape-painter of remarkable originality, and of great influence in the return to minute observation of nature. He had many English friends and followers, notably Matthew Ridley Corbet (1850-1902), and Lord Carlisle, and was closely associated with Corot and the Barbizon school. In later years he lived and worked mainly in Rome, where his studio was an important centre. An exhibition of his pictures was held in London in 1904, and he is represented in the Tate Gallery. He died at Rome in 1903.

See also Madame Agresti's *Giovanni Costa* (1904).

COSTA, LORENZO (1460-1535), Italian painter, was born at Ferrara, but went in early life to Bologna and ranks with the Bolognese school. In 1438 he painted his famous "Madonna and Child with the Bentivoglio family," and other frescoes, on the walls of the Bentivoglio chapel in San Giacomo Maggiore, and he followed this with many other works. He was a great friend of Francia, who was much influenced by him. In 1509 he went to Mantua, where his patron was the Marquis Francesco Gonzaga, and he eventually died there. His "Madonna and Child enthroned" is in the National Gallery, London, but his chief works are at Bologna. His sons, Ippolito (1506-1561) and Girolamo, were also painters, and so was Girolamo's son Lorenzo the younger (1537-1583).

COSTA, SIR MICHAEL ANDREW AGNUS (1808-1884), British musical conductor and composer, the son of Cavalière Pasquale Costa, a Spaniard, was born at Naples on the 14th of February 1808. Here he became at an early age a scholar at the Royal College of Music. His cantata *L'Immagine* was composed when he was fifteen. In 1826 he wrote his first opera *Il*

Delitto Punito; in 1827 another opera *Il sospetto funesto*. To this period belong also his oratorio *La Passione*, a grand Mass for four voices, a *Dixit Dominus*, and three symphonies. The opera *Il Carcere d'Ildegonda* was composed in 1828 for the Teatro Nuovo, and in 1829 Costa wrote his *Malvina* for Barbaja, the impresario of San Carlo. In this latter year he visited Birmingham to conduct Zingarelli's *Cantata Sacra*, a setting of some verses from Isaiah ch. xii. Instead, however, of conducting, he sang the tenor part. In 1830 he settled in London, having a connexion with the King's theatre. His ballet *Kenilworth* was written in 1831, the ballet *Une Heure à Naples* in 1832, and the ballet *Sir Huon* (composed for Taglioni) in 1833. In this latter year he wrote his famous quartet *Ecco quel fiero istante. Malek Adhel*, an opera, was produced in Paris in 1837. In 1842 he wrote the ballet music of *Alma* for Cerito, and in 1844 his opera *Don Carlos* was produced in London. Costa became a naturalized Englishman and received the honour of knighthood in 1869. He conducted the opera at Her Majesty's from 1832 till 1846, when he seceded to the Italian Opera at Covent Garden; he was conductor of the Philharmonic Society from 1846 to 1854, of the Sacred Harmonic Society from 1848, and of the Birmingham festival from 1849. In 1855 Costa wrote *Eli*, and in 1864 *Naaman*, both for Birmingham. Meanwhile he had conducted the Bradford (1853) and Handel festivals (1857-1880), and the Leeds festivals from 1874 to 1880. On the 29th of April 1884 he died at Brighton. Costa was the great conductor of his day, but both his musical and his human sympathies were somewhat limited; his compositions have passed into oblivion, with the exception of the least admirable of them—his arrangement of the national anthem.

COSTAKI, ANTHOPOULOS (1835-1902), Turkish pasha, was born in 1835. He became a professor at the Turkish naval college; then entered the legal branch of the Turkish service, rising to the post of *procureur impérial* at the court of cassation. He was governor-general of Crete; and in 1895 was appointed Ottoman ambassador in London, a post which he continued to hold until his death at Constantinople in 1902. He bore throughout his career the reputation of an intelligent and upright public servant.

COSTANZO, ANGELO DI (c 1507-1591), Italian historian and poet, was born at Naples about 1507. He lived in a literary circle, and fell in love with the beautiful Vittoria Colonna. His great work, *Le Istorie del regno di Napoli dal 1250 fino al 1498*, first appeared at Naples in 1572, and was the fruit of thirty or forty years' labour; but nine more years were devoted to the task before it was issued in its final form at Aquila (1581). It is still one of the best histories of Naples, and the style is distinguished by clearness, simplicity and elegance. The *Rime* of di Costanzo are remarkable for finical taste, for polish and frequent beauty of expression, and for strict obedience to the poetical canons of his time.

See G. Tiraboschi, *Storia della letteratura italiana*, vol. vii. (Florence, 1812).

COSTA RICA, a republic of Central America, bounded on the N. by Nicaragua, E. by the Caribbean Sea, S.E. and S. by Panama, S.W., W. and N.W. by the Pacific Ocean. (For map, see CENTRAL AMERICA.) The territory thus enclosed has an area of about 18,500 sq. m., and may be roughly described as an elevated tableland, intersected by lofty mountain ranges, with their main axis trending from N.W. to S.E. It is fringed, along the coasts, by low-lying marshes and lagoons, alternating with tracts of rich soil and wastes of sand.

Physical Description.—The northern frontier, drawn 2 m. S. of the southern shores of the river San Juan and of Lake Nicaragua, terminates at Salinas Bay on the Pacific; its southern frontier skirts the valley of the Sixola or Tiliri, strikes south-east along the crests of the Talamanca Mountains as far as 9° N., and then turns sharply south, ending in Burica Point. The monotonous Atlantic littoral is unbroken by any large inlet or estuary, and thus contrasts

in a striking manner with the varied outlines of the Pacific coast, which includes the three bold promontories of Nicoya, Golfo Dulce and Burica, besides the broad sweep of Coronada Bay and several small harbours. The Gulf of Nicoya, a shallow landlocked inlet, containing a whole archipelago of richly-wooded islets, derives its name from Nicoya, an Indian chief who, with his tribe, was here converted to Christianity in the 16th century. It is famous for its purple-yielding murex, pearls and mother-of-pearl. The Golfo Dulce has an average depth of 100 fathoms and contains no islands. Two volcanic *Cordilleras* or mountain chains, separated from one another by the central plateau of San José and Cartago, traverse the interior of Costa Rica, and form a single watershed, often precipitous on its Pacific slope, but descending more gradually towards the Atlantic, where there is a broad expanse of plain in the north-east. The more northerly range, in which volcanic disturbances on a great scale have been comparatively recent, extends transversely across the country, from a point a little south of Salinas Bay, to the headland of Carreta, the southern extremity of the Atlantic seaboard, also known as Monkey Point. Its direction changes from south-east to east-south-east opposite to the entrance into the Gulf of Nicoya, where it is cut into two sections by a depression some 20 m. wide. At first it is rather a succession of isolated volcanic cones than a continuous ridge, the most conspicuous peaks being Orosi (5185 ft.), the four-crested Rincon de la Vieja (4500), Miravalles (4698) and Tenorio (6800). In this region it is known as the Sierra de Tilaran. Then succeed the Cerros de los Guatusos, a highland stretching for more than 50 m. without a single volcano. Poas (8895), the scene of a violent eruption in 1834, begins a fresh series of igneous peaks, some with flooded craters, some with a constant escape of smoke and vapour. From Irazú (11,200), the culminating point of the range, both oceans and the whole of Costa Rica are visible; its altitude exceeds that of Aneto, the highest point in the Pyrenees, but so gradual is its acclivity that the summit can easily be reached by a man on horseback. Turialba (10,910), adjoining Irazú on the east, was in eruption in 1866. Its name, though probably of Indian origin, is sometimes written Turrialba, and connected with the Latin *Turris Alba*, “White Tower.” The more southerly of the two Costa Rican ranges, known as the Cordillera de Talamanca, rises south of the Gulf of Nicoya, and extends midway between the two oceans towards the south-east. It follows exactly the curve of the mainland, and is continued into Panama, under the name of the Cordillera de Chiriqui. Its chief summits are Chirripo Grande (11,485), the loftiest in the whole country, Buena Vista (10,820), Ujum (8695), Pico Blanco (9645) and Rovalo (7050), on the borders of Panama. Throughout the volcanic area earthquakes and landslides are of frequent occurrence.

The narrowness of the level ground between the mountains and the sea renders almost impossible the formation of any navigable river. The most important streams are those of the Atlantic seaboard, notably the San Juan, which drains Lake Nicaragua. Issuing from the lake within Nicaraguan territory, the San Juan has a course of 95 m., mostly along the frontier, to the Colorado Mouth, which is its main outfall, and belongs wholly to Costa Rica. Its chief right-hand tributaries are the San Carlos and Sarapiqui. The Reventazon, or Parismina, flows from the central plateau to the Caribbean Sea; despite the shortness of its valley, its volume is considerable, owing to the prevalence of moist trade-winds near its sources. Six small streams and one large river, the Rio Frio, flow across the northern frontier into Lake Nicaragua. On the Pacific coast all the rivers are rapid and liable to sudden floods. None is large, although three bear the prefix *Rio Grande*, “great river.” The Tempisque enters the Pacific at the head of the Gulf of Nicoya, and tends to silt up that already shallow inlet (5-10 fathoms) with its alluvial deposits. The Rio Grande de Tarcoles also enters the gulf, and the Rio Grande de Pirris and Rio Grande de Terrabis or Diquis flow into Coronada Bay. The Rio Grande de Tarcoles rises close to the Ochomogo Pass and the sources of the Reventazon, at the base of Irazú; and the headwaters of these two streams indicate precisely the depression in the central plateau which severs the northern from the southern mountains.

Costa Rica is not differentiated from the neighbouring lands by any very marked peculiarities of geological formation, or of plant and animal life. Its geology, flora and fauna are therefore described under Central America (q.v.).

Climate.—Owing to the proximity of two oceans, and the varied configuration of the surface of Costa Rica, an area of a few square miles may exhibit the most striking extremes of climate; but, over the entire country, it is possible to distinguish three climatic zones—tropical, temperate and cold. These generally succeed one another as the altitude increases, although the heat is greater at the same elevation on the Pacific than on the Atlantic coast. It is, however, less oppressive, as cool breezes prevail and damp is comparatively rare. The tropical zone comprises the coast and the foothills, and ranges, in its mean annual temperature, from 72° F. to 82°. In the San José plateau (3000-5000 ft.), which is the most densely populated portion of the temperate zone, the average is 68°, with an average variation for all seasons of only 5°. Above 7500 ft. frosts are frequent, but snow rarely falls. The wet season, lasting during the prevalence of the south-west monsoon, from April to December, is clearly defined

on the Pacific slope. It is curiously interrupted by a fortnight of dry weather, known as the *Veranillo de San Juan*, in June. Towards the Atlantic the trade-winds may bring rain in any month. Winter lasts from December to February. The normal rainfall is about 80 in., but as cloud-bursts are common, it may rise to 150 in. or even more. Rheumatism on the Atlantic seaboard, and malaria on both coasts, are the commonest forms of disease; but, as a whole, Costa Rica is one of the healthiest of tropical lands.

Population.—In 1904, according to the official returns, the total population numbered 331,340; having increased by more than one-fourth in a decade. Spanish, with various modifications of dialect, and the introduction of many Indian words, is the principal language; and the majority of the inhabitants claim descent from the Spanish colonists—chiefly Galicians —who came hither during the 16th and subsequent centuries. The percentage of Spanish blood is greater than in the other Central American republics; but there is also a large population of half-castes (*ladinos* or *mestizos*) due to intermarriage with native Indians. The resident foreigners, who are mostly Spaniards, Italians, Germans and British subjects, numbered less than 8000 in 1904; immigration is, however, encouraged by the easy terms on which land can be purchased from the state. The native Indians, though exterminated in many districts, and civilized in others, remain in a condition of complete savagery along parts of the Nicaraguan border, where they are known as Prazos or Guatusos, in the Talamanca country and elsewhere. Their numbers may be estimated at 4000. They are a quiet and inoffensive folk, who dwell in stockaded encampments, and preserve their ancestral language and customs. For an account of early Indian civilization in Costa Rica, see CENTRAL AMERICA: *Archaeology*. The Mosquito Indians come every summer to fish for turtle off the Atlantic coast. As only 200 negroes were settled in Costa Rica when slavery was abolished in 1824, and no important increase ever took place through immigration, the black population is remarkably small, amounting only to some 1200.

Chief Towns and Communications.—The whites are congregated in or near the chief towns, which include the capital, San José (pop. 1904 about 24,500), the four provincial capitals of Alajuela (4860), Cartago (4536), Heredia (7151) and Liberia or Guanacaste (2831), with the seaportsof Puntarenas (3569), on the Pacific, and Limon (3171) on the Atlantic. These, with the exception of Heredia and Liberia, are described in separate articles. The transcontinental railway from Limon to Puntarenas was begun in 1871, and forms the nucleus of a system intended ultimately to connect all the fertile parts of the country, and to join the railways of Nicaragua and Panama. It skirts the Atlantic coast as far as the small port of Matina; thence it passes inland to Reventazon, and bifurcates to cross the northern mountains; one branch going north of Irazú, while the other traverses the Ochomogo Pass. At San José these lines reunite, and the railway is continued to Alajuela, the small Pacific port of Tivives, and Puntarenas. The railways are owned partly by the state, partly by the Costa Rica railway company, which, in 1904, arranged to build several branch lines through the banana districts of the Atlantic littoral. Apart from the main lines of communication the roads are very rough, often mere tracks; and the principal means of transport are ox-carts or pack-mules. The postal and telegraphic services are also somewhat inadequate.

Agriculture and Industries.—The name “Costa Rica,” meaning “rich coast,” is well deserved; for, owing to the combination of ample sunshine and moisture with a wonderfully fertile soil, almost any kind of fruit or flower can be successfully cultivated; while the vast tracts of virgin forest, which remain along the Atlantic slopes, contain an abundance of cedar, mahogany, rosewood, rubber and ebony, with fustic and other precious dye-woods. The country is essentially agricultural, and owes its political stability to the presence of a large class of peasant proprietors, who number more than two-thirds of the population. Coffee, first planted in 1838, is grown chiefly on the plateau of San José. The special adaptability of this region to its growth is attributed to the nature of the soil, which consists of layers of black or dark-brown volcanic ash, varying in depth from 1 to 6 yds. Bananas are grown over a large and increasing area; rice, maize, barley, potatoes and beans are cultivated to some extent in the interior; cocoa, vanilla, sugar-cane, cotton and indigo are products of the warm coast-lands, but are hardly raised in sufficient quantities to meet the local demand. Stock-farming, a relatively undeveloped industry, tends to become more important, owing to the assistance which the state renders by the importation of horses, cattle, sheep and swine, from Europe and the United States, in order to improve the native breeds. In the south-east farmers are often compelled to retire with their flocks and herds before the thousands of huge, migratory vampires, which descend suddenly on the pastures and are able in one night to bleed the strongest animal to death. The manufactures are insignificant; and although silver, copper, iron, zinc, lead and marble are said to exist in considerable quantities, the only ores that have been worked are gold, silver and copper. At the beginning of the 20th century the silver and copper mines had been abandoned. The goldfields are exploited with American capital, and yield a fair return.

Commerce.—The exports, which comprise coffee, bananas, cocoa, cabinet-woods and dye-woods, with hides and skins, mother-of-pearl, tortoiseshell and gold, were officially valued at £1,398,000 in 1904; and in the same year the imports, including foodstuffs, dry goods and hardware, were valued at £1,229,000. Over £1,250,000 worth of the exports consisted of coffee and bananas, and these commodities were of almost equal value. Nearly 85% of the coffee, or more than 20,000,000 lb, were sent to Great Britain. The development of the banana trade dates from 1881, when 3500 bunches of fruit were exported to New Orleans. This total increased very rapidly, and in 1902 a monthly service of steamers was established from Limon to Bristol and Manchester. The service to England soon became a weekly one, while there are at least three weekly sailings to the United States. In 1904 the number of bunches sent abroad exceeded 6,000,000. So important is this crop that the rate of wages to labourers in the banana districts is nearly 3s. daily, as compared with an average of 1s. 8d. in the coffee plantations. The bulk of the imports comes from the United States (52% in 1904), Great Britain (19%) and Germany (13%). Almost the whole foreign trade passes through Limon and Puntarenas. In 1904, exclusive of banana steamers, there were regular steamship services weekly from Limon to the United States and Germany, fortnightly to Great Britain, and monthly to France, Italy and Spain; while at Puntarenas four American liners called monthly on the voyage between San Francisco and Panama.

Finance.—The valuable resources of the republic, and its comparative immunity from revolution, formerly attracted the attention of European and American investors, who supplied the capital for internal development. In 1871 the government contracted a loan of £1,000,000 in London, and in 1872 it borrowed an additional £2,400,000 for railway construction. The outstanding foreign debt amounted in 1887 to £2,691,300, while the arrears of interest were no less than £2,119,500. An arrangement with the creditors was concluded in 1888; but in 1895 the republic again became bankrupt, and a fresh arrangement was sanctioned in March 1897, by which the interest on £1,475,000 was reduced to 2½% and that on £525,000 to 3%. It was provided that amortization, at £10,000 yearly, should begin in 1917. In 1904 the service of the external debt, which then amounted to £2,500,000, including £500,000 arrears of interest, was again suspended; the total of the internal debt was £815,000. About one-half of the national revenue is derived from customs, the remainder being principally furnished by railways, stamps, and the salt and tobacco monopolies. In the financial year 1904-1905 the revenue was £503,000, the expenditure £390,000. Education, internal development and the service of the internal debt were the chief sources of expenditure.

Money and Credit.—There are three important banks, the Anglo-Costa Rican Bank, with a capital of £120,000, the Bank of Costa Rica (£200,000), and the Commercial Bank of Costa Rica (£100,000), founded in 1905. On the 25th of April 1900 a law was enacted for the regulation of the constitution, capital, note emission and metallic reserves of banks. On the 24th of October 1896 an act was passed for the adoption of a gold coinage, and the execution of this act was decreed on the 17th of April 1900. The monetary unit is the gold colon weighing .778 gramme, .900 fine, and thus worth about 23d. It is legally equivalent to the silver peso, which continues in circulation. The gold coins of the United States, Great Britain, France and Germany are legally current. The metric system of weights and measures was introduced by law in 1884, but the old Spanish system is still in use.

Constitution and Government.—Costa Rica is governed under a constitution of 1870, which, however, only came into force in 1882, and has often been modified. The legislative power resides in a House of Representatives, consisting of about 30 to 40 deputies, or one for every 8000 inhabitants. The deputies are chosen for a term of four years by local electoral colleges, whose members are returned by the votes of all self-supporting citizens. One-half of the chamber retires automatically every two years. The president and three vice-presidents constitute the executive. They are assisted by a cabinet of four ministers, representing the departments of the interior, police and public works; foreign affairs, justice, religion and education; finance and commerce; war and marine. For purposes of local administration the state is divided into five provinces, Alajuela, Cartago, Guanacaste, Heredia and San José, and two maritime districts (*comarcas*), Limon and Puntarenas. All these divisions except Guanacaste—which takes its name from a variety of mimosa very common in the province—are synonymous with their chief towns; and each is controlled by a governor or prefect appointed by the president. Justice is administered by a supreme court, two courts of appeal, and the court of cassation, which sit in San José, and are supplemented by various inferior tribunals.

Religion and Education.—The Roman Catholic Church is supported by the state, and the vast majority of the people accept its doctrines; but complete religious liberty is guaranteed by the constitution. The Jesuits, who formerly exercised widespread influence, were expelled in 1884. Of the other religious communities, the most important are the Protestants, numbering 3000,

and the Buddhists, about 250. Primary education is free and compulsory; the standard of attendance is high and the instruction fair, but a large proportion of the older inhabitants were illiterate at the beginning of the 20th century. In the matter of secondary education considerable neglect has been shown. In 1904 there were only six secondary schools, including the institute of law and medicine and the training-school for teachers at San José. The state grants scholarships tenable at European universities to promising pupils, and there are three important public libraries.

Defence.—Military service in time of war is compulsory for all able-bodied citizens aged 18-50. There are a permanent army, of about 600; a militia, comprising an active service branch to which all under 40 belong, with a reserve for those between 40 and 50; and a national guard, including all males under 18 and over 50 who are capable of bearing arms. On a war footing these forces would number about 36,000. A gunboat and a torpedo boat constitute the navy, which, however, requires the services of an admiral, subordinate to the ministry of marine.

History.—The origin of the name *Costa Rica* (Spanish for "Rich Coast") has been much disputed. It is often stated that the territories to which the name is now applied were first known as *Nueva Cartago*, while *Costa Rica* was used in a wider sense to designate the whole south-western coast of the Caribbean Sea, from the supposed mineral wealth of this region. Then, in 1540, the name was restricted to an area approximately equal to that of modern Costa Rica. In such a case it must have been bestowed ironically, for the country proved very unprofitable to the gold-seekers, who were its earliest European settlers. Col. Church, in the paper cited below, derives it from *Costa de Oreja*, "Earring Coast," in allusion to the earrings worn by the Indians and remarked by their conquerors. He quotes evidence to show that this name was known to 16th-century cartographers.

With the rest of Central America, Costa Rica remained a province of the Spanish captaincy-general of Guatemala until 1821. Its conquest was completed by 1530, and ten years later it was made a separate province, the limits of which were fixed, by order of Philip II., between 1560 and 1573. This task was principally executed by Juan Vazquez de Coronado (or Vasquez de Coronada), an able and humane governor appointed in 1562, whose civilizing work was undone by the almost uninterrupted maladministration of his fifty-eight successors. The Indians were enslaved, and their welfare was wholly subordinated to the quest for gold. From 1666 onwards both coasts were ravaged by pirates, who completed the ruin of the country. Diego de la Haya y Fernandez, governor in 1718, reported to the crown that no province of Spanish America was in so wretched a condition. Cocoa-beans were the current coinage. Tomás de Acosta, governor from 1797 to 1809, confirmed this report, and stated that the Indians were clothed in bark, and compelled in many cases to borrow even this primitive attire when the law required their attendance at church.

On the 15th of September 1821 Costa Rica, with the other Central American provinces, revolted and joined the Mexican empire under the dynasty of Iturbide; but this subjection never became popular, and, on the establishment of a Mexican republic in 1823, hostilities broke out between the Conservatives, who desired to maintain the union, and the Liberals, who wished to set up an independent republic. The opposing factions met near the Ochomogo Pass; the republicans were victorious, and the seat of government was transferred from Cartago, the old capital, to San José, the Liberal headquarters. From 1824 to 1839 Costa Rica joined the newly formed Republic of the United States of Central America; but the authority of the central government proved little more than nominal, and the Costa Ricans busied themselves with trade and abstained from politics. The exact political status of the country was not, however, definitely assured until 1848, when an independent republic was again proclaimed. In 1856-60 the state was involved in war with the adventurer William Walker (see Central America); but its subsequent history has been one of immunity from political disturbances, other than boundary disputes, and occasional threats of revolution, due chiefly to unsatisfactory economic conditions. The attempt of J. R. Barrios, president of Guatemala, to restore federal unity to Central America failed in 1885, and had little influence on Costa Rican affairs. In 1897 the state joined the Greater Republic of Central America, established in 1895 by Honduras, Nicaragua and Salvador, but dissolved in 1898. The boundary question between Costa Rica and Nicaragua was referred to the arbitration of the president of the United States, who gave his award in 1888, confirming a treaty of 1858; further difficulties arising from the work of demarcation were settled by treaty in 1896. The boundary between Costa Rica and Panama (then a province of Colombia) was fixed by the arbitration of the French president, who gave his award on the 15th of September 1900. The frontiers delimited in accordance with these awards have already been described.

Bibliography.—In addition to the works on Central America cited under that heading, the following give much general information: G. Niederlein, *The Republic of Costa Rica*

(Philadelphia, 1898); R. Villafranca, *Costa Rica* (New York, 1895); L. Z. Baron, *Compendio geographico y estadistico de la Republica de Costa Rica* (San José, 1894); H. Pittier, *Apuntaciones sobre el clima y geographia de la Republica de Costa Rica* (San José, 1890); P. Biolley, *Costa Rica and her Future* (Washington, 1889); M. M. de Peralta, *Costa Rica* (London, 1873). For an account of immigration, commerce and other mainly statistical matters, see J. Schroeder, *Costa Rica State Immigration* (San José, 1894); *Bulletins* of the Bureau of American Republics (Washington); British *Diplomatic and Consular Reports* (London); U.S.A. *Consular Reports* (Washington); *Reports of the Ministries* (San José). For the history of Costa Rica, see L. Z. Baron, *Compendio de la historia de Costa Rica* (San José, 1894); F. M. Barrantes, *Elementos de historia de Costa Rica* (San José, 1892); J. B. Calvo, *The Republic of Costa Rica* (Chicago, 1890), gives a partisan account of local politics, trade and finance, authorized by the government. Frontier questions are discussed fully in Col. G. E. Church's "Costa Rica," a very valuable paper in vol. x. of the *Journal of the Royal Geographical Society* (London, 1897); and, by Dr E. Seler, in "Der Grenzstreit zwischen den Republiken Costa Rica und Colombia," in *Petermann's Mittheilungen*, vol. xlvi. (1900). For a detailed bibliography see D. J. Maluquer, *Republica de Costa Rica* (Madrid, 1890). The best maps are that of the Bureau of American Republics (1903), and, for physical features, that of Col. Church, published by the R.G.S. (London, 1897).

COSTELLO, DUDLEY (1803-1865), English journalist and novelist, son of Colonel J. F. Costello, was born in Ireland in 1803. He was educated for the army at Sandhurst, and served for a short time in India, Canada and the West Indies. His literary and artistic tastes led him to quit the army in 1828, and he then passed some years in Paris. He was introduced to Baron Cuvier, who employed him as draughtsman in the preparation of his *Règne animal*. He next occupied himself in copying illuminated manuscripts in the Bibliothèque Royale; and to him and his sister belongs the merit of being the first to draw general attention to this beautiful forgotten art, and of thus leading to its revival. About 1838 Costello became foreign correspondent to the *Morning Herald*; in 1846 he became foreign correspondent of the *Daily News*; and during the last twenty years of his life he held the post of sub-editor of the *Examiner*. He wrote *A Tour through the Valley of the Meuse* (1845) and *Piedmont and Italy, from the Alps to the Tiber* (1859-1861). Among his novels are *Stories from a Screen* (1855), *The Millionaire* (1858), *Faint Heart never won Fair Lady* (1859) and *Holidays with Hobgoblins* (1860). He died on the 30th of September 1865.

His elder sister, Louisa Stuart Costello (1799-1870), author and miniature painter, was born in Ireland in 1799. Her father died while she was young, and Louisa, who removed to Paris with her mother in 1814, helped to support her mother and brother by her skill as an artist. At the age of sixteen she published a volume of verse entitled *The Maid of the Cyprus Isle, and other poems*. This was followed in 1825 by *Songs of a Stranger*, dedicated to W. L. Bowles. Ten years later appeared her *Specimens of the Early Poetry of France*, illustrated by beautifully executed illuminations, the work of her brother and herself. It was dedicated to Moore, and procured her his friendship as well as that of Sir Walter Scott. Her principal works are—*A Summer among the Bocages and Vines* (1840); *The Queen's Poisoner* (or *The Queen-Mother*), a historical romance (1841); *Béarn and the Pyrenees* (1844); *Memoirs of Eminent Englishwomen* (1844); *The Rose Garden of Persia* (1845), a series of translations from Persian poets, with illuminations by herself and her brother; *The Falls, Lakes and Mountains of North Wales* (1845); *Clara Fane* (1848), a novel; *Memoirs of Mary of Burgundy* (1853); and *Memoirs of Anne of Brittany* (1855). She died at Boulogne on the 24th of April 1870.

COSTER-MONGER (originally Costard-monger, a seller of costards, a species of large ribbed apple). The word "monger" is common, in various forms, in Teutonic languages in the sense of trader or dealer, and appears in "iron-monger" and "fish-monger," and with a derogatory significance of petty or under-hand dealing in such words as "scandal-monger." A "coster-monger," or "coster," originally, therefore, one who sold apples and fruit in the street, is now an itinerant dealer in fruit, vegetables or fish, but more particularly, as distinguished from a "hawker" on the one hand, and "general dealer" on the other, is a street trader in the above commodities who uses a barrow. The coster-monger's trade in London, so far as it falls under

clause 6 of the Metropolitan Streets Act 1867, which deals with obstruction by goods to footways and streets is subject to regulations of the commissioner of police. So long as these are carried out, coster-mongers, street hawkers and itinerant traders are exempted, by an amending act, from the liabilities imposed by clause 6 of the above act.

COSTS, a term used in English law to denote the expenses incurred (1) in employing a lawyer in his professional capacity for purposes other than litigation; (2) in instituting and carrying on litigation whether with or without the aid of a lawyer.

Solicitor and Client.—The retainer of a solicitor implies a contract to pay to him his proper charges and disbursements with respect to the work done by him as a solicitor. In cases of conveyancing his remuneration is now for the most part regulated by scales *ad valorem* on the value of the property dealt with (Solicitors' Remuneration Order 1882), and clients are free to make written agreements for the conduct of any class of non-litigious business, fixing the costs by a percentage on the value of the amount involved. So far as litigious business is concerned, the arrangement known as "no cure no pay" is objected to by the courts and the profession as leading to speculative actions, and stipulations as to a share of the proceeds of a successful action are champertous and illegal. An English solicitor's bill drawn in the old form is a voluminous itemized narrative of every act done by him in the cause or matter with a charge set against each entry and often against each letter written. Before the solicitor can recover from his client the amount of his charges, he must deliver a signed bill of costs and wait a month before suing.

The High Court has a threefold jurisdiction to deal with solicitors' costs:—(1) by virtue of its jurisdiction over them as its officers; (2) statutory, under the Solicitors Act 1843 and other legislation; (3) ordinary, to ascertain the reasonableness of charges made the subject of a claim.

The client can, as a matter of course, get an order for taxation within a month of the delivery of the solicitor's bill, and either client or solicitor can get such an order as of course within twelve months of delivery. After expiry of that time the court may order taxation if the special circumstances call for it, and even so late as twelve months after actual payment.

Costs as between solicitor and client are taxed in the same office as litigious costs, and objections to the decisions of the taxing officer, if properly made, can be taken for review to a judge of the High Court and to the Court of Appeal.

Litigious Costs.—The expenses of litigation fall in the first instance on the person who undertakes the proceedings or retains and employs the lawyer. It is in accordance with the ordinary ideas of justice that the expenses of the successful party to litigation should be defrayed by the unsuccessful party, a notion expressed in the phrase that "costs follow the event." But there are many special circumstances which interfere to modify the application of this rule. The action, though successful, may be in its nature frivolous or vexatious, or it may have been brought in a higher court where a lower court would have been competent to deal with it. On the other hand the defendant, although he has escaped a judgment against him, may by his conduct have rendered the action necessary or otherwise justifiable. In such cases the rule that costs should follow the event would be felt to work an injustice, and exceptions to its operation have therefore been devised. In the law of England the provisions as to litigious costs, though now simpler than of old, are still elaborate and complicated, and the costs themselves are on a higher scale than is known in most other countries.

Except as regards appeals to the House of Lords and suits in equity, the right to recover costs from the opposite party in litigation has always depended on statute law or on rules made under statutory authority, "Costs are the creature of statute." The House of Lords has declared its competence to grant costs on appeals independently of statute.

In the judicial committee of the privy council the power to award, in its discretion, costs on appeals from the colonies or other matters referred to it, is given by § 15 of the Judicial Committee Act 1833; and the costs are taxed by the registrar of the council.

Courts of equity have always claimed a discretion independently of statute to give or refuse costs, but as a general rule the maxim of the civil law, *victus victori in expensis condemnatus est,* was followed. The successful party was recognized to have a prima facie claim to costs, but the court might, on sufficient cause shown, not only deprive him of his costs, but even in

some rare cases order him to pay the costs of his unsuccessful opponent. There was a class of cases in which the court generally gave costs to parties sustaining a certain character, whatever might be the result of the suit (e.g. trustees, executors and mortgagees).

In the courts of common law, costs were not given either to plaintiff or defendant, although the damages given to a successful plaintiff might suffice to cover not only the loss sustained by the wrong done, but also the expense he had been put to in taking proceedings. The defendant in a baseless or vexatious action could not even recover his costs thus indirectly, and the indirect costs given to a plaintiff under the name of damages were often inadequate and uncertain. Costs were first given under the Statute of Gloucester (1277, 6 Edward I. c. 1), which enacted that "the demandant shall recover damages in an assize of novel disseisin and in writs of mort d'ancestor, cosinage, aiel and beziel, and further that the demandant may recover against the tenant the costs of his writ purchased together with the damages above said. And this act shall hold in all cases when the party is to recover damages." The words "costs of his writ" were extended to mean all the legal costs in the suit. The statute gave costs, wherever damages were recovered, and no matter what the amount of the damages may be. Costs were first given to a defendant by the Statute of Marlbridge (1267) in a case relating to wardship in chivalry (52 Henry III. C. 6); but costs were not given generally to successful defendants until 1531 (23 Henry VIII. c. 15), when it was enacted that "if in the actions therein mentioned the plaintiff after appearance of the defendant be non-suited, or any verdict happen to pass by lawful trial against the plaintiff, the defendant shall have judgment to recover his costs against the plaintiff, to be assessed and taxed at the discretion of the court, and shall have such process and execution for the recovery and paying his costs against the plaintiff, as the plaintiff should or might have had against the defendant, in case the judgment had been given for the plaintiff." In 1606 by 4 James I. c. 3, this "good and profitable law" was extended to other actions not originally specified, although within the mischief of the act, so that in any action wherein the plaintiff might have costs if judgment were given for him, the defendant if successful should have costs against the plaintiff. The policy of these enactments is expressed to be the discouragement of frivolous and unjust suits. This policy was carried out by other and later acts. The Limitations Act 1623, § 6, ordered that if the plaintiff in an action of slander recovered less than 40s. damages, the plaintiff should be allowed no more as costs than he got as damages. By 43 Elizabeth c. 6 it was enacted that in any personal action not being for any title or interest in land, nor concerning the freehold or inheritance of lands nor for battery, where the damages did not amount to 40s. no more costs than damages could be allowed. By 3 & 4 Vict. c. 24 (Lord Denman's Act 1840), where the plaintiff in an action of tort recovered less than 40s., he was not allowed costs unless the judge certified that the action was really brought to try a right besides the right to recover damages, or that the injury was wilful or malicious.

All these enactments have been superseded by the Judicature Acts, but in the case of slander on women the provisions of the act of 1623 were re-enacted in the Slander of Women Act 1891.

Supreme Court.—The general rule now in force in the Supreme Court of Judicature is as follows:—"Subject to the provisions of the Judicature Acts and the rules of the court made thereunder, and to the express provision of any statute whether passed before or after the 14th of August 1890, the costs of and incident to all proceedings in the Supreme Court, including the administration of estates and trusts, shall be in the discretion of the court or judge, and the court or judge shall have full power to determine by whom and to what extent such costs are to be paid. Provided (1) that nothing herein contained shall deprive an executor, administrator, trustee or mortgagee who has not unreasonably carried on or resisted any proceedings of any right to costs out of a particular estate or fund to which he would be entitled under the rules hitherto (i.e. before 1883) acted upon in the chancery division as successor of the court of chancery; (2) that where an action, cause, matter or issue is tried with a jury, the costs shall follow the event unless the judge who tried the case or the court shall for good cause otherwise order." (R.S.C., O. 65, r. 1.)

The rule above stated applies to civil proceedings on the crown side of the king's bench division, including mandamus, prohibition *quo warranto*, and certiorari (*R.* v. *Woodhouse*, 1906, 2 K.B. 502, 540); and to proceedings on the revenue side of that division (O. 68, r. 1); but it does not apply to criminal proceedings in the High Court, which are regulated by the crown office rules of 1906, or by statutes dealing with particular breaches of the law, and as to procedure in taxing costs by O. 65, r. 27, of the Rules of the Supreme Court.

The rule is also subject to specific provision empowering the courts to limit the costs to be adjudged against the unsuccessful party in proceedings in the High Court, which could and should have been instituted in a county court, e.g. actions of contract under £100, or actions of tort in which less than £10 is recovered (County Courts Act 1888, §§ 65, 66, 116; County

Courts Act 1903, § 3).

For instance, in actions falling within the Public Authorities Protection Act 1893 against public bodies or officials, the defendant, if successful, is entitled to recover costs as between solicitor and client unless a special order to the contrary is made by the court; and under some statutes still unrepealed, double or treble costs are to be allowed. Besides the rules above stated, there is also a provision, adopted from the practice of courts of equity, that if tender was made before action of a sum sufficient to satisfy the plaintiff's just demand and is followed by payment into court in the action of the sum tendered, the court will make the plaintiff pay the costs of action as having been unnecessarily brought.

Costs of interlocutory proceedings in the course of a litigation are sometimes said to be "costs in the cause," that is, they abide the result of the principal issue. A party succeeding in interlocutory proceedings, and paying the costs therein made "costs in the cause," would recover the amount of such costs if he had a judgment for costs on the result of the whole trial, but not otherwise. But it is usual now not to tax the costs of interlocutory proceedings till after final judgment.

Taxation.—When an order to pay the costs of litigation is made the costs are taxed in the central office of the High Court, unless the court when making the order fixes the amount to be paid (R.S.C., O. 65, r. 23). Recent changes in the organization for taxing have tended to create a uniformity of system and method which had long been needed.

The taxation is effected, under an elaborate set of regulations, by reference to the prescribed scales, and on what is known as the lower scale, unless the court has specially ordered taxation on the higher scale (R.S.C., O. 65, rr. 8, 9, appendix N).

In the taxation of litigious costs two methods are still adopted, known as "between party and party" and "between solicitor and client." Unless a special order is made the first of the two methods is adopted. Until very recently "party and party" costs were found to be a very imperfect indemnity to the successful litigant; because many items which his solicitor would be entitled to charge against him for the purposes of the litigation were not recoverable from his unsuccessful opponent. The High Court can now, in exercise of the equitable jurisdiction derived from the court of chancery, make orders on the losing party to pay the costs of the winner as between solicitor and client. These orders are not often made except in the chancery division. But even where party and party costs only are ordered to be paid under the present practice (dating from 1902), the taxing office allows against the unsuccessful party all costs, charges and expenses necessary or proper for the attainment of justice or defending the rights of the successful party, but not costs incurred through over-caution, negligence, or by paying special fees to counsel or special fees to witnesses or other persons, or by any other unusual expenses (R.S.C., O. 65, rr. 27, 29). This practice tends to give an approximate indemnity, while preventing oppression of the losing party by making him pay for lavish expenditure by his opponent. The taxation is subject to review by a judge on formal objections carried on, and an appeal lies to the Court of Appeal.

County Courts.—The costs of all proceedings in county courts follow the event, unless the judge in his discretion otherwise orders. The amount allowed is regulated by scales included in the county court rules, and is ascertained by the registrar of the court subject to any special direction by the judge, and to review by him. The costs are allowed as between party and party, but the registrar on the application of solicitor or party, and subject to the like review, taxes costs as between solicitor and client. Nothing is allowed which is not sanctioned by the scales, unless it is proved that the client has agreed in writing to pay (County Courts Act 1888, § 118).

Costs in Criminal Cases.—In criminal cases the right to recover the expenses of prosecution or defence from public funds or the opposite party depends wholly on statute. According to the common law rule the crown neither pays nor receives costs, but the rule is in some cases altered by statute (*Thomas* v. *Pritchard*, 1903, 1 K.B. 209).

Courts of summary jurisdiction may order costs to be paid by the unsuccessful to the successful party (Summary Jurisdiction Act 1848, § 18).

On prosecutions for treason or felony the court may order the accused person, if convicted, to pay the costs of his prosecution (Forfeiture Act 1870); and the like power exists as to persons convicted of offences indictable under the Criminal Law Amendment Act 1885 (see § 18), and as to persons convicted on indictment of assault, corrupt practices at elections, offences against the Merchandise Marks Acts, or of defamatory libel, if they have unsuccessfully pleaded jurisdiction.

Provision is also made for the payment out of the local rate of the district of the costs of

prosecuting all felonies (except treason felony) and a number of misdemeanours. A list of these offences will be found in Archbold, *Criminal Pleading*, 23rd ed., 246. The legislation on this subject authorizes the payment of the expenses of witnesses and of the prosecutor, both at a preliminary inquiry before justices and at the trial, and in the case of summary conviction for any of the indictable offences in question. It has been extended so as to include the expenses of witnesses for the defence in any indictable case if they have given evidence at the preliminary inquiry, and the costs of the defence of poor prisoners in every indictable case in which the committing justices or the court of trial certify for legal aid (Poor Prisoners' Defence Act 1903). The costs are taxed by the proper officer of the court of assize or the clerk of the peace in accordance with scales issued by the Home Office in 1903 and 1904. These scales do not fix the fees to be allowed to counsel or solicitor for the prosecution. The costs, when taxed, are paid by the treasurer of the county or borough on whom the order for payment is made.

Where a prosecution or indictment fails, the prosecutor cannot as a rule be made to pay the costs of the defence: except in cases within the Vexatious Indictments Act 1859 and its amendments (i.e. where he has, after a refusal by justices to commit for trial, insisted on continuing the prosecution); or where a defamatory libel is successfully justified, or where prosecutions in respect of merchandise marks or corrupt practices at elections have failed.

(W. F. C.)

COSTUME (through the Fr. *costume*, from Ital. *costume*, Late Lat. *costuma*, a contracted form of Lat. *consuetudinem*, acc. of *consuetudo*, custom, habit, manner, &c.), dress or clothing, especially the distinctive clothing worn at different periods by different peoples or different classes of people. The word appears in English in the 18th century, and was first applied to the correct representation, in literature and art, of the manners, dress, furniture and general surroundings of the scene represented. By the early part of the 19th century it became restricted to the fashion or style of personal apparel, including the head-dresses, jewelry and the like.

The subject of clothing is far wider than appears at first sight. To the average man there is a distinction between clothing and ornament, the first being regarded as that covering which satisfies the claims of modesty, the second as those appendages which satisfy the aesthetic sense. This distinction, however, does not exist for science, and indeed the first definition involves a fallacy of which it will be as well to dispose forthwith.

Modesty is not innate in man, and its conventional nature is easily seen from a consideration of the different ideas held by different races on this subject. With Mahommedan peoples it is sufficient for a woman to cover her face; the Chinese women would think it extremely indecent to show their artificially compressed feet, and it is even improper to mention them to a woman; in Sumatra and Celebes the wild tribes consider the exposure of the knee immodest; in central Asia the finger-tips, and in Samoa the navel are similarly regarded. In Tahiti and Tonga clothing might be discarded without offence, provided the individual were tattooed; and among the Caribs a woman might leave the hut without her girdle but not unpainted. Similarly, in Alaska, women felt great shame when seen without the plugs they carried in their lips. Europeans are considered indelicate in many ways by other races, and a remark of Peschel[1] is to the point: "Were a pious Mussulman of Ferghana to be present at our balls and see the bare shoulders of our wives and daughters, and the semi-embraces of our round dances, he would silently wonder at the long-suffering of Allah who had not long ago poured fire and brimstone on this sinful and shameless generation." Another point of interest lies in the difference of outlook with which nudity is regarded by the English and Japanese. Among the latter it has been common for the sexes to take baths together without clothing, while in England mixed bathing, even in full costume, is even now by no means universal. Yet in England the representation of the nude in art meets with no reproach, though considered improper by the Japanese. Even more striking is the fact that in civilized countries what is permitted at certain times is forbidden at others; a woman will expose far more of her person at night, in the ballroom or theatre, than would be considered seemly by day in the street; and a bathing costume which would be thought modest on the beach would meet with reprobation in a town.

Modesty therefore is highly conventional, and to discover its origin the most primitive tribes must be observed. Among these, in Africa, South America, Australia and so forth, where clothing is at a minimum, the men are always more elaborately ornamented than the women.

At the same time it is noticeable that no cases of spinsterhood are found; celibacy, rare as it is, is confined to the male sex. It is reasonable, therefore, to conclude that ornament is a stimulus to sexual selection, and this conclusion is enforced by the fact that among many comparatively nude peoples clothing is assumed at certain dances which have as their confessed object the excitation of the passions of the opposite sex. Many forms of clothing, moreover, seem to call attention to those parts of the body of which, under the conditions of Western civilization at the present day, it aims at the concealment; certain articles of dress worn by the New Hebrideans, the Zulu-Xosa tribes, certain tribes of Brazil and others, are cases in point. Clothing, moreover—and this is true also of the present day—almost always tends to accentuate rather than to conceal the difference between the sexes. Looking at the question then from the point of view of sexual selection it would seem that a stage in the progress of human society is marked by the discovery that concealment affords a greater stimulus than revelation; that the fact is true is obvious,—even to modern eyes a figure partially clad appears far more indecent than a nude. That the stimulus is real is seen in the fact that among nude races flagrant immorality is far less common than among the more clothed; the contrast between the Polynesians and Melanesians, living as neighbours under similar conditions, is striking evidence on this point. Later, when the novelty of clothing has spent its force, the stimulus is supplied by nudity complete or partial.

One more point must be considered: there is the evidence of competent observers to show that members of a tribe accustomed to nudity, when made to assume clothing for the first time, exhibit as much confusion as would a European compelled to strip in public. This fact, considered together with what has been said above, compels the conclusion that modesty is a feeling merely of acute self-consciousness due to appearing unusual, and is the result of clothing rather than the cause. In the words of Westermarck: “The facts appear to prove that the feeling of shame, far from being the cause of man’s covering his body, is, on the contrary, a result of this custom; and that the covering, if not used as a protection from the climate, owes its origin, at least in a great many cases, to the desire of men and women to make themselves mutually attractive.”

Primitive adornment in its earliest stages may be divided into three classes; first the moulding of the body itself to certain local standards of beauty. In this category may be placed head-deformation, which reached its extreme development among the Indians of North-West America and the ancient Peruvians; foot-constriction as practised by the Chinese; tooth-chipping among many African tribes; and waist-compression common in Europe at the present day. Many forms of deformation, it may be remarked in passing, emphasize some natural physical characteristic of the people who practise them. Secondly, the application of extraneous matter to the body, as painting and tattooing, and the raising of ornamental scars often by the introduction of foreign matter into flesh-wounds (this practice belongs partly to the first category also). Thirdly, the suspension of foreign bodies from, or their attachment to, convenient portions of the body. This category, by far the largest, includes ear-, nose- and lip-ornaments, head-dresses, necklets, armlets, wristlets, leglets, anklets, finger-and toe-rings and girdles. The last are important, as it is from the waist-ornaments chiefly that what is commonly considered clothing at the present day has been developed.

Setting aside for the moment the less important, historically, of these, nearly all of which exist in Western civilization of the present day, it will be as well to consider that form of dress which is marked by the greatest evolution. It is generally supposed that man originated in tropical or subtropical latitudes, and spread gradually towards the poles. Naturally, as the temperature became lower, a new function was gradually acquired by his clothing, that of protecting the body of the wearer. Climate then is one of the forces which play an important part in the evolution of dress; at the same time care must be taken not to attribute too much influence to it. It must be remembered that the Arabs, who inhabit an extremely hot country, are very fully clothed, while the Fuegians at the extremity of Cape Horn, exposed to all the rigours of an antarctic climate, have, as sole protection, a skin attached to the body by cords, so that it can be shifted to either side according to the direction of the wind.

Dr. C. H. Stratz divides clothing climatically into two classes: tropical, which is based on the girdle (or, when the attachment is fastened round the neck, the cloak), and the arctic, based on the trouser. This classification is ingenious and convenient as far as it goes, but it seems probable that the trouser, which also has the waist as its point of attachment, may itself be a further development of the girdle. Certainly, however, in historical times the division holds good, and it is worthy of remark that one of the points about the northern barbarians which struck the ancient Greeks and Romans most forcibly was the fact that they wore trousers. Amongst the most northerly races the latter garb is worn by both sexes alike; farther south by the men, the women retaining the tropical form; farther south still the latter reigns supreme. No distinct latitude can be assigned as a boundary between the two forms, from the simple

fact that where migration in comparatively recent times has taken place a natural conservatism has prevented the more familiar garb from being discarded; at the same time the two forms can often be seen within the limits of the same country; as, for instance, in China, where the women of Shanghai commonly wear trousers, those of Hong-Kong skirts. The retention by women in Europe of the tropical garb can be explained by the fact that her sphere has been mainly confined to the house, and her life has been less active than that of man; consequently the adoption of the arctic dress has been in her case less necessary. But it is noticeable that where women engage in occupations of a more than usually strenuous nature, they frequently don male costume while at their work; as, for instance, women who work in mines (Belgium) and who tend cattle (Switzerland, Tirol). The retention of the tropical pattern by the Highlanders is due directly to environment, since the kilt is better suited than trousers for walking over wet heather.

Another factor besides climate which has exerted a powerful influence on dress—more perhaps on what is commonly regarded as "jewelry" as distinct from "clothing"—is superstition. Doubtless many of the smaller objects with which primitive man adorned himself, especially trophies from the animal world, were supposed to exert some beneficial or protective influence on the wearer, or to produce in him the distinguishing characteristics attributed to the object, or to the whole of which the object was a part. Such objects might be imitated in other materials and by successive copying lose their identity, or their first meaning might be otherwise forgotten, and they would ultimately exercise a purely decorative function. Though this factor may be responsible for much, or even the greater part, of primitive "jewelry," yet it does not seem likely that it is the cause of all forms of ornament; much must be attributed to the desire to satisfy an innate aesthetic sense, which is seen in children and of which some glimmerings appear among the lower animals also.

See Ed. Westermarck, *The History of Human Marriage* (London, 1901); Racinet, *Le Costume historique* (Paris, 1888); C. H. Stratz, *Frauenkleidung* (Stuttgart).

(T. A. J.)

I. Ancient Costume

i. *Ancient Oriental.*—Although the numerous discoveries of monuments, sculptures, wall-paintings, seals, gems, &c., combine with the evidence from inscriptions and from biblical and classical writers to furnish a considerable accumulation of material, the methodical study of costume (in its widest sense) in the ancient oriental world (western Asia and Egypt) has several difficulties of its own. It is often difficult to obtain quite accurate or even adequate reproductions of scenes and subjects, and, when this is done, it is obviously necessary to refrain from treating the work of the old artists and sculptors as equivalent to photographic representations. Art tended to become schematic, artists were bound by certain limitations and conventions (Egypt under Amenophis IV. is a notable exception), and their work was apt to be stilted. In Egypt, too, the spirit of caricature occasionally shows itself. But when every allowance is made for the imperfections or the cunning of the workman, one need only examine any collection of antiquities to see that there was a distinct appreciation of foreign physical types (not so much for personal portraiture), costumes, toilet, armour and decoration, often markedly different from native forms, and that a single scene (e.g. war, tribute-bearers, captives) will represent varieties of dress which are consistently observed in other scenes or which can be substantiated from native sources.[2] Important evidence can thus be obtained on ethnological relations, foreign influences and the like. Speaking generally, it has been found that the East as opposed to the West has undergone relatively little alteration in the principal constituents of dress among the bulk of the population, and, although it is often difficult to interpret or explain some of the details as represented (one may contrast, for example, worn sculptures or seals with the vivid Egyptian paintings), comparison with later descriptions and even with modern usage is frequently suggestive. The vocabulary of old oriental costume is surprisingly large, and some perplexity is caused by the independent evolution both of the technical terms (where they are intelligible) and of the articles of dress themselves. In reality there were numerous minor variations in the cut and colour of ancient dress even as there are in the present day in or around Palestine. These differences have depended upon climate, occupation, occasion (e.g. marriage, worship, feasts), and especially upon individual status and taste. Rank has accounted for much, and ceremonial dress—the apparel of the gods, their representatives and their ministers—opens out several interesting lines of inquiry. The result of intercourse, whether with other Orientals, or (in later times) with Greeks and Romans, naturally left its mark, and there have been ages of increasing luxury followed by periods of reaction, with a general levelling and nationalization on religious grounds (Judaism, Islam). All in all the study of oriental costume down to the days of Hellenism proves to be something more than that of mere apparel, and any close survey of the evidence speedily raises questions

which concern old oriental history and thought.

Body-Covering.

The simplest of all coverings is the loin-cloth characteristic of warm climates, and a necessary protection where there are trying extremes of temperature. Clothing did not originate in ideas of decency (Gen. ii. 25, iii. 7). Children ran and still run about naked, the industrious workman upon the Egyptian monuments is often nude, and the worshipper would even appear before his deity in a state of absolute innocence.[3] The Hebrews held that the leaves of the fig-tree (the largest available tree in Palestine) served primitive man and that the Deity gave them skins for a covering—evidently after he had slain the animals (Gen. iii. 21). With this one may compare the Phoenician myth (now in a late source) which ascribed the novelty of the use of skins to the hero Usōos (cf. the biblical Esau, q.v.). The loin-or waist-cloth prevailed under a very great variety of minor differentiated forms. In Egypt it was the plain short linen cloth wrapped around the loins and tied in front (see fig. 1). It was the usual garb of scribes, servants and peasants, and in the earlier dynasties was worn even by men of rank. Sometimes, however, it was of matting or was seated with leather, or it would take the form of a narrow fringed girdle resembling that of many African tribes. The Semites who visited Egypt wore a larger and coloured cloth, ornamented with parallel stripes of patterns similar to those found upon some early specimens of Palestinian pottery. The border was fringed or was ornamented with bunches of tassels. But a close-fitting skirt or tunic was more usual, and the Semites on the famous Beni-Hasan tombs (about the 20th or 19th century B.C.) wear richly decorated cloth (pattern similar to the above), while the leader is arrayed in a magnificent wrapper in blue, red and white, with fringed edges, and a neck-ribbon to keep it in position (see fig. 2).[4] In harmony with prevailing custom the women's dress is rather longer than that of the men, but both sexes have the arms free and the right shoulder is exposed. Returning to Egypt we find that the loin-cloth developed downwards into a skirt falling below the knees. Among the upper classes it was unusually broad and was made to stand out in front in triangular form. In the Middle Kingdom an outer fine light skirt was worn over the loin-cloth; ordinary people, however, used thicker material. Egyptian women had a tight foldless tunic which exposed the breasts; it was generally kept up by means of braces over the shoulders. This plain diaphanous garment, without distinction of colour (white, red or yellow), and with perhaps only an embroidered hem at the top, was worn by the whole nation, princess and peasant, from the IVth to the XVIIIth Dynasties (Erman, *Life in Ancient Egypt*, p. 212). Variation, such as it was, consisted of a sleeveless dress covering the shoulders, the neck being cut in the shape of a V. Female servants and peasants when engaged at work, however, had a short skirt which left the legs free and the upper part of the body bare; a like simplicity was probably customary among female servants or captives throughout (cf. Isa. xlvii. 2). Even at the present day the wardrobe of the Sinaitic Bedouin is much more complicated than that of their female folk.

FIG. 1.—Egyptian Loin-cloth.

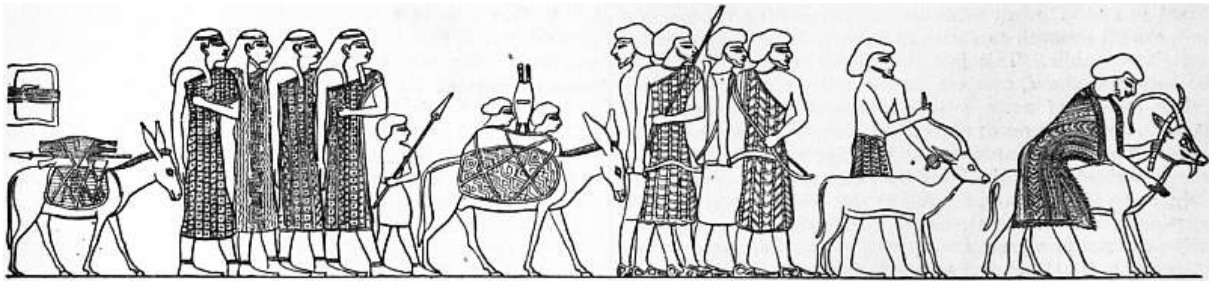


FIG. 2.—Asiatics visiting Egypt (Beni-Hasan Tombs).

From Hilprecht's *Explorations in Bible Lands*, by permission of A. J. Holman & Co. and T. & T. Clark.

FIG. 3.—Old Babylonian Costume.

FIG. 4.—Naram-Sin on the Stele of Victory.

The earliest dress of Babylonia also covered only the lower half of the body. As worn by gods and men it was a long and rather loose kind of skirt suspended from a girdle. It is sometimes smooth; but sometimes it is a shaggy skin (or woollen) skirt with horizontal rows of vertically furrowed stuff. It allowed a certain freedom to the legs, but often it is not clear whether it was joined down the middle. An instructive development shows the upper part of the skirt hanging over the girdle so that an elementary mantle would be obtained by drawing the loose end up over the shoulders (Meyer, p. 93, cf. pp. 55, 76). The characteristic skirt is sometimes supplemented by a coarse cloth, perhaps a fleece, thrown over the shoulders; and in later times it is seen fastened outside a tunic by means of a girdle (see fig. 3).

The favourite attitude, one leg planted firmly before the other, shows the right leg fully exposed. A tunic or skirt is found as early as the time of Naram-Sin, son of the great Sargon; it reaches to his knees and appears to be held up by ornamental shoulder-bands (Meyer, pp. 11, 115; fig. 4). Egyptian monuments depict Semites with long bordered tunics reaching from neck to ankle; they have sleeves, which are sometimes curiously decorated, and are tied at the neck with tasselled cords; sometimes there is a peculiar design at the neck resembling a cross (Müller, *Asien und Europa*, pp. 298 seq.). The Hittite warriors upon north Syrian sculptures (Zenjīrli, perhaps 11th to 9th centuries) have a short-sleeved tunic which ends above the knees, and this type of garment recurs over a large area with numerous small variations (with or without girdle, slits at the neck, or bordering). An interesting example of the long plain variety is afforded by the prisoners of Lachish before Sennacherib (701 B.C.); the circumstances and a comparison of the details would point to its being essentially a simple dress indicative of mourning and humiliation. It may be compared in its general form with the woollen *jubba* of Arabia, which reached to the knees and was sewn down the front (except at the top and bottom). A modern Bedouin equivalent has long sleeves; it is common to both sexes, the chief difference lying in the colour—white for men, dyed with indigo for women.

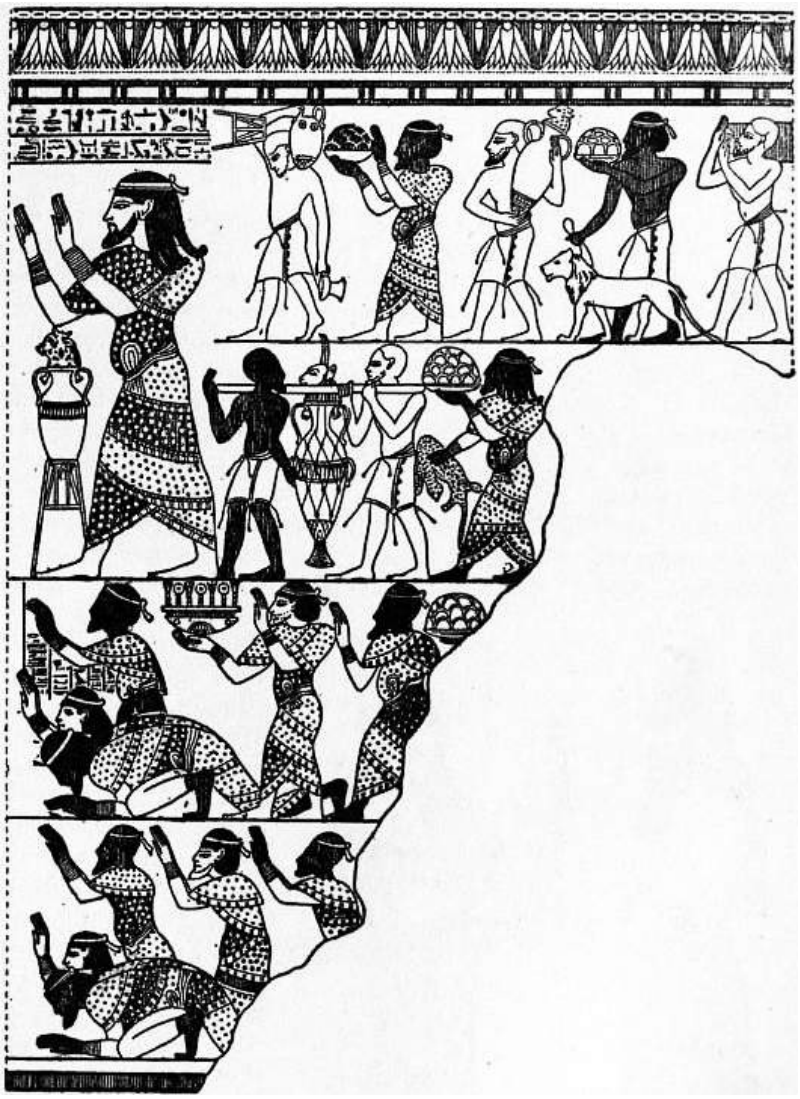


FIG. 5.—Asiatic Envoys in Egypt.

FIG. 6.—An Egyptian Officer.

Another very characteristic garment suggests an original loin-cloth considerably longer than the elementary article which was noticed above. The Arab *izār*, though now a large outer wrapper, was once a loin-cloth (like the Hebrew *ĕzōr*), which, however, was long enough to be trodden upon. At the present day male and female pilgrims at Mecca wear such a cloth (the *iḥrām*); it covers the knees and one end of it may be cast over the shoulder. In Egyptian tombs have been found linen bands no less than 30 ft. in length and 3 ft. in width. The distinctive feature is the spiral arrangement of the garment, the body being wrapped to a greater or less extent with a bandage of varying length in more or less parallel stripes. In old Babylonia both the arms and the whole of the right shoulder were originally uncovered, and one end of the garment was allowed to hang loose over the left arm. It is frequently found upon deities, kings and magnates, and appears to have been composed of some thick furrowed or fluted material, sometimes of bright and variegated design. Not seldom it is difficult to distinguish between the true spiral garment and a dress with parallel horizontal stripes, and one could sometimes suppose that the flounced dress with volants, well known in the Aegean area, had its parallel in Babylonia.[5] Egypt furnishes admirable painted and sculptured representations of the forms taken by the Semitic spiral dress in the XVIIIth and XIXth Dynasties; the highly-coloured and gay apparel of Palestine and Syria standing in the strongest contrast to the plain, simple and often scanty garments of the Egyptians (fig. 5). While the common Semite wore a short skirt, often with tassels and sometimes with an upper tunic, the more important had an elaborate scarf (extending from waist to knee) wound over the long tunic, or a longer and close-fitting variety coloured blue and red and generally adorned with rich embroidery. A significant feature is the kind of cape which covers the shoulders, it would not and no doubt was not intended to leave play for the arms; it was the dress of the leisured classes, and a typical scene depicts the chiefs of Lebanon thus arrayed submissively felling cedars for Seti I. (about 1300 B.C.).

Not until the XVIIIth and XIXth Dynasties

Drawn from a photo by Giraudon.

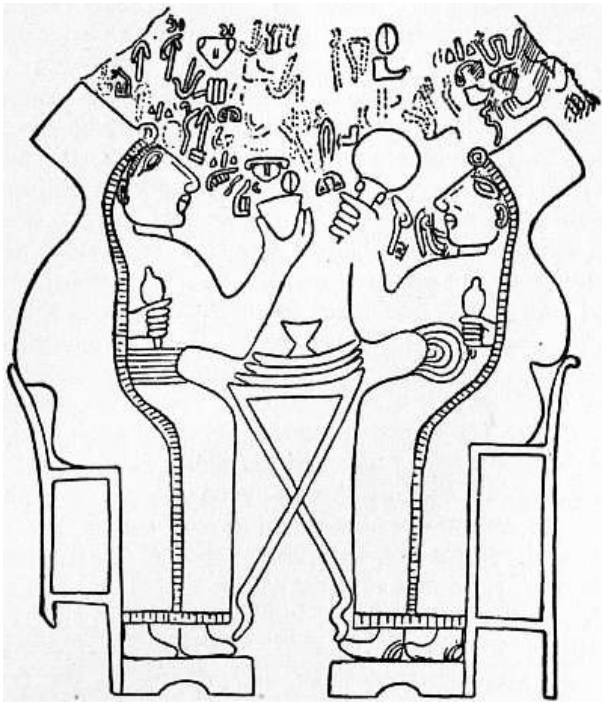
FIG. 7. Sargon and his Commander-in-Chief.

does a change come over Egyptian costume. The Asiatic conquests made Egypt politically supreme, the centre of life and intercourse, and the tendency arose to pay some attention to outward appearance. From the highest to the lowest—with the important exception of the priests—the new age of luxury wiped out the earlier simplicity. The upper part of the body was covered with a tunic fastened over the girdle. Often the left arm had a short sleeve while the right was bare, but flowing sleeves came into use and various pleated skirts became customary. Garments were multiplied, and the cape and long mantle, which had previously been uncommon, were now usual. Fashions changed in quick succession; upper classes were successively copied by those beneath them and were forced to ensure their dignity by assuming new styles. Whether for ordinary or for special occasions a great variety of costume prevailed, and several types can be distinguished among both sexes (Erman, pp. 207 seq., 213 sqq.; see fig. 6). The fashionable material was linen, and although, according to Herodotus (ii. 81), a woollen mantle was worn over the fringed linen skirt, wool was forbidden to the priests in the temple. The preference for fine white linen, quite in keeping with the exaggerated Egyptian ideas of cleanliness, brought the art of spinning and weaving to a singularly high level; in embroidery, as in tapestry, however, it is probable that western Asia more than held its own (see figs. 7 and 8).

FIG. 8.—Assyrian Officers.

FIG. 9.—Israelite Tribute-bearers introduced by two Assyrian Officers.

Quite distinct from the spiral is the old Babylonian cloak, which was thrown over the left shoulder, passed under the right armpit, and hung down, leaving sufficient freedom for the legs. It is often decorated with a fringed border from top to bottom. In time this mantle covered both shoulders and assumed sleeves, and in one form or another it is frequently represented. So Jehu's tribute-bearers wear short sleeves, trimmed border, and the general effect could even suggest an Assyrian dress (see fig 9). Not unlike this is the style on the bilingual Hittite boss of Tarkudimme, where the skirt ends in a point nearly to the ground and one leg stands out bare to the front—the very favourite attitude. Long fringed robes were worn by Hittites of both sexes, and the women represented at Mar'ash and Zenjīli wear it hung over the characteristic Hittite cylindrical head-dress (fig. 10). On the other hand, the unhappy females of Lachish have a long plain mantle which covers the head and forehead (fig. 11), and the same principle recurs in modern usage, where the tunic will be supplemented by a veil or shawl which (generally bound to the head by a band) frames the face and falls back to the waist. A large mantle could thus serve as a veil, and Rebekah covered her face with her square or oblong wrapper on meeting Isaac (Gen. xxiv. 65). Veiling was ceremonial (1 Cor. xi. 5), and customary on meeting a future bridegroom or at marriage (see Gen. xxix. 23-25). Nevertheless veils were not usually worn out of doors, the countrywoman of to-day is not veiled, and it is uncertain whether there is any early parallel for the yashmak, the narrow strip which covers the face below the eyes and hangs down to the feet.



From *Der alte Orient,* by permission of J. C. Hinrichs'sche Buchhandlung.

FIG. 10.—Hittite Women.

Before passing to the special covering for the feet and head some further reference to the Old Testament usage may be made. Among the Hebrews the outer garment, as distinct from the inner loin wrapper (ĕzōr) or tunic, evidently took many forms. The tunic

Fig. 11.—Prisoners of Lachish.

(*kuttōneth*, cf. χιτών, *tunica*), like its Greek counterpart, was apparently of two kinds, for, although essentially a simple and probably sleeveless garment, there was a special variety worn by royal maidens and men of distinction, explicitly described as a tunic of palms or soles (*passīm*), that is, one presumably reaching to the hands and feet (Gen. xxxvii. 3; 2 Sam. xiii. 18 sq.).[6] The *kuttōneth* could be removed at night (Cant. v. 3). For the outer garments the most distinctive term is the *simlah*. This was worn by both sexes, though obviously there was some difference as regards length, &c. (Deut. xxii. 5). Ruth put one on before going out of doors, and its folds could be used for carrying small loads (Ruth iii. 9; Ex. xii. 34). The law forbade the creditor to retain it over-night as a pledge (Ex. xxii. 26 sq.), and consequently we may assume that it was a large outer wrapper which could be dispensed with out of doors by men, or indoors by women. The *simlah* of the warrior (Isa. ix. 5) can be illustrated from the Assyrian sculptures (Ency. Bib., art. "Siege"); according to Herodotus (vii. 69) the Arabs under Xerxes wore a long cloak fastened by a girdle. The outer girdle (Heb. *ḥagōrah*; the Arabic equivalent term is a kilt from thigh to knee) varied, as the monuments show, in richness and design, and could be used as a sword-belt or pocket much in the same way as the modern native uses the long cloth twined twice or thrice around his body. The more ornate variety, called *abňēt*, was worn by prominent officials (Isa. xxii. 21) and by the high priest. The modern oriental open waistcoat finds its fellow in the jacket or bolero from ancient Crete, and seems to have been distinctively Aegean. The same may also be true of breeches. The pantaloons worn by modern females, with short tunic and waistcoat, are not found among the Bedouin (e.g. of Sinai), trousers being considered undignified even for men. But a baggy kind of knickerbockers is represented in old Aegean scenes, and it is noteworthy that the Arab *mi'zar* (drawers such as were worn by wrestlers or sailors) takes its name from the *izār* or loin-cloth (*Ency. Bib.* 1734). Such a cloth may once have passed between the legs, being kept in position by the waistband (examples in Perrot and Chipiez, *Greece*, ii. 198 sq., 456). On the other hand, among the Africans of Punt the waistcloth passes from each knee to the opposite thigh, and two sashes hang down to conceal the parts where they intersect (Müller, 108). The people of Keft (Aegeans) wore a similar arrangement which is a step in the direction of the proper drawers. The latter are found exceptionally upon Semitic Bedouin with an upper covering of bands wound round the body (Müller, 140). However, the woven decorated drawers in Cyprus do not appear to be of Semitic origin (J. L. Myres, *Classical Review*, x. 355), and it is not until later that they were prescribed to the Israelite priests (Ezek. xliv. 18). But the garment as explained by Josephus (*Ant.* iii. 7. 1) was properly a loin-cloth (cf. the examples from Punt), and the reason given for its use (Ex. xxviii. 42) points to a later date than the law which enforced the same regard for decency by forbidding the priests to ascend altars with steps (ib. xx. 26). As trousers were distinctively Persian—though the Persians had the reputation for borrowing Median and foreign dress (Herod. i. 71, vii. 61)—they were no doubt familiar in Palestine in the post-exilic age, and in the Roman period the *braccae* and *feminalia* were certainly known. On supposed references to breeches in Dan. iii. 21, see *Journ. of Philology*, xxvi. 307-313.

Footgear.

Special protection for the feet was chiefly necessary in rocky districts or upon long journeys. In early Egypt men of rank would be followed by a servant carrying a pair of sandals in case of need; but in the New Kingdom they were in common use, although a typical difference is observed when princes appear unshod in the presence of the Pharaoh, who wears sandals himself. The simplest kind was a pad or sole of leather or papyrus bound to the foot by two straps, one passing over the instep, the other between the toes.[7] A third was sometimes fastened behind the heel, and the front is often turned up to protect the toe (Egypt and elsewhere). The Semites of the XIIth Dynasty wore on their journeys sandals of black leather, those of the women and children being more serviceable, and, in the case of

Fig. 12. Assyrian Warriors with captured Idols.

women, parti-coloured. Practically the same simple sandal came into use everywhere when required. But the warrior had something stouter, and the Hittites wore a turned-up shoe bound round the legs with thongs. Among the latter is also found a piece of protecting leather reaching halfway up the shin, and similar developments with tight-fitting bandages, buskins or laced garters were worn in Assyria and Asia Minor (see fig. 12). Such coverings find their analogies among the peasants of modern Cilicia and Cappadocia. Stockings, it may be added, do not appear, and are quite exceptional at the present day.

From Palestine Exploration Fund *Quarterly Statement*, Oct, 1907.

FIG. 13.—Sacrificial Scene on a Seal from Gezer.

FIG. 14.—Hittite Weather-god.

Headgear.

The treatment of the hair, moustache and beard is extremely interesting in the study of oriental archaeology (see Müller, Meyer, opp. citt.). A special covering for the head was not indispensable. The Semites often bound their bushy locks with a fillet, which varies from a single band (so often, e.g. Palestinian captives, 10th century) to a fourfold one, from a plain band to highly decorated diadems. The Ethiopians of Tirhakah's army (7th cent.) stuck a single feather in the front of their fillet, and a feathered ornament recurs from the old Babylonian goddess with two large feathers on her head to the feathered crown common from Assur-bani-pal's Arabians to Ararat, and is familiar from the later distinctive Persian head-dress.[8] But the ordinary Semitic head covering was a cloth which sometimes appears with two ends tied in front, the third falling behind. Or it falls over the nape of the neck and is kept in position with a band; or again as a cloth cap has lappets to protect the ears. Sometimes it has a more bulky appearance. In general, the use of a square or rectangular cloth (whether folded diagonally or not) corresponds to the modern *keffiyeh* woven with long fringes which are plaited into cords knitted at the ends or worked into little balls sewn over with coloured silks and golden threads.[9] The *keffiyeh* covering cheek, neck and throat, is worn over a small skull-cap and will be accompanied with the relatively modern fez (*tarbūsh*) and a woollen cloth. Probably the oldest head-dress is the circular close-fitting cap (plain or braided), which, according to Meyer, is of Sumerian (non-Semitic) origin. But it has a long history. Palestinian captives in the Assyrian age wear it with a plain close-fitting tunic, and it appears upon the god Hadad in north Syria (cf. also the Gezer seal, fig. 13). With some deities (e.g. the moon-god Sin) it has a kind of straight brim which gives it a certain resemblance to a low-crowned "bowler." Very characteristic is the conical cap which, like the Persian hat (Gr. *kurbasia*), resembled a cock's comb. It is worn by gods and men, and with the latter sometimes has ear-flaps (at Lachish, with other varieties, Ball, 190) or is surmounted by a feather or crest. It was probably made of plaited leather or felt. Veritable helmets of metal, such as Herodotus ascribes to Assyrians and Chalybians (vii. 63, 76), and metal armour, though known farther west, scarcely appear in old oriental costume, and the passage which attributes bronze helmets and coats of mail to the Philistine Goliath and the Israelite Saul cannot be held (on other grounds) to be necessarily reliable for the middle or close of the 11th century (1 Sam. xvii). A loftier head-covering was sometimes spherical at the top and narrowed in the middle; with a brim or border turned up back and front it is worn by Hittite warriors of Zenjīrli and by their god of storm and war (fig. 14). Elongated and more pointed it is the archaic crown of the Pharaohs (symbolical of upper Egypt), is worn by a Hittite god of the 14th century, and finds parallels upon old cultus images from Asia Minor, Crete and Cyprus. Later, Herodotus describes it as distinctively Scythian (vii. 64). Finally the cylindrical hat of Hittite kings and queens reappears with lappets in Phoenicia (Perrot and Chipiez, *Phoen.* ii. 77); without the brim it resembles the crown ofthe Babylonian Merodach-nadin-akhi, with a feathered top it distinguishes Adad (god of storm, &c.) at Babylonia. Narrower at the top and surmounted by a spike it distinguishes the Assyrian kings.

Costume of

When the deities were regarded as anthropomorphic they naturally wore clothing which, on the whole, was less subject to change of fashion and was apt to be symbolical of their attributes. The old Babylonian hero Gilgamesh and the Egyptian Bes (perhaps of foreign extraction) are nude, and so in general are the figurines of the

the Gods. Ishtar-Astarte type. Numerous bronze images of a kneeling god at Telloh give him only a loin-cloth, and often the deity, like the monarch, has only a skirt. In course of time various plaids or mantles are assumed, and in Babylonia the goddesses were the first to have both shoulders covered. Distinctive features are found in the head-dress, e.g. crowns (cf. the Ammonite god, 2 Sam. xii. 30) or horns (a single pair or an arrangement of four pairs), and in Babylonia symbolical emblems are attached to the shoulders (e.g. the rays of the sun-god, stalks, running water). Long garments ornamented with symbolical designs (stars, &c.) are worn by Marduk and Adad. The custom of clothing images is well known in the ancient world, and at the restoration of an Egyptian temple care was taken to anoint the divine limbs and to prepare the royal linen for the god. The ceremonial clothing of the god on the occasion of festal processions, undertaken in Egypt by the "master of secret things," may be compared with the well-known Babylonian representations of such promenades. The Babylonian temples received garments as payment in kind, and the Egyptian lists in the Papyrus Harris (Rameses III.) enumerate an enormous number of skirts, tunics and mantles, dyed and undyed, for the various deities. A priest, "master of the wardrobe," is named as early as the VIth Dynasty, and later texts refer to the weavers and laundry servants of the temple. It is probable that 2 Kings xxiii. 7 originally referred to the women who wove garments for the goddess in the temple at Jerusalem.

Royal costume. In Egypt the king was regarded as the incarnation of the deity, his son and earthly likeness. The underlying conception shows itself under differing though not unrelated forms over western Asia, and in their light the question of religious and ceremonial dress is of great interest. Throughout Egyptian history the official costume was conventionalized, and the latest kings and even the Roman emperors are arrayed like their predecessors of the IVth Dynasty. The crook which figures among royal and divine insignia may go back to the boomerang-like object which was a prominent weapon in antiquity (Müller, 123 sq.). It appears in old Babylonia as a curved stick, and, like the club, is a distinctive symbol of god and king. It resembles the sceptre curved at the end, which was carried by old Hittite gods. The Pharaoh's characteristic crown (or crowns) symbolized his royal domains, the sacred uraeus marked his divine ancestry, and he sometimes appeared in the costume of the gods with their fillets adorned with double feathers and horns. In Babylonia Naram-Sin in the guise of a god wears the pointed helmet and two great horns distinctive of the deities.[10] This relationship between the gods and their human representatives is variously expressed. Khammurabi and the sun-god Shamash, on the former's famous code of laws, have the same features and almost the same frizzled beard, and, according to Meyer, the king in claiming supremacy over Sumer and Akkad wears the costume of the lands.[11] Ordinary folk could not claim these honours, and in Egypt, where shaving was practically universal, artificial beards were worn upon solemn occasions as a peculiar duty. But the appendage of the official was shorter than that of the king, and the gods had a distinctive shape for themselves; if it appears upon the dead it is because they in their death had become identified with the god Osiris (Erman, 59, 225 sq.). Young Egyptian princes and youthful kings had a long plaited lock (or later a lappet) on the side of their head in imitation of the youthful Horus, and the peculiar tonsure adopted by the later Arabs of Sinai was inspired by the desire to copy their god Orotal-Dionysus.[12] Thus we perceive that ancient costume and toilet involves the relations between the gods and men, and also, what is extremely important, the political conditions among the latter. When the king symbolizes both the god and the extent of his kingdom, ceremonies which could appear commonplace often acquire a new significance, any discussion of which belongs to the intricacies of the history of religion and pre-monarchical society. It must suffice, therefore, to record the Pharaoh's simple girdle (with or without a tunic) from which hangs the lion's tail, or the tail-like band suspended from the extremity of his head-dress (above), or the panther or leopard skin worn over the shoulders by the high priest at Memphis, subsequently a ceremonial dress of men of rank. That the Pharaoh's skirt, sometimes decorated with a pleated golden material, should become an honorific garment, the right of wearing which was proudly recorded among the bearer's titles, is quite intelligible, but many difficulties arise when one attempts to identify the individuals represented, or to trace the evolution of ideas.[13]

Ceremonial costume. The well-known conservatism of religious practice manifests itself in ceremonial festivals (where there is a tendency for the original religious meaning to be obscured) and among the priests, and it is interesting to observe that despite the great changes in Egyptian costume in the New Kingdom the priests still kept to the simple linen skirt of earlier days (Erman, 206). Religious dress (whether of priests or worshippers) was regulated by certain fundamental ideas concerning access to the deity and its consequences. That it was proper to wear special garments (or at least to rearrange one's weekday clothes) on the Jewish sabbath was recognized in the Talmud, and Mahommedans, after discussing at length the most suitable raiment for prayer, favoured the

use of a single simple garment (Bukhāri, viii.). It was a deep-seated belief that those who took part in religious functions were liable to communicate this "holiness" to others (compare the complex ideas associated with the Polynesian taboo). Hence priests would remove their ceremonial dress before leaving the sanctuary "that they sanctify not the people with their garments" (Ezek. xliv. 19; cf. xlii. 14), and every precaution was taken on religious occasions to ensure purity by special ablutions and by cleansing the clothes.[14] In the old ritual at Mecca, the man who wore his own garments must leave them in the sanctuary, as they had become "taboo"; hence the sacred circumambulation of the Ka'ba was performed naked (prohibited by Mahomet), or in clothes provided for the occasion. The old archaic waist-cloth was used, and at the present day both male and female pilgrims enter bare-footed and clad in the scanty *iḥrām* (C. M. Doughty, *Arabia Deserta*, ii. 479, 481, 537). In several old Babylonian representations the priests or worshippers appear before the deity in a state of nature.[15] It is known that laymen were required to wear special garments, and the priests (who wore dark-red or purple) were sometimes called upon to change their garments in the course of a ceremony. Thus the temples required clothing not merely for the gods but also for the attendants (so at Samaria, 2 Kings x. 22).

In the late usage at Harran the worshipper, after purifying his garments and his heart, was advised to put on the clothing of the particular god he addressed (de Goeje, *Oriental Congress*, Leiden, 1883, pp. 341 sqq.). The reason is obvious, and the principle could be variously expressed. But we are not told whether the prophetess who wore bands on her arm and drew a mantle over her head (so read in Ezek. xiii. 17-23) actually used the clothing peculiar to some deity, nor is it quite clear what is meant when a Babylonian ritual text refers to the magical use of the linen garment of Eridu (seat of the cult of Ea). The Bishop Gregentius denounced as heathenish the rites in which the Arabs wore masks (W. R. Smith, 438), and one is tempted to compare the use of masks elsewhere in animal worship. Next, one may observe upon old Babylonian seals, eagle-headed deities with short feathered skirts attended by human beings similarly arrayed (Ball, 151) or figures draped in a fish skin (Menant, *Rev. de l'hist. des relig.* xi. 295-301) or a worshipper arrayed somewhat like a cock (Meyer, 63; cf. Lucian's *De Dea Syria*, § 48; for "bees," &c., as titles of sacred attendants, see J. G. Frazer, *Pausanias*, iv. 223, v. 621). Although there is much that is obscure in this line of research, it is a natural assumption that, in those ritual functions where the gods were supposed to participate, the rôle was taken by men, and the general idea of assimilating oneself to the god (and the reverse process) manifests itself in too many ways to be ignored (cf. W. R. Smith, 293, 437 sq., 474; C. J. Ball, *Ency. Bib.*, art. "Cuttings"). But the deities were not originally anthropomorphic, and it is with the earlier stages in their development that some of the more remarkable costumes are apparently concerned.

Of all priestly costumes[16] the most interesting is undoubtedly that of the Jewish Levitical high-priest. In addition to a tunic (kuttōneth) and a seamless mantle or robe (*mĕ'īl*), he wore the breastplate (*ḥōshen*), the ephod, and a rich outer girdle. Breeches were assumed on the Day of Atonement. His head-dress was as distinctive as that of the high priest at Hierapolis, who wore a golden tiara and a purple dress, while the ordinary priests had a *pilos* (conical cap, also worn in Israel, Ex. xxviii. 40) and white garments. But the various descriptions cannot be easily reconciled.[17] The robe had pomegranates and golden bells that the sound might give warning as he went in and out of the sanctuary, and "that he died not" (Ex. xxviii. 35). According to Josephus they symbolized the lightning and thunder respectively. The "ephod of prophecy" (so *Test. of Levi*, viii. 2) was essentially once an object of divination (see Ephod). The "breastplate of judgment" was set with twelve jewels engraved with the names of the tribes; the foreordained covering of the semi-divine being in the garden of the gods bore the same number of stones (Ezek. xxviii. 13, Septuagint). This breast ornament finds analogies in the royal and high priestly dress of Egypt, and in the six jewels of the Babylonian king.[18] The sacred lots which gave "judgment" in accordance with the divine oracle (Num. xxvii. 21) have been plausibly compared with the Babylonian tablets of destiny worn by the gods and the mystic lots upon the bosom of Noah.[19] The two jewels also engraved with the names of the tribes in a suitable setting, worn upon the *shoulder* (see p. 102, c.), served, like the twelve mentioned, for a memorial before the Deity, effectively bringing them to remembrance, without any action on the part of the bearer, and thus tacitly involving supernatural intervention as amulets are regularly expected to do. The golden plate inscribed "holy to Yahweh" placed over the head (the details are discrepant) had a mystic atoning force (Ex. xxviii. 38), and in general writers recognized the peculiar efficacy of the costume and its symbolical meaning (Philo, *Vita Mosis*, iii. 14; Jos. *Ant.* iii. 7. 7; Talm. *Zeb.* 88b). Although Jewish tradition ascribed this gorgeous and significant array to the Mosaic age (if not to the pre-Mosaic days of Levi, so the *Test. of Levi*), its very character, in common with the high priest's status, combines kingly and priestly powers in a manner which is impossible for the period (about 15th-13th cent.). Where the king is the human representative of the Deity he is theoretically and officially the priesthood, although the priests carry on the ordinary

subordinate functions. The Hebrew kings, at all events, undertook priestly duties, and not until after the fall of Jerusalem does the history allow that usurpation of monarchical rights upon which the prophet Ezekiel (q.v.) encroaches. The embodiment of political and religious supremacy displayed in the high priest's authority, clothing and symbols can only reflect exilic or rather post-exilic conditions.[20] (See further PRIEST.) In the Maccabaean age the high priest Jonathan received the purple robe and crown and the buckle of gold worn on the shoulder as a sign of priestly and secular rank (1 Macc. x. 20, 38, 89, xi. 58). His brother Simon received similar honours (xiv. 48 sq.), and Hyrcanus, the "second David," was supposed to have had two crowns, one royal and the other priestly (Talm. *Kidd.* 66a). The later Rabbis wore most sumptuous apparel, and were crowned until the death of Eliezer ben Azarya.

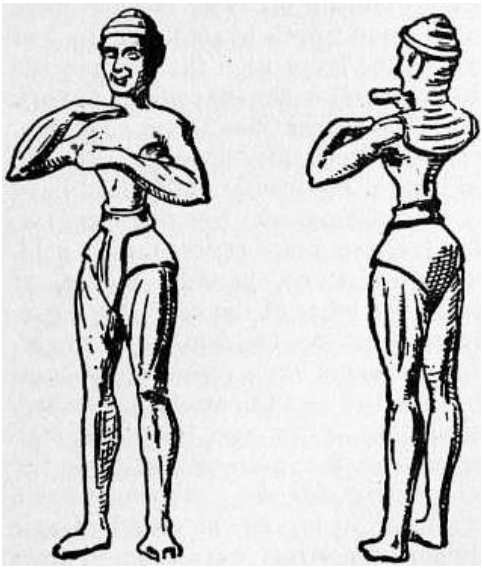
Thus there was a real significance in ceremonial investiture (cf. Num. xx. 26, 28) and in the transference of clothes (cf. Elisha and Elijah's mantle, 2 Kings ii. 13). Further the exchange of garments was not meaningless, and the prohibition in Deut. xxii. 5 points to religious or superstitious beliefs, on which see J. G. Frazer, *Adonis, Attis and Osiris* (2nd ed.), pp. 428-435. On the claim involved by the act of throwing a garment over another (Ruth iii. 9; cf. 1 Kings xix. 19), see W. R. Smith, *Kinship and Marriage*[21], 105 sq.; J. Wellhausen, *Archiv f. Religionswiss*. (1907), pp. 40 sqq.; and on some interesting ideas associated with sandals, see *Ency. Bib.*, s.v. "Shoes." As a sign of grief, or on any occasion when the individual felt himself brought into closer contact with his deity, the garments were rent (subsequently a conventional slit at the breast sufficed) and he donned the *sak*, a loin-cloth or wrapper which appears to be a survival of older and more primitive dress.[21] Later tradition (Mish., Kil. ix. 1) does not endorse Ezekiel's prohibition of woollen garments among the priests in the sanctuary (xliv. 17 sq.). Why the layman was forbidden a mixture of wool and linen (*sha'atnēz*, Deut. xxii. 11) is difficult to explain, though Maimonides perhaps correctly regarded the law as a protest against heathenism (on the magical use of representatives of the animal and vegetable kingdom, in conjunction with a metal ring, see I. Goldziher, *Zeit. f. alttest. Wissens.* xx. 36 sq.).

Ancient oriental costume then cannot be severed from the history and development of thought. On the one side we may see the increase of rich apparel and the profusion of clothes by which people of rank indicated their position. On the other are such figures as the Hebrew prophets, distinguished by their hairy garment and by their denunciation of the luxury of both sexes.[22] Superfluous clothing was both weakening and deteriorating; this formed the point of the advice of Croesus to Cyrus (Herod. i. 155). But "foreign apparel" was only too apt to involve ideas of foreign worship (Zeph. i. 8. sq.), and the recognition that national costume, custom and morality were inseparable underlay the objection to the Greek cap (the πέτασος) introduced among the Jews under Antiochus Epiphanes (2 Macc. iv. 10-17, with the parallel 1 Macc. i. 11-15). The Israelite distinctive costume and toilet as part of a distinctive national religion was in harmony with oriental thought, and, as a people chosen and possessed by Yahweh, "a kingdom of priests and an holy nation" (Ex. xix. 5 sq.; cf. Is. lxi. 6), certain outward signs assumed a new significance and continued to be cherished by orthodox Jews as tokens of their faith. The tassels attached by blue threads to the four corners of the outer garment were unique only as regards the special meaning attached to them (Num. xv. 37-41; Deut. xxii. 12), and when in the middle ages they marked out the Jew for persecution they were transferred to a small under-garment (the little *tālīth*), the proper *tālīth* being worn over the head in the synagogue. Similarly, sentences bound on the left arm or placed upon the forehead (Deut. xi. 18, cf. the high priest's plate) find analogies in the means taken elsewhere to ensure the protection of or to manifest one's adherence to a deity; the novelty lies in the part these sentences took in the religion (see PHYLACTERY). While the particular prohibition regarding the beard and hair in Lev. xix. 27 (cf. Ezek. xliv. 20) was for the avoidance of heathen customs, the *pēyōth* or long curls which became typical in the middle ages are reminiscent of the Horns-curl of Egypt and the Mahommedan "heaven lock" and evidently served as positive distinctive marks. Apart from these details later Jewish dress does not belong to this section. In the Greek and Roman period foreign influence shows itself very strongly in the introduction of novelties of costume and of classical terms, and the subject belongs rather to the Greek and Roman dress of the age.[23] Two conflicting tendencies were constantly at work, and reached their climax in the middle ages. There was an anxiety to avoid articles of dress peculiar to other religions, especially when these were associated with religious practices; and there was a willingness to refrain from costume contrary to the customs of an unsympathetic land. On the one hand, there was a conservatism which is exemplified when the Jews in course of immigration took with them the characteristic dress of their former adopted home, or when they remained unmoved by the changes of the Renaissance. On the other hand, the prominent badge enforced by Pope Innocent III. in 1215 was intended to prevent Jews from being mistaken for Christians, and similarly in Mahommedan lands they were compelled to wear some distinctive indication of their sect. Thus the many quaint and interesting features of later Jewish costume have arisen from certain specific causes, any consideration of which concerns later and medieval costume generally. See I. Abrahams, *Jewish Life in the Middle Ages* (1896),

chap. xv. sq.; and especially the *Jew. Encyc.*, s.v. “Dress” (with numerous illustrations).

Authorities.—Much useful material will be found in popular illustrated books (especially C. J. Ball, *Light from the East*, London, 1899) and in the magnificent volumes on the history of ancient art by G. Perrot and C. Chipiez. On Egyptian costume see especially J. G. Wilkinson, *Manners and Customs of the Ancient Egyptians* (ed. by S. Birch, 1878), and A. Erman *Life in Ancient Egypt* (1894, especially pp. 200-233); for Egyptian evidence, see W. M. Müller, *Asien und Europa nach altägypt. Denkmäler* (Leipzig, 1893), *Mitteil. d. vorderasiat. Gesellschaft* (1904), ii. (and elsewhere). The most important study on old Babylonian dress is that of E. Meyer, “Sumerier und Semiten in Babylonien,” in the *Abhandlungen* of the Berlin University (1906). For Hittite material, see the collection by L. Messerschmidt, *Mitteil. d. vorderas. Ges.* (1900 and 1902). For special discussions, see H. Weiss, *Kostümkunde*, i. (Stuttgart, 1881), articles in *Dict. Bible* (Hastings), *Ency. Biblica*, and *Jewish Encyc.*, and I. Benzinger, Hebr. *Archäologie* (Tubingen, 1907), pp. 73 sqq. See also the general bibliography at the end.

(S. A. C.)



Perrot et Chipiez’s *Art in Primitive Greece*, by permission of Chapman & Hall.

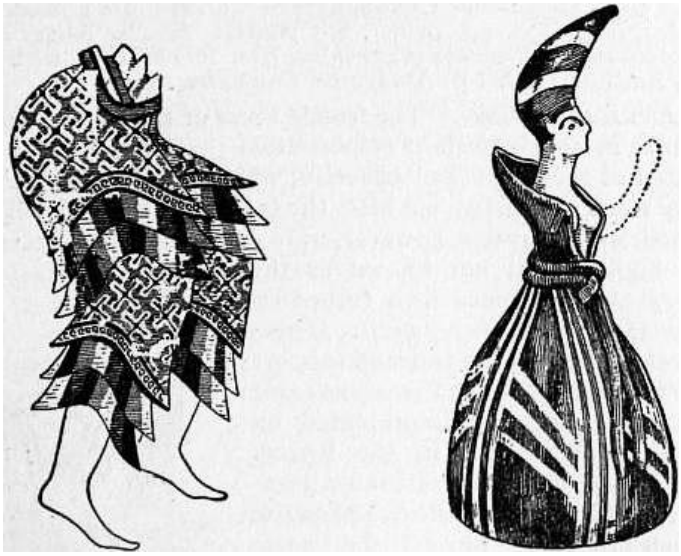
Fig. 16.—Lead Statuette from Kampos.

ii. *Aegean Costume.*—The discoveries made at Mycenae and other centres of “Mycenaean” civilization, and those of more recent date due to the excavations of Dr A. J. Evans and others in Crete, have shown that Hellenic culture was preceded in the Aegean by a civilization differing from it in many respects (see Aegean Civilization), and not least in costume. The essential feature both of male and female dress during the “Minoan” and “Mycenaean” periods was the loin-cloth, which is best represented by the votive terra-cotta statuettes from Petsofá in Crete discovered by Professor J. L. Myres and published in the ninth volume of the *Annual of the British School at Athens* (fig. 15). J. L. Myres shows that the costume consists of three parts—the loin-cloth itself, a white wrapper or kilt worn over it, and a knotted girdle which secured the whole and perhaps played its part in producing and maintaining the wasp waists characteristic of the Aegean race. The loin-cloth was the only costume (except for high boots, probably made of pale leather, since they are represented with white paint) regularly worn by the male sex, though we sometimes find a hood or wrapper, as on a lead statuette found in Laconia (fig. 16), but the Aegean women developed it into a bodice-and-skirt costume, well represented by the frescoes of Cnossus and the statuettes of the snake-goddess and her votaries there discovered. This transformation of the loin-cloth has been illustrated by Mr D. Mackenzie (see below) from Cretan seal-impressions. In place of the belted kilt of the men we find a belted panier or polonaise, considerably elongated in front, worn by Aegean women; and Mackenzie shows that this was repeated several times until it formed the compound skirt with a number of flounces which is represented on many Mycenaean gems. On a fresco discovered at Phaestus (Hagia Triada) (fig. 17) and a sealing from the same place this multiple skirt is clearly shown as divided; but this does not seem to have been the general rule. On other sealings we find a single overskirt with a pleated underskirt. The skirts were held in place by a thick rolled belt, and the upper part of the body remained quite nude in the earliest times; but from the middle Minoan period onward we often find an important addition in the shape of a low-cut bodice, which sometimes has sleeves, either tight-fitting or puffed, and ultimately develops into a laced corsage. A figurine from Petsofá (fig. 18) shows the bodice-and-skirt costume, together with a high pointed head-dress, in one of its most elaborate forms. The bodice has a high peaked collar at the back. Other forms of head-dress are seen on the great signet from Mycenae. The fact that both male and female costume amongst the primitive Aegean peoples is derivable from the simple loin-cloth with additions is rightly used by Mackenzie as a proof that their original home is not to be sought in the colder regions of central Europe, but in a warm climate such as that of North Africa. It is not until the latest Mycenaean period that we find brooches, such as were used in historical Greece, to fasten woollen garments, and their presence in the tombs

From Petsofá (Annual of the Brit. School at Athens).

Fig. 15.—Terra-cotta Statuette.

of the lower city of Mycenae indicates the coming of a northern race.



From *Monumenti antichi* (Acad. Lincei). From *Annual of the Brit. School at Athens*.

Fig. 17.—Part of a Fresco discovered at Phaestus. Fig. 18.—Terra-cotta Statuette from Petsofá.

See *Annual of the British School at Athens*, ix. 356 sqq. (Myres); xii. 233 sqq. (Mackenzie); Tsountas and Manatt, *The Mycenaean Age*, ch. vii.

iii. *Greek Costume.*—All articles of Greek costume belong either to the class of ἐνδύματα, more or less close-fitting, sewn garments, or of περιβλήματα, loose pieces of stuff draped round the body in various ways and fastened with pins or brooches. For the former class the generic name is χιτών, a word of Semitic origin, which denotes the Eastern origin of the garment; for the latter we find in Homer and early poetry πέπλος, in later times ἱμάτιον. The πέπλος (also called ἑανός and φᾶρος in Homer) was the sole indispensable article of dress in early Greece, and, as it was always retained as such by the women in Dorian states, is often called the "Doric dress" (ἐσθὴς Δωρίς). It was a square piece of woollen stuff about a foot longer than the height of the wearer, and equal in breadth to twice the span of the arms measured from wrist to wrist. The upper edge was folded over for a distance equal to the space from neck to waist—this folded portion was called ἀπόπτυγμα or διπλοῒς,—and the whole garment was then doubled and wrapped round the body below the armpits, the left side being closed and the right open. The back and front were then pulled up over the shoulders and fastened together with brooches like safety-pins (περόναι). This was the Doric costume, which left the right side of the body exposed and provoked the censure of Euripides (*Andr.* 598). It was usual, however, to hold the front and back of the πέπλος together by a girdle (ζώνη), passed round the waist below the ἀπόπτυγμα; the superfluous length of the garment was pulled up through the girdle and allowed to fall over in a baggy fold (κόλπος) (see Greek Art, fig. 75). Sometimes the ἀπόπτυγμα was made long enough to fall below the waist, and the girdle passed outside it (cf. the figure of Artemis on the vase shown in Greek Art, fig. 29); this was the fashion in which the Athena Parthenos of Pheidias was draped. The "Attic" or "Corinthian" πέπλος was sewn together on the right side from below the arm, and thus became an ἔνδυμα. The πέπλος was worn in a variety of colours and often decorated with bands of ornament, both horizontal and vertical; Homer uses the epithets κροκόπεπλος and κυανόπεπλος, which show that yellow and dark blue πέπλοι were worn, and speaks of embroidered πέπλοι (ποικίλοι). Such embroideries are indicated by painting on the statues from the Acropolis and are often shown on vase paintings.

The chiton, χιτών, was formed by sewing together at the sides two pieces of linen, or a double piece folded together, leaving spaces at the top for the arms and neck, and fastening the top edges together over the shoulders and upper arm with buttons or brooches; more rarely we find a plain sleeveless chiton. The length of the garment varied considerably. The χιτωνίσκος, worn in active exercise, as by the so-called "Atalanta" of the Vatican, or the well-known Amazon statues (Greek Art, fig. 40), reached only to the knee; the χιτὼν ποδήρης covered the feet. This long, trailing garment was especially characteristic of Ionia; in the Homeric poems (Il. xiii. 685) we read of the Ἰαόνες ἑλκεχίτωνες. If worn without a girdle it went by the name of χιτὼν ὀρθοστάδιος. The long chiton was regularly used by musicians (e.g. Apollo the lyre-player) and charioteers. In ordinary life it was generally pulled up through the girdle and formed a κόλπος (Greek Art, fig. 2).

Herodotus (v. 82-88) tells a story (cf. Aegina), the details of which are to all appearance

legendary, in order to account for a change in the fashion of female dress which took place at Athens in the course of the 6th century B.C. Up to that time the “Dorian dress” had been universal, but the Athenians now gave up the use of garments fastened with pins or brooches, and adopted the linen chiton of the Ionians. The statement of Herodotus is illustrated both by Attic vase-paintings and also by the series of archaic female statues from the Acropolis of Athens, which (with the exception of one clothed in the Doric πέπλος) wear the Ionic chiton, together with an outer garment, sometimes laid over both shoulders like a cloak (Greek Art, fig. 3), but more usually fastened on the right shoulder only, and passed diagonally across the body so as to leave the left arm free. The garment (which resembles the Doric πέπλος, but seems to have been rectangular rather than square) is folded over at the top, and the central part is drawn up towards the right shoulder to produce an elaborate system of zigzag folds (Greek Art, fig. 22). The borders of the garment are painted with geometrical patterns in vivid colours; a broad stripe of ornament runs down the centre of the skirt.[24]

This fashion of dress was only temporary. Thucydides (i. 6) tells us that in his own time the linen chiton of Ionia had again been discarded in favour of the Doric dress, and the monuments show that after the Persian wars a reaction against Orientalism showed itself in a return to simpler fashions. The long linen chiton, which had been worn by men as well as women, was now only retained by the male sex on religious and festival occasions; a short chiton was, however, worn at work or in active exercise (Greek Art, fig. 3) and often fastened on the left shoulder only, when it was called χιτὼν ἑτερομάσχαλος or ἐξωμίς. But the garment usually worn by men of mature age was the ἱμάτιον, which was (like the πέπλος) a plain square of woollen stuff. One corner of this was pulled over the left shoulder from the back and tucked in under the left arm; the rest of the garment was brought round the right side of the body and either carried under the right shoulder, across the chest and over the left shoulder, if it was desired that the right arm should be free, or wrapped round the right arm as well as the body, leaving the right hand in a fold like a sling (Greek Art, fig. 2). The ἱμάτιον was also worn by women over the linen chiton, and draped in a great variety of ways, which may be illustrated by the terra-cotta figurines from Tanagra (4th-3rd cent. B.C.) and the numerous types of female statues, largely represented by copies of Roman date, made to serve as grave-monuments. The upper part of the ἱμάτιον was often drawn over the head as in the example here shown (Plate, fig. 21), a statue formerly in the duke of Sutherland’s collection at Trentham and now in the British Museum.

A lighter garment was the χλαμύς, *chlamys*, a mantle worn by young men, usually over a short chiton girt at the waist, and fastened on the right shoulder (cf. the figure of Hermes in Greek Art, fig. 2). The χλαῖνα was a heavy woollen cloak worn in cold weather. Peasants wore sheepskins or garments of hide called βαίτη or σίσυρα; slaves, who were required by custom to conceal their limbs as much as possible, wore a sleeved chiton and long hose.

A woman’s head was usually covered by drawing up the ἱμάτιον (see above), but sometimes instead of this, a separate piece of cloth was made to perform this service, the end of it falling over the *himation*. This was the καλύπτρα, or veil called κρήδεμνον in Homer. A cap merely intended to cover in the hair and hold it together was called κεκρύφαλος. When the object was only to hold up the hair from the neck, the σφενδόνη was used, which, as its name implies, was in the form of a sling; but in this case it was called more particularly ὀπισθοσφενδόνη, as a distinction from the *sphendonē* when worn in front of the head. The head ornaments include the διάδημα, a narrow band bound round the hair a little way back from the brow and temples, and fastened in the knot of the hair behind; the ἄμπυξ, a variety of the diadem; the στεφάνη, a crown worn over the forehead, its highest point being in the centre, and narrowing at each side into a thin band which is tied at the back of the head. It is doubtful whether this should be distinguished from the στέφανος, a crown of the same breadth and design all round, as on the coins of Argos with the head of Hera, who is expressly said by Pausanias to wear a *stephanos*. This word is also employed for crowns of laurel, olive or other plant. High crowns made of wicker-work (πόλοι, κάλαθοι) were also worn (see Gerhard, *Antike Bildwerke*, pls. 303-305). When the hair, as was most usual, was gathered back from the temples and fastened in a knot behind, hair-pins were required, and these were mostly of bone or ivory, mounted with gold or plain; so also when the hair was tied in a large knot above the forehead, as in the case of Artemis, or of Apollo as leader of the Muses. The early Athenians wore their hair in the fashion termed κρώβυλος, with fastenings called “grasshoppers” (τέττιγες), in allusion to their claim of having originally sprung from the soil (Thuc. i. 6). The τέττιγες have been identified by Helbig with small spirals of gold wire, such as are found in early Etruscan tombs lying near the head of the skeleton. Such spirals were used in early Athens to confine the back hair, and this fashion may therefore be identified as the κρώβυλος. In archaic figures the hair is most frequently arranged over the brow and temples in parallel rows of small curls which must have been kept in their places by artificial means. Ear-rings (ἐνώτια, ἐλλόβια, ἐλικτῆρες) of gold, silver, or bronze plated with gold, and frequently ornamented with pearls, precious

stones, or enamel, were worn attached to the lobes of the ear. For necklaces (ὅρμοι), bracelets (ὄφεις), brooches (περόναι), and finger-rings (δακτύλιοι or σφραγῖδες) the same variety and preciousness of material was employed. For the feet the sandal (σάνδαλον, πέδιλον) was the usual wear; for hunting and travelling high boots were worn. The hunting-boot (ἐνδρομίς) was laced up the front, and reached to the calves; the κοθορνος (cothurnus) was a high boot reaching to the middle of the leg, and as worn by tragic actors had high soles. Slippers (περσικαί) were adopted from the East by women; shoes (ἐμβάδες) were worn by the poorer classes. Gloves (χειρῖδες) were worn by the Persians, but apparently never by the Greeks unless to protect the hands when working (*Odyssey*, xxiv. 230). Hats, which were as a rule worn only by youths, workmen and slaves, were of circular shape, and either of some stiff material, as the Boeotian hat observed in terra-cottas from Tanagra, or of pliant material which could be bent down at the sides like the πέτασος worn by Hermes and sometimes even by women. The καυσία, or Macedonian hat, seems to have been similar to this. The κυρβασία, or κίδαρις, was a high-pointed hat of Persian origin, as was also the τιάρα, which served the double purpose of an ornament and a covering for the head. Workmen wore a close-fitting felt cap (πῖλος).

See F. Studniczka, “Beiträge zur Geschichte der altgriechischen Tracht” (*Abhandlungen des arch.-epigr. Seminars in Wien*, vii. 1886); Lady Evans, *Chapters on Greek Dress* (1893); W. Kalkmann, “Zur Tracht archäischer Gewandfiguren” (*Jahrb. des k. deutschen arch. Instituts*, 1896, pp. 19 ff.); S. Cybulski, *Tabulae quibus antiquitates Graecae et Romanae illustrantur*, Nos. 16-18 (1903), with text by W. Amelung; Ethel B. Abrahams, *Greek Dress* (1908).

iv. *Etruscan Costume.*—The female dress of the Etruscans did not differ in any important respect from that of the Greeks; it consisted of the *chiton* and *himation*, which was in earlier times usually worn as a shawl, not after the fashion of the Doric πέπλος. Two articles of costume, however, were peculiar to the Etruscans—the high conical hat known as the *tutulus*,[25] and the shoes with turned-up points (Latin *calcei repandi*). These have oriental analogies, and lend support to the tradition that the Etruscans came from Asia. Both are represented on a small bronze figure in the British Museum (fig. 19). On a celebrated terra-cotta sarcophagus in the British Museum of much later date (fig. 20), the female figure reclining on the lid wears a Greek chiton of a thin white material, with short sleeves fastened on the outside of the arm, by means of buttons and loops; a *himation* of dark purple thick stuff is wrapped round her hips and legs; on her feet are sandals, consisting of a sole apparently of leather, and attached to the foot and leg with leather straps; under the straps are thin socks which do not cover the toes; she wears a necklace of heavy pendants; her ears are pierced for ear-rings; her hair is partly gathered together with a ribbon at the roots behind, and partly hangs in long tresses before and behind; a flat diadem is bound round her head a little way back from the brow and temples. Purple, pale green and white, richly embroidered, are favourite colours in the dresses represented on the painted tombs.

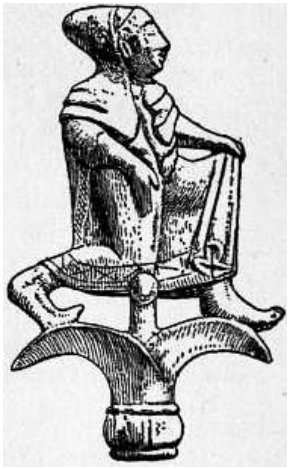


Fig. 19.

Redrawn from photo (Mansell).

Fig. 20.

The chief article of male dress was called the tebenna. We are told by ancient writers that the *toga praetexta*, with its purple border (περιπόρφυρος τήβεννα), as worn by Roman magistrates and priests, had been derived from the Etruscans (Pliny, N.H. ix. 63, “praetextae apud Etruscos originem invenere”); and the famous statue of the orator in Florence (Plate, fig. 22), an Etruscan work of the 3rd century B.C., represents a man clothed in this garment,

which will be described below. Under the tebenna, or toga, which was necessary only for public appearance, the Etruscans wore a short tunic similar to the Greek chiton. For workmen and others of inferior occupation this appears to have been the only dress. Youths, when engaged in horsemanship and other exercises, wore a chlamys round the shoulders, which, however, was semicircular in cut, and was fastened on the breast by buttons and a loop, or tied in a knot, whereas the Greek chlamys was oblong and fastened on the shoulder by a brooch. On public or festal occasions the Etruscan noble wore, besides the tebenna, a *bulla*, or necklace of *bullae*, and a wreath, *corona Etrusca*. The bulla was a circular gold locket containing a charm of some kind against evil.[26] On the later sarcophagi the male figures wear not only a wreath or *corona* proper, but also a garland of flowers hung round the neck. The male head-dress was the *galerus*, a hat of leather, said to have been worn by the Lucumos in early times, or the *apex*, a pointed hat corresponding to the *tutulus* worn by females. The fashion of shoes worn by Roman senators was said to have been derived from Etruria. Etruscan shoes were prized both in Greece and in Rome.

> Helbig's articles, referred to at the close of the next section, should be consulted. J. Martha, *L'Art étrusque*, gives reproductions of the most important monuments. See also the works on Etruscan civilization named in the art. ETRURIA.

v. *Roman Costume.*—We are told that the *toga*, the national garment of the Romans, was originally worn both by men and by women; and though the female dress of the Romans was in historical times essentially the same as that of the Greeks, young girls still wore the *toga* on festal occasions, as we see from the reliefs of the Ara Pacis Augustae. In early times no undergarment was worn save a loin-cloth (*subligaculum*), which seems to be a survival of early Mediterranean fashions (see above, sect. *Aegean Costume*), and candidates for office in historical times appeared in the *toga* and *subligaculum* only. In this period, however, the *tunica*, corresponding to the Greek chiton, was universally worn in ordinary life, and the *toga* gradually became a full-dress garment which was only worn over the *tunica* on important social occasions; Juvenal (iii. 171) tells us that in a great part of Italy no one wore the *toga* except at his burial!

The *toga* was a piece of woollen cloth in the form of a segment of a circle,[27] the chord of the arc being about three times the height of the wearer, and the height a little less than one-half of this length. One end of this garment was thrown over the left shoulder and allowed to hang down in front; the remainder was drawn round the body and disposed in various ways. In the *cinctus Gabinus*, which was the fashion adopted in early times when fighting was in prospect, the end of the *toga* was drawn tightly round the waist and formed a kind of girdle; this was retained in certain official functions, such as the opening of the temple of Janus in historical times.[28] In time of peace the *toga* was wrapped round the right arm, leaving the hand only free, much after the fashion of the Greek *himation*, and thrown over the left shoulder so as to fall down behind (see ROMAN ART, Plate II., fig. 11, male figure to r.); or, if greater freedom were desired, it was passed under the right arm-pit. In religious ceremonies, the magistrate presiding at the sacrifice drew the back of the toga over his head; see in the same illustration the priest with veiled head, *ritu Gabino*, who also wears his *toga* with the *cinctus Gabinus*. Towards the end of the republic a new fashion was generally adopted. A considerable length of the toga was allowed to hang from the left shoulder; the remainder was passed round the body so as to rise like a baldric (*balteus*) from the right hip to the left shoulder, being folded over in front (the fold was called sinus), then brought round the back of the neck so that the end fell over the right shoulder; the hanging portion on the left side was drawn up through the *sinus*, and bulged out in an *umbo* (Plate, fig. 24). Later still, this portion, instead of forming a bundle of folds in the centre, was carefully folded over and carried up over the left shoulder, and in course of time these folds were carefully arranged in several thicknesses resembling boards, *tabulae*, hence called *contabulatio* (Plate, fig. 23). Yet another fashion was that adopted by the flamens, who passed the right-hand portion of the *toga* over the right shoulder and arm and back over the left shoulder, so that it hung down in a curve over the front of the body; the upper edge was folded over. The flamens are thus represented on the Ara Pacis Augustae.

The plain white toga (*toga pura*) was the ordinary dress of the citizen, but the *toga praetexta*, which had a border of purple, was worn by boys till the age of sixteen, when they assumed the plain *toga virilis*, and also by curule magistrates and some priests. A purple toga with embroidery (*toga picta*) was worn together with a gold-embroidered tunic (*tunica palmata*) by generals while celebrating a triumph and by magistrates presiding at games; it represented the traditional dress of the kings and was adopted by Julius Caesar as a permanent costume. The emperors wore it on occasions of special importance. The *trabea*, which in historical times was worn by the consuls when opening the temple of Janus, by the *equites* at their yearly inspection and on some other occasions, and by the Salii at their ritual

dances, and had (according to tradition) formed the original costume of the augurs and flamens (who afterwards adopted the *toga praetexta*), was apparently a *toga* smaller in size than the ordinary civil dress, decorated with scarlet stripes (*trabes*). It was fastened with brooches (fibulae) and appears to have been worn by the *equites*, e.g. at the funeral ceremony of Antoninus Pius.

The tunica was precisely like the Greek chiton; that of the senator had two broad stripes of purple (latus clavus) down the centre, that of the knight two narrow stripes (angustus clavus). A woollen undergarment (subucula) was often worn by men; the women's under-tunic was of linen (indusium). When women gave up the use of the toga, they adopted the stola, a long tunic with a border of a darker colour (instita) along the lower edge; the neck also sometimes had a border (patagium). The tunic with long sleeves (tunica manicata) was a later fashion. Over this the ricinium or rica, a shawl covering the head and shoulders, was worn in early times, and retained by certain priestesses as an official costume;[29] but it gave place to the palla, the equivalent of the Greek himation, and the dress of the Roman women henceforward differed in no essential particular from that of the Greek.

A variety of cloaks were worn by men during inclement weather; in general they resembled the Greek chlamys, but often had a hood (*cucullus*) which could be drawn over the head. Such were the *birrus* (so-called from its red colour), *abolla* and *lacerna*. The *paenula*, which was the garment most commonly worn, especially by soldiers when engaged on peace duties, was an oblong piece of cloth with a hole in the centre for the neck; a hood was usually attached to the back. It survives in the ritual chasuble of the Western Church. The Greek military chlamys appears in two forms—the *paludamentum* of the general (e.g. Trajan as represented on the Arch of Constantine, Roman Art, Plate III., fig. 16), and the *sagum* worn by the common soldier (e.g. by some of the horsemen on the base of the Antonine column, Roman Art, Plate V., fig. 21). When the toga went out of use as an article of everyday wear, the *pallium*, i.e. the Greek *himation*, was at first worn only by Romans addicted to Greek fashions, but from the time of Tiberius, who wore it in daily life, its use became general. Long robes bearing Greek names (*synthesis, syrma*, &c.) were worn at dinner-parties.

The Romans often wore sandals (*soleae*) or light shoes (*socci*), but in full dress (i.e. with the toga) it was necessary to wear the *calceus*, which had various forms by which classes were distinguished, e.g. the *calceus patricius, mulleus* (of red leather) and *senatorius* (of black leather). This was a shoe with slits at the sides and straps knotted in front; its forms may be seen on the relief from the Ara Pacis. The senators' *calceus* had four such straps (*quattuor corrigiae*), which were wound round the ankle (cf. the *flamen* on the Ara Pacis), and was also adorned with an ivory crescent (*lunula*). A leathern tongue (*lingula*) is often seen to project from beneath the straps. The soldier's boot (*caliga*, from which the emperor Gaius derived his nickname, Caligula) was in reality a heavy hobnailed sandal with a number of straps wound round the ankle and lower leg. A high hunting boot was called *compagus*. Women at times wore the *calceus*, but are generally represented in art with soft shoes or sandals.

Hats were seldom worn except by those who affected Greek fashions, but the close-fitting leather *pileus* seems to have been an article of early wear in Italy, since its use survived in the ceremony of manumission, and the head-dress of the pontifices and flamines (cf. the relief of the Ara Pacis already referred to) consisted in such a cap (*galerus*) with an apex, or *spike*, of olive wood inserted in the crown.

For personal ornament finger-rings of great variety in the material and design were worn by men, sometimes to the extent of one or more on each finger, many persons possessing small cabinets of them. But at first the Roman citizen wore only an iron signet ring, and this continued to be used at marriages. The *jus annuli aurei*, or right of wearing a gold ring, originally a military distinction, became a senatorial privilege, which was afterwards extended to the knights and gradually to other classes. Women's ornaments consisted of brooches (*fibulae*), bracelets (*armillae*), armlets (*armillae, bracchialia*), ear-rings (*inaures*), necklaces (*monilia*), wreaths (*coronae*) and hair-pins (*crinales*). The tore (*torques*), or cord of gold worn round the neck, was introduced from Gaul. A profusion of precious stones, and absence of skill or refinement in workmanship, distinguish Roman from Greek or Etruscan jewelry; but in the character of the designs there is no real difference.

See Marquardt-Mau, *Privatleben der Römer*, pp. 550 seq. (gives a full collection of literary references); Cybulski, *op. cit.*, pls. xix., xx., with Amelung's text; articles by W. Helbig, especially *Sitzungsberichte der bayrischen Akademie* (1880), pp. 487 seq. (on headgear); *Hermes* xxxix. 161 seq. (on *toga* and *trabea*), and *Mémoires de l'Académie des inscriptions*, xxxvii. (1905) (on the costume of the Salii); articles by L. Heuzey in Daremberg and Saglio's *Dictionnaire des antiquités*, also in *Revue de l'art*, i. 98 seq., 204 seq., ii. 193 seq., 295 seq. (on the *toga*). See also the general bibliography at the end.

(H. S. J.)

i. *Pre-Roman and Roman Britain.*—Men who had found better clothing than the skins of beasts were in Britain when Caesar landed. Little as we know of England before the English, we have at least the knowledge that Britons, other than the poorer and wilder sort of the north and the fens, wore cloaks and hats, sleeved coats whose skirts were cut above the knee and loose trousers after the fashion of the Gauls. They were not an armoured race, for they would commonly fight naked to the waist, dreadful with tattooing and woad staining, but Pliny describes their close-woven felts as all but sword-proof. Dyers as well as weavers, their cloaks, squares of cloth like a Highland plaid, were of black or blue, rough on the one side, while coats and trousers were bright coloured, striped and checkered, red being the favourite hue. For ornament the British chiefs wore golden torques about their necks and golden arm-rings with brooches and pins of metal or ivory, beads of brass, of jet and amber from their own coasts, and of glass bought of the Southern merchants. Their women had gowns to the ankle, with shorter tunics above them. The Druid bards had their vestments of blue, while the star-gazers and leeches went in green.

Agricola's Romanizing work must have made great changes in dress as in policy. The British chief with the Latin tongue in his mouth, living in a Roman villa and taking his bath as did the Romans, wore the white woollen toga and the linen tunic, his wife having the stole, the pall and the veil.

Fig. 25.—Old English Dress. From the Benedictional of St Æthelwold (c. 963-984).

Fig. 26.—The Blessed Virgin. From the Benedictional of St Æthelwold (c. 963-984).

ii. *Old English Dress.*—The skill of their artists gives us many accurate pictures of the dress of the English before the Norman Conquest, the simple dress of a nation whose men fight, hunt and plough. The man's chief garment is a sleeved tunic hanging to the knee, generally open at the side from hip to hem and in front from the throat to the breast. Sleeves cut loosely above the elbow are close at the forearm. The legs are in hose like a Highlander's or in long breeches bandaged or cross-gartered below the knee. A short mantle to the calf is brooched at the shoulder or breast (fig. 25). There are long gowns and toga-like cloaks, but these as a rule seem garments for the old man of rank. In the open air the cloak is often pulled over the head, for hats and caps are rare, the Phrygian bonnet being the commonest form. Girdles of folded cloth gather the loose tunic at the waist. Most paintings show the ankle shoe as black, cut with a pointed tab before and behind, the soles being sometimes of wood like the sole of the Lancashire clog of our own days. A nobleman will have his shoes embroidered with silks or coloured yarns, and the like decoration for the hem and collar of his tunic. Poor men wear little but the tunic, often going barelegged, although the hinds in the well-known pictures of the twelve months have shoes, and the shepherd as he watches his flock covers himself with a cloak. In every graveyard of the old English we find the brooches, armlets, rings and pins of a people loving jewelry. Women wore a long gown covering the feet, the loose sleeves sometimes hanging over the hands to the knee. Over this there is often a shorter tunic with short sleeves. Their mantles were short or long, the hood or head rail wrapped round the chin (fig. 26). In broidery and ornament the women's dress matched that of the men. The Danes, warriors of the sea, soon

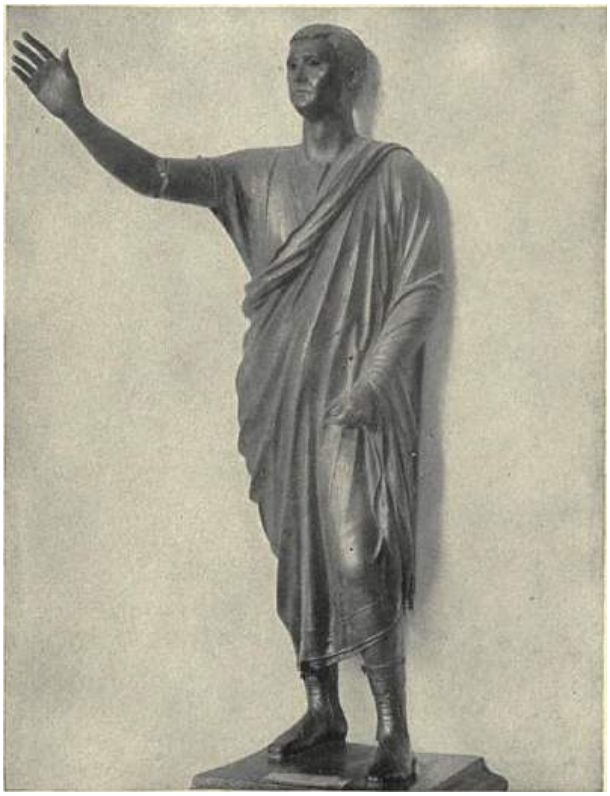
Before the Conquest.

took the English habit, becoming notable for their many changes of gay clothing.

Plate

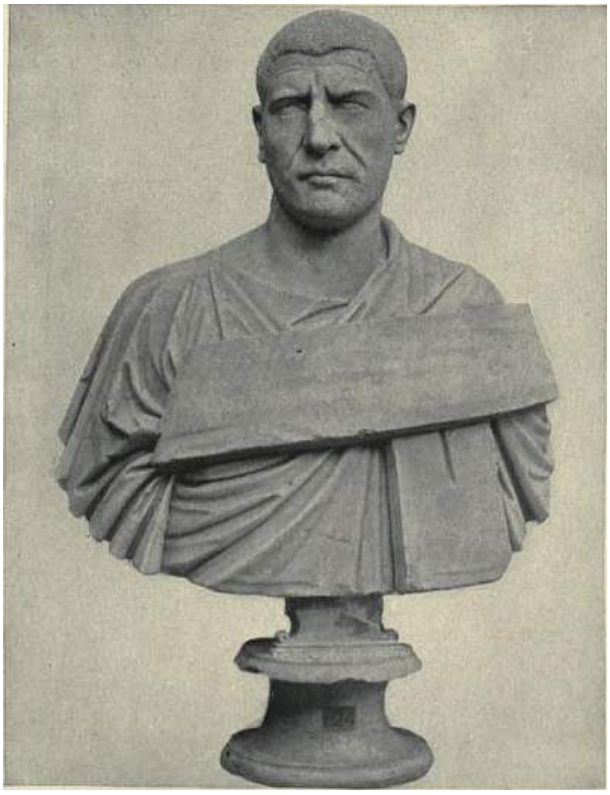
Photo, Walker.

FIG. 21.—GRAVE-STATUE.



Photo, Alinari.

FIG. 22.—THE ORATOR (R. ARCH. MUS., FLORENCE).



Photo, Anderson.

FIG. 23.—BUST OF PHILIP THE ARABIAN (VATICAN).

Photo, Moscioni.

FIG. 24.—TITUS (VATICAN).

The Norman Conquest is marked by no great change in English clothing, the conquerors inclining towards the island fashions, as we may see by the fact that they gave up their curious habit of shaving the back of the head. But with the reign of the second William came the taste for the luxury of clothing and that taste for flowing hair and shoes with sharp points which is lamented by William of Malmesbury. In this reign we have the story of the Red King refusing to put on boots that cost but three shillings—the price of an ox—and wearing the same gladly when his chamberlain told him that they were a new pair worth a mark. Even more than the fashion of long cloaks and trailing gowns whose sleeves hang far below the hands, the fantastic boot and shoe toes bring the curses of the clergy and the moralizings of chroniclers. Fulk Rechin of Anjou is said by Orderic to have invented such gear to hide the monstrous bunions upon his toes, but a worthless Robert, a hanger-on of the court of William II., distinguishes himself and gains the surname of Cornard by stuffing his shoe tips with tow and twisting them like the horns of the ram.

The Normans.

There are many illuminations which give us in plenty the details of all costumes of the 12th century. Thus the devil in a well-known MS. wears the gown of a lady of rank, the bodice tightly laced, the hanging sleeve knotted to keep it out of the mud. A MS. at Corpus Christi College, Oxford, shows in a picture of the vision of Henry I. that the men who reap and dig are simply clad in loose skirted tunics with close sleeves, that they have hats with brims, and cloaks caught by a brooch at the shoulder. Hats and caps are common in all classes and take many shapes—the Phrygian cap, the flat bonnet, the brimmed hat and the skull-cap.

12th and 13th centuries.

FIG. 27.—A Lady and a King (temp. Hen. III.). (From Cotton MS. Nero, D. i.)

With the coming of the house of Anjou English dress clears itself of the more fantastic features of an earlier generation. Henry II. brought in the short Angevin mantle and from it had his name of Curtmantle, but it was not a mastering fashion and the long cloak holds its own. Rich stuffs, cloth of gold or silk woven with gold, webs of damask wrought with stripes or rays and figured with patterns are brought in from the ports. Rare furs are eagerly sought. But the simplicity of line is remarkable. The drawings made for Matthew Paris's lives of the two Offas show people of all ranks clad without a trace of the tailor's fantasy. Kings and lords, churchmen and men of substance go in long gowns to the feet, the great folk having an orphrey or band of embroidery at the somewhat low-cut neck (fig. 27). Some of the sleeves have wide ends cut off at the mid-forearm, showing the tight sleeve of a shirt or smock below. Fashion, however, tends to lengthen sleeves to a tight wrist, the upper halves being cut wide and loose with the large armholes characteristic of most ancient tailoring. Over this gown is worn an ample cloak fastened at the neck with a brooch or clasp, and sometimes fitted with a hood. The dress of the common folk and of men of rank when actively employed is a tunic which is but the gown shortened to the knee, a short cloak to the knee being worn with it (fig. 28). Belts and girdles are narrow and plain, the thongs without enrichment, showing no beginnings of the rich buckles and heavy bosses of a later fashion. Shoes and low-cut boots are slightly pointed, and hats, caps, hoods and coifs of many types cover the head. The women are like to the men in their long gown, but the head is wrapped in a coverchef hanging over the shoulder and bound with a fillet round the brow. Gloves are common in this age; "scraps of the cloth or the skin," says a poet, "do not want for a use: of them gloves are made."

FIG. 28.—Labourers (temp. Hen. III.). (From Cotton MS. Nero, D.i.)

FIG. 29.—A Group of Clerks (early 14th century). (From Royal MS. 19 B. xv.)

14th century.

At the court of Edward II., son of a king who went simply clad, Piers Gaveston and his like began to set the fashions for a century which to the curious antiquary is a garden of delights. For the history of the 14th-century clothing illuminations are supplemented by a number of effigies upon which the carver has wrought out the last details, by monumental brasses, and by contemporary literature and records (fig. 29). Garments take many shapes; sleeves, skirts and head-dresses run through many fashions; while personal ornaments are rich and beautiful to a degree never yet surpassed. With the beginning of the century there is seen a tendency to shorten the long gown, which had been the best wear of a man of good estate, to a more convenient length, although the knees are still well covered. Loose sleeves falling below the elbow leave to view the sleeve of an under-garment, buttoned tightly to the arm. In winter time a man's gown will have long sleeves that cover the hands when the arms are at length. The full cloak, although still found, is somewhat rare among a people that has, perhaps, learned to wear more clothes and warmer upon the body. Hoods are worn in many fashions, to be cast back upon the shoulders like a monk's cowl, the part at the back of the head being drawn out into a "liripipe" long enough at times, when the hood is drawn up, to be knotted round the brow turban-fashion (fig. 30). Long hose are drawn up the legs to join the short breech, and the toes of the ankle-shoes are pointed so long that holy men see visions of little devils using them as chariots. The women love trailing gowns. They have under-skirts and loose over-garments, sometimes sleeveless. Their hair at least would not shock those earlier prelates who cursed the long plaits, for it is caught up in a caul or braided at the sides of the head. In the second half of the century men of rank borrow from Germany the fashion of the *cote-hardie*. In its plainest form this short tunic, covering the fork of the leg, is cut closely to the body and arms (fig. 31). Sometimes the sleeve ends at the elbow and then another streamer is added to the one which falls from the hood, a strip of stuff continuing the elbow-sleeve as low as the coat edge. This strip and the hem of the skirt are often "slittered" with fanciful jags, a fashion which soon draws down the satirist's anger. Parti-coloured garments were an added offence; a gentleman would have his coat parted down the middle in red and white, with hose of white and red to match. Men and women of rank wear a twisted garland of rich stuff, crown-wise on the head, set with pearls and precious stones, a fashion which is followed on the great helm of the knights, being the "wreath" or "torce" of heraldry. The dames of such as wear the *cote-hardie* imitate its tightness in the sleeves and bodices of their long gown. A curious fashion which now begins is the sleeveless upper gown whose sides are cut away in curved sweeps from the shoulder to below the waist, the edges of the opening being deeply furred. The strange head-dress with a steeple-horn draped with lawn kerchiefs makes its appearance to shock the moralists. Although it was probably a rare sight in this century, the horn could easily fulfil its mission of drawing notice to all its wearers.

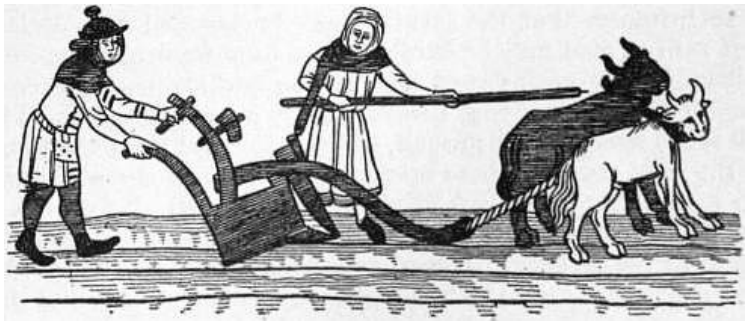


FIG. 30.—English Ploughmen of the 14th century.

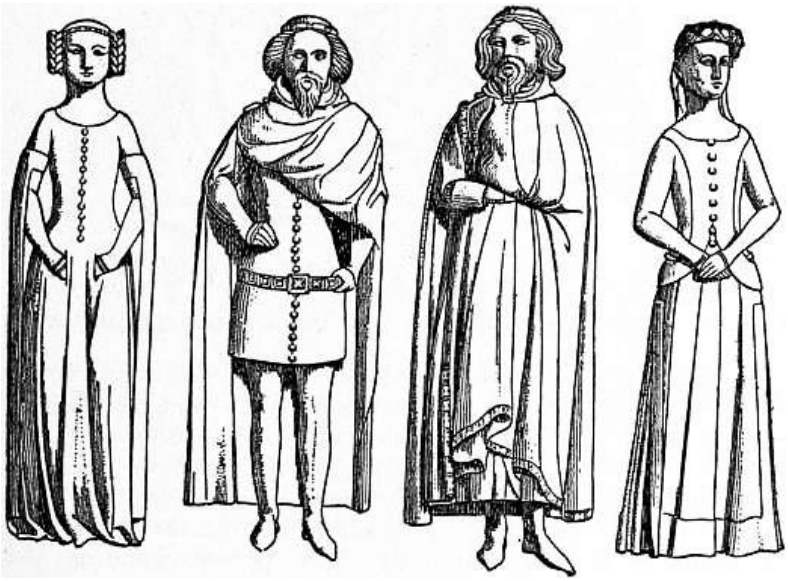


FIG. 31.—Sons and Daughters of Edward III. (From his tomb in Westminster Abbey.)

Of the *cote-hardie* it might at least be said that it was the symbol of a knightly age in arms, the garment of a man who must have hand and limbs free, and, save for its sleeves, it faithfully copied the coat-armour of the armed knight. The softer days of Richard II. are remarkable for a dress which has also its significance, men of high rank taking to themselves gowns of such fulness that the satirists may be justified who declare that men so clad may be hardly known from women. The close collar of these gowns rises high as the neckcloth of a French *incroyable*, the upper edge turned slightly over and jagged. The full skirts sweep on the ground, which is touched by the last jags of the vast sleeves, whose openings, wide as a woman's skirts, are dagged like the edges of vine or oak leaves. "And but if the slevis," says the satirist, "slide on the erthe, thei wolle be wroth as the wynde." Sometimes this gown is slit at the sides that the gallant may the better show his coloured hose and tips of shoes that pike out two feet from heel to toe. When not wearing the gown such a lord would have a high-necked coat, shorter even than the *cote-hardie*, but looser in the skirt, the sleeves ending full and loose with dagged edges turned over at the cuff. Hats are more commonly worn in this century, and in its latter half take many shapes, a notable one being that of a shortened sugar-loaf or thimble with a brim turned up, either all round, or, more frequently, behind or before. The long shoes, as their name of *crackowes* or *poleynes* implies, were a fashion which, by repute, came from Poland, a land ruled by the grandfather of Richard's first queen. When medieval fashions were past, they were remembered as a type of the old time, and a certain French *conteur* begins a tale of old days, not with *jadis*, but with "In the time when they wore poleynes." Even parish priests, whose preaching should "dryve out the daggis and alle the Duche cotis," went, in this age of fine apparel, gaily clad in gowns of scarlet and green, "shape of the newe," in "cutted clothes" with "long pikes on her shone." More than this, they made scandal by ruffling with weapons—"bucklers brode and sweardes long, bandrike with baselardes kene." The skill of goldsmiths and craftsmen decorates all the appurtenances of the dress of this 14th century. Buttons, which appear in the first Edward's time as a scandalous ornament on men of low degree, have now become common, and, cunningly wrought, are used as much for *queintise* as for service. A close row of them will run from wrist to elbow of tight sleeve. A row of buttons goes from the neck of a woman's gown, and the *cote-hardie* may be fastened down the front with a dozen and a half of rich buttons. A purse or gipciere hung by a ring to the girdle gives more room for ornament in the silver or brass bar on which the bag depends. Above all the girdle, which—in harness or in silk—rich men wear broad and bossed with jewels across the thigh below the waist, makes work for the jeweller's

craftsman. Such a girdle is for great folk alone; but lesser men, wearing a strap about their waists, will yet have a handsome buckle and a fanciful pendant of metal guarding the loose end of the strap.

However fantastic the fashions of this or any other ages, folk of the middling sort will avoid the extremes. From the Knight to the Reve, no man of Chaucer's company calls to us by the fantasy of his clothing. The Knight himself rides in his fustian *gipoun*, the grime of his habergeon upon it, although his son's short gown, the gayest garment at the Tabard, had long and wide sleeves and is embroidered with flowers like any mead. A coat and hood of green mark the Yeoman, who has a silver Christopher brooch for ornament. The Merchant is in motley stuff, his beaver hat from Flanders and his clasped boots taking Chaucer's eye, as do the *anlas* and silken *gipser* which hang at the rich Franklin's belt. As for the London burgesses, their knife-chapes, girdles and pouches are in clean silver. The Shipman wears his knife in a lanyard about his neck, as his fellows do to this day, and his coat is of coarse falding to the knee. The Wife of Bath has the wimple below her broad hat and rides in a foot mantle about her hips. Poorer men's dress is on the Reve and the Ploughman, the one in a long *surcote* of sky-blue and the other in the *tabard* which we may recognize as that smock-frock which goes down the ages with little change.

FIG. 32.—Henry, Prince of Wales, and Occleve the Poet (c. 1410). (From Arundel MS. 38.)

In the 15th century the middle ages run out. Fashions in this period become, if not more fantastic, more various. Its earlier years see men of rank still inclined to the rich modes of the last age: Harry of Monmouth, drawn about 1410 by an artist who shows him as Occleve's patron, wears a blue gown which might have passed muster at the court of Richard II. for its trailing skirts and its long sleeves, their slittered edges turned back (fig. 32). A strange fancy at this time was the hanging of silver bells on the dress. One William Staunton, in 1409, seeing in a vision at St Patrick's Purgatory the fate of earth's proud ones, is exact to note that in the place of torment the jags in men's clothes turn to adders, that women's trailing skirts are burnt over their heads, and that those men whose garments are overset with silver gingles and bells have burning nails of fire driven through each gingle. As for the chaplets of gold, of pearls and precious stones, they turn into nails of iron on which the fiends hammer.

15th century.

FIG. 33.—The Squire. (From the Ellesmere MS. of the *Canterbury Tales*.

FIG. 34.—An English Squire and his Wife. (From a brass of 1409.)

The common habit of a well-clad man in the first half of this century is a loose tunic, lined with fur, or edged with fur at neck, wrist and skirt. At first the sleeves are long and bag-like, like to the

FIG. 35.—English Dress, c. 1433. (From Harl. MS. 2278.)

Richard II. sleeve but drawn in to the wrist, where early examples are fastened with a button. A shorter tunic is worn below, whose tight sleeves are seen beyond the furred edge of the upper garment, mittens being sometimes attached to them. Over the shoulders the hood is thrown, or, in foul weather, a hood and cloak. The gown is girdled at the waist with a girdle from which hangs the anelace or baselard (fig. 34). Shoes are pointed. Hats and caps are seen in many shapes, but the most remarkable is the developed form of that head-dress which the 14th-century man seems to have achieved by putting his pate into the face-hole of his hood and twisting its liripipe round his brows. In the 15th century the effect is produced with a thick, turban-like roll of stuff from the top of which hung down on one side folds of cloth coming nigh to the shoulder, and on the other the liripipe broadened and lengthened to 4 or 5 ft. of a narrower folded cloth. As the century advances the bagpipe sleeves shrink in size and the tunic skirts are shortened (fig. 35). The old habit of going armed with anelace or baselard dies away in spite of troublous times. In the middle of the century the tunic is often no longer than a modern frock-coat, its sleeves little wider than those of a modern overcoat. Dress, indeed, becomes at this time convenient and attractive to our modern eyes. The last quarter of the century sees a new and important change. The tunic or gown, which was the garment of ceremony answering at once to our dress coats and frock coats, runs down to the feet. An act of 1463 ordered that coats should at least cover the buttocks, but fashion achieved suddenly what law failed to enforce. Men who had polled their hair short allowed it to grow and hang over the shoulders. The belt carries the purse or gipciere more commonly, although weapons are rarely seen, and it is notable that, as the Reformation approaches, the fashion of wearing a large “pair of beads” in the belt becomes a very common one. Last of all, the shoes change their shape. The reign of Edward IV. had seen the pointed toes as iniquitously long as ever the 14th century saw them. Even the long riding boot has the curving point, although otherwise much resembling the jack-boot of the 18th century. But after Bosworth Field the soles broaden, the point shrinks back and then disappears, and the footprint becomes shovel-shaped.

Women’s dress in the 15th century often follows the man’s fashion of the furred gown, the skirts being lengthened for all difference. But the close-bodied and close-sleeved gown, with skirts broadening into many folds below the hips, is often seen with the long and plain cloak drawn with a cord at the breast, widows wearing this dress with the *barbe*, a crimped cloth of linen drawn up under the chin and ears and covering the collar-bone. With the barbe went the kerchief, draping head and shoulders. The bossed cauls of the earlier head-dress, drawn high on either side of the head until face and head-dress took the shape of a heart, are characteristic of the age (fig. 36). In some cases the cauls are drawn out at the sides to the form of a pair of bulls’ horns or of a mitre set sideways. In the time of Edward IV. we have a popular head-dress to which has been given the name of the butterfly. The hair in its caul is pulled backward, and wires set in it allow the ends of a cambric veil to float behind like the wings of a butterfly settled on a flower.

FIG. 36.—A Gentleman and his Wife. (From a brass of 1435.)

The 16th century.

The new England of the 16th century breaks with the past in most of its fashions. Never again does an Englishman return to the piked shoes. High fashion under Henry VIII. is all for broad toes, so broad that the sumptuary laws, from banning long toes, swing about to condemn excess in the new guise. Under Henry VII. the medieval influence is still strong in the body-clothing. A bravely dressed man will go in long hose, cut close to the body, and a short vest under which the shirt is seen at waist and wrist. Over this he

will wear the open gown, lined with fur, and cut short as a jacket but having the sleeves hanging below the knee. Such sleeves are commonly slashed open at the sides to allow the forearm to pass through. Shorter false sleeves of this pattern had become popular in the age of Edward IV. Graver men will wear, in place of this short gown, a long one dropping to the broad shoe-toes, the sleeves wide-mouthed (fig. 37). Sometimes it hangs loosely; sometimes it has the girdle with purse and beads. Notaries and scriveners add to the girdle a penner, or pen-case, and a stoppered ink-bottle. Wide hats are found, crowned with huge plumes of feathers, but the characteristic headgear is that made familiar by portraits of Henry VII., a low-crowned cap whose upturned brim is nicked at one side. A few sober men wear coats differing little from the short gown of forty years before. Among ladies the butterfly head-dress and the steeple cap passed out of fashion, and a grave headgear comes in which has been compared with a dog-kennel, a hood-cap thrown over head and shoulders, the front being edged with a broad band which was often enriched with needlework, the ends falling in lappets to the breast. This band is stiffened until the face looks out as from the open gable-end of a house. The gown is simple in form, close-fitting to the body, the cuffs turned up with fur and the skirts long. A girdle is worn loosely drawn below the waist, its long strap letting the metal pendant fall nearly to the feet. Long cloaks, plainly cut, are gathered at the neck with a pair of long cords, like tasselled bell-pulls. While Henry VIII. is spending his father's hoards we have a splendid court, gallantly dressed in new fashions. His own broad figure, in cloth of gold, velvet and damask, plaits, puffs and slashes, stiff with jewels, is well known through scores of portraits, and may stand for the high-water mark of the modes of his age. The Hampton Court picture of the earl of Surrey is characteristic of a great lord's dress of a somewhat soberer style (see fig. 38). The king, proud of his own broad shoulders, set the fashion to accent this breadth, and it will be seen that the earl's figure, leaving out the head and hose, all but fills a perfect square. Such men have the air of playing-card knaves. Surrey's cap is flat, with a rich brooch and a small side-feather. His short doublet of the new style is open in front to show a white shirt covered with black embroidery whose ruffles cover his wrists. His over-garment or jerkin has vast sleeves, rounded, puffed and slashed. Under the doublet are seen wide trunk-breeches. He goes all in scarlet, even to the shoes, which are of moderate size. The girdle carries a sword with the new guard and a dagger of the Renascence art, graced with a vast tassel. All is in the new fashion, nothing recalling the earlier century save the hose and the immodest *braguette* which, seen in the latter half of the fourteen-hundreds, is defiantly displayed in the dress and armour of this age of Henry VIII. Even the hair follows the new French mode and is cropped close. Other fashionable suits of the time give us the tight doublets, loose upper sleeves and trunk hose as a mass of small slashes and puffs, a fashion which came in from the Germans and Switzers whom Henry saw in the imperial service. Such clothing goes with the shoes whose broad toes are slashed with silk, and the wide and flat caps with slashed edges, bushed with feathers, which headgear was often allowed to hang upon the shoulders by a pair of knotted bonnet-strings, while a skull-cap covered the head. With all this fantasy the dress of simpler folk has little concern, and a man in a plain, short-skirted doublet, with a flat cap, trunk breeches, long hose and plain shoes, has nothing grotesque or unserviceable in his attire. The new sumptuary laws, which were not allowed to become a dead letter, had their influence in restraining middle-class extravagance. No man under a knight's degree was to wear a neck-chain of gold or gilded, or a "garded or pinched shirte." Brooches of goldsmith's work were for none below a gentleman. Women whose husbands could not afford to maintain a light horse for the king's service had no business with gowns or petticoats of silk, chains of gold, French hoods, or bonnets of velvet. This French hood is the small bonnet, two of whose many forms may be seen in the best-known portraits of Mary of England and Mary, queen of Scots—a cap stiffened

FIG. 37.—A Gentleman and his Wife. (From a brass of 1508.)

Drawn from a photo by Mansell.
FIG. 38.—The Earl of Surrey (late in reign of Henry VIII.).

with wires. With its introduction the fashionable skirt began to lose its graceful folds and to spread stiffly outward in straight lines from the tight-laced waist, the front being open to show a petticoat as stiff and enriched as the skirt. The neck of the gown, cut low and square, showed the *partlet* of fine linen pleated to the neck. In the days of Edward VI. and Queen Mary the dress of most men and women loses the fantastic detail of the earlier Tudor age. In the dress of both sexes the joining of the sleeve to the shoulder has, as a rule, that large puff which stage dressmakers bestow so lavishly upon all old English costumes, but otherwise the woman's gown and hood and the man's doublet, jerkin and trunk hose are plain enough, even the shoes losing all the fanciful width. Mary, indeed, added to the statute book more stringent laws against display of rich apparel, laws that would fine even a gentleman of under £20 a year if silk were found in his cap or shoe. Small ruffs, however, begin to appear at the neck, and most wrists are ruffled. The ruff, which began simply enough in the first half of this century as a little cambric collar with a goffered edge, is for all of us the distinguishing note of Elizabethan dress. It grew wide and flapping, therefore it was stiffened upon wires and spread from a concealed frame, row on row of ruffs being added one above the other until the wearer, man or woman, seemed to carry the head in a cambric charger. Starch, cursed as a devilish liquor by the new Puritan, gave it help, and English dress acquired a deformity which can only be compared with the great farthingale or with the last follies of the wig. The skirt of a woman of fashion, which had already begun to jut from the waist, was drawn out before the end of Elizabeth's reign at right angles from the waist until the dame had that air of standing within a great drum which Sir Roger de Coverley remarked in the portrait of an ancestress. Elizabeth herself, long-waisted and of meagre body, set the fashions of her court, other women pinching their waists into the long and straight stomacher ending in a peak before. She herself followed her father's taste in ornament, and on great days was set about like the Madonna of a popular shrine with decorations of all kinds, patterns in pearl, quiltings, slashings, puffings and broidery, tassels and rich buttons. Among men the important change is the disappearance of the last of the long hose, all men taking to trunk-hose and nether-stocks or stockings, while their doublets tend to follow the same long-waisted fashion as the bodices of the women, whose doublets and jerkins, buttoned up the breast, bring the Puritan satirists against them. Of these satirists Philip Stubbes is the best-known, his *Anatomie of Abuses*, published in 1583, being a very wardrobe of Elizabethan fashions, although false or dyed hair, the ruff and its starch, and the ear-rings worn by some women and many men draw his hottest anger. William Harrison sings on a like note about the same time, declaiming especially against the mutability of fashion, declaring that the imported Spanish, French and German guises made it easier to inveigh against such enormities than to describe the English attire with any certainty. For him women were become men, and men transformed into monsters. "Neither was it ever merrier with England than when an Englishman was known abroad by his own cloth and contented himself at home with his fine carsey hosen and a mean slop; his coat, gown and cloak of brown, blue or puke, with some pretty furniture of velvet or fur and a doublet of sad tawny or black velvet or other comely silk, without such cuts and garish colours as are worn in these days, and never brought in but by the consent of the French, who think themselves the gayest men when they have most diversities of jags and change of colours about them." He adds that "certes of all estates our merchants do least alter their attire ... for albeit that which they wear be very fine and costly, yet in form and colour it representeth a great piece of the ancient gravity appertaining to citizens and burgesses." But as for the "younger sort" of citizens' wives, Harrison finds in their attire "all kind of curiosity ... in far greater measure than in women of a higher calling."

FIG. 39.—An English Lady. From a brass of 1605.

FIG. 40.—An English Lady of rank in 1643. After Hollar.

FIG. 41.—The English Countrywoman of 1643. After Hollar.

17th century.

The coming of King James is not marked by any sudden change of attire, most of the Elizabethan fashions running on into his reign. The tight doublet has stiff wings at the shoulders, close sleeves and short skirt. The many fashions of breeches are still popular, most of them padded or stuffed. There are trunk hose that have the air of petticoats rolled inward half way up the thigh. There is the "great round abominable breech," pegtop shaped from below the knee to waist, as it appears in the well-known print of James himself with hawk on fist. Among women of fashion obtained a remarkable mode of exposing the breast, when the ruff and bodice were cut away; and the wheel fardingale was still worn, an order against it in 1613 rather increasing than diminishing its size. But simpler fashions were setting in, and with the reign of Charles I. the extravagances of padding and slashing disappear. The ruff gives place at last to the falling band, a wide collar of lace or plain linen. The belt or girdle ceases to be common wear, save for those who hang a sword from it. Parties in the state come to be known by their dress, and we have the Puritan, his crop head covered by a wide-brimmed, high-crowned felt, without hatband or feather, and his plain falling band over a staidly-cut coat. Beside him we set the cavalier, lace at his band edge, wrist and wide boot tops. His hat is feathered, his doublet lets the fine cambric of the shirt be seen at the waist, his short breeches are fringed with points or tags. His long hair has one lock brought over the left shoulder to be marked as a lovelock by a ribbon at the end. But the clothing of this age has been illustrated by Van Dyck and by a hundred other portrait painters, who as illustrators of costume take the place of the monumental sculptors, then less commonly called on for an effigy in the habit of life. And the time of the Commonwealth passes without notable change. Those who were in power favoured a sober habit, although we find General Harrison in scarlet and clinquant matching with Colonel Hutchinson in courtly apparel, and before the Restoration the tract-writers find matter of condemnation, especially in the items of patches, hair-powder and face paints.

So far as the court was concerned, King Charles II. brought in the extravagant fashions of the courtiers of Louis XIV. The short-waisted doublets with loose sleeves slashed open at the sides, the short and wide petticoat breeches, their lining lower than the petticoat edge and tied below the knee, and the hose whose tops bagged over the garter, were in England before King Charles returned. He added to the breeches the rows of looped ribbons, gave falling

FIG. 42.—A Squire of a Knight of the Bath at the Crowning of Charles II.

ruffles to the knees of the hose and many feathers to the hat. The long, narrow-bladed rapier hung in a broad, embroidered belt, passed over the right shoulder, and the high-heeled shoes and knots of ribbons. Lely painted the women of this court in a studied negligence, but many pictures show us the loose sleeves turned up to the elbow with bows of ribbon, the close bodice ending in a loose gown worn over a full skirted petticoat, a wide collar covering the shoulders.

Pepys is our chief authority for the remarkable resolution of Charles to change the fashion of his dress to one which he would never alter, a decision which the king communicated to his council in October 1666. On the 15th of that month the diarist noted that “this day the king begins to put on his vest, and I did see several persons of the House of Lords and Commons too, great courtiers, who are in it; being a long cassocke close to the body, of black cloth and pinked with white silk under it, and a coat over it, and the legs ruffled with black riband like a pigeon’s leg ... a very fine and handsome garment.” Rugge’s diary records the same change to “a close coat of cloth pinkt, with a white taffety under the cutts. This in length reached the calf of the leg, and upon that a sercoatt cutt at the breast, which hung loose and shorter than the vest six inches. The breeches the Spanish cut, and buskins, some of cloth, some of leather, but of the same colour as the vest or garment.” Says Evelyn, “a comely and manly habit, too good to hold.” Later in the same month Pepys saw the court “all full of vests, only my Lord St Albans not pinked, but plain black; and they say the king says the pinking upon whites makes them look too much like magpies, and therefore hath bespoke one of plain velvet.” The change, although the court was fickle, is of the first importance in the history of costume, for we have here the coat and waistcoat in a form from which our own coats and waistcoats derive without a break. Another important change affects dress for a century and a half. Just as costume begins to take the modern path we have the wig or peruke, strangest of all the fantasies of fashion, introduced as the wear for all men of standing. Pepys, the son of a tailor and a man with a shy affection for fine clothing, may again here be quoted. On a Sunday in February 1661 he “began to go forth in my coat and sword, as the manner now among gentlemen is.” In November 1663 he takes another step with fashion, going to the periwig-maker to have his hair cut off and to put on his first periwig, for which he paid 3[l], another to be made up of the hair with which he had parted. The next day he wore the periwig to his office, and “no great matter was made of it.” Two days later my Lord Sandwich “wondered at first to see me in my peruque,” but even in church Pepys found that he drew little attention in the new guise. The same month the duke of York announced that he would wear the periwig, “and they say the king also will.” Thus began this costly and inconvenient mode. At home and at their ease men commonly replaced the wig with a soft silk or velvet “night-cap,” and the coat with a “morning gown” like our modern dressing gown. 242 Powder, which had been dusted about the hair by a few courtiers and fashionable folk since the reign of Elizabeth, was used by most wearers of the wig. Hair “dressed with a powder” was often seen in London under the Commonwealth, and now the great periwig brought powder into frequent use.

Before the end of the 17th century the periwig reached its greatest height and breadth, the curls of a fine gentleman towering in a mass above the brow and flowing far down over the shoulders or nigh to the waist. Guardsmen wore them tossing over their corslets, although a smaller variety, the campaign wig, had been introduced for war or travel. Many portraits of this age show its locks contrasting strangely with the soldier’s steel breastplate and pauldrons, but it must be remembered that martial gentlemen would often choose to be painted in armour although such harness was disappearing from actual use.

Under James II. the coat adopted in the late reign was firmly established as the principal garment of a well-dressed man. Gowns remained but to make a ceremonial dress for the great

Fig. 43.—A Gentleman of the Privy Chamber at the Crowning of James II.

officers of state, for the judges and the London liverymen, for such, indeed, as those who wear them in our own days. As for “the comely cloak, altogether used in the beginning of my time,” Randle Holme notes that it was “now scarce used but by old and grave persons.” The coat was sometimes buttoned down the front but was more often thrown open to display the waistcoat, a lesser coat with skirts. The great turned over cuffs were now below the elbow, although there was good space for the display of the ruffle, and at the neck was the large cravat with laced ends. After the battle of Steinkirk, in 1692, to which the young French nobles hastened with disarranged neckcloths, the cravat was sometimes worn twisted, the ends passed through a ring, although the word Steinkirk was in later years often carelessly given to the neckcloth worn in any style. For riding, the big jack-boot of earlier days, with spurs and broad spur-leathers, remained in fashion, although the bell-shaped tops were turned up and not down. Boots, however, were riding-gear. Gondomar, the Spanish ambassador to James I., had laughed over the citizens of London “all booted and ready to go out of town,” but this custom died away, and a man in boots showed that he was for the road. William III.’s grave court was not one in which new fashions flourished, but it is remarkable that feminine modes take curious variety before the century end. Long-waisted and straitly cut stays were worn, the gown sleeve is short as the coat-sleeve of a Charles II. courtier. The gown itself has the skirts gathered to show the petticoat, and small aprons fringed with lace are often seen. The simple head-dresses of the Restoration are changed for caps with long lace lappets, or for a cap whose top-knot or commode stood up stiff and fan-shaped like a section cut out of an old ruff. When no commode was worn, a loose hood, thrown gracefully over the head and gathered at the shoulders, sometimes took its place. As a riding or walking dress, ladies of quality often wore coats, waistcoats, hats and cravats, not to be distinguished from those of their lords.

Fig. 44.—The Herbwoman and her Maids at the Crowning of James II.

The 18th century.

For a distinguishing note of the 18th century, we may take the three-cornered cocked hat. Even in the Elizabethan age we have the gallant cocking up one side of his broad-brimmed, high-crowned felt or beaver and securing it with a jewel. Brims were as wide at the end of the 17th century, but the crown was lower. From the French court came the fashion of cocking up three sides, one at least being fastened with a loop of ribbon from which developed the cockade. A black cockade became the sign of a military man in England before 1750, and the same ornament, highly conventionalized, is now at the side of the tall hats worn by the grooms and coachmen of military and naval officers. Following varying fashions, the 18th-century cocked hat was laced with gold and silver or edged with feathers. It was cocked in a hundred forms, from that which has three sides slightly curled upward to the great Khevenhueller cock, wherewith a very wide-brimmed hat was flapped up at the front and rear, a military or martial hat. Wigs, worn by all the upper- and middle-class men, were generally powdered, but the lesser or Ramillie wig soon drove out the huge and costly full-bottomed periwig, even for ceremonial occasions. Of Lord Bolingbroke it is told that he once attended Queen Anne in haste with a tie or Ramillie wig on his head. Her Majesty showed her displeasure by remarking that his lordship would next come to court in a night-cap. Nevertheless, the tie-wig soon became court wear, secured

at the back with a huge bow of ribbon below which hung the plaited pigtail, worn waist-long about 1740. But by that time young bloods were leaving campaign-wigs for the bob-wig which sat yet more closely to the head, the curls leaving the neck uncovered. Bag-wigs, found early in the century, covered the looped up pigtail in a black silk bag. Clergymen and grave physicians affected the full-bottomed wig after it became old fashioned. Subject to slight changes, eagerly followed by the beaux and mocked by the satirists, the habit of well-dressed men shows no great variety—the large-cuffed, collarless coats whose full skirts are now shortened, now lengthened, the long waistcoat to match, the closely fitting breeches, the stockings, the shoes and jack-boots. The coat tends to be thrown open to show the waistcoat, upon which brocade and embroideries were lavished. Stockings, until the middle of the century, were commonly drawn over the ends of the breeches and gartered below the knee. By 1740 the long cravat with hanging ends grows old fashioned. Young men take to the solitaire, a black cravat which became a mere loop of ribbon passed loosely round the neck and secured to the black tie of the wig.

George III.’s long reign begins with men’s fashions little changed from those of his great-grandfather’s time, although his sixty years carry us to the beginning of all the modern modes. The small wig long holds its own. The coat begins to show the broad skirts cut away diagonally from the waist to the skirt edge, and stockings are no longer rolled over the knee. Perhaps the most remarkable fashion was that which distinguished the Macaronis, travelled exquisites with whom the wig or long hair was dragged high above the forehead in a tall “toupee” with two large rows of curls at the side. This head-dress, clubbed into a heavy knot behind, was surmounted by a very little hat. The coat with small cuffs was much cut away before, the skimped skirts reaching midway down the thigh. Waistcoat flaps were but little below the waist. Breeches, striped or spotted like those of a Dresden china shepherd, were fastened at the knee with a bunch of ribbon ends; a watch-guard hung from each fob. The shirt-front was frilled and a white cravat was tied in a great bow at the chin. Macaronis wore a little curved hanger, or replaced the sword with a long, heavily tasselled cane, which served to lift the little hat off the topmost peak of the toupee. The woman-Macaroni wore no hoop but in full dress. Her gown was a loose wrapper, the sleeves short and wide with many ruffles, the skirt pulled aside to show a petticoat laced and embroidered with flowers. But her distinguishing mark was her head-dress, which exaggerated the male fashion, towering upward until the flowers and feathers at the top threatened the candelabra of the assembly room. The Macaronis appear about 1772 and stay but a short while, for the revolutionary fashions tread upon their heels.

Fig. 45.—An English Gentleman (c. 1730).

Fig. 46.—An English Lady (c. 1730).

Women’s dress in this 18th century is dominated by the hoop-petticoat which Sir Roger de Coverley recognizes in 1711 as a new fashion and an old one revived. A stiff bodice laced in front, a gown, with short and wide-ended sleeves, gathered up in folds above the petticoat, a laced apron and a lace cap with hanging lappets, is the dress of the century’s beginning. So the women of fashion are compared with children in go-carts, their tight-laced waists rising from vast bells of petticoats over which the gown is looped up like a drawn curtain. By 1750 the hoop-petticoat ringed with whalebone is so vast that architects begin to allow for its passage up London stairways by curving the balusters outward. Great variety of women’s dress appears under George II., but those in the height of the mode affected a shepherdess simplicity in their walking clothes, wearing the flat-crowned or high-crowned hats and long aprons of the dairymaid. At this time a new fashion comes in, the *sacque*, a gown, sometimes sleeveless, open to the waist, hanging loosely from the shoulders to near the edge of the hoop-petticoat. George III.’s reign saw women’s head-dressings reach an extravagance of folly passing all that had come before it. Hair kneaded with pomatum and flour was drawn up over a cushion or

pad of wool, and twisted into curls and knots and decorated with artificial flowers and bows of ribbon. As this could not be achieved without the aid of a skilled barber, the “head” sometimes remained unopened for several weeks. At the end of that time sublimate powder was needed to kill off the tenantry which had multiplied within. At the beginning of the last quarter of the century the feathers grew larger, chains of beads looped about the curls, while ships in full sail, coaches and horses, and butterflies in blown glass, rocked upon the upper heights. Loose mob-caps or close “Joans” were worn in undress, often as simple as the full dress was fantastic. Varieties of the gown and sacque remained in fashion, the petticoat being still much in evidence, flounced or quilted, or festooned with ribbons. Before the ’eighties of this century were over, a new taste, encouraged by the painters of the school of Reynolds, began to sweep away many follies, and the revolutionary fashions of France, breaking with all that spoke of the old régime, expelled many more. The age of powder and gold lace, of peach-bloom brocade coats with muff-shaped cuffs, of bag-wigs and three-cornered hats drew suddenly to an end. Mr Pitt killed hair-powder by his tax of 1795, but before that time fashionable men, who since the beginning of George III’s. reign had been somewhat inconstant to the wig, were wearing their own hair unpowdered and tied in a club at the back of the coat collar. Before the century end the roughly cropped “Brutus” head was seen. The wig remained here and there on some old-fashioned pates. Bishops wore it until far into the Victorian age, and it may still be seen in the Houses of Parliament and in the courts of law. Even breeches were passing, tight pantaloons showing themselves in the streets. The coat, cut away over the hips, began to take a high collar and the beginnings of the lappel. Its cuffs were of the modern shape, showing a narrow ruffle. The waistcoat ended at the waist. Loose neck-cloths were worn above a frilled shirt-front. Great jack-boots were given to postillions, and men of fashion walked the streets in short top-boots of soft black leather. Most remarkable of the revolutionary changes, the round hat came back, sometimes in a form which recalled the earlier 17th century, and at last took shape as the predecessor of our modern silk hat. Court dresses kept something of their magnificence, but men at home or in the streets were giving up in this time of change their ancient right to wear rich and figured stuffs. Laces and embroideries were henceforward but for military and civil uniforms.

Before 1790 women had begun to dismantle their high headgear, returning to nature by way of a frizzled bush, like a bishop’s wig, with a few curls hanging over the shoulders. Over such heads would be seen towering mob-caps tied with ribbon and edged deeply with lace. Skirts took a moderate size and even court hoops were but panniers hung on either side of the hips. Short jackets with close half-sleeves were worn with the neck and breast covered with a cambric *buffant* that borrowed a mode from the pouter pigeon. A riding habit follows as far as the short waist the new fashions for men’s coats, the wide-brimmed hat being to match. Short waists came in soon after 1790, the bodice ending under the arm pits, “a petticoat tied round the neck: the arms put through the pocket-holes.” With these French gowns came small coal-scuttle-shaped bonnets of straw, hung with many ribbons and decorated with feathers. At last the woman of fashion, dressed by a Parisian modiste after the orders of David the painter, gathered her hair in a fillet and clothed herself in little more than a diaphanous tunic gown over a light shift and close, flesh-coloured drawers. Her shoes became sandals: her jewels followed the patterns of old Rome. Yet the same woman, shivering half-clad in something that wrapped her less than a modern bathing-dress, appeared at court in the ancient hoop-skirt, tasselled, ribboned and garlanded, hung with heavy swags of coloured silk, and this until George IV. at last broke the antique order by a special command.

19th century.

The 19th century soon made an end of 18th century fashions already discredited by the revolutionary spirit. The three-cornered hat had gone, the heavy coat cuff and the cravat with hanging ends. Civilians had given up the ancient custom of going armed with a sword. The wig and even the pigtail tied with black shalloon were abandoned by all but a few old folk. Soldiers cut off their pigtails in 1808. But judges and lawyers wear their wigs in court in the 20th century, state coachmen wear them on the box, and physicians and the higher clergy wore them even in the street long after laymen had given them up. George IV. refused to receive a bishop of London who appeared at court without a wig, and Sumner, archbishop of Canterbury, wore one until his death in 1862. A few powdered heads were seen as late as the ’forties. M. de Ste Aulaire, the ambassador, made, as Lord Palmerston writes, a very deep and general impression in London society of 1841, not because he wore hair-powder but because he used so much of it. It is now used only by a few lacqueys. In the early Victorian period the cropped “Brutus” head was out of fashion, many men wearing their hair rather long and so freely oiled that the “anti-macassar” came in to protect drawing-room chair-backs.

With powdered hair and the pigtail passed away the 18th century cloth breeches. Here again some old-fashioned people made a stand against the change, the opposition of the clergy

From *Fraser's Magazine*, Dec. 1834.

FIG. 47.—Count D'Orsay. Dress of a man of Fashion in Early Victorian Period.

being commemorated in the black breeches still worn by bishops and other dignitaries of the church. But in the regent's time pantaloons of closely fitting and elastic cloth were worn with low shoes or Hessians, and pantaloons and Hessians did not utterly disappear from the streets until the end of the 'fifties. Squires and sportsmen put on buckskins of an amazing tightness and walked the street in top-boots. But the loose Cossack trousers soon made their appearance. The regent's influence made the blue coat with a very high velvet collar, a high-waisted Marcella waistcoat and white duck trousers strapped under the instep, a mode in which men even ventured to appear at evening receptions, although, in the year before Waterloo, the duke of Wellington was refused admittance to Almack's when thus clad. Long skirted overcoats, fur-collared and tight in the waist, completed this costume. Coats were blue, claret, buff and brown. "Pea-green Hayne" was known among clubmen by a brighter coloured garment. Civilians, like Jos Sedley, would sometimes affect a frock frogged and braided in semi-military fashion. The shirt collar turned upward, the points showing above vast cravats whose careful arrangement was maintained by one or two scarf-pins. Brummel the master dandy of his age, may be called the first dandy of the modern school. Dressing, as a rule, in black, he distinguished himself, not as the bucks of an earlier age by bright colours, rich materials or jewellery, but by his extravagant neatness and by the superb fit of garments which set the fashion for lesser men. To him, according to Grantley Berkeley, we owe the modern dress-coat. An idle phrase in Bulwer-Lytton's *Pelham* (1828), that "people must be very distinguished in appearance" to look well in black, made black henceforward the colour of evening coats and frock coats. With the perfection of the silk hat in the 'thirties, English costume enters on its last phase. The coat cut away squarely in front was then out of the mode; it remains but in the evening-dress coat now always worn unbuttoned, and in the dress of the hunting field. The rest is a record of such slight changes as tailors may cautiously introduce among customers, no one of whom will dare to lead a new fashion boldly. For many decades the fashionably dressed man has been eager to conform to the last authorized vogue and to lose himself among others as shyly obedient. The tubular lines of 20th-century clothing advantage the tailor by the tendency of new clothing to crease at the elbow and bag at the knee. In preserving the necessary straight lines of his garments, in following the season's fashions in details which only an expert eye would mark, and in providing himself with clothes specialized for every hour of the day, for a score of sports and for the gradations of social ceremonial—in these things only can the modern dandy rival his magnificent predecessors. For ornament, other than plain shirt studs, a plain seal ring, a simple watch guard and a rarely-worn scarf pin, is denied him.

Women at the beginning of the 19th century were clad in those fashions which revolutionary France borrowed from the antique. The simplicity of this style gave it a certain grace; it was at the other pole from the absurdity of the court dress which, until George IV. ordered otherwise, perpetuated the bunched draperies, the flounces and furbelows and even the hoop of the worst period of the 18th century. The gown, lightly girdled near the arm-pits with a tasselled cord, fell in straight clinging folds. Soft muslin was the favourite material, and in muslin fashionable women faced the winter winds, protected only by the long pelisses which in summer were replaced by short spencers. Turbans, varying from a light headscarf of lace or muslin to a velvet confection like that of a Turk on a signboard, were the favourite headgear, although bonnets, hats and caps are found in a hundred shapes. Muslin handkerchiefs or small ruffs were worn about the neck in the morning dress. About the Waterloo period the elegance of the classical gown disappeared. The waist was still high at first but the gown was shorter and wider at the skirt. For evening dress these skirts were stiffened with buckram and trimmed with much tasteless trumpery. Large bonnets were common, and the hair was dragged stiffly to the back of the head, to be secured by a large comb. From 1830 begins a period of singular ugliness. Tight stays came back again, the skirt swept the pavements, a generation of over-clad matrons seemed to have followed a generation of nymphs. The 'fifties showed even more barbarous devices, and about 1854 came in from France the crinoline, that strange revival of the ancient hoop. Plaids, checks and bars, bright blues, crude violets and hideous crimsons, were seen in French merinos, Irish poplins and English alpacas. Women in short jackets, hooped skirts, hideous bonnets and shawls seemed to have banished their youth. The empress Eugénie, a leader of European fashion, decreed that white muslin should be the evening mode, and at balls, where the steels and whalebones of the crinoline were impossible,

the women swelled their skirts by wearing a dozen or fourteen muslin petticoats at once. Towards the end of the ’sixties the crinolines disappeared as suddenly as they came, and by 1875 skirts were so tight at the knees that walking upstairs in them was an affair of deliberation. Before 1880 dress-reformers and aesthetes had attacked on two sides the fashions which had halted at the “Princesse” robe, draped and kilted. Both movements failed, but left marked effects. From that time fashion has been less blindly followed, and women have enjoyed some limited individual freedom in designing their costumes. Of 20th-century fashions it is most notable that they change year by year with mechanical regularity. The clothes of smart women can no longer be said to express any tendency of an age. Year by year the modes are deliberately altered by a conclave of the great *modistes* whose desire is less to produce rich or beautiful garments than to make that radical alteration from loose sleeve to tight sleeve, from draped skirt to plain skirt, which will force every women to cast aside the last season’s garments and buy those of the newer device. But of modern dress it may at least be said that cheaper materials, the sewing machine and the popular fashion papers allow women of the humbler classes to dress more decently and tastefully. Their dress is no longer that frowsy parody of richer women’s frippery which shocked observant foreigners a generation ago.

Underclothing.—Of the underclothing worn next the skin something may be said apart from the general history of costume. Linen shirts were worn by both men and women in the age before the Conquest, and even in the 10th century it was a penance to wear a woollen one. After that time we soon hear of embroidery and ornament applied to them, presumably at the collar which would be visible above gown or tunic. Men added short drawers, or breeches, a word which does not secure its modern value until the end of the 16th century. “Drawers” signified various descriptions of overall, Cotgrave explaining the word as coarse stockings drawn over others although Randle Holme gives it in its later sense. Isaac of Cyprus is named by Robert of Brunne as escaping “bare in his serke and breke.” Henry Christall, who brought four Irish kings to London, told Froissart how, finding that they wore no breeches, he bought linen cloth for them. Medieval romances and the like give us the choice of shirts of linen, of fine Holland, of cloth of Rennes and even of silk, and Chaucer speaks of women’s smocks wrought with silk, embroidered behind and before. Poorer folk went, like Thynne’s poor countryman, in shirts of “canvas hard and tough,” or of coarse Breton dowlas. Under the first Tudors, shirts are decorated with gold, silk and black thread embroideries, the latter being seen in the ruffled shirt worn by the earl of Surrey in our illustration (see fig. 38). Stubbes, in his often-quoted *Anatomie of Abuses* (1583) declaims against the extravagant sums spent in shirts, the meanest of which would cost a crown or a noble, while the most curiously stitched were valued at ten pounds a piece, “which is horrible to hear.” The Puritans, many of whom, like the later Clapham sect, were careful of intimate luxuries, had a curious fashion of wearing shirts and smocks worked with “holy embroideries,” Biblical sentences or figures, which recall a similar custom among the early Christians. At this time underclothing had increased in quantity, for there are many indications that the men and women of the middle ages were often content with a bare change of linen at the best. *The Book of Courtesy* (temp. Hen. VII.) orders the servant to provide “clene sherte and breche” against his master’s uprising, but the laundering of the linen of the Percy household, a hundred and seventy people, costs but forty shillings a year in the reign of Henry VIII.

Fig. 48.—A Man-at-arms and a Man in a Shirt

With that modern period of dress which may be said to begin with the Restoration, shirts increased in number. Women shifted their smocks when coming in from field sports, fine gentlemen became proud of the number of their shirts, as was that 18th-century lord who boasted to Casanova of his changing a shirt several times in the day, his chin being shaved on each occasion. A valuable document concerning the underclothing worn by a citizen in the reign of Charles II. is afforded by the evidence of the man who helped to strip the body of the suicide Sir Edmond Berry Godfrey. “I pulled off his shoes,” says Fisher, “three pairs of stockings and a pair of socks, his black breeches and his drawers.” His coat and waistcoat, his shirt and his flannel shirt are also named. The knight came by his end on an October day. He was therefore warmly clad. His three pair of stockings will be noted: two pair are worn at the present day by most men in court dress. The socks are a rarely named addition, and the flannel shirt may be remarked. Loose ruffles of lace were attached to shirt cuffs until during the great part of the 18th century, and the ruffled or goffered shirt-front, which became common under George III., continued in use in the early Victorian period, the stiffly starched shirt-front taking

(early 14th century). From Royal MS. 19 B. xv.

its place at last even in evening dress. The last quarter of the 19th century, breaking through the strange mock-modesty which spoke of breeches as “inexpressibles,” saw the question of hygienic underclothing a subject much in debate, and now most men other than the poorer sort wear, besides the shirt, a light woollen vest and short drawers or long pantaloons of wool or wool’s counterfeit. Woollen shirts are worn by bicyclists, cricketers and tennis players. In morning dress the inconvenience of the starched shirt-front is commonly avoided. A goffered shirt-front worn with evening dress is the mark of a foreigner in London, but some few men venture to clothe themselves for the evening in a shirt whose front is pleated and but slightly starched. Loose collars, formerly known as false collars, descendants of the Puritan’s “plain band,” have been attached to the shirt by studs at least for the last fifty years. Their fashions often change, but the older type turned down at the edge is not often seen. To women’s underclothing drawers have been added in the 19th century. Brantôme, writing in the 16th, speaks of this garment as then lately introduced since the time of Henri II., but the fashion, apparently, did not long endure in France. In England they are noted as in occasional use at the Restoration. After 1820 a sort of trouser with a frilled edge was worn for a time by fashionable women in England. The pantalette which afterwards appears in pictures of young girls was a mere legging fastened by tapes above the knees. Many women of the better class only adopted drawers at the end of the ’forties, and it may be presumed that the fashion reached the humble sort at a much later date. Towards the end of the 19th century both drawers and smock or “chemise” were commonly exchanged for a more convenient “combination garment.”

European Fashions.—Race, climate, poverty and wealth have all had their part in the fashion of clothing. A mountaineer is not clad as a lowlander; the Tirolese in his short breeches, the Highlanders of Scotland and Albania in their tartan or white linen kilts go with uncovered knees. The Russian moujik in winter has his frowsy sheepskin coat, and the Russian prince imitates it in costly furs. While the rich man’s clothing alters with every fancy of the tailors, the poor man’s garments, fewer and cheaper, change slowly in the ages. An old Lincolnshire peasant wearing his smock frock and leathern gaiters might pass unnoted in a peasant crowd of centuries ago. Here and there in Europe we find in the 20th century a peasantry in whose clothing fashion seems to have been suddenly stayed. A Breton peasant in his holiday dress gives us a man of the late 17th century, even as an Irish peasant may keep the breeches, shoes and tailed coat of the early 19th. But the old fashions are passing from Europe: the sewing machine and the railway sweep before them the pleasant provincialisms of dress. A shirt with the bosom heavily embroidered, a skirt with a year’s stitching in the hem are not to be imitated by the dealer in ready-made clothing, who offers, instead, cheapness and the brisk variety of the town. Old writers, each in turn, set up their wail that the time was come when you could not tell Jack from his master, the burgess from the knight. And now that time has come in some sort, for the town dress of the richer classes of London or Paris is imitated by all peoples and by rich and poor. Especially is this the case in England where the clean and honourable blouse of the French workman is not, a journeyman painter or labourer often going to his work in a frayed and greasy morning coat after the cut of that in which a rich man will pay a London morning call. English fashions for men are followed in Paris. London women follow the modes of the rue de la Paix. Berlin tailors and dressmakers laboriously misapprehend both styles. To those who do not understand the international trafficking of the middle ages and the age of renascence it is strange to note how little the fashions varied in European lands. All kinds of folks, crusaders and merchants, diplomatists and religious, carried between nation and nation the news of the latest cut of the shears.

From Hottenroth, *Trachten der Völker*, by permission of Gustav Weise Verlag.

FIG. 49.—German Dress (early 16th century).

From Hottenroth, *Trachten der Völker*.

FIG. 50.—A French Nobleman (c. 1660).

From Hottenroth, *Trachten der Völker*.

FIG. 51.—A Spanish Nobleman (latter half of 16th century).

Nevertheless, national character touched each nation's dress—the Venetian loving the stateliness of flowing line, the Germans grotesque slashings and jaggings. Frenchmen, says Randle Holme in the 17th century, keep warm and muff themselves in cold weather, "but in summer through fantastical dresses go almost naked." For the same writer the Spaniard was noted as a man in a high-crowned hat with narrow brim, a ruff about his neck, a doublet with short and narrow skirts and broad wings at the shoulders, ruff-cuffs at his hands, breeches narrow and close to his thighs, hose gartered, shoes with rounded toes, a short cloak and a long sword. In all of those points we may take it that the Spaniard differed from the Englishman as observed by this observant one. Even in our own days we may catch something of those national fashions. The Spaniard may no longer walk with his long sword, his ruff and gartered hose, but he keeps his fancy for sombre blacks, and so do the citizens of those Netherlands which he once ruled.

(O. BA.)

III. NATIONAL AND CLASS COSTUME

Costume, as readers of Carlyle's *Sartor Resartus* know, always has a significance deeper than the mere whims of fashion. In the cosmopolitan society of modern times dress everywhere tends to become assimilated to a common model, and this assimilation, however regrettable from the picturesque point of view, is one of the most potent forces in the break-down of the traditional social distinctions. In the middle ages in Europe, and indeed down to the French Revolution, the various classes of the community were clearly differentiated by their dress. Everywhere, of course, it happened that occasionally jackdaws strutted in peacock's feathers; but even in England, where class distinctions were early less clearly marked than on the continent of Europe, the assumption of a laced coat and a sword marked the development of a citizen into a "gentleman" (q.v.). Nothing has more powerfully contributed to the social amalgamation of the "upper-middle" and the "upper" classes in England than the fashion, introduced in the 19th century, of extreme simplicity in the costume of men. But, apart from the properties of richness in material or decoration as a symbol of class distinction—at one time enforced by sumptuary laws—there have been, and still are, innumerable varieties of costume more or less traditional as proper to certain nationalities or certain classes within those nationalities. Of national costumes properly so called the best known to the English-speaking world is that of the Highlands of Scotland. This is, indeed no longer generally worn, being usually confined to gentlemen of birth and their dependents, but it remains a national dress and is officially recognized as such by the English court and in the uniforms of the Highland regiments in the British army. The chief peculiarity of this costume, distinguishing it from any others, is the tartan, an arrangement of a prevailing colour with more or less narrow checks of other colours, by which the various clans or septs of the same race can be distinguished, while a certain general uniformity symbolizes the union of the clans in a common nationality. Thus, e.g. the tartan of the clan McDonell is green with narrow checks of red, that of the clan Gregarach red with narrow checks of black. The costume consists of a short tunic, vest, a kilt—heavily pleated—fastened round the waist, and reaching not quite to the knees (like a short petticoat), stockings gartered below the bare knee, and

shoes. In front of the person, hanging from a belt round the waist, is the “sporran” or “spleuchan,” a pocket-purse covered with fur; and a large “plaid” or scarf, usually wrapped round the body, the ends hanging down from a brooch fastened on the left shoulder, but sometimes gathered up and hanging from the brooch behind, completes the costume. The head-gear is a cloth cap or “bonnet,” in which a sprig of heather is stuck, or an eagle’s feather in the case of chiefs. A dirk is worn thrust into the right stocking. Up to the end of the 16th century the tunic and “philibeg” or kilt formed a single garment; but otherwise the costume has come down the ages without sensible modification. Kilt and plaid are of tartan; and sometimes tartan “trews,” i.e. trousers, are substituted for the former.

Among other national costumes still surviving in Europe may be mentioned the Albanian-Greek dress (characterized by the spreading, pleated white kilt, or *fustanella*), and the splendid full-dress of a Hungarian gentleman, the prototype of the well-known hussar uniform; to which may be added the Tirolese costume, which, so far as the men are concerned, is characterized by short trousers, cut off above the knee, and a short jacket, the colour varying in different districts. This latter trait illustrates the fact that most of the still surviving “national” costumes in Europe are in fact local and distinctive of class, though they conform to a national type. These “folk-costumes” (*Volkstrachten*), as the Germans call them, survive most strongly in the most conservative of all classes, that of the peasants and naturally mainly in those districts least accessible to modern “enterprise.” These peasant costumes, often of astonishing richness and beauty, vary more or less in every village, each community having its own traditional type; and, since this type does not vary, they can be handed down as valuable heirlooms from father to son and from mother to daughter. But they are fast disappearing. In the British islands, where there were no free peasant cultivators to maintain the pride of class, they vanished long since; the white caps and steeple-crowned hats of Welsh women were the last to go; and even the becoming and convenient “sun bonnet,” which survives in the United States, has given place almost everywhere to the hideous “cloth cap” of commerce; while the ancient smocked frock, the equivalent of the French peasant’s workmanlike *blouse*, has become a curiosity. The same process is proceeding elsewhere; for the simple peasant women cannot resist the blandishments of the commercial traveller and the temptation of change and cheap finery. The transition is at once painful and amusing, and not without interest as illustrating the force of tradition in its struggle with fashion; for it is no uncommon thing, e.g. in France or Holland, to see a “Paris model” perched lamentably on the top of the beautiful traditional head-dress. Similarly in the richer Turkish families women are rapidly acquiring a taste for Parisian costumes, frequently worn in absurd combination with their ordinary garments.

The same process has extended far beyond the limits of Europe. Improved communication and industrial enterprise have combined with the prestige of European civilization to commend the European type of costume to peoples for whom it is eminently unsuited. Even the peoples of the East, whose costume has remained unchanged for untold centuries, and for whom the type has been (as in India) often determined by religious considerations, are showing an increasing tendency to yield to the world-fashion. Turkey, as being most closely in touch with Europe, was the first to feel the influence; the introduction of the fez and the frock-coat, in place of the large turban and flowing caftan of the old Turk, was the most conspicuous of the reforms of Sultan Mahmud II.; and when, in 1909, the first Turkish parliament met, only a small minority of its members wore their traditional costumes. The introduction of Japan into the comity of nations was followed by the adoption of European costume by the court and the upper classes, at least in public and on ceremonial occasions; in private the wide-sleeved, loose, comfortable *kimono* continues to be worn. China, on the other hand, has been more conservative, even her envoys in Europe preserving intact (except sometimes in the matter of boots) the traditional costume of their nation and class, while those of Japan, Corea and Siam appear in the conventional diplomatic or “evening” dress in Europe. In the Mussulman East, even when European dress has been adopted, an exception has usually been made in favour of head-gear, which has a special religious significance. In Turkey, for instance, the hat has not succeeded in displacing the fez; and in India, though the Parsis had by the beginning of the 20th century begun to modify their traditional high turban-like hat into a modified “bowler,” and Hindus—abroad at least—were affecting the head-gear of the West, those Mussulman princes who had adopted, wholly or partially, European dress continued to wear the turban. On the other hand, the amir of Afghanistan, when he visited India, had—out of doors at least—discarded the turban for the ugly “solar topee.” In spite of the natural conservatism, strengthened by religious conventions, of the Eastern races, there is a growing danger that the spread of European enlightenment will more or less rapidly destroy that picturesque variety of costume which is the delight of the traveller and the artist. For Indian costumes see India: *Costume*; for Chinese see China; &c.

IV. Official Costume

Official costumes, in so far as they are not, like the crowns and tabards of heralds, the coronets of peers, or the gold keys tacked to the coat-tails of royal chamberlains—consciously symbolical, are for the most part ceremonious survivals of bygone general fashions. This is as true of the official costume of the past as of the present; as may be illustrated from ancient Rome, where the toga, once the general costume of Roman citizens, in the 3rd and 4th centuries was the official robe of senators and officials (see also under Vestments). Thus, at the present time, the lay chamberlains of the pope and the members of his Swiss guard wear costumes of the 16th century, and the same is true of the king's yeomen of the guard in England. In general, however (apart from robes, which are much older in their origin), official costumes in Europe, or in countries of European origin, are based on the fashions of the 18th and early 19th centuries. Knee-breeches, however, which survive in the full-dress of many British officials, as in ordinary court dress, had practically disappeared on the continent of Europe, surviving only in certain peasant costumes, when the emperor William II. reintroduced them at the court of Berlin. The tendency in the modern democratic communities of Anglo-Saxon race has been to dispense with official costumes. In the United States the judges of the Supreme Court alone wear robes; the president of the Republic wears on all occasions the dress of an ordinary citizen, unrelieved by order or decoration, and thus symbolizes his pride of place as *primus inter pares*; an American ambassador appears on state occasions among his colleagues, gorgeous in bullion-covered coats, in the ordinary black "evening dress" of a modern gentleman. The principle, which tends to assert itself also in the autonomous "British dominions beyond the seas," is not the result of that native dislike of "dressing up" which characterizes many Englishmen of the upper and middle classes; for modern democracy shares to the full the taste of past ages for official or quasi-official finery, as is proved by the costumes and insignia of the multitudinous popular orders, Knights Templars, Foresters, Oddfellows and the like. It is rather cherished as the outward and visible sign of that doctrine of the equality of all men which remains the most generally gratifying of the gifts of French 18th-century philosophy to the world. In Great Britain, where equality has ever been less valued than liberty, official costumes have tended to increase rather than to fall into disuse; mayors of new boroughs, for instance, are not considered properly equipped until they have their gown and chain of office. In France, on the other hand, the taste of the people for pomp and display, and, it may be added, their innate artistic sense, have combined with their passion for equality to produce a somewhat anomalous situation as regards official costume. Lawyers have their robes, judges their scarlet gowns, diplomatists their gold-laced uniforms; but the state costume of the president of the Republic is "evening dress," relieved only by the red riband and star of the Legion of Honour. In the Latin states of South America, which tend to be disguised despotisms rather than democracies, the actual rather than the theoretical state of things is symbolized by the gorgeous official uniforms which are among the rewards of those who help the dictator for the time being to power. See also Robes; for military costume see Uniforms; for ecclesiastical costume see Vestments and subsidiary articles.

(W. A. P.)

Bibliography.—Apart from the enormous number of books especially devoted to costume, innumerable illustrated works exist which are, in various degrees, useful for the study of the history of this subject. It may be noted here, e.g. that the illuminators and painters of the middle ages did not affect historical accuracy in their presentment of biblical or secular subjects, but clothed their patriarchs, apostles or Roman warriors in the dress of their own ages, their pictures thus becoming invaluable records of the costume of their time. In this respect the knowledge of classical antiquity revived during the Renaissance introduced a certain confusion. Artists began to realize the incongruity of representing antique figures in modern garb, but, in the absence of exact knowledge, fancy began to play a greater part than research in the dressing of their characters. Portraits and representations of contemporary scenes (e.g. Rembrandt's "Night Watch") continue to be first-hand authorities for the costume of the period in which they were produced; but representations of biblical or historical scenes have little or no value from this point of view. Thus in Rubens's famous picture of St Ambrose repelling Theodosius from the door of his cathedral, the bishop is vested in the mitre and cope which only came into vogue centuries later, while the emperor wears a military costume modelled on that of Roman imperators of an earlier day. Even in portraiture, however, a certain conservatism tends to make the record untrustworthy; thus, great men continued to be painted in full armour long after it had in fact ceased to be worn.

Of authorities for English costume the following may be selected as especially useful: J. C. Bruce, *The Bayeux Tapestry Elucidated* (London, 1856), with 17 plates; F. W. Fairholt, *Costume in England to the end of the 18th Century* (2nd ed., ib., 1860); William Fowler, *Examples of Medieval Art* (1796-1829), 116 plates; Froissart's *Chronicles*, translated by T.

Johnes (4 vols., 1844), 72 plates and many woodcuts; R. N. Humphrey, *Illuminated Books of the Middle Ages* (ib., 1849); *Facsimiles of Original Drawings by Holbein, in the Collection of His Majesty, for Portraits of Persons of the Court of Henry VIII.*, engraved by F. Bartolozzi, &c. (London, 1884); John Nichols, *Progresses, Pageants, &c., of Queen Elizabeth* (3 vols., 1823), and *of James I.* (4 vols., 1828), with numerous plates; Hogarth's *Works*, engraved by himself, with descriptions by J. Nichols (1822), 153 plates; Edmund Lodge, *Portraits of Illustrious Personages of Great Britain* (12 vols., 1823-1835), 240 plates; J. R. Planché, *Hist. of British Costume* (3rd ed., Bohn, 1874), and *Cyclopaedia of Costume* (2 vols., 1876-1877); Henry Shaw, *Dresses and Decorations of the Middle Ages* (2 vols., 1840-1843), 94 plates and many woodcuts; Joseph Strutt, engraver, *Dress and Habits of the People of England* (2 vols., 1796-1799), and *Regal and Ecclesiastical Antiquities of Great Britain*, new edition with notes by J. R. Planché (1842), 153 plates; Westwood, *Miniatures of Anglo-Saxon and Irish Manuscripts* (1868), 54 plates; C. A. Stothard, *The Monumental Effigies of Great Britain* (1817-1832; ed. Hewitt, 1876); Herbert Haines, *Manual of Monumental Brasses* (Oxford, 1861), with many woodcuts; J. G. and L. A. B. Waller, *A Series of Monumental Brasses* (London, 1864); H. Druitt, *Costume on Brasses* (London, 1906). Of foreign works on costume the most important are Hefner-Alteneck, *Trachten, &c., vom frühesten Mittelalter bis Ende des 18. Jahrhunderts* (2nd ed., Frankfort, 1879-1890); Viollet-le-Duc, *Dictionnaire raisonné du mobilier français* (6 vols., Paris, 1858-1875), the first four volumes devoted to armour and costume; Friedrich Hottenroth, *Trachten der Völker alter und neuer Zeit* (2nd ed., Stuttgart, 1882-1890), with excellent plates, Fr. transl. by J. Bernhoff, *Les Costumes chez les peuples, &c.* (Paris, 1885), and *Handbuch der deutschen Tracht* (1898); Bonnard et Mercuri, *Costumes historiques des XII^{e}, XIII^{e}, XIV^{e} et XV^{e} siècles* (2 vols., Paris, 1867), 200 plates; Burgmair, *Triomphe de l'empereur Maximilien I.* (Vienna, 1796), 135 plates; Chapuy, *Le Moyen Age pittoresque* (2 vols., 1837), 180 plates; Chevignard et Duplessis, *Costumes historiques des XVI^{e}, XVII^{e} et XVIII^{e} siècles* (2 vols., Paris, 1867), 150 plates; du Sommerard, *Les Arts au moyen âge* (10 vols., Paris, 1838-1848), 510 plates; Duflos, *Recueil d'estampes, représentant les grades, les rangs, et les dignités, suivant le costume de toutes les nations existantes* (Paris, 1779-1780), 240 plates; *España artistica y monumental* (3 vols., Paris, 1842-1859), 145 plates; Fabri, *Raccolta di varii vestimenti ed arti del regno di Napoli* (Naples, 1773), 27 plates; Jaquemin, *Iconographie méthodique du costume du V^{e} au XIX^{e} siècle* (Paris), 200 plates; Lacombe, *Galerie de Florence et du palais Pitti* (4 vols., Paris, 1789-1807), 192 plates; Paul Lacroix, *Manners, Customs and Dress during the Middle Ages and the Renaissance*, Eng. trans. (London, 1874), *Military and Religious Life in the Middle Ages and the Renaissance* (London, 1874), and *The 18th Century, its Institutions, Customs, Costumes* (London, 1875-1876); L. M. Lanté, *Galerie française de femmes célèbres*, atlas (Paris, 1841), 70 plates; Malliot et Martin, *Recherches sur les costumes, les mœurs, les usages religieux, civils et militaires des anciens peuples* (3 vols., Paris, 1809), 228 plates; Pauly, *Description ethnographique des peuples* (St Petersburg, 1862); Pauquet Frères, *Modes et costumes historiques et étrangers* (2 vols., Paris, 1873), 196 plates; Auguste Racinet, *Le Costume historique*, in two forms, large and small (Paris, 1876, another ed. in 6 vols., with 500 plates, 1888); G. M. Straub, *Trachten oder Stammbuch* (1600), several hundreds of curious woodcuts of costumes; Vecellio, *Habiti antichi et moderni di tutto il mondo* (3 vols., Venice, 1859-1863).

Examples and illustrations of early costume of great interest and value may be found in the *Archaeologia*, M. Didron's *Annales archéologiques*, the *Journals* of the Archaeological Societies, the various county histories, the *Monumenta Vetusta of the London Society of Antiquaries*, and other kindred works.

Besides works on costume generally, there are a large number devoted specially to national or "folk" costumes. Of these may be mentioned: F. Hottenroth, *Deutsche Volkstrachten, städtische und ländliche, vom XVI. Jahrhundert his zum Anfange des XIX. Jahrhunderts* (Frankfort, 1898, 1900, 1902, &c.), including German, Bohemian, Swiss and Dutch local costumes, with references to further works; L. M. Lanté, *Costume de divers pays* (undated, c. 1825), 177 coloured plates of female costumes, mainly French, some Spanish, German, &c.; A. Hård, *Swedish Costumes* (Stockholm, 1858), 10 coloured plates; Félix Benoist, *La Normandie illustrée* (2 vols, fol., Nantes, 1854), with excellent coloured lithographs of costumes by Hyppolite Lalaine; E. H. T. Pingret, *Galerie royale de costumes* (Paris, undated), beautiful lithographs of costumes, principally Italian with some Spanish and Swiss, lithographed from paintings by Pingret by various artists; Edward Harding, *Costume of the Russian Empire* (London, 1811), with 70 hand-coloured plates, including costumes of many of the semi-barbaric tribes of central Asia; for Turkish costume in the 18th century see *Recueil de cent estampes représentant différentes nations du Levant*, engraved by Le Hay (Paris, 1714); for Greek costume at the time of the War of Independence see Baron O. M. von Stackelberg, *Costumes et usages des peuples de la Grèce moderne* (Rome, 1825), with 30 beautiful plates. For Highland costume see R. R. MacIan, *Costumes of the Clans* (Glasgow, 1899), with letterpress by J. Logan.

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1 *The Races of Man.*

2 The comprehensive description by Herodotus (vii. 61 sqq.) of the costumes of the mercenaries of Xerxes is classical (see Rawlinson's edition, iv. 56 sqq.). For archaeological parallels one may compare the tombs of Rekhmire (15th cent. B.C.) and Harmhab (14th cent.) in Egypt, the "Black Obelisk" of the Assyrian king Shalmaneser II. (9th cent.) or his famous gates at Balawat (ed. W. Birch and T. G. Pinches, and with critical description and plates by A. Billerbeck and F. Delitzsch, *Beiträge z. Assyriologie*, vi. 1; Leipzig, 1908).

3 Old Babylonian sculptors who represent the enemy as naked (Meyer [see bibliography below], pp. 12, 70 seq., 116), conventionally anticipate the usual treatment of the slain and wounded warriors.

4 Edited P. C. Newberry (*Archaeol. Survey of Egypt*, 1893). Cf. also the Palestinian short coloured skirt with black tassels of the 14th century (*Zeit. f. Ägypt. Sprache*, 1898, pp. 126 sqq.).

5 See e.g. Ball, *Light from the East*, p. 36. On the Aegean dress (Whether a development from spiral swathes or perhaps rather from a series of skirts one above the other), see the discussion of the Aegean loin-cloth by D. Mackenzie, *Annual of the British School at Athens*, xii. 233-249 (esp. 242 seq.).

6 Joseph's familiar "coat of many colours," which we owe to the Septuagint, can perhaps be justified: R. Eisler, *Orient. Lit. Zeitung*, August, 1908

7 Erman, 226 sqq., cf. the modern Bedouin shoe, Jennings-Bramley, *Quart. Stat.* of Palest. Explor. Fund (1908), p. 115 sq. (on dress of Sinaitic Bedouin generally).

8 Meyer, 97, see F. Hommel, *Aufsätze u. Abhandlungen* (Munich, 1900), 160 sqq., 214 sqq. For other feathered head-dresses in western Asia, see Müller, 361 sqq.

9 Such tasselled or fringed caps were used by the Syrians in the Christian era, see W. Budge, *Book of Governors*, ii, 339, 367.

10 Comp. the horns of Bau ("mother of the gods"), Samas (Shamash), (H)adad, and (in Egypt) of the Asiatic god assimilated to Set (so, too, Rameses III. is styled "strong-horned" like Baal). With the band dependent from the conical hat of Marduk-bal-iddin II. (Meyer, 8) and other kings, cf. the tail on the head-dress of this foreign Set (e.g. *Proc. Soc. of Bibl. Arch.* xvi. 87 sq.). The consort of the Pharaoh, in turn, wore the sacred vulture head-dress.

11 On the resemblance between divine and royal figures in costume, &c., see further Meyer, 9, 14 sq., 17, 23, 53 sq., 67, 79, 102, 105 sq.

12 Herod. iii. 8. If the bald Sumerians wore wigs in time of war, (Meyer, 81, 86), war itself from beginning to end was essentially a religious rite; see W. R. Smith, *Rel. of Semites*, pp. 401 sqq., 491 sq.; F. Schwally, *Semitische Kriegsaltertümer*, i. On the importance attached to the beard, see *Ency. Bib.*, s.v.

13 A typical example is afforded by the solitary representation of a Moabite (Perrot and Chipiez, *Phoen.* ii. 45) whose helmet and dress suggest a god or king. Equally perplexing is the Egyptian style on the Phoenician statue, ib. 28.

14 Cf. Lev. xvi. 23 sq.; Ex. xix 10; Herod, ii. 37 (ed. Wiedemann); Lagrange, *Études sur les relig. sém.* 239.

15 M. Jastrow, *Relig. of Bab. and Ass.* p. 666; cf. *Rev. biblique*, 1908, p. 466 sq., and Meyer, 59, 86, 97, 101. According to the latter Sumerian priests served naked (p. 112).

16 For the conspicuous dress of Syrian and Phrygian priests in Rome and for other incidental references, see D. Chwolsohn, *Die Ssabier* (1856), ii. 655, 712 sq.

17 Ex. xxviii., xxix. 5; Lev. viii. 6-9, xvi.; Ecclus. xlv.; Joseph. *Ant.* iii. 7, *Wars*, v. 5, 7; see commentaries and special dictionaries of the Bible.

18 Zimmern, *Keilinschrift. u. Alte Test.* 629, n. 5; cf. the Bab. priests' pectoral; Lagrange, op. cit., 236, n. 1.

19 Jubilees, viii. 11, see W. Muss-Arnolt, *Amer. Journ. of Semit. Lang.*, 1900, pp. 207-212.

20 The relations between sacerdotal and civic authority may be seen in the vestments of the church (chasuble, alb, stole), which probably were once the official garments of magistrates.

21 See articles on mourning customs in the *Bible Dictionaries*, and, for special studies, Büchler, Zeit. *f. alttest. Wissens.*, 1901, pp. 81-92; M. Jastrow, ib., 1907, 117 sqq.; and in *Journ. Amer. Or. Soc.* xx. 133 Sqq., xxi. 23-39. For the Babylonian evidence see Zimmern, op. cit., 603. The sculptures of Sennacherib show the bare-headed and bare-footed suppliants of Lachish meanly clad before Sennacherib (Ball, p. 192, contrast the warriors with caps and helmets, ib. p. 190, and on the simple dress, cf. above).

22 Ezek. xvi. xxiii.; Isa. iii. 16-iv. 1. For the hairy garb, cf. John the Baptist (Matt. iii. 4); it became the ascete's dress. The founder of the Jacobite Church in Asia owed his surname (*Burde'ānā*) to his rough horse-cloth. Here may be mentioned the archaic revival in Egypt in the 8th century B.C., which also extended to the costume.

23 See for details, A. Brüll, *Trachten d. Juden* (1873).

24 These ornamental bands are carefully described and reproduced in colour by A. Lermann, *Altgriechische Plastik* (1907), pp. 85 ff., pls. i.-xx. Some authorities hold that the skirt forms part of the over-garment, but it seems clear that it belongs to the χιτών.

25 The *tutulus* was worn at Rome by the *flaminica*.

26 It was also worn by Roman children.

27 This seems more likely than the alternative view that it was of elliptical shape and was folded before being put on. Quintilian (xi. 3, 139. a *locus classicus* for the *toga*) speaks of it as “rotunda”; but this need not be taken literally.

28 The Lares are thus represented in art.

29 The suffibulum of the vestals, which was fastened on the breast by a brooch (fibula), was a garment of this sort. The marriage-veil (flammeum) derived its name from its bright orange colour. The palliolum was a kind of mantilla.

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